

North Idaho Air Quality Summary – August 2010

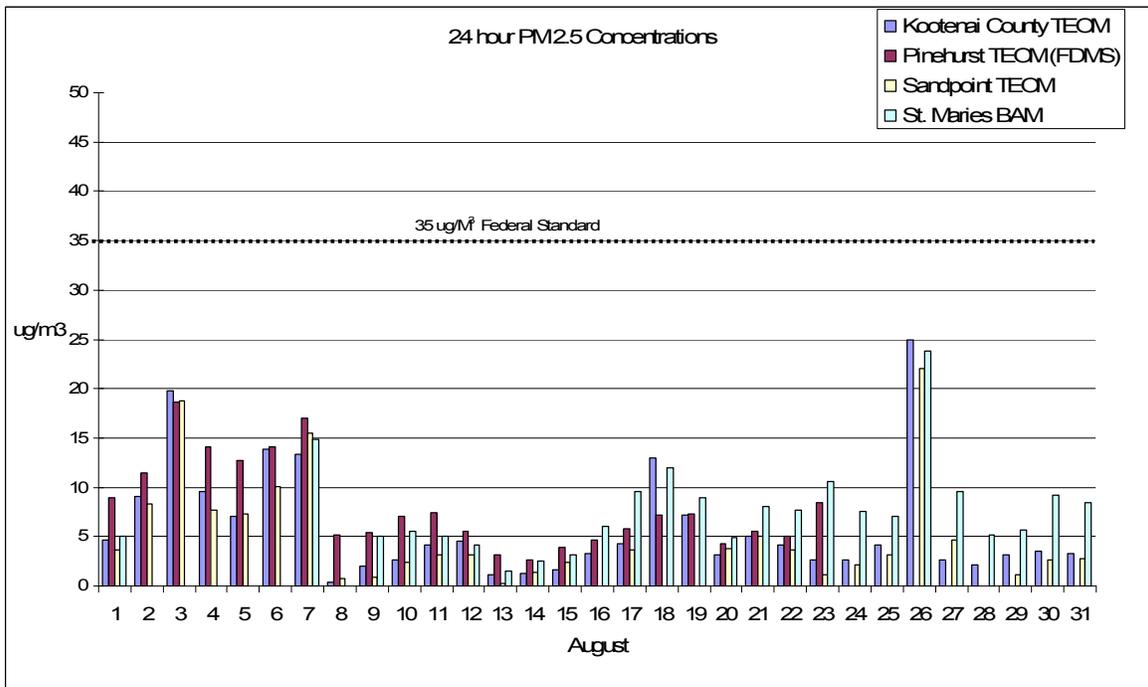
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This summary of North Idaho's air quality is compiled from the various air quality samplers located in the Department of Environmental Quality's Coeur d'Alene Region for the month of August 2010.

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.

PM_{2.5} CONTINUOUS DATA

The graph below displays the averaged 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. The Pinehurst TEOM(FDMS) had a catastrophic failure of its electronics on August 23. DEQ is currently awaiting parts to repair the sampler. It will be brought back online as soon as possible.



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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. 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	25.0	August 26
Pinehurst TEOM	18.6	August 3
Sandpoint TEOM	22.0	August 26
St. Maries BAM	23.8	August 26

PM_{2.5} 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 June is shown in the table below.

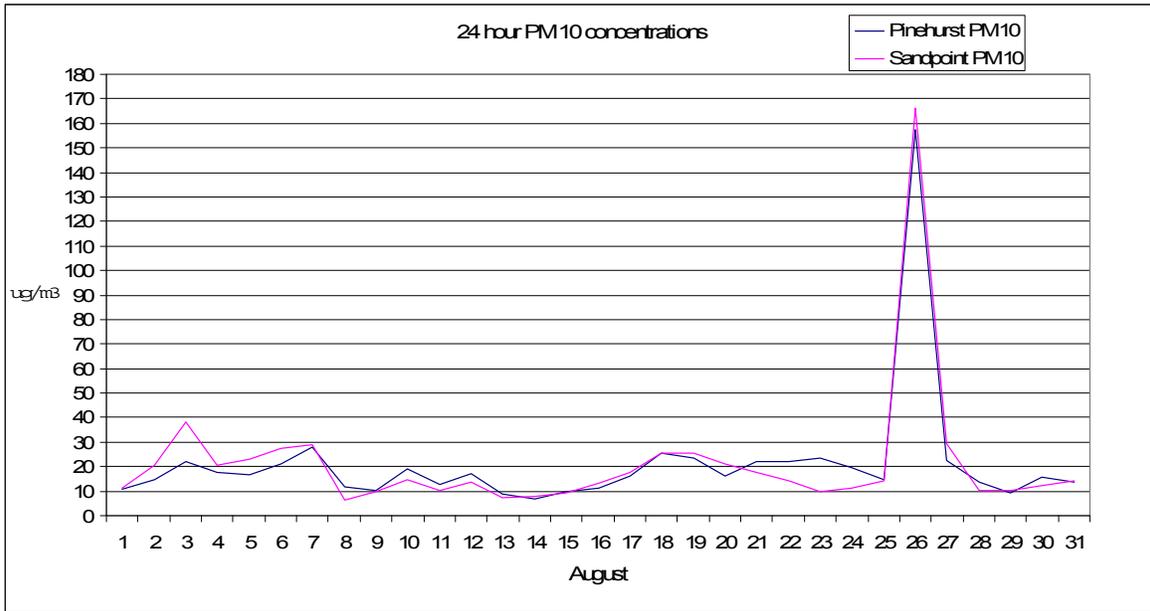
August FRM filter recovery Efficiency

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

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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. There were high values for PM10 during the month, but these occurred during an exceptional event and therefore do not count as exceedances. EPA considers natural events such as wind storms and wild fires as exceptional events that are beyond the control of man. A wind storm on August 26th impacted area monitors. The 24 hour averages for that day was 166.4 $\mu\text{g}/\text{m}^3$ at the Sandpoint monitor and 157.3 $\mu\text{g}/\text{m}^3$ at the Pinehurst monitor. There were several wildfires reported that day in eastern Washington along with blowing dust.



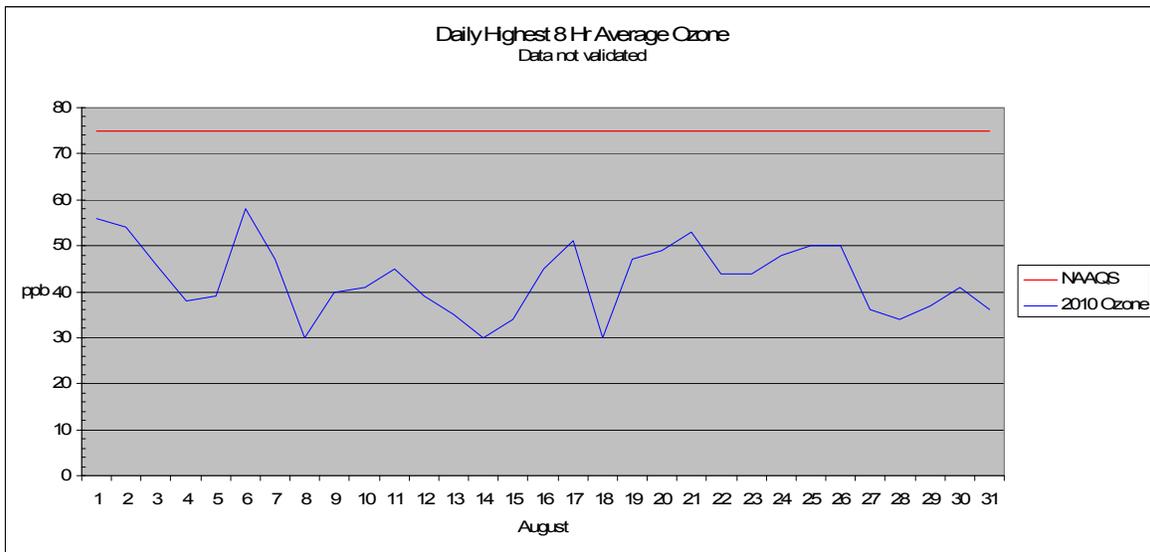
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OZONE DATA

Ozone monitoring in the Coeur d'Alene area occurs each summer ozone season, from April 1 to September 30. This time period is the accepted ozone season for the northern latitudes of the lower 48, and is determined to be the part of each year when ozone formation has the potential to exceed the NAAQS. Ozone formation is enhanced by the presence of temperatures near or above 30 degrees Celsius (86 degrees Fahrenheit), and intense sunlight.

The federal standard (NAAQS) for ozone of 0.075 ppm (or 75 ppb) is based upon a 3-year average of the annual 4th-highest daily maximum 8-hour average. The figure below is used only to illustrate how ozone levels relate to the standard, and do not indicate determination of whether the NAAQS was exceeded.

Reminder: All data used in this report is preliminary data. This means that the data has been screened by regional air quality personnel but has not been through the complete quality assurance process prior to submittal to EPA.



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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 2010.

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

All eligible active samplers for this month (18) 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.

August 2010

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 21	Green = 21	Green = 21	Green = 18
Yellow = 2	Yellow = 1	Yellow = 1	Yellow = 0
Orange = 0	Orange = 1	Orange = 1	Orange = 1

2010 YEAR TO DATE AQI TOTALS

Coeur d'Alene	Pinehurst	Sandpoint	St. Maries
Green = 161(99%)	Green = 123 (75%)	Green = 157(98%)	Green = 115 (81%)
Yellow = 3 (1%)	Yellow = 40 (24%)	Yellow = 1 (1%)	Yellow = 25 (18%)
Orange = 0	Orange = 2 (1%)	Orange = 1 (1%)	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

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