

North Idaho Air Quality Summary – April 2015

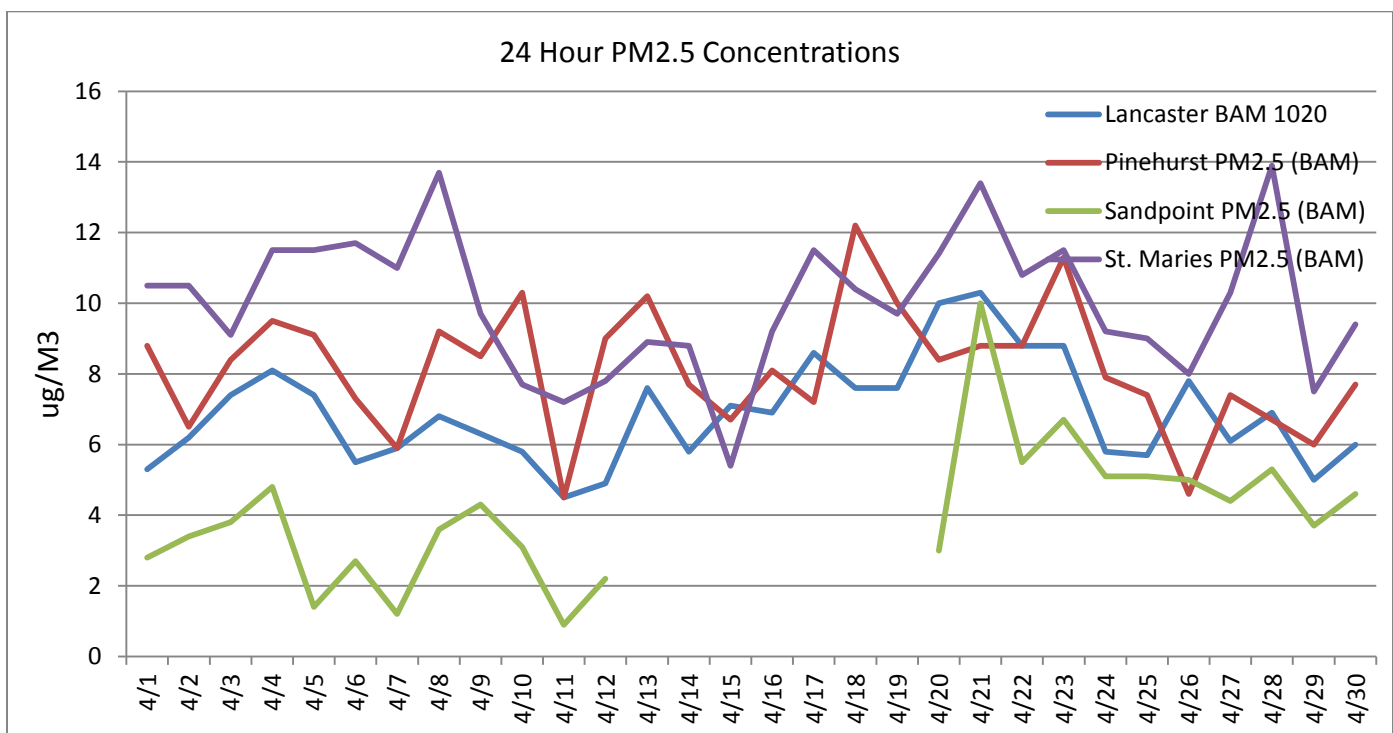
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This summary of North Idaho’s air quality is compiled from the various air quality samplers located in the Department of Environmental Quality’s Coeur d’Alene Region for the month of April 2015.

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_{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} BAM samplers located in the Cities of Pinehurst, Sandpoint, and St. Maries and on Lancaster Road in Kootenai County. The 24 hour PM_{2.5} 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 National Ambient Air Quality Standard (NAAQS) for PM_{2.5} is 35 µg/m³ 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 ³) | Date |
|--------------------|---|----------|
| Lancaster BAM 1020 | 10.3 | April 21 |
| Pinehurst BAM | 12.2 | April 18 |
| Sandpoint BAM | 6.7 | April 23 |
| St. Maries BAM | 13.9 | April 28 |

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 April is shown in the table below. The collection percentage could change based on quality assurance requirements yet to be completed.

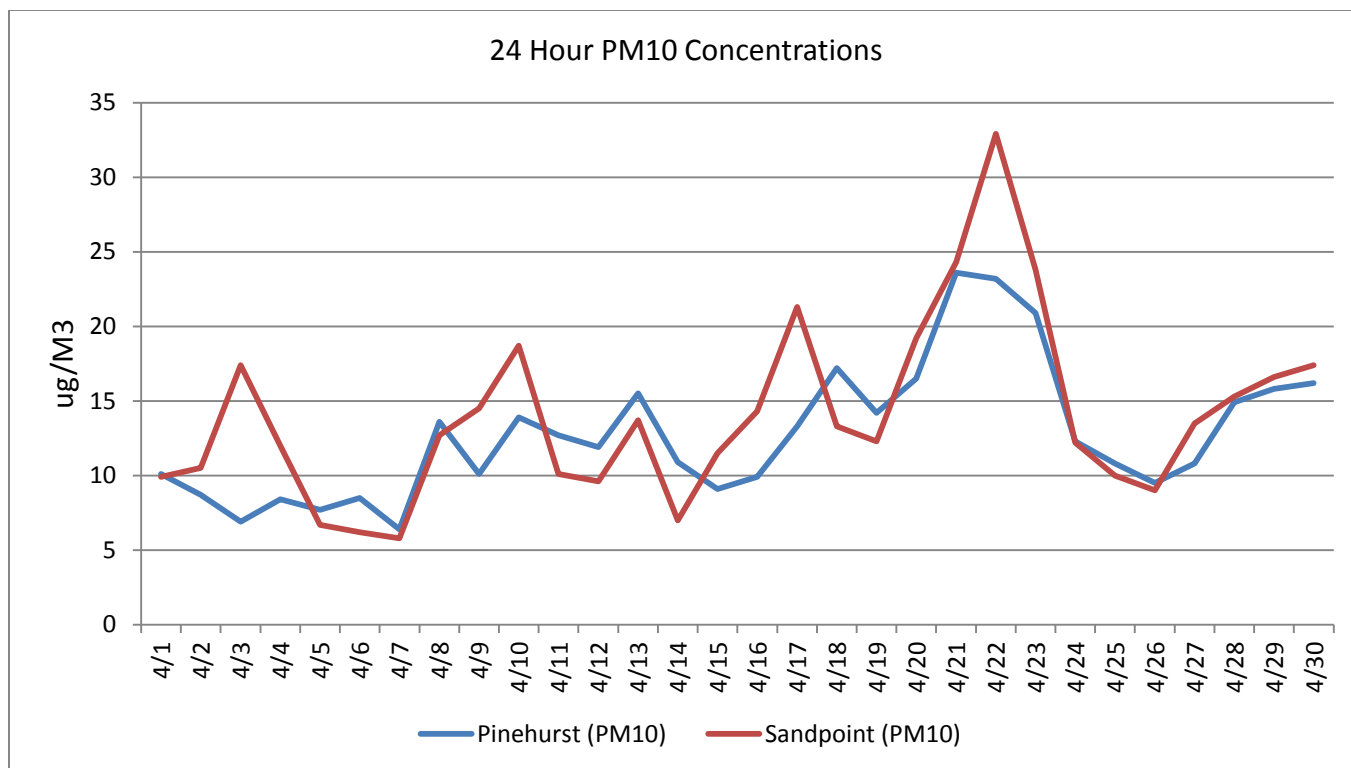
April FRM filter recovery Efficiency

| Site | Sample Days | Valid Samples | Collection Percentage |
|------------|-------------|---------------|-----------------------|
| Pinehurst | 30 | 30 | 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 $\mu\text{g}/\text{m}^3$ for a 24 hour average standard have occurred over this reporting period.



Air Quality Actions

No Air Quality Alert and Stage 1 Burn Bans or burn advisories were issued during the month of April.

The Sandpoint TEOM PM2.5 monitor was replaced in April with a Beta Attenuation Monitor (BAM) for collection of PM2.5 data. A zero test was performed on the new monitor when it was set up which resulted in the loss of 7 days of data.

The seasonal monitors at Porthill and Mt. Hall were deployed in April to monitor spring field burning in the Kootenai Valley. The Mt. Hall monitor began operation on April 7 and the Porthill monitor began operating on April 8. A total of 582 acres of wheat stubble were burned in the valley during April.

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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 April 2015.

| Site | Monitor | Type | Comments | Current Status | Data Completeness |
|------------------------------------|---|------------|--------------|-----------------|-------------------|
| Lancaster / Rathdrum Prairie | BAM 1020 PM2.5 | Continuous | | Active | 99.0% |
| Lancaster / Rathdrum Prairie | Meteorological Tower | Continuous | | Active | 99.5% |
| St. Maries | PM2.5 BAM | Continuous | | Active | 99.4% |
| 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 | 98.4% |
| Pinehurst | R&P 1400AB TEOM PM10 | Continuous | | Active | 96.9% |
| Pinehurst | Meteorological Tower | Continuous | | Active | 100% |
| Sandpoint U of I Extension Office | Meteorological Tower | Continuous | | Active | 100% |
| Sandpoint U of I Extension Office | BAM PM2.5 | Continuous | | Active | 77.0% |
| Sandpoint U of I Extension Office | R&P 1400AB TEOM PM10 | Continuous | | Active | 99.3% |
| Lakes Management Plan | Meteorological Tower | Continuous | | Active | 100% |
| 3 Meter G C Met | Meteorological Tower | Continuous | | Active | 93.3% |
| Porthill International Border Site | MET One E-Sampler Wind speed & direction | Continuous | CRB Seasonal | Active | 76.6% |
| Athol | MET One E-Sampler Wind speed & direction | Continuous | CRB Seasonal | Inactive | NA |
| Mt. Hall School | MET One E-Sampler Wind speed & direction | Continuous | CRB Seasonal | Active | 80.0% |
| Garwood Elementary | MET One E-Sampler Wind speed & direction | Continuous | CRB Seasonal | Inactive | NA |
| | | | | | |

During March, 15 of 15 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.

April 2015

| Coeur d'Alene | Pinehurst | Sandpoint | St. Maries |
|---------------|------------|------------|-------------|
| Green = 21 | Green = 21 | Green = 19 | Green = 7 |
| Yellow = 0 | Yellow = 0 | Yellow = 0 | Yellow = 12 |
| Orange = 0 | Orange = 0 | Orange = 0 | Orange = 0 |
| Red = 0 | Red = 0 | Red = 0 | Red = 0 |

2015 YEAR TO DATE AQI TOTALS

| Coeur d'Alene | Pinehurst | Sandpoint | St. Maries |
|------------------|-------------------|-------------------|-------------------|
| Green = 73(89%) | Green = 38 (46%) | Green =78 (97.5%) | Green = 37 (46%) |
| Yellow = 9 (11%) | Yellow = 42 (52%) | Yellow =2 (2.5%) | Yellow = 31 (54%) |
| Orange = 0 | Orange = 2 (2%) | Orange = 0 | Orange = 0 |
| Red = 0 | Red = 0 | 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