

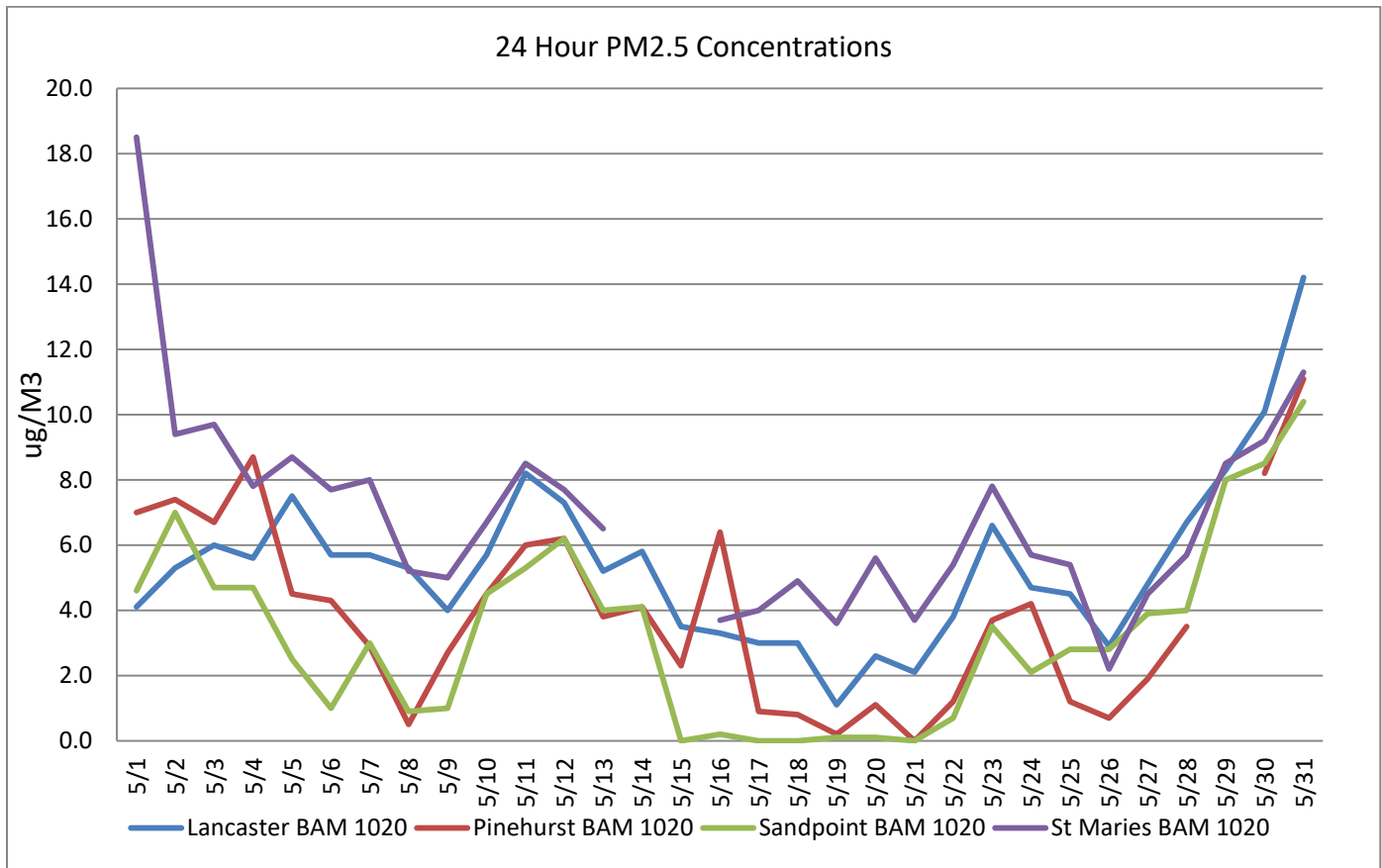
# North Idaho Air Quality Summary – May 2019

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 May 2019.

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<sub>2.5</sub> 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<sub>2.5</sub> BAM samplers located in the Cities of Pinehurst, Sandpoint, and St. Maries and on Lancaster Road in Kootenai County. The 24 hour PM<sub>2.5</sub> National Ambient Air Quality Standard (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 NAAQS for PM<sub>2.5</sub> is 35 µg/m<sup>3</sup> 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 <sup>3</sup> ) | Date   |
|---------------------|--------------------------------------|--------|
| Lancaster BAM 1020  | 14.2                                 | May 31 |
| Pinehurst BAM 1020  | 11.1                                 | May 31 |
| Sandpoint BAM 1020  | 10.4                                 | May 31 |
| St. Maries BAM 1020 | 18.5                                 | May 1  |

### PM<sub>2.5</sub> 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 sites. 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 May is shown in the table below. The collection percentage could change based on quality assurance requirements yet to be completed.

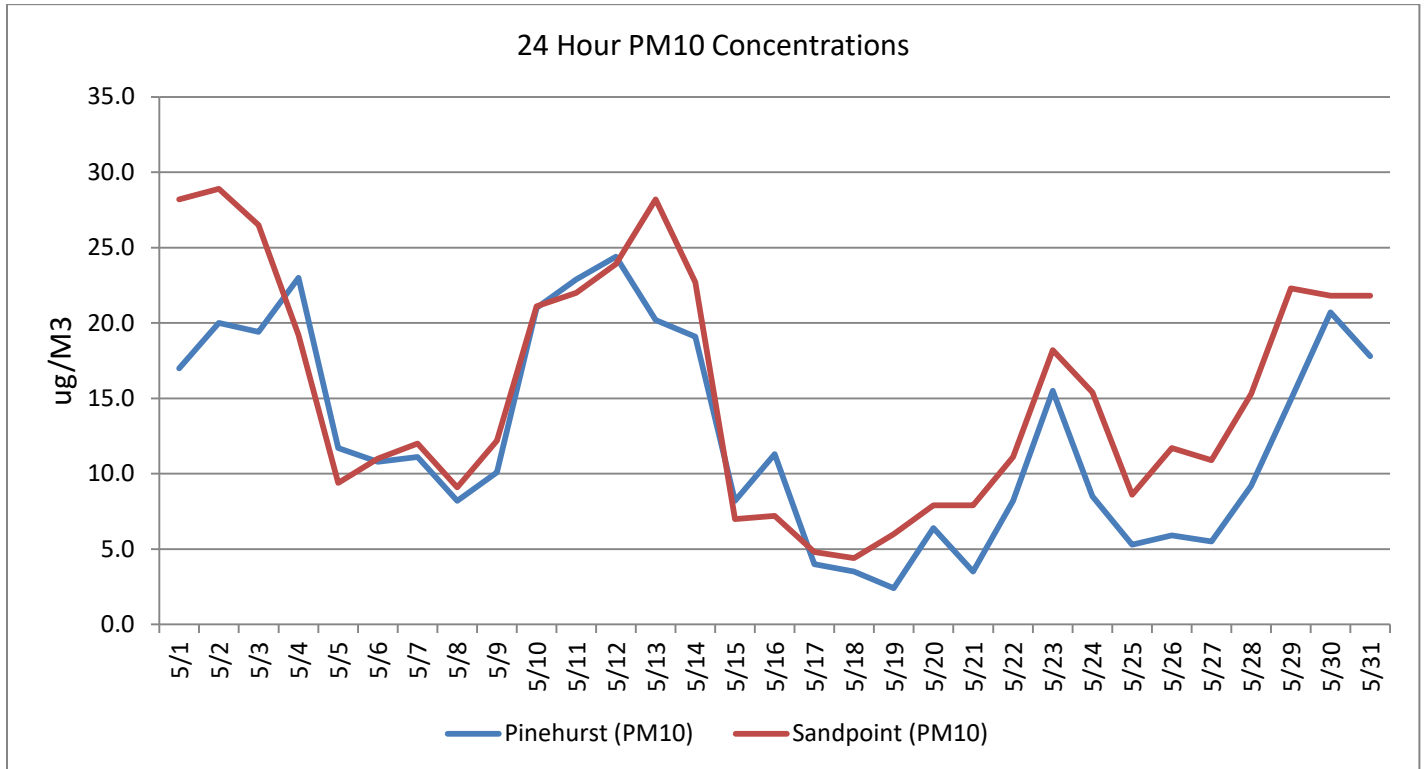
#### May FRM filter recovery Efficiency

| Site       | Sample Days | Valid Samples | Collection Percentage |
|------------|-------------|---------------|-----------------------|
| Pinehurst  | 31          | 31            | 100%                  |
| St. Maries | 31          | 30            | 98%                   |

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## PM10 CONTINUOUS DATA

The graph below shows the 24 hour values for PM10. There were no apparent exceedances of the 150  $\mu\text{g}/\text{m}^3$  standard for the 24 hour average.



## Air Quality Actions

There were no Air Pollution Forecast and Cautions (Stage 1 Burn Ban) issued in north Idaho during the month of May.

Wildfire smoke from several large fires in Alberta Canada filtered into the area starting around May 29<sup>th</sup>. The smoke only had minor impacts on PM<sub>2.5</sub> levels in the area.

The St. Maries FRM lost 1 day of data due to an instrument malfunction.

The Mt. Hall seasonal monitor lost several days of data due to a power outage at the site. This was not discovered until a site visit was conducted due to communication problems with the site. The communication problems with the site have now been resolved and data is being downloaded hourly.

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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 May 2019.

| Site                               | Monitor                                     | Type       | Comments     | Current Status | Data Completeness |
|------------------------------------|---|------------|--------------|----------------|-------------------|
| Lancaster / Rathdrum Prairie       | BAM 1020 PM2.5                              | Continuous |              | Active         | 99.8%             |
| Lancaster / Rathdrum Prairie       | Meteorological Tower                        | Continuous |              | Active         | 100%              |
| St. Maries                         | BAM 1020 PM2.5                              | Continuous |              | Active         | 94.4%             |
| St. Maries                         | Met One E-Seq-FRM PM2.5                     | Filter     |              | Active         | 98%               |
| Pinehurst                          | Thermo Model 2025 FRM PM2.5                 | Filter     |              | Active         | 100%              |
| Pinehurst                          | BAM 1020 PM2.5                              | Continuous |              | Active         | 98.3%             |
| Pinehurst                          | BAM PM10                                    | Continuous |              | Active         | 99.7%             |
| Pinehurst                          | Meteorological Tower                        | Continuous |              | Active         | 99.8%             |
| Sandpoint U of I Extension Office  | Meteorological Tower                        | Continuous |              | Active         | 100%              |
| Sandpoint U of I Extension Office  | BAM 1020 PM2.5                              | Continuous |              | Active         | 99.7%             |
| Sandpoint U of I Extension Office  | R&P 1400AB TEOM PM10                        | Continuous |              | Active         | 99.8%             |
| Lakes Management Plan              | Meteorological Tower                        | Continuous |              | Active         | 99.0%             |
| 3 Meter G C Met                    | Meteorological Tower                        | Continuous |              | Active         | 100%              |
| Porthill International Border Site | MET One E-Sampler<br>Wind speed & direction | Continuous | CRB Seasonal | Active         | 97.4%             |
| Mt. Hall School                    | MET One E-Sampler<br>Wind speed & direction | Continuous | CRB Seasonal | Active         | 54.3%             |
|                                    |   |            |              |                |                   |

**During May 14 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.

#### May 2019

| Coeur d'Alene | Pinehurst  | Sandpoint  | St. Maries |
|---------------|------------|------------|------------|
| Green = 22    | Green = 21 | Green = 22 | Green = 21 |
| Yellow = 1    | Yellow = 0 | Yellow = 0 | Yellow = 1 |
| Orange = 0    | Orange = 0 | Orange = 0 | Orange = 0 |
| Red = 0       | Red = 0    | Red = 0    | Red = 1    |
| Purple = 0    | Purple = 0 | Purple = 0 | Purple = 0 |
| Maroon = 0    | Maroon = 0 | Maroon = 0 | Maroon = 0 |

#### 2019 YEAR TO DATE AQI TOTALS

| Coeur d'Alene   | Pinehurst        | Sandpoint       | St. Maries        |
|-----------------|------------------|-----------------|-------------------|
| Green =103(97%) | Green =83(80%)   | Green =105(99%) | Green = 66 (63%)  |
| Yellow =3 (3%)  | Yellow = 21(20%) | Yellow =1 (1%)  | Yellow = 34 (32%) |
| Orange = 0      | Orange = 0       | Orange = 0      | Orange = 5 (5%)   |
| Red = 0         | Red =0           | Red =0          | Red = 1 (1%)      |
| Purple = 0      | Purple = 0       | Purple = 0      | Purple =0         |
| Maroon =0       | Maroon = 0       | Maroon = 0      | Maroon = 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](http://www.airnow.gov/index.cfm?action=airnow.fcsummary&stateid=16)