

# North Idaho Air Quality Summary – January 2011

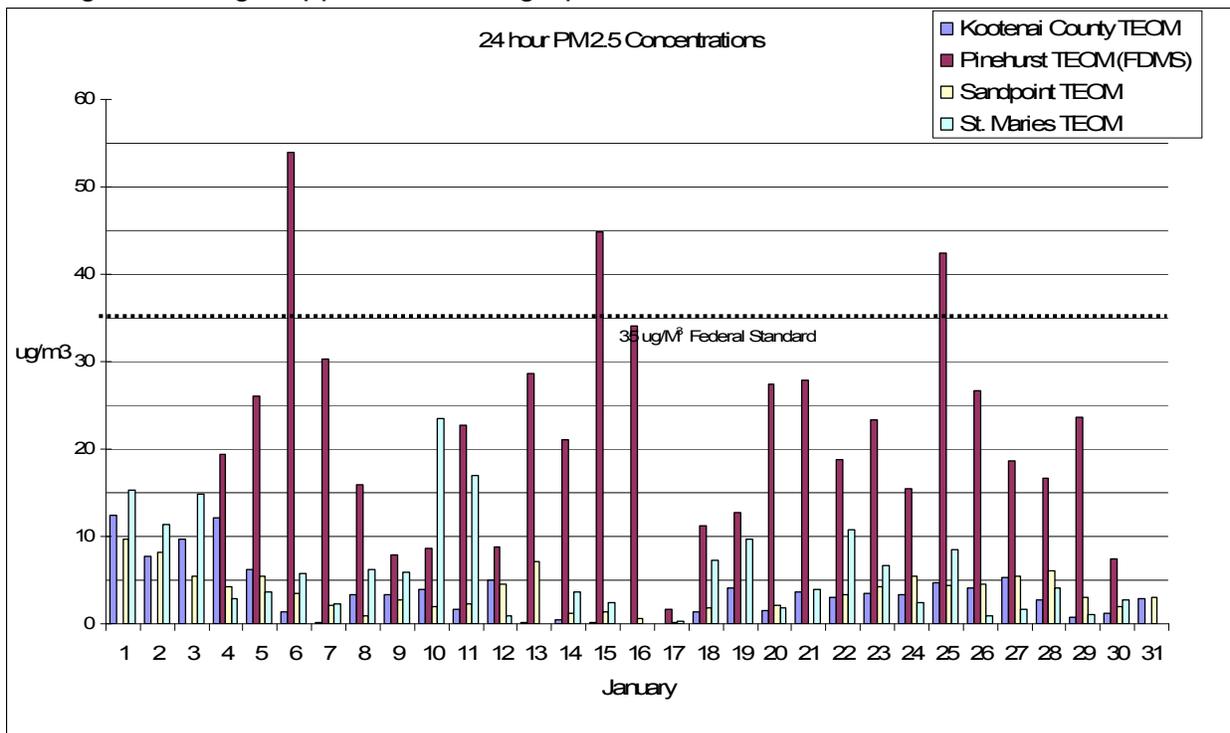
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This summary of North Idaho’s air quality is compiled from the various air quality samplers located in the Department of Environmental Quality’s Coeur d’Alene Region for the month of January 2011.

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 averaged daily 24-hour PM<sub>2.5</sub> values for the month and is expressed in micrograms per cubic meter, (µg/m<sup>3</sup>). These values were calculated by averaging hourly values midnight to midnight from the agency’s PM<sub>2.5</sub> TEOM samplers located in the Cities of, Pinehurst, Sandpoint, and St. Maries and on Lancaster Road in Kootenai County. During January 13-17, 2011, several sites recorded very low 24 hour averages, making it appear from the graph that no data was collected.



The table below shows the maximum 24 hour values calculated from continuous TEOM monitoring for this reporting period. The National Ambient Air Quality Standard (NAAQS) for PM<sub>2.5</sub> is 35 µg/m<sup>3</sup>. Recently, the U.S. EPA approved the TEOM-FDMS as a Federal Equivalent Method (FEM) for the collection and reporting of PM<sub>2.5</sub> data. In January 2011 the Coeur d’Alene Regional Office (CRO) began using a TEOM-FDMS equivalent method for NAAQS reporting from the Pinehurst monitoring station. The CRO still uses Federal Reference Method (FRM) filter based sample measurements at the St. Maries monitoring site to determine NAAQS compliance. Depiction of preliminary continuous monitoring data in the table below is for reporting purposes only.

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Region	Highest Reading	Date
Kootenai TEOM	January 1	12.5
Pinehurst TEOM-FDMS	January 6	53.9
Sandpoint TEOM	January 1	9.7
St. Maries TEOM	January 10	23.5

## PM2.5 FEDERAL REFERENCE METHOD (FRM) DATA

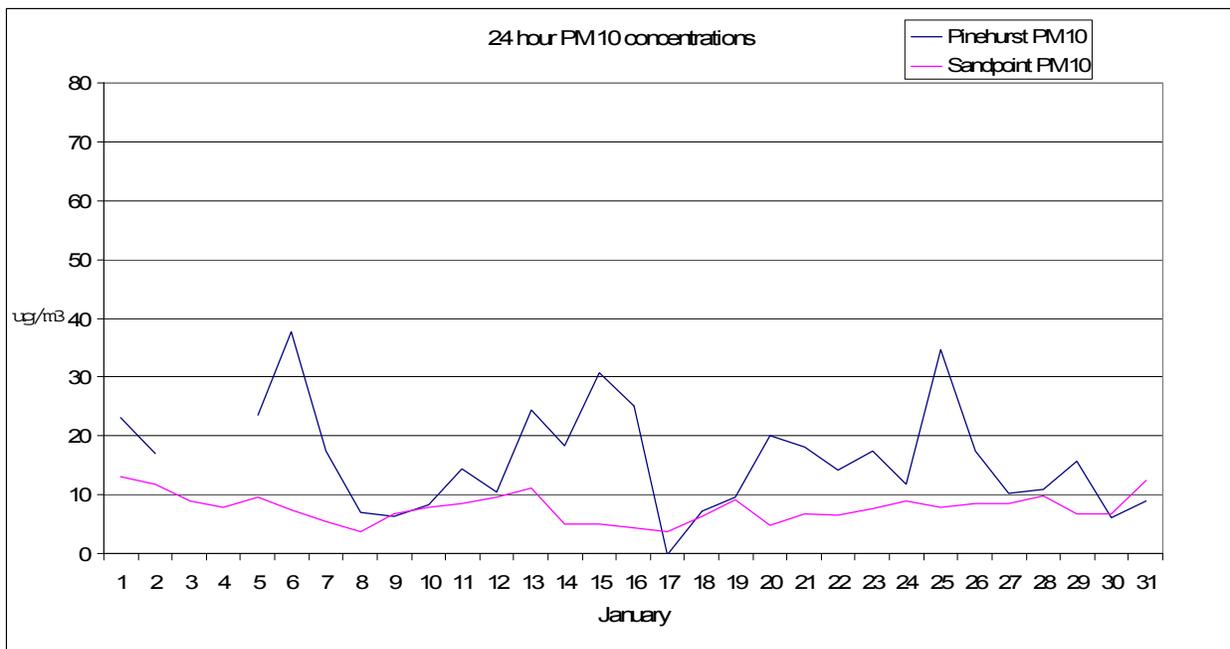
At this time the Coeur d'Alene Regional Office of Idaho DEQ uses the Federal Reference Method Sampler (filter based) measurements and for NAAQS compliance determination at the St. Maries monitoring site. This method requires that 75% of available data be collected per quarter. Other filter processing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

### January FRM filter recovery Efficiency

Site	Sample Days	Valid Samples	Collection Percentage
Pinehurst	7	7	100%
Pinehurst Precision	5	5	100%
St. Maries	5	5	100%

## PM10 CONTINUOUS DATA

The graph below shows the 24 hour values for PM10. No apparent exceedances of the 150 µg/m<sup>3</sup> standard have occurred over this reporting period.



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## **OZONE DATA**

Ozone monitoring in the Coeur d'Alene area occurs each summer ozone season, from April 1 to September 30. A review of the 2010 season is currently underway. Monitoring will start again on April 1, 2011.

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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 January 2011.

Site	Monitor	Type	Comments	Current Status	Data Completeness
Lancaster / Rathdrum Prairie	API 200E Nitrogen Oxides analyzer	Continuous	Seasonal	<b>Inactive</b>	<b>0%</b>
Lancaster / Rathdrum Prairie	API 400 Ozone (O3) analyzer	Continuous	Seasonal	<b>Inactive</b>	<b>0%</b>
Lancaster / Rathdrum Prairie	R&P 1400A TEOM PM2.5	Continuous		<b>Active</b>	<b>98%</b>
Lancaster / Rathdrum Prairie	Meteorological Tower	Continuous		<b>Active</b>	<b>100%</b>
St. Maries	R&P 1400AB TEOM PM2.5	Continuous		<b>Active</b>	<b>98%</b>
St. Maries	Thermo Model 2025 FRM PM2.5	Filter		<b>Active</b>	<b>100%</b>
Pinehurst	R&P 8500 FDMS TEOM PM2.5	Continuous		<b>Active</b>	<b>87%</b>
Pinehurst	Thermo Model 2025 FRM PM2.5	Filter		<b>Active</b>	<b>100%</b>
Pinehurst	R & P Model 2025 FRM PM2.5	Filter	Precision	<b>Active</b>	<b>100%</b>
Pinehurst	R&P 1400AB TEOM PM10	Continuous		<b>Active</b>	<b>96%</b>
Pinehurst	Meteorological Tower	Continuous		<b>Active</b>	<b>99%</b>
Sandpoint U of I Extension Office	Meteorological Tower	Continuous		<b>Active</b>	<b>100%</b>
Sandpoint USFS	R&P 1400A TEOM PM2.5	Continuous		<b>Active</b>	<b>96%</b>
Sandpoint USFS	R&P 1400AB TEOM PM10	Continuous		<b>Active</b>	<b>99%</b>
Porthill International Border Site	Radiance Research Nephelometer /wind speed & direction	Continuous	CRB Seasonal	<b>Inactive</b>	<b>0%</b>
Athol	Radiance Research Nephelometer	Continuous	CRB Seasonal	<b>Inactive</b>	<b>0%</b>
Mt. Hall School	Radiance Research Nephelometer	Continuous	CRB Seasonal	<b>Inactive</b>	<b>0%</b>
Garwood Elementary	Radiance Research Nephelometer	Continuous	CRB Seasonal	<b>Inactive</b>	<b>0%</b>

**During January 12 of 12 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.
101-150	Unhealthy for Sensitive Groups	People with heart or lung disease, older adults, and children should reduce prolonged or heavy exertion.
151-200	Unhealthy	People with heart or lung disease, older adults, and children should avoid prolonged or heavy exertion. 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.

#### January 2011

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 19	Green = 8	Green = 21	Green = 19
Yellow = 0	Yellow = 11	Yellow = 0	Yellow = 2
Orange = 0	Orange = 2	Orange = 0	Orange = 0

#### 2011 YEAR TO DATE AQI TOTALS

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 19 (100%)	Green = 8 (38%)	Green = 21 (100%)	Green = 19 (90%)
Yellow = 0	Yellow = 11 (52%)	Yellow = 0	Yellow = 2 (10%)
Orange = 0	Orange = 2 (10%)	Orange = 0	Orange = 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/>

[www.deq.idaho.gov/air/aqindex.cfm](http://www.deq.idaho.gov/air/aqindex.cfm)

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