

# North Idaho Air Quality Summary – October 2010

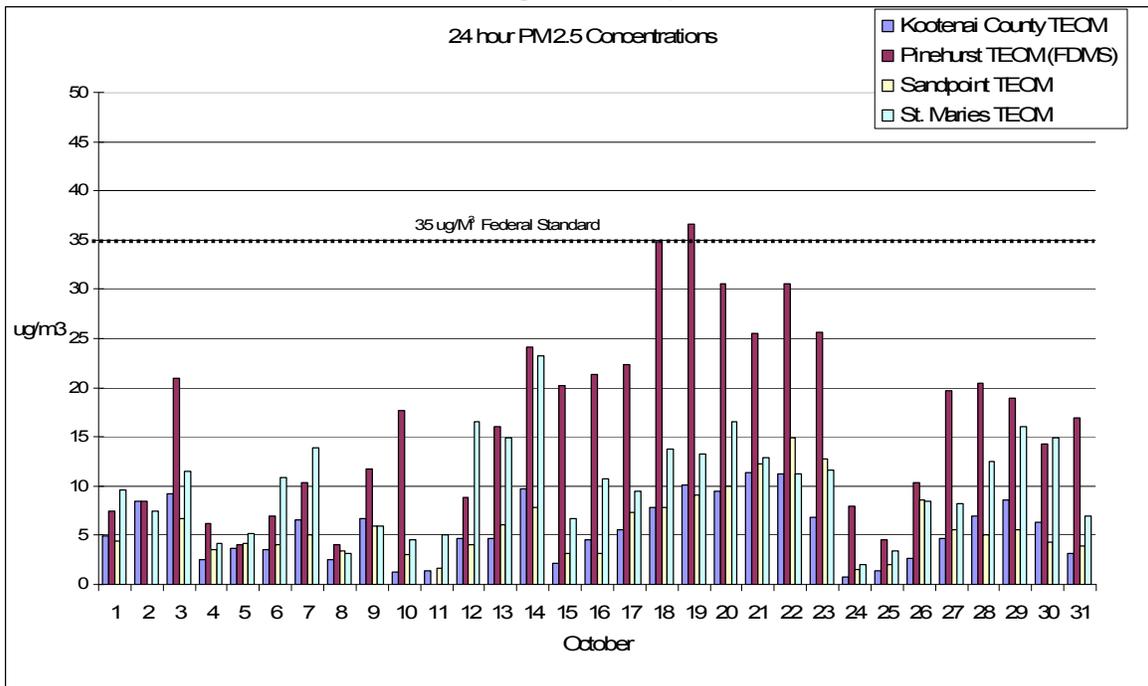
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This summary of North Idaho’s air quality is compiled from the various air quality samplers located in the Department of Environmental Quality’s Coeur d’Alene Region for the month of October 2010.

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 and BAM samplers located in the Cities of, Pinehurst, Sandpoint, and St. Maries and on Lancaster Road in Kootenai County. Light winds, increased use of woodstoves during the overnight hours, and the increase in prescribed and slash burning during this time of year all contributed to pollutant level buildup in the Pinehurst and St. Maries areas during the later part of the month.



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<sub>2.5</sub> is 35 µg/m<sup>3</sup>. Currently, Idaho DEQ uses Federal Reference Method (FRM) filter based sample measurements exclusively to determine NAAQS compliance. Depiction of continuous monitoring in the table below is for reporting purposes only.

Region	Highest Reading	Date
Kootenai TEOM	11.4	October 21
Pinehurst TEOM	36.6	October 19
Sandpoint TEOM	14.9	October 22
St. Maries BAM	23.2	October 14

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

At this time Idaho DEQ uses the Federal Reference Method Sampler (filter based) measurements for NAAQS compliance determination. 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 October is shown in the table below.

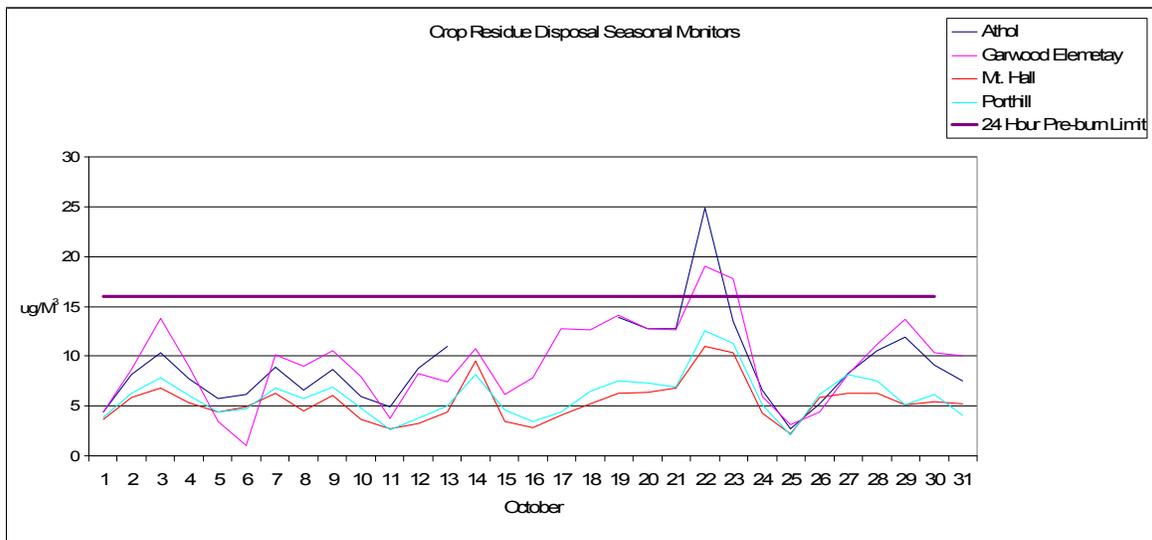
### September FRM filter recovery Efficiency

Site	Sample Days	Valid Samples	Collection Percentage
Pinehurst	31	31	100%
Pinehurst Precision	5	5	100%
St. Maries	5	5	100%

## Crop Residue Disposal Monitoring

Crop residue disposal (field burning) typically ends by the second week in October. The Coeur d’Alene Regional Office deploys additional PM2.5 analyzers to monitor smoke impacts during field burning seasons. The additional monitors are located at Garwood Elementary School and in the Athol area. In the Kootenai Valley additional monitors are located at Mt. Hall Elementary School and at the International Border at Porthill.

No burning was approved in Boundary or Kootenai Counties after October 18 due to poor meteorological conditions. The spike in PM2.5 concentration over the area on October 22 is believed to be a combination of woodstove smoke, open burning and prescribed burning. Cold wet weather moved into the area on the weekend of the 23<sup>rd</sup>, effectively putting an end to field burning season.

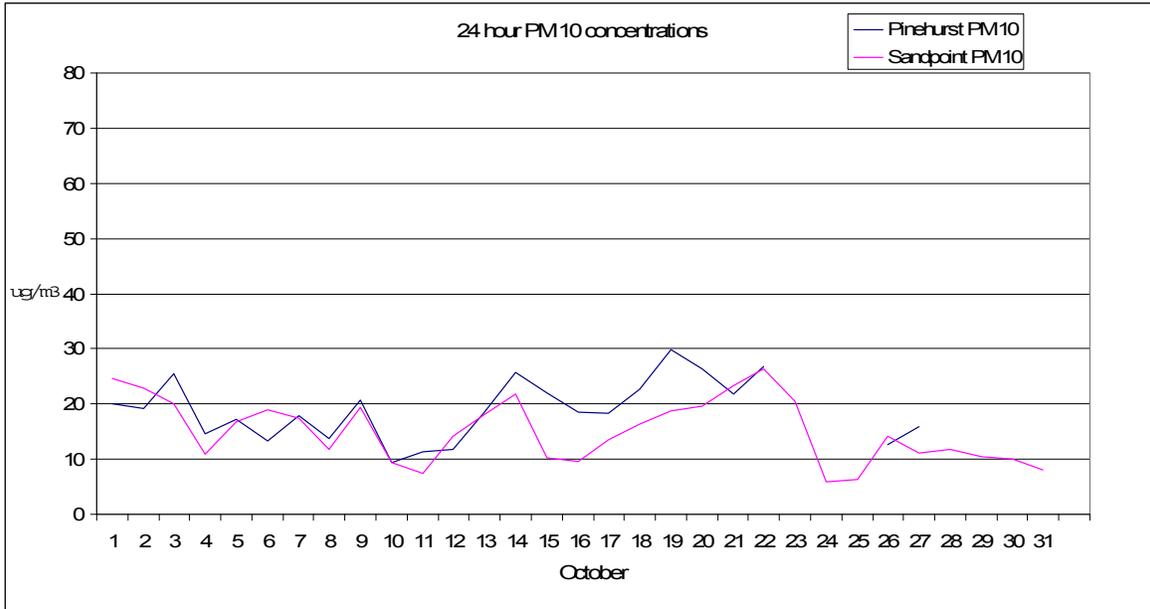


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## PM10 CONTINUOUS DATA

The graph below shows the 24 hour values for PM10. No apparent exceedances of the 150  $\mu\text{g}/\text{m}^3$  standard have occurred over this reporting period. A malfunction of the Pinehurst monitor caused a loss of data for several days during the month.



## OZONE DATA

Ozone monitoring has been concluded for the year in North Idaho. A review of the season is currently underway.

Ozone monitoring in the Coeur d'Alene area occurs each summer ozone season, from April 1 to September 30.

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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 October 2010.

Site	Monitor	Type	Comments	Current Status
Lancaster / Rathdrum Prairie	API 200E Nitrogen Oxides analyzer	Continuous	Seasonal	<b>Inactive</b>
Lancaster / Rathdrum Prairie	API 400 Ozone (O3) analyzer	Continuous	Seasonal	<b>Inactive</b>
Lancaster / Rathdrum Prairie	R&P 1400A TEOM PM2.5	Continuous		<b>Active</b>
Lancaster / Rathdrum Prairie	Meteorological Tower	Continuous		<b>Active</b>
St. Maries	Met One BAM1020 PM2.5	Continuous	Special Study	<b>Active</b>
St. Maries	Thermo Model 2025 FRM PM2.5	Filter		<b>Active</b>
Pinehurst	R&P 8500 FDMS TEOM PM2.5	Continuous		<b>Active</b>
Pinehurst	Thermo Model 2025 FRM PM2.5	Filter		<b>Active</b>
Pinehurst	R & P Model 2025 FRM PM2.5	Filter	Precision	<b>Active</b>
Pinehurst	Met One BAM1020 PM2.5	Continuous	Special Study	<b>Active</b>
Pinehurst	R&P 1400AB TEOM PM10	Continuous		<b>Active</b>
Pinehurst	Meteorological Tower	Continuous		<b>Active</b>
Sandpoint U of I Extension Office	Meteorological Tower	Continuous		<b>Active</b>
Sandpoint USFS	R&P 1400A TEOM PM2.5	Continuous		<b>Active</b>
Sandpoint USFS	R&P 1400AB TEOM PM10	Continuous		<b>Active</b>
Porthill International Border Site	Radiance Research Nephelometer /wind speed & direction	Continuous	CRB Seasonal	<b>Active</b>
Athol	Radiance Research Nephelometer	Continuous	CRB Seasonal	<b>Active</b>
Mt. Hall School	Radiance Research Nephelometer	Continuous	CRB Seasonal	<b>Active</b>
Garwood Elementary	Radiance Research Nephelometer	Continuous	CRB Seasonal	<b>Active</b>

**Sixteen of 17 eligible active samplers for this month achieved the required data completeness collection efficiency.**

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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.

#### October 2010

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 22	Green = 9	Green = 20	Green = 17
Yellow = 0	Yellow = 10	Yellow = 0	Yellow = 3
Orange = 0	Orange = 1	Orange = 0	Orange = 0

#### 2010 YEAR TO DATE AQI TOTALS

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 207(99%)	Green = 155 (75%)	Green = 199 (99%)	Green = 152 (83%)
Yellow = 3 (1%)	Yellow = 50 (24%)	Yellow = 1 (0.5%)	Yellow = 30 (16%)
Orange = 0	Orange = 3 (1%)	Orange = 1 (0.5%)	Orange = 1 (1%)

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)