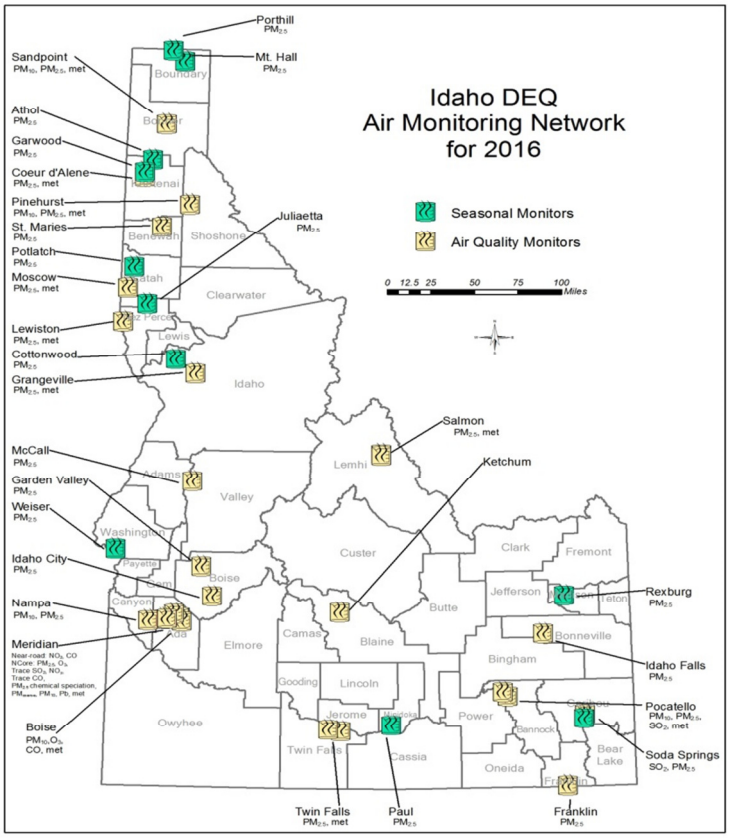
Idaho Department of Environmental Quality Annual Ambient Air Quality Monitoring Network Plan



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July 2016

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Contents

Appendices

List of Tables

List of Figures

Executive Summary

The main objective of the Idaho Department of Environmental Quality's (DEQ's) 2016 annual ambient air monitoring network plan is to determine whether the state's ambient air monitoring network is achieving its monitoring objectives and to identify any needed modifications. This is an ongoing annual assessment. In addition to this, the DEQ also conducts a comprehensive 5-year network assessment. Most recently conducted in 2015, this document can be found on DEQ's webpage at: *http://www.deq.idaho.gov/media/60177248/ambient-aq-monitoring-network-5-year-assessment.pdf*. Any network modifications identified in this assessment are listed below also.

DEQ is proposing the following network modifications in this year's annual network plan:

- Based on the most recent 2013–2015 24-hour design value, change the St. Maries Federal Reference Method (FRM) monitor's run schedule from 1/1 days to 1/3 days, effective no later than January 1, 2017.
- Per the US Environmental Protection Agency (EPA) final ruling as part of 40 CFR Part 58 monitoring requirement revisions, published in the Federal Register on March 28, 2016, discontinue lead monitoring at DEQ's NCore site.
- Pending EPA revisions to the Near-Road monitoring requirements, discontinue monitoring at the Meridian Near-Road site on 4/1/17.
- Replace remaining 1400AB PM2.5 Tapered Element Oscillating Microbalance (TEOM) monitors, used as Special Purpose Monitors (SPM) for Air Quality Index (AQI) reporting, with Beta Attenuation Mass (BAM) 1020 PM2.5 monitors, also used as SPM's for AQI reporting. This will take place at the following monitoring sites: Ketchum, McCall, Garden Valley, and Idaho City.
- Standardize all DEQ meteorological towers with same model 2 and 10 meter temperature probes and aspirated fans for the purpose of generating Delta Temperature measurements.

Since submitting the 2015 annual network plan, DEQ has made the following subsequent modifications to the network. Some items required EPA approval, while other less significant items did not.

- Replaced the very sharp cut cyclone (VSCC) on the Pinehurst BAM with a sharp cut cyclone (SCC), making the monitor an SPM used for AQI reporting.
- Relocated the Franklin 1405-F TEOM to the Pocatello Garrett & Gould site, where its VSCC was replaced by an SCC. This change made it an SPM for AQI reporting.
- Replaced PM2.5 TEOM's, used as SPM's for AQI reporting, with BAM 1020 PM2.5 monitors, also used as SPM's for AQI reporting. This took place at the following monitoring sites: Moscow, Lewiston, Grangeville, Twin Falls, and Franklin.
- Changed the St. Maries FRM's run schedule from 1/6 days to 1/1 days.
- Changed the Nampa Fire Station FRM's run schedule from 1/6 days to 1/3 days.
- Relocated the Salmon meteorological tower from its Highway 93 location to the Charles Street location, in order to pair alongside the particulate monitors.
- Changed scale of representation from Neighborhood to Urban for the following sites: Garden Valley, McCall, and Moscow.
- Changed scale of representation from Urban to Neighborhood for Franklin.

- At the Near-Road site, replaced the Photolytic NOx analyzer with the conventional Chemi-luminescence NOx analyzer.

The following items were identified in the 2015 5-year Network Assessment. Each item contains an explanation on DEQ's strategy for addressing the findings.

- Soda Springs SO2 monitor should be relocated to a position more downwind of the source facility

  Recent wind roses have shown variations, compared to the original wind roses used when siting the monitor. The original siting used a combination of modeling and monitoring. Monitors were placed at various locations around the facility. The Northwest sector, where the monitor currently resides, showed the highest concentration. This and other information justified the monitor's current placement. DEQ will conduct a deeper analysis to substantiate variations in wind roses. This may include additional modeling.

- Change the scale of representation from "urban" to "neighborhood" for the Sandpoint site

  This change has been reflected in this year's annual network plan.

- Change the site type from "population exposure" to "source impact" at the Boise Eastman Garage site

  This change has been reflected in this year's annual network plan.

- Place a PM2.5 monitor in Boise to measure smoke impacts and population exposure

  A Met One E-sampler is being used on a seasonal basis, during wildfire impacts, at the Boise Fire Station location.

1 Introduction

This document, in accordance with the federal requirements described below, is the Idaho Department of Environmental Quality's (DEQ's) 2016 annual ambient air quality monitoring network plan. The primary goal of the annual network plan is to determine whether the state monitoring network is achieving its monitoring objectives and to identify any needed modifications. The appendices provide additional information on network design values (Appendix A), the IMPROVE monitoring network (Appendix B), supplemental correspondence (Appendix C), and federal requirement checklists (Appendix D).

Idaho's monitoring network has four principal objectives: (1) assess compliance with National Ambient Air Quality Standards (NAAQS); (2) support smoke management programs, including agricultural and prescribed burning practices; (3) identify emergency episodes caused by wind-blown dust or wildfire; and (4) support the evaluation of state implementation and maintenance plans (SIPs). In addition, DEQ operates a network of continuous fine particulate ($PM_{2.5}$) monitors and surface meteorology stations to support air quality forecasting, the Air Quality Index (AQI) program, and modeling projects. DEQ also leverages the IMPROVE monitoring network to fulfill requirements for the $PM_{2.5}$ transport (Hells Canyon) and $PM_{2.5}$ background (Craters of the Moon National Monument) monitoring sites (Appendix B).

Beginning July 1, 2007, state agencies were required to adopt and submit to the US Environmental Protection Agency (EPA) regional administrator an annual monitoring network plan (40 CFR §58.10). The plan shall provide for the establishment and maintenance of an air quality surveillance system that consists of a network made up of the following types of monitoring stations:

- State and local air monitoring stations (SLAMS), including monitors that use the following methods:
  - Federal reference method (FRM)
  - Federal equivalent method (FEM)
  - Approved regional method (ARM)
- NCore stations (included in the national network of multipollutant monitoring stations)
- $PM_{2.5}$ (particulate matter with diameter ≤2.5 microns [µ]) chemical speciation stations (STN)
- Special purpose monitoring (SPM) stations

This plan also lists seasonal fine particulate ($PM_{2.5}$) monitors used for smoke and agricultural burning management.

The plan shall include a statement of purposes for each monitor and evidence that siting and operation of each monitor meets the requirements of Appendices A, B, C, D, and E of 40 CFR Part 58 where applicable (Appendix D).

This plan was made available for public inspection for 30 days prior to submission to EPA and includes public comments and responses. Any annual monitoring network plan that proposes SLAMS network modifications—including new monitoring sites—is subject to approval by the EPA regional administrator, who shall approve or disapprove the plan within 120 days.

This 2016 plan includes all required stations to be operational by January 1, 2017. Specific locations for the required monitors are included in this plan.

The annual monitoring network plan contains the following required information for existing and proposed sites where appropriate:

- The AQS (air quality system, EPA's database) site identification number
- The location, including street address and geographical coordinates
- The sampling and analysis method(s) for each measured parameter
- The operating schedules for each monitor
- Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal
- The monitoring objective and spatial scale of representativeness for each monitor as defined in Appendix D to 40 CFR Part 58
- The identification of any sites that are suitable or unsuitable for comparison against the annual $PM_{2.5}$ NAAQS as described in 40 CFR §58.30
- The metropolitan statistical area (MSA), core-based statistical area (CBSA), combined statistical area (CSA), or other area represented by the monitor
- The designation of any lead monitors as either source-oriented or non-source-oriented (i.e., NCore) according to Appendix D to 40 CFR Part 58
- Any source-oriented monitors for which a waiver has been requested or granted by the EPA regional administrator as allowed for under paragraph 4.5(a)(ii) of Appendix D to 40 CFR Part 58
- Any source-oriented or non-source-oriented site for which a waiver has been requested or granted by the EPA regional administrator for the use of lead-PM_{10} (particulate matter with diameter ≤ 10 µ) monitoring in lieu of lead-total suspended particulate (TSP) monitoring as allowed for under paragraph 2.10 of Appendix C to 40 CFR Part 58

The annual monitoring network plan documents how states and local agencies provide for the review of changes to a $PM_{2.5}$ monitoring network that impact the location of a violating $PM_{2.5}$ monitor. The affected state or local agency must document the process for obtaining public comment and include any comments received through the public notification process within their submitted plan.

2 Air Quality Surveillance Systems and Monitoring Objectives

Ambient air monitoring objectives have shifted over time, a situation that requires air quality agencies to re-evaluate and reconfigure monitoring networks. A variety of factors contribute to these shifting monitoring objectives:

- Air quality has changed since adoption of the federal Clean Air Act and NAAQS. For example, the problems of high ambient concentrations of lead and carbon monoxide have largely been solved.
- Populations and behaviors have changed. For example, the US population has (on average) grown, aged, and shifted toward urban and suburban areas over the past four decades. In addition, rates of vehicle ownership and annual miles driven have increased.

- New air quality objectives have been established, including rules to reduce air toxics, fine particulate matter ($PM_{2.5}$), and regional haze.
- The understanding of air quality issues and the capability to monitor air quality have both improved. Together, the enhanced understanding and capabilities can be used to design more effective air monitoring networks.

Ambient air monitoring networks must be designed to meet three basic monitoring objectives. Each objective is equally important and must be considered individually.

- **Provide air pollution data to the general public in a timely manner**. Data can be presented to the public in a number of ways, including air quality maps, newspaper articles or advertisements, Internet sites, and as part of weather forecasts and public advisories.
- **Provide support for determining compliance with ambient air quality standards and developing emissions control strategies**. Data from qualified monitors for NAAQS pollutants are used for comparing an area's air pollution levels against the NAAQS. Data from monitors of various types can be used in developing attainment and maintenance plans. SLAMS, and especially NCore station data, are used to evaluate the regional air quality models used in developing emission strategies and to track effectiveness of air pollution abatement control measures. In monitoring locations near major air pollution sources, source-oriented monitoring data can provide insight into how well industrial sources are controlling their pollutant emissions.
- **Provide support for air pollution research studies**. Air pollution data from the NCore multipollutant monitoring network can be used to supplement data collected by researchers working on health effects assessments and atmospheric processes or for monitoring methods development work.

To support the air quality management work indicated in the three basic air monitoring objectives, a network must be designed with a variety of monitoring site types. Monitoring sites must be capable of informing airshed managers about many things including the peak air pollution levels, typical levels in populated areas, air pollution transported into and outside of a city or region, and air pollution levels near specific emissions sources. These types of sites are summarized in the following list of six general site types:

- Maximum concentrations of air pollutants expected to occur in the area covered by the network
- Typical pollutant concentrations in areas of high population density
- Impact of significant sources or source categories on air quality
- General background concentration levels of air pollutants
- Extent of regional pollutant transport among populated areas and compliance with secondary air quality standards
- Air pollution impacts on visibility, vegetation damage, or other welfare-based impacts

The adequacy of an ambient air monitoring network may be determined by using a variety of tools, including the following:

- Federal monitoring requirements and network minimums
- Analyses of historical monitoring data
- Maps of pollutant emissions densities

- Dispersion modeling
- Special studies/saturation sampling
- SIP requirements
- Revised monitoring strategies (e.g., new regulations, reengineering of the air monitoring network)
- Network maps and network descriptions with site objectives defined
- Best professional judgment

The appropriate location of a monitor can only be determined on the basis of stated objectives. The following tools can help determine whether monitor locations are meeting their stated objectives:

- Maps, graphical overlays, and information based on geographic information systems (GIS), which are extremely helpful for visualizing the adequacy of monitor locations
- Plots (graphs) of potential emissions levels and/or historical monitored levels of pollutants versus monitor locations
- Modeling or special studies (including saturation monitoring studies) may be appropriate for determining the adequacy of a particular monitor location

3 Idaho DEQ's Ambient Air Monitoring Network

DEQ is responsible for operating and maintaining the ambient air monitoring network for the State of Idaho. Some air monitors in Idaho are managed by tribal monitoring organizations on tribal lands. This document is limited to the monitors in the air monitoring network that are managed by DEQ (Figure 1).

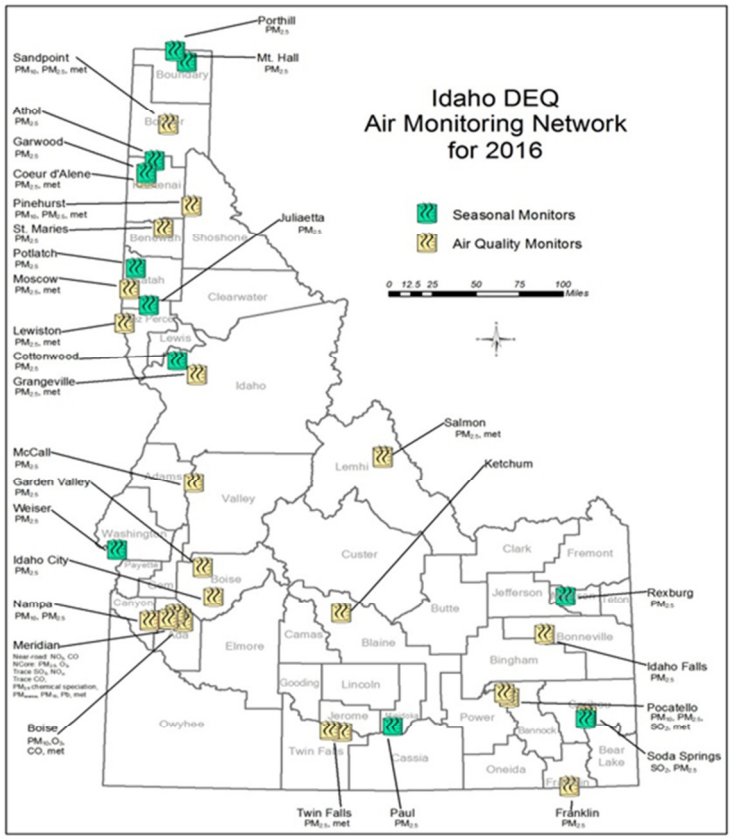

Figure 1. Idaho air quality monitoring network, 2016.

3.1 Monitoring Sites

On January 1, 2016, DEQ's SLAMS air monitoring network consisted of 27 distinct monitoring sites measuring criteria pollutants and surface meteorology (Table 1). DEQ's ambient air monitoring network is operated and maintained by monitoring staff at DEQ's six regional offices.

Table 1. DEQ monitoring stations, locations, and AQS identification codes.

Site	Address	Latitude/ Longitude	AQS Identification
Sandpoint– University of Idaho	U of I Research Center, 2105 N. Boyer Ave. Sandpoint, ID 83864	+48.291820/ - 116.556560	160170003
Coeur d'Alene– Lancaster Rd.	Lancaster Road Hayden, ID 83835	+47.788908/ -116.804539	160550003
Coeur d'Alene LMP	Camp Cross, McDonald Point Lake Coeur d'Alene, ID	+47.555253/ -116.817331	160550004
St. Maries	Forest Service Building St. Maries, ID 83861	+47.316667/ -116.570280	160090010
Pinehurst	106 Church St. Pinehurst, ID 83850	+47.536389/ -116.236667	160790017
Moscow	1025 Plant Sciences Rd. Moscow, ID 83843	+46.728000/ -116.955667	160570005
Lewiston	1200 29th St. Lewiston, ID 83501	+46.408352/ -116.992533	160690012
Grangeville	US Forest Service Compound Grangeville, ID 83530	+45.9274167/ -116.105944	160490002
McCall	500 N. Mission St. McCall, ID 83638	+44.542486/ -116.062358	160850002
Garden Valley	946 Banks Lowman Rd. Garden Valley, ID 83622	+44.104675/ -115.973084	160150002
Nampa	923 1st St S. Nampa, ID 83651	+43.580310/ -116.562676	160270002
Meridian– St. Luke's	Eagle Rd & I-84 Meridian, ID 83642	+43.600699/ -116.347853	160010010
Meridian– Near-road	1311 East Central Dr. Meridian, ID 83642	+43.593929/ -116.38125	160010023
Boise– Eastman Garage	166 N. 9th Boise, ID 83702	+43.616379/ -116.203817	160010014
Boise– Fire Station #5	16th & Front Boise, ID 83702	+43.618889/ -116.213611	160010009
Boise– White Pine Elementary	401 East Linden St. Boise, ID 83706	+43.577603/ -116.178156	160010017
Garden City	Ada County Fairgrounds Garden City, ID 83714	+43.647819/ -116.269514	160010020
Idaho City	3851 Hwy 21 Idaho City, ID 83631	+43.823017/ -115.838557	160150001
Ketchum	111 West 8th St. Ketchum, ID 83340	+43.682558/ -114.371094	160130004
Twin Falls	650 W. Addison Twin Falls, ID 83301	+42.56505/ -114.494767	160830007
Kimberly	50 Highway 50 Kimberly, ID 83341	+42.553325/ -114.354853	160830009
Pocatello	Garrett & Gould Pocatello, ID 83204	+42.876725/ -112.460347	160050015

Site	Address	Latitude/ Longitude	AQS Identification
Pocatello– Sewage Treatment Plant	Batiste Chubbuck Rd. Pocatello, ID 83204	+42.916389/ -112.515833	160050004
Franklin	East 4800 South Road Franklin, ID 83237	+42.013333/ -111.809167	160410001
Soda Springs	5-Mile Rd. Soda Springs, ID 83276	+42.695278/ -111.593889	160290031
Idaho Falls	Hickory and Sycamore St. Idaho Falls, ID 83402	+43.464700/ -112.046450	160190011
Salmon– Charles St.	N. Charles St. Salmon, ID 83467	+45.181893/ -113.890285	160590004

DEQ also uses seasonal monitors at 11 locations for the state's Crop Residue Burning (CRB) Program (Table 2). The seasonal duration these monitors run varies widely, as they are operated on a case-by-case basis.

Table 2. CRB station locations.

Site	Address	Latitude/ Longitude
Porthill	Tavern Farm Rd. Porthill, ID 83853	+48.995911/ -116.509953
Mt. Hall	1275 Idaho 1 Bonners Ferry, ID 83805	+48.894014/ -116.359381
Athol	NE corner of Pastime St./Grove Ave. Athol, ID 83801	+47.948925/ -116.710978
Garwood	17506 N. Ramsey Rd. Rathdrum, ID 83858	+47.830706/ -116.806794
Cottonwood	BLM Field Office, 1 Butte Dr. Cottonwood, ID 83522	+46.06319/ -116.34824
Potlatch	510 Elm St. Potlatch, ID 83855	+46.92106/ -116.89627
Juliaetta	3rd Street Juliaetta, ID 83535	+46.578731/ -116.708958
Weiser	690 W. Indianhead Rd. Weiser, ID 83672	+44.261694/ -116.979172
Paul	201 N. 1st Street West Paul, ID 83347	+42.6078167/ -113.7868167
Soda Springs	Caribou Hospital, 300 South 3rd Street West Soda Springs, ID 83276	+42.651670/ -111.614720
Rexburg	Madison Middle School, 575 W. 7th Street Rexburg, ID 83440	+43.809486/ -111.800475

3.2 DEQ Monitoring Network—Monitoring Purpose, Scale of Representativeness, and Area Represented

The ambient air quality and meteorological data collected from DEQ's network is used for a variety of purposes, including the following:

- Determining compliance with the NAAQS
- Determining the locations of maximum pollutant concentrations
- Forecasting air quality to determine the AQI
- Providing for early detection of smoke impacts (smoke management)
- Determining the effectiveness of air pollution control programs
- Evaluating the effects of air pollution levels on public health
- Tracking the progress of air quality-related SIPs
- Supporting pollutant dispersion models
- Developing responsible, cost-effective air pollution control strategies
- Analyzing air quality trends

The concept of spatial scale of representativeness is used to clarify the link between general monitoring objectives, site types, and the physical location of a particular monitor. The goal in locating monitors is to correctly match the spatial scale represented by the sample of monitored air with the spatial scale most appropriate for the monitoring site type, the air pollutant measured, and the monitoring objective. Thus, spatial scale of representativeness is described in terms of the physical dimensions of the air parcel nearest to a monitoring site throughout which actual pollutant concentrations are reasonably similar. The scales of interest for the monitoring site types described above are as follows:

1. ***Microscale***—Defines the concentrations in air volumes associated with area dimensions ranging from several meters up to about 100 meters.
2. ***Middle scale***—Defines the concentrations typical of areas up to several city blocks in size with dimensions ranging from about 100 to 500 meters.
3. ***Neighborhood scale***—Defines concentrations within some extended area of the city that has relatively uniform land use with dimensions in the range of 0.5–4.0 kilometers.
4. ***Urban scale***—Defines concentrations within an area of city-like dimensions, on the order of 4–50 kilometers. Within a city, the geographic placement of emissions sources may result in no single site that can be said to represent air quality on an urban scale. The neighborhood and urban scales have the potential to overlap in applications that concern secondarily formed or homogeneously distributed air pollutants.
5. ***Regional scale***—Defines an area that is usually rural, is of reasonably homogeneous geography without large emissions sources, and extends from tens to hundreds of kilometers.
6. ***National and global scales***—These measurement scales represent concentrations characterizing a nation or the globe as a whole.

Proper siting of a monitor requires specifying the monitoring objective, the types of sites necessary to meet the objective, and the desired spatial scale of representativeness. For example, consider a case where the objective is to determine NAAQS compliance by understanding the

maximum ozone concentrations for an area. Candidate areas would most likely be located downwind of a metropolitan area, probably in suburban residential areas where children and other susceptible individuals are likely to be outdoors. Sites in such areas are most likely to represent an urban scale of measurement. In this example, physical location would be determined by considering ozone precursor emission patterns, public activity, and meteorological characteristics affecting ozone formation and dispersion. Thus, spatial scale of representativeness would not be used in the selection process but would be a result of site location.

In some cases, the physical location of a site is determined from jointly considering both the basic monitoring objective and the type of monitoring site desired or required. For example, to determine typical $PM_{2.5}$ concentrations over a geographic area that has relatively high $PM_{2.5}$ concentrations, a neighborhood scale site is most appropriate. Such a site would likely be located in a residential or commercial area having a high overall $PM_{2.5}$ emission density but not in the immediate vicinity of any single dominant source. In this example, the desired scale of representativeness would be an important factor in determining the physical location of the monitoring site.

In either case, classification of the monitor by its type and spatial scale of representativeness is necessary and will aid in interpreting the monitoring data for a particular monitoring objective (e.g., public reporting, NAAQS compliance determination, or research support).

Table 3 illustrates the relationship between the various site types that can be used to support the three basic monitoring objectives and the scales of representativeness that are generally most appropriate for each site type.

Table 3. Relationships between site types and scales of representativeness.

Site Type	Appropriate Siting Scales
Maximum concentration	Micro, middle, neighborhood (*sometimes* urban or regional for secondarily-formed pollutants)
Population oriented	Neighborhood, urban.
Source impact	Micro, middle, neighborhood
General/background	Urban, regional
Regional transport	Urban, regional
Welfare-related impacts	Urban, regional

Federal ambient air monitoring regulations use the statistical-based definitions for metropolitan areas provided by the Office of Management and Budget and the Census Bureau. These areas are referred to as metropolitan statistical areas or micropolitan statistical areas—both of which are core-based statistical areas (CBSA)—and combined statistical areas (CSA). A CBSA associated with at least one urbanized area of 50,000 population or greater is termed a metropolitan statistical area. A CBSA associated with at least one urbanized cluster of at least 10,000 population or greater is termed a micropolitan statistical area. A CSA consists of two or more adjacent CBSAs. The term MSA is used to refer to a metropolitan statistical area.

By definition, both MSAs and CSAs have a high degree of integration; however, many such areas cross state or other political boundaries. An MSA or CSA may also cross more than one

airshed. EPA recognizes that state or local agencies must consider MSA/CSA boundaries and their own political boundaries and geographical characteristics in designing their air monitoring networks. EPA also recognizes there may be situations where the EPA regional administrator and the affected state or local agencies may need to augment or to divide the overall MSA/CSA monitoring responsibilities and requirements among these various agencies to achieve an effective network design. Full monitoring requirements apply separately to each affected state or local agency in the absence of an agreement between the affected agencies and the EPA regional administrator.

Table 4 summarizes the monitoring purpose, area represented, and monitoring scale of representativeness for DEQ's monitoring sites, including seasonal monitors.

Table 4. Monitoring objectives, areas represented, and scales of representation.

Site	Monitoring Objective	Area Represented	Monitoring Scale
Sandpoint—University of Idaho	AQI, PM_{10} SIP, PM_{10} NAAQS, smoke management, modeling-meteorological	Bonner County	Neighborhood
Coeur d'Alene—Lancaster Rd.	AQI, smoke management, modeling-meteorological	Coeur d'Alene, ID MSA	Urban
Coeur d'Alene—LMP	Modeling-meteorological	Coeur d'Alene, ID MSA	Neighborhood
St. Maries	$PM_{2.5}$ NAAQS, AQI, smoke management	Benewah County	Neighborhood
Pinehurst	PM_{10} SIP, PM_{10} NAAQS, $PM_{2.5}$ NAAQS, AQI, smoke management, modeling-meteorological	Shoshone County	Neighborhood
Porthill	Smoke management	Boundary County	Urban
Mt. Hall	Smoke management	Boundary County	Urban
Athol	Smoke management	Kootenai County	Urban
Garwood	Smoke management	Kootenai County	Urban
Moscow	AQI, smoke management, modeling-meteorological	Latah County	Urban
Lewiston	AQI, smoke management, modeling-meteorological	Lewiston ID–WA MSA	Neighborhood
Grangeville	AQI, smoke management, modeling-meteorological	Idaho County	Neighborhood
Cottonwood	Smoke management	Idaho County	Neighborhood
Potlatch	Smoke management	Latah County	Neighborhood
Juliaetta	Smoke management	Latah County	Neighborhood
McCall	AQI, smoke management	Valley County	Urban
Garden Valley	AQI, smoke management	Boise County	Urban
Nampa	PM_{10} NAAQS, $PM_{2.5}$ NAAQS, AQI	Boise City–Nampa MSA[a]	Neighborhood

Site	Monitoring Objective	Area Represented	Monitoring Scale
Meridian—St. Luke's	NCore—trace gas, NCore—$PM_{10-2.5}$, $PM_{2.5}$ NAAQS, $PM_{2.5}$ chemical speciation, O_3 NAAQS, Pb NAAQS, AQI, modeling-meteorological	Boise City–Nampa MSA[a]	Neighborhood
Meridian—Near-road	NO, NO_2, NO_x, CO	Boise City–Nampa MSA[a]	Micro
Boise—Eastman Garage	CO SIP, CO NAAQS	Northern Ada County	Micro
Boise—Fire Station #5	PM_{10} SIP, PM_{10} NAAQS, smoke management, AQI	Northern Ada County	Neighborhood
Boise—White Pine Elementary	O_3 NAAQS	Boise City–Nampa MSA[a]	Neighborhood
Garden City	Modeling-meteorological	Boise City-Nampa MSA[a]	Neighborhood
Idaho City	Smoke management, AQI	Boise County	Neighborhood
Weiser	Smoke management	Washington County	Neighborhood
Ketchum	Smoke management, AQI	Blaine County	Urban
Twin Falls	Smoke management, AQI	Twin Falls, ID micropolitan statistical area	Neighborhood
Kimberly	Modeling-meteorological	Twin Falls, ID micropolitan statistical area	Urban
Paul	Smoke management	Minidoka County	Neighborhood
Pocatello—Garrett and Gould	PM_{10} SIP, PM_{10} NAAQS, AQI, modeling-meteorological	Pocatello, ID MSA	Neighborhood
Pocatello—Sewage Treatment Plant	SO_2 NAAQS	Pocatello, ID MSA	Middle
Franklin	$PM_{2.5}$ NAAQS, $PM_{2.5}$ SIP, AQI	Logan UT–ID MSA	Neighborhood
Soda Springs	SO_2 NAAQS	Caribou County	Middle
Soda Springs—Caribou Hospital	Smoke management	Caribou County	Urban
Idaho Falls	AQI	Idaho Falls, ID MSA	Neighborhood
Salmon—Charles St.	$PM_{2.5}$ NAAQS, AQI, modeling-meteorological	Lemhi County	Neighborhood
Rexburg	Smoke management	Madison County	Urban

Note: AQI – air quality index; SIP – state implementation plan; NAAQS – national ambient air quality standard; PM_{10} – particulate matter less than 10 microns in diameter; MSA – metropolitan statistical area; O_3 – ozone; $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter; NO – nitric oxide, NO_2 – nitrogen dioxide, NO_x – nitrogen oxides; SO_2 – sulfur dioxide; Pb – Lead; CO – carbon monoxide

[a] Boise City–Nampa MSA, as defined by the US Census Bureau, includes Ada, Boise, Canyon, Gem, and Owyhee Counties.

3.3 Monitoring Methods, Monitor Designation, and Sampling Frequency

Monitoring methods used for making NAAQS compliance determinations at a SLAMS site must be designated FRM or FEM in accordance with 40 CFR Part 53. A method for monitoring $PM_{2.5}$ concentrations that has not been designated as an FRM or FEM may be approved as an ARM by the EPA regional administrator. SPMs do not meet any of the above criteria and are typically used for special studies or as surrogate measures or indicators of emergency episodes (e.g., tapered element oscillating microbalance (TEOM) monitors used for early detection of smoke).

Table 5 lists monitoring methods used by DEQ along with associated method codes required when submitting the monitoring data to EPA's AQS database. Method codes for meteorological parameters are not included in the table.

Table 5. Air monitoring method codes.

Parameter/ Pollutant[a]	Method Designation[b]	AQS Method Code	Instrument and Instrument Parameters
PM_{10}	FEM	079	TEOM—gravimetric analysis, instrumental—R&P SA246B inlet
CO	FRM	593[c]	Teledyne API Model 300EU
	FEM	593	Teledyne API Model T300U
	FEM	093	Teledyne API Model T300
SO_2	FEM	100	Teledyne API Model T100—UV fluorescent
	FEM	060	Thermo Model 43C, pulsed fluorescence
	FRM	600[c]	Teledyne API Model 100EU—UV fluorescent
O_3	FEM	087	Teledyne API, Model 400E
	FEM	087	Teledyne API Model T400
NO_2	FRM	099	Teledyne API, Model 200E—chemiluminescence
	FEM	200	Teledyne API Model T200UP—Photolytic
	FEM	599	Teledyne API, Model 200EU
NO_y	FEM	599[c]	Teledyne API, Model 200EU
$PM_{2.5}$	FRM	145	R&P Model 2025 sequential w/ VSCC
$PM_{2.5}$	SPM	701 or 703[d]	R&P TEOM w/ SCC—no correction factor
	SPM	715 or 716[d]	R&P TEOM w/ VSCC—no correction factor
	SPM	178	Thermo TEOM 1405 w/ SCC
	FEM	581	Thermo TEOM 1405-F (FDMS) w/ VSCC
	SPM	183	Thermo TEOM 1405-F (FDMS) w/ SCC
	FEM	170	Met One Beta Gauge (BAM) w/ VSCC
	SPM	731	Met One Beta Gauge (BAM) w/ SCC
$PM_{10-2.5}$	FRM	176	Thermo Scientific Partisol-Plus Model 2025 Sequential Sampler Pair w/ VSCC
PM_{10} Pb	FEM	811	Thermo/R & P 2025 PM10 w/ VSCC w/ XRF analysis

Notes: VSCC – very sharp cut cyclone; SCC – sharp cut cyclone; TEOM – tapered element oscillating microbalance; FDMS – filter dynamics measurement system; BAM – beta attenuation monitor

[a] PM_{10} – particulate matter less than 10 microns in diameter; CO – carbon monoxide; SO_2 – sulfur dioxide; O_3 – ozone; NO_2 – nitrogen dioxide; No_y – total reactive nitrogen; $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter; $PM_{10-2.5}$ – particulate matter in between 2.5 and 10 microns in diameter; PM_{10}-Pb – Lead

[b] FEM – federal equivalent method; FRM – federal reference method; SPM – special purpose monitor

[c] Trace gas monitor – NCore

[d] Applicable code varies seasonally w/ instrument operating temperature settings

Monitoring sites designated as SLAMS are intended to address specific air quality management interests and are frequently single-pollutant measurement sites. The SLAMS sites must be approved by the EPA regional administrator.

Monitoring sites designated as SPMs in the annual network plan and in the AQS do not count toward meeting network minimum requirements. SPM sites using methods designated as FRMs or FEMs or approved as ARMs are bound to the quality assurance requirements of 40 CFR Part 58 Appendix A.

Gaseous pollutants and meteorological parameters are sampled continuously and typically averaged for each hour. Data completeness for a continuous monitor is computed as the number of valid hourly samples collected divided by the number of potential hourly samples for the period in question (e.g., 8,760 potential hourly samples annually).

PM can be sampled continuously or by time-integrated filter-based methods. Filter-based methods typically collect samples for 24-hour periods. For NAAQS comparison, PM data are reported as a 24-hour average, collected from midnight to midnight at local standard time. The minimum monitoring schedule for a $PM_{2.5}$ site is based on the type of monitor, the monitor's objectives, and the design value (relative to the 24-hour NAAQS) determined for the monitored site (Figure 2).

For the monitors in DEQ's ambient air quality monitoring network, Table 6 lists a variety of parameters associated with the monitors as well as information that is used in reporting data to AQS.

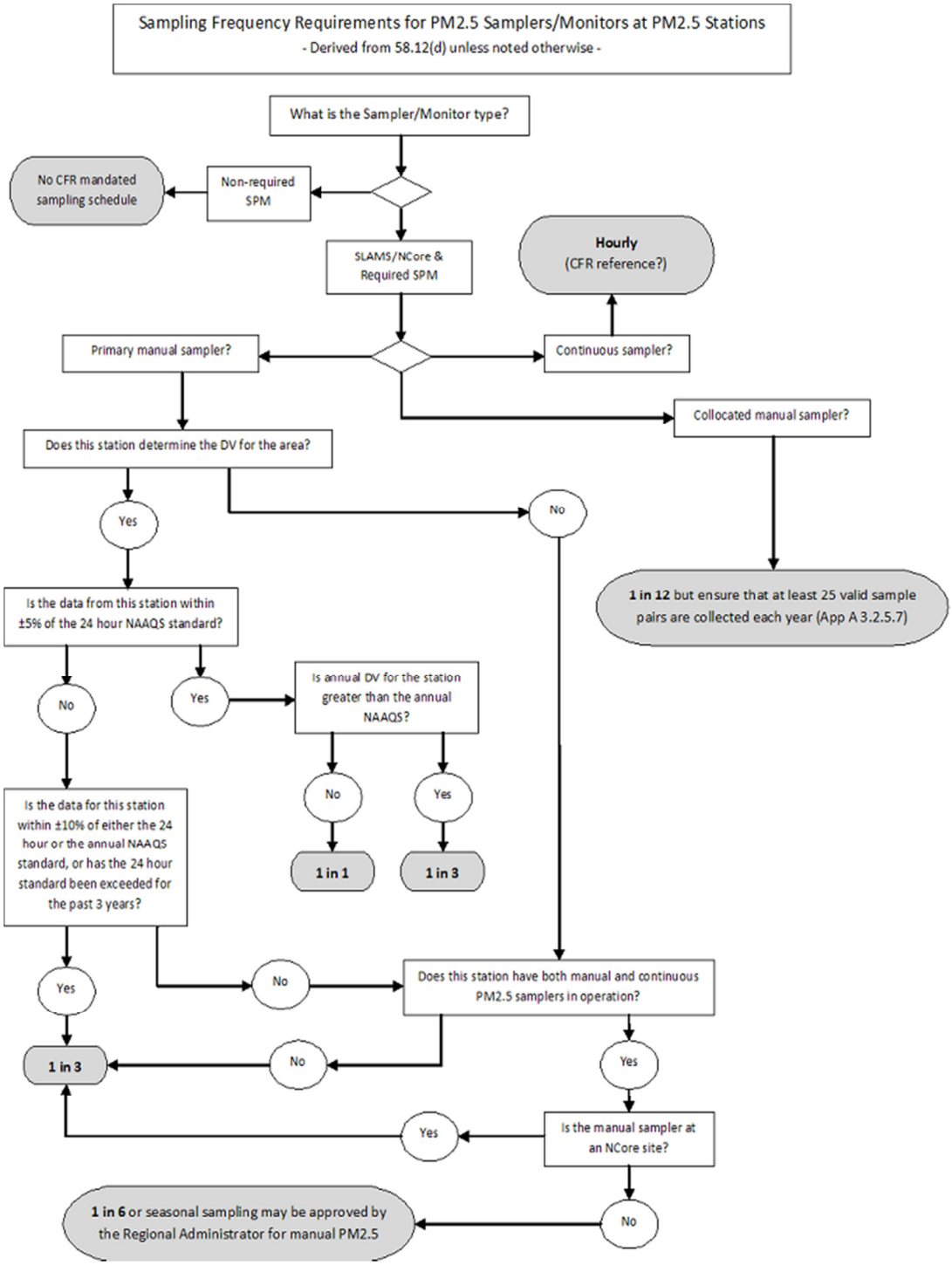

Figure 2. Minimum monitoring frequency based on ratio of local concentration to standard. (Note: DV = design value.)

Table 6. Site summary including pollutants monitored, monitor designation, monitoring frequency, and method codes.

Site	Pollutant Monitored	Begin Date	Monitor Designation	Monitoring Frequency	AQS Method Code	Parameter Code	POC #
Sandpoint—University of Idaho	10-meter meteorology	2013	SPM	Continuous	—[a]	—[a]	—[a]
	PM_{10}—TEOM	2013	SLAMS	Continuous	079	81102	3
	$PM_{2.5}$—BAM 1020	2015	SPM	Continuous	731	88502	3
Coeur d'Alene—Lancaster Rd.	$PM_{2.5}$—BAM 1020	2015	SPM	Continuous	731	88502	3
	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
Coeur d'Alene LMP	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
St. Maries	$PM_{2.5}$—FRM	2003	SLAMS	1/1	145	88101	1
	$PM_{2.5}$—BAM 1020	2014	SPM	Continuous	731	88502	3
Pinehurst	$PM_{2.5}$—FRM	1999	SLAMS	1/1	145	88101	1
	$PM_{2.5}$—BAM 1020	2014	SPM	Continuous	731	88502	4
	PM_{10}—TEOM	1998	SLAMS	Continuous	079	81102	3
	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
Moscow	$PM_{2.5}$—BAM 1020	2016	SPM	Continuous	731	88502	4
	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
Lewiston	$PM_{2.5}$—BAM 1020	2016	SPM	Continuous	731	88502	4
	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
Grangeville	$PM_{2.5}$—BAM 1020	2016	SPM	Continuous	731	88502	4
	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
McCall	$PM_{2.5}$—TEOM	2010	SPM	Continuous	715 or 716	88502	3
Garden Valley	$PM_{2.5}$—TEOM	2001	SPM	Continuous	715 or 716	88502	3
Nampa	PM_{10}—TEOM	2000	SLAMS	Continuous	079	81102	2
	$PM_{2.5}$—FRM	2008	SLAMS	1/3	145	88101	1
	$PM_{2.5}$—BAM 1020	2015	SPM	Continuous	731	88502	3

Site	Pollutant Monitored	Begin Date	Monitor Designation	Monitoring Frequency	AQS Method Code	Parameter Code	POC #
Meridian—St. Luke's	$PM_{2.5}$—FRM	2006	NCore	1/3	145	88101	1
	$PM_{2.5}$ 1405-F TEOM/FDMS	2015	SPM	Continuous	183	88502	3
	$PM_{2.5}$ Chemical Speciation	2006	NCore	1/3	810	88502	5
	$PM_{10\text{-}2.5}$	2011	NCore	1/3	176	86101	1
	O_3	2007	NCore	Continuous	087	44201	1
	SO_2	2009	NCore	Continuous	600	42401	1&2
	NO_y	2009	NCore	Continuous	599	42600/42601/42612	1,3,1
	CO	2009	NCore	Continuous	593	42101	1
	PM_{10} Pb	2011	NCore	1/6	811	85129	1
	10-meter meteorology		NCore	Continuous	—[a]	—[a]	—[a]
	$PM_{2.5}$—FRM	2013	Precision	1/6	145	88101	2
	PM_{10} Pb	2011	Precision	1/12	811	85129	2
Meridian—Near-road	NO_2,NO,NO_x	2012	SLAMS/Near-road	Continuous	099	42602/42601/42603	2,2,2
	CO	2012	SLAMS/Near-road	Continuous	593	42101	1
Boise—Eastman Garage	CO	1993	SLAMS	Continuous	093	42101	1
Boise—Fire Station #5	PM_{10}—TEOM	1999	SLAMS	Continuous	079	81102	3
Boise—White Pine Elementary	O_3	2009	SLAMS	Continuous	087	44201	1
Garden City	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
Idaho City	$PM_{2.5}$—TEOM	2000	SPM	Continuous	715 or 716	88502	3
Ketchum	$PM_{2.5}$—TEOM (seasonal)	2009	SPM	Continuous	715 or 716	88502	3
Twin Falls	$PM_{2.5}$—BAM 1020	2016	SPM	Continuous	731	88502	3
Kimberly	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]

Site	Pollutant Monitored	Begin Date	Monitor Designation	Monitoring Frequency	AQS Method Code	Parameter Code	POC #
Pocatello	$PM_{2.5}$—1405-F TEOM/FDMS	2015	SPM	Continuous	183	88502	4
	PM_{10}—TEOM	2001	SLAMS	Continuous	079	81102	3
	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]
Pocatello—Sewage Treatment Plant	SO_2	1981	SLAMS	Continuous	100	42401	2&4
Franklin	$PM_{2.5}$—FRM	2004	SLAMS	1/3	145	88101	1
	$PM_{2.5}$—BAM 1020	2015	SPM	Continuous	731	88502	3
Soda Springs	SO_2	2000	SLAMS	Continuous	100	42401	1&2
Idaho Falls	$PM_{2.5}$—BAM 1020	2015	SPM	Continuous	731	88502	4
Salmon—Charles St.	$PM_{2.5}$—FRM	2003	SLAMS	1/3	145	88101	1
	$PM_{2.5}$—BAM 1020	2009	SPM	Continuous	731	88502	3
	10-meter meteorology		SPM	Continuous	—[a]	—[a]	—[a]

Note: PM_{10} – particulate matter less than 10 microns in diameter; $PM_{2.5}$ – particulate matter less than 2.5 microns in diameter; TEOM – tapered element oscillating microbalance; O_3 – ozone; NO_2 – nitrogen dioxide; FRM – federal reference method; FDMS – filter dynamics measurement system; BAM – beta attenuation monitor; SO_2 – sulfur dioxide; NO – nitric oxide; NO_x – nitrogen oxides; NO_y – total reactive nitrogen; CO – carbon monoxide; $PM_{10\text{-}2.5}$ – particulate matter in between 2.5 and 10 microns in diameter; Pb – Lead

[a] Meteorological parameters are listed in Table 7.

DEQ currently operates twelve 10-meter meteorological stations. Meteorological measurements are used to support AQI forecasting and air quality modeling analyses. Data collected from DEQ's meteorological stations are submitted to AQS.

Table 7 provides a list of parameters measured at DEQ meteorological stations. DEQ operates the meteorological monitoring network in accordance with EPA's *Quality Assurance Handbook for Air Pollution Measurement Systems Volume IV: Meteorological Measurements Version 2.0 (Final)* (2008).

Table 7. DEQ meteorological monitoring stations and parameters.

Site	Meteorological Parameters Monitored							
	2-meter temp. (℃)	10-meter temp. (℃)	Barometric Pressure (mbar)	Relative Humidity (%)	Wind Direction (degrees)	Wind Speed (m/s)	Solar Radiation (Watt/m^2)	Precipi-tation (rain, inches)
Sandpoint—University of Idaho	X	X	X	X	X	X	X	X
Pinehurst	X	X	X	X	X	X	X	X
Coeur d'Alene—LMP	X	X	X	X	X	X	X	X
Coeur d'Alene—Lancaster Rd.	X	X	X	X	X	X	X	X
Moscow	X	X	X	X	X	X	X	X
Lewiston	X	X	X	X	X	X	X	X
Grangeville	X	X	X	X	X	X	X	X
Meridian—St. Luke's	X	X	X	X	X	X	X	
Garden City	X	X	X	X	X	X	X	
Kimberly	X	X	X	X	X	X	X	
Pocatello	X	X	X	X	X	X	X	X
Salmon—Hwy 93	X	X	X	X	X	X	X	

4 DEQ Network Modifications Subsequent to the EPA-Approved 2015 Ambient Monitoring Network Plan

The following network modifications were made after EPA approval of the 2015 ambient monitoring network plan. Modifications proposed/implemented after the 2015 plan and prior to DEQ submitting this 2016 plan have been addressed, case by case, and have been communicated through e-mail and mail, if necessary. Applicable documentation is included in Appendix C.

1. Replaced the VSCC on the Pinehurst BAM with an SCC, making the monitor an SPM used for AQI reporting. An ongoing goal of the DEQ is to standardize its monitoring network when and where feasible. This is a reflection of that effort, as all other BAM's have been converted to SPM's now.

2. Relocated the Franklin 1405-F TEOM to the Pocatello Garrett & Gould site, where its VSCC was replaced by an SCC. This change made it an SPM for AQI reporting. An ongoing goal of the DEQ is to standardize its monitoring network when and where feasible. This is a reflection of that effort, as all other 1405-F TEOM's have been converted to SPM's now.

3. Replaced PM2.5 TEOM's, used as SPM's for AQI reporting, with BAM 1020 PM2.5 monitors, also used as SPM's for AQI reporting. This took place at the following monitoring sites: Moscow, Lewiston, Grangeville, Twin Falls, and Franklin. The BAM's are easier to maintain than the TEOM's, thus being more practical from a resources standpoint.

4. Changed the St. Maries FRM's run schedule from 1/6 days to 1/1 days, based off of the 2012 – 2014 24-hour design value. DEQ is proposing to change this run schedule to 1/3 days, based off of the 2013 – 2015 24-hour design value.

5. Changed the Nampa Fire Station FRM's run schedule from 1/6 days to 1/3 days, based off of the 2012 – 2014 24-hour design value. This will remain the same, as the 2013 – 2015 24-hour design value mandates the 1/3 day run schedule as well.

6. Relocated the Salmon meteorological tower from its Highway 93 location to the Charles Street location, in order to pair alongside the particulate monitors. It is ideal to collocate meteorological towers next to particulate monitors if possible, for the sake of modeling site-specific meteorological influences on particulate matter concentrations.

7. Changed scale of representation from Neighborhood to Urban for the following sites: Garden Valley, McCall, and Moscow. After further review, it was concluded that these monitors represent larger areas, due to more dispersed source influences.

8. Changed scale of representation from Urban to Neighborhood for Franklin and Sandpoint. After further review, it was concluded that these monitors represent smaller areas, due to source influences in the areas.

9. Changed the site type from Population Exposure to Source Impact at the Boise Eastman Garage site. After further review, it was concluded that this site technically represents a source impact category.

10. At the Near-Road site, replaced the Photolytic NOx analyzer with the conventional Chemi-luminescence NOx analyzer. This was done, simply due to ongoing maintenance issues with the Photolytic analyzer.

11. Placed a PM2.5 monitor in Boise to measure smoke impacts and population exposure. This monitor was placed at the Boise Fire Station site, starting last year, running just during wildfire smoke episodes. This monitor will be used again this year, contingent upon wildfires in the area.

5 Proposed Network Modifications

Below is a brief discussion of DEQ's rationale in proposing network modifications (if any) for each monitored pollutant, followed by a summary of those proposed changes. Annual air quality data summaries for DEQ's air monitoring network can be found at: *www.deq.idaho.gov/air-quality/monitoring/monitoring-network*. More information about criteria pollutants (those pollutants for which EPA has established NAAQS) and NAAQS can be found at *www.epa.gov/air/criteria*.

5.1 PM_{10} Monitoring Network

Five PM_{10} monitoring sites are currently operating. These monitors support local SIPs and/or PM_{10} maintenance plans by assessing compliance with the PM_{10} NAAQS and will continue operating through 2016. Monitoring in these areas is required to demonstrate attainment of the appropriate NAAQS.

PM_{10} monitoring locations are selected to represent average population exposure to spatially representative concentrations in the middle, neighborhood, and urban scales.

The following airsheds are classified as "moderate" nonattainment for the 24-hour PM_{10} NAAQS (150 micrograms per cubic meter):

- Shoshone County—partial (excluding city of Pinehurst)
- Pinehurst (Shoshone County – partial – City of Pinehurst)
- Fort Hall Reservation (Bannock County—partial, Power County—partial)

The Fort Hall Reservation nonattainment area is on Tribal land and is not administered by DEQ.

The following airsheds were previously classified as nonattainment but are now classified as maintenance areas and require monitoring to demonstrate compliance with a specific PM_{10} NAAQS over specific timeframes:

- Boise-Northern Ada County
- Bonner County—partial (City of Sandpoint)
- Portneuf Valley (Bannock County—partial, Power County—partial)

PM_{10} design values for 2013–2015 are listed in Appendix A.

Due to the necessity of PM_{10} monitoring to meet the regulatory requirements associated with SIPs and maintenance plan objectives, DEQ proposes no substantive change to the PM_{10} monitoring network.

For more information on area designations of Idaho's airsheds please go to:

https://yosemite.epa.gov/r10/airpage.nsf/283d45bd5bb068e68825650f0064cdc2/e2ab2cc6df433b8688256b2f00800ff8?OpenDocument

or,

https://www3.epa.gov/airquality/greenbook/

5.2 $PM_{2.5}$ Core NAAQS Compliance Monitoring Network

DEQ operates a "core network" of six $PM_{2.5}$ monitoring sites for NAAQS compliance. DEQ began monitoring $PM_{2.5}$ by FRM in 1998 with an initial network of 13 sites. Over time, the network has been reduced due to site redundancy within airsheds or overall low ambient concentrations relative to the NAAQS. The following six sites remain.

The West Silver Valley airshed (including Pinehurst) has been recently classified as nonattainment for the annual $PM_{2.5}$ NAAQS (12 micrograms per cubic meter). The Cache Valley airshed (Franklin-Logan MSA) has been a classified ongoing nonattainment area for the 24-hour $PM_{2.5}$ NAAQS (35 micrograms per cubic meter).

- Pinehurst
- St. Maries
- Treasure Valley (Nampa—Fire Station)
- Treasure Valley (Meridian—St. Luke's)
- Salmon
- Franklin

Federal regulations require a minimum of two $PM_{2.5}$ monitoring sites in the Treasure Valley, based on population. The Meridian monitor also satisfies the requirement for $PM_{2.5}$ monitoring at NCore sites.

DEQ is proposing the following change based on the most recent 2013–2015 24-hour design value:

- Change the St. Maries FRM monitor's run schedule from 1/1 days to 1/3 days, effective no later than January 1, 2017.

$PM_{2.5}$ design values (updated for 2013–2015) and current and proposed sampling frequencies are listed in Appendix A. Appendix A Table A2 represents data obtained from both FRM and FEM monitors. Due to FRM filter weighing lab QA/QC issues, 2013–2015 $PM_{2.5}$ FRM data are not comparable to the NAAQS. This limitation applies to the Meridian St. Luke's, St. Maries, Nampa Fire Station, and Franklin sites. Franklin was classified as non-attainment prior to this situation occurring and thus retains the classification. Salmon and Pinehurst were operating FEMs as their primary reporting monitors during the period the lab QA/QC issue was discovered, so the data from these sites in the table are comparable to the NAAQS.

5.3 $PM_{2.5}$ Continuous Monitoring Network

DEQ monitors $PM_{2.5}$ year-round (with the exception of Ketchum, which is a seasonal monitor that shuts down during the winter months) at 18 sites throughout the state with continuous $PM_{2.5}$ monitors. The real-time and continuous $PM_{2.5}$ data support DEQ's air quality forecasting, AQI, and smoke management programs. These monitors are special purpose, non-NAAQS monitors.

The $PM_{2.5}$ continuous monitors are located at these monitoring sites:

- Sandpoint—University of Idaho
- Coeur d'Alene—Lancaster Rd.
- St. Maries
- Pinehurst
- Moscow
- Lewiston
- Grangeville
- McCall
- Garden Valley
- Idaho City
- Nampa
- Meridian —St. Luke's
- Ketchum (seasonal monitor, shuts down in winter months)
- Twin Falls
- Pocatello
- Franklin
- Idaho Falls
- Salmon

DEQ also uses seasonal SPMs (nephelometers and e-samplers) at 11 locations to support the state's CRB Program (Table 2).

DEQ is planning to replace the remaining 1400AB PM2.5 TEOM's, used as SPM's for AQI reporting, with BAM 1020 PM2.5 monitors, also used as SPM's for AQI reporting. This will take place at the following monitoring sites: Ketchum, McCall, Garden Valley, and Idaho City. The BAM's are easier to maintain than the TEOM's, thus being more practical from a resources standpoint.

5.4 Ozone Monitoring Network

DEQ currently operates two ozone monitors, both in the Treasure Valley. Federal regulations require two ozone monitors in an urban area or MSA the size of the Boise City–Nampa MSA. One site must be designed to record the maximum concentration for the MSA. NCore sites can be counted toward minimum SLAMS ozone network requirements. Ozone is monitored during the ozone "season" as prescribed in 40 CFR Part 58 Appendix D. For 2016, the ozone season is May 1 through September 30.

The Treasure Valley ozone monitors are located at the following sites:

- The Meridian St. Luke's NCore site near the Meridian St. Luke's Hospital
- The White Pine Elementary site in southeast Boise

DEQ began monitoring at the White Pine Elementary school in 2009 when it had to relocate the Whitney Elementary School site, which was demolished in 2008. The White Pine Elementary site was chosen based on evidence that it would represent the maximum ozone concentration for the Boise City–Nampa MSA.

DEQ is proposing no changes to the ozone monitoring network in this 2016 monitoring network plan.

Ozone design values for 2013–2015 are listed in Appendix A.

5.5 Carbon Monoxide (CO) Monitoring Network

Monitoring for carbon monoxide (CO) in the Treasure Valley began in 1977. Violations of the health-based standard for CO occurred every winter from 1977 until 1986, and as a result, Northern Ada County was designated a CO nonattainment area by EPA. In December 2002, the Northern Ada County CO Limited Maintenance Plan was approved by EPA, which reclassified the area as attainment for the CO NAAQS. No exceedances of the CO NAAQS have occurred since 1991.

DEQ operates three CO monitors: one at the Boise–Eastman Garage site in downtown Boise, one at the Meridian St. Luke's NCore site, and one at the Meridian near-road site. The Boise–Eastman site is an "urban canyon" site designed to measure maximum concentrations to which the population is exposed. This site is needed to demonstrate NAAQS compliance as specified in the Northern Ada County CO Maintenance Plan. The Meridian St. Luke's CO monitor is a "trace-level" monitor, able to measure much lower CO than conventional CO monitors used for NAAQS compliance. The Meridian St. Luke's CO monitor is required for NCore sites. The Meridian near-road CO monitor was established in advance of future EPA requirements for near-road CO monitoring.

CO design values for 2013–2015 for both the 1-hour and 8-hour design values are listed in Appendix A.

Pending EPA revisions to the Near-Road monitoring requirements, DEQ is proposing to discontinue monitoring at the Meridian Near-Road site on 4/1/17. Per EPA requirements via 40 CFR Part 58.14(c)(1), DEQ is required to run a statistical test on the dataset to ensure that the monitor has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past. DEQ has run this test, and the resulting 90% Upper Confidence Limit value was 1.28 ppm versus the value of 7.20 ppm at 80% of the NAAQS, indicating that the monitor is worthy of DEQ discontinuing operation.

5.6 Sulfur Dioxide (SO_2) Monitoring Network

Three SO_2 monitors currently operate in Idaho:

- Pocatello–Sewage Treatment Plant (STP)
- Soda Springs
- Meridian–St. Luke's

The Pocatello STP site is a maximum concentration site used to assess impacts of local industrial emissions. The Soda Springs monitor is also a maximum concentration site for assessing industrial impacts from a nearby source. Both SO_2 monitoring locations in southeastern Idaho were identified as fence-line "hot spots" from conventional dispersion model applications. Recently developed wind roses have shown some variations compared to the original wind roses used when siting the Soda Springs monitor. DEQ has been analyzing this further and may need to conduct more modeling to substantiate variations. The St. Luke's monitor is a "trace-level" monitor required for NCore monitoring.

DEQ is proposing no changes to the SO_2 monitoring network as part of this 2016 monitoring network plan.

SO_2 design values for 2013–2015 are listed in Appendix A.

5.7 Nitrogen Dioxide (NO_2) Monitoring Network

DEQ currently has one SLAMS NO_2 monitoring station at the Meridian near-road site. On January 22, 2010, EPA revised the NO_2 primary NAAQS, along with revisions to the NO_2 monitoring requirements. Per this final rule, Idaho was required to monitor NO_2 at a "near-road" monitoring station in the Boise City–Nampa MSA. Initially, all monitoring was scheduled to begin January 1, 2013. However, due to funding limitations, EPA changed the requirement for the Boise City–Nampa MSA (MSA > 500,000) to January 1, 2017. However, prior to the change in implementation date, DEQ received a grant from EPA to pilot a near-road monitoring site, which was established in Meridian approximately 30 meters from Interstate 84. Upon completion of the pilot study (December 31, 2012), DEQ chose to continue NO_2 monitoring at the near-road site in order to sooner assemble a 3-year data record for NAAQS assessment (the NO_2 NAAQS has a 3-year averaging period).

Recently, EPA proposed further revisions to Near-Road monitoring requirements which may allow DEQ to cease monitoring. Pending these revisions, DEQ is proposing to discontinue monitoring at the Meridian Near-Road site on 4/1/17. Per EPA requirements via 40 CFR Part 58.14(c)(1), DEQ is required to run a statistical test on the dataset to ensure that the monitor has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past. DEQ has run this test, and the resulting 90% Upper Confidence Limit value was 47.14 ppb versus the value of 80.00 ppb at 80% of the NAAQS, indicating that the monitor is worthy of DEQ discontinuing operation.

If approved by the EPA, DEQ will shut down the Near-Road NO2 monitor and relocate it to the Meridian St. Lukes N-Core site and initiate monitoring at that location, though this is not required.

NO_2 design values for 2013–2015 are listed in Appendix A.

5.8 Lead (Pb) Monitoring Network

On December 14, 2010, EPA made final revisions to the ambient monitoring requirements for measuring lead (Pb). CBSAs with a population of 500,000 people or more were required to initiate lead monitoring at NCore monitoring sites beginning by January 1, 2012. DEQ met this requirement and initiated PM_{10} lead monitoring at the St. Luke's NCore site. EPA has also required Pb monitoring near facilities with Pb emissions exceeding 0.5 tons per year (tpy). Idaho has no such facilities and thus is not conducting any source-oriented Pb monitoring.

DEQ is using a low-volume PM_{10} sampler to collect filter-based samples for lead analysis. A low-volume Partisol 2025 sampler configured to collect $PM_{10-2.5}$ as part of the $PM_{10-2.5}$ (section 5.9) measurement is already collecting PM_{10c} on the every sixth day schedule required for Pb. DEQ is using the National Laboratory Contract and ships the samples/filters to the contract laboratory for PM_{10}-Pb analysis by x-ray fluorescence (XRF) analysis.

Should lead concentrations exceed a 3-month average greater than or equal to 0.1 micrograms per cubic meter, DEQ will be required to install and operate a Pb-TSP monitor within 6 months of such determination. Any PM_{10}-Pb measurements exceeding the NAAQS could lead to a violation of the standard. As of this date, values have been well below this threshold.

Per the final EPA ruling as part of the 40 CFR Part 58 monitoring requirement revisions, DEQ is proposing to discontinue Pb monitoring at its NCore site. Per EPA requirements via 40 CFR Part 58.14(c)(1), DEQ is required to run a statistical test on the dataset to ensure that the monitor has a probability of less than 10 percent of exceeding 80 percent of the applicable NAAQS during the next three years based on the levels, trends, and variability observed in the past. DEQ has run this test, and the resulting 90% Upper Confidence Limit value was 0.02 ug/m3 versus the value of 0.12 ug/m3 at 80% of the NAAQS, indicating that the monitor is worthy of DEQ discontinuing operation.

5.9 $PM_{10-2.5}$ (PM_{coarse})

$PM_{10-2.5}$ (PM_{coarse}) is defined as the particulate fraction with a nominal diameter between 2.5 and 10.0 µ. $PM_{10-2.5}$ is determined by calculating the fractional mass difference between collocated and matching (i.e., same type of monitor) FRM PM_{10c} and FRM $PM_{2.5}$ monitors. Section 3 of Appendix D, 40 CFR Part 58, requires $PM_{10-2.5}$ monitoring at NCore monitoring stations.

DEQ initiated $PM_{10-2.5}$ monitoring at the Meridian–St. Luke's NCore site beginning January 1, 2011. Both the $PM_{2.5}$ and $PM_{10-2.5}$ samplers are operated every third day in accordance with the national monitoring schedule. A second $PM_{10-2.5}$ monitor is operated every twelfth day for the purpose of assessing lo-vol PM_{10} sampling precision.

DEQ is proposing no changes to the $PM_{10-2.5}$ monitoring network as part of this 2016 monitoring network plan.

5.10 Summary of Proposed Network Modifications for DEQ's 2016 Air Monitoring Network Plan

DEQ is proposing the following network modifications in this plan:

- Based on the most recent 2013–2015 24-hour design value, change the St. Maries FRM monitor's run schedule from 1/1 days to 1/3 days, effective no later than January 1, 2017.
- Per EPA final ruling as part of 40 CFR Part 58 monitoring requirement revisions, published in the Federal Register on March 28, 2016, discontinue lead monitoring at DEQ's NCore site.
- Pending EPA revisions to the Near-Road monitoring requirements, discontinue monitoring at the Meridian Near-Road site on 4/1/17.
- Replace remaining 1400AB PM2.5 TEOM monitors, used as SPM's for AQI reporting, with BAM 1020 PM2.5 monitors, also used as SPM's for AQI reporting. This will take place at the following monitoring sites: Ketchum, McCall, Garden Valley, and Idaho City.
- Standardize all DEQ meteorological towers with same model 2 and 10 meter temperature probes and aspirated fans for the purpose of generating Delta Temperature measurements.
- Regarding the Soda Springs SO2 site, recent wind roses have shown variations, compared to the original wind roses used when siting the monitor. The original siting used a combination of modeling and monitoring. Monitors were placed at various locations around the facility. The Northwest sector, where the monitor currently resides, showed the highest concentration. This and other information justified the monitor's current placement. DEQ will conduct a deeper analysis to substantiate variations in wind roses. This may include additional modeling.

6 Future Ambient Air Monitoring Requirements and Associated Costs

EPA is required to review criteria pollutant NAAQS on a routine 5-year schedule. EPA at any time may be in the process of completing its review of a number of pollutants and through rulemaking will propose changes to ambient air monitoring requirements for some pollutants. This review can result in additional monitors and new monitoring requirements for Idaho. At this time, until rulemakings are made final, it is difficult to specifically project DEQ's future monitoring requirements and associated costs.

Appendix A. DEQ Ambient Monitoring Network Design Values

Note: Many of DEQ's $PM_{2.5}$ and PM_{10} monitors were impacted by smoke from wildfires and dust storms from 2013 to 2015, but especially in 2013. The Clean Air Act provides for agencies to flag such data for exceptional and natural events and for EPA to concur if appropriate steps and demonstrations are completed. Design values are provided below reflecting inclusion and exclusion of these data. These values are preliminary.

The $PM_{2.5}$ table below represents data obtained from both FRM and FEM monitors. Due to FRM filter weighing lab QA/QC issues, 2013–2015 $PM_{2.5}$ FRM data are not comparable to the NAAQS for the Meridian–St. Luke's, St. Maries, Nampa Fire Station, and Franklin sites. Salmon and Pinehurst were operating FEMs as their primary reporting monitors during the period the lab QA/QC issue was discovered, so the data from these sites in the table below are comparable to the NAAQS.

Table A1. 2013–2015 PM_{10} design values.

Site	County/ AQS ID	Estimated Exceedances			3-year Estimated Exceedances
		2013	2014	2015	
Sandpoint	Bonner 160170003 160170005[a]	0.0	0.0[b]	1.0/0.0	0.3/0.0
Pinehurst	Shoshone 160790017	1.0/0.0	0.0	2.0/0.0	1.0/0.0
Nampa	Canyon 160270002	0.0[b]	0.0	0.0	0.0
Boise	Ada 160010009	0.0	0.0[b]	0.0	0.0
Pocatello	Bannock 160050015	0.0	0.0	0.0	0.0

Notes: A monitor violates the 24-hour PM_{10} NAAQS if the 3-year average of estimated exceedances (>150 $\mu g/m^3$) is greater than 1. Concentration data are denoted with/without exceptional event data included.
[a] This site was decommissioned in 2013 and moved to site ID 160170003. A split record exists for 2013 as a result.
[b] Monitor did not meet data completeness requirements.

Table A2. 2013–2015 design values for core $PM_{2.5}$ monitoring stations—federal reference or federal equivalent method (primary monitor).

Monitoring Site	County/ AQS ID	98th Percentile 24-hour Concentration (µg/m³)			2013–2015 24-hour Design Value (µg/m³)	Required Sampling Frequency[a] (Current Frequency)	2013–2015 Annual Design Value (µg/m³)
		2013	2014	2015			
Meridian–St. Luke's	Ada 160010010	89	28/28	35/26	51/48	1:3[b] **(1:3)**	8.9/8.5
St. Maries	Benewah 160090010	35	45/45	37/33	39/38	1:3 **(1:1)**	10.7/10.1
Nampa Fire Station	Canyon 160270002	50	27/27	36/26	38/34	1:3 **(1:3)**	10.3/9.8
Franklin	Franklin 160410001	55	33/33	19/18	36/35	1:3 **(1:3)**	7.6/7.2
Salmon	Lemhi 160590004	42	40/40	43/37	42/40	1:6 **(1:3)**	12.7/11.2
Pinehurst	Shoshone 160790017	43/43	42/42	46/32	44/39	1:3 **(1:1)**	13.6/12.3

Notes: A monitor violates the 24-hour $PM_{2.5}$ NAAQS if the 3-year average of the annual 98th percentile 24-hour average exceeds 35 µg/m³. The annual $PM_{2.5}$ NAAQS is violated if the 3-year average of the annual arithmetic mean exceeds 12 µg/m³. Concentration data are denoted with/without all "flagged" exceptional event data included. The concentration values may change depending on how many of the "flagged" exceptional events are documentable, as concurred by EPA. Special purpose monitors are not listed in this table. Those data are provided in DEQ's annual data summary reports provided on the DEQ webpage.

[a] Required sampling frequencies based on flagged exceptional event data excluded. See Figure 2 in the body of the 2016 annual ambient air quality monitoring network plan for an explanation of required monitoring/sampling frequencies.

[b] NCore monitors are required to operate every third day.

Table A3. 2013–2015 O_3 design values.

Site	County/ AQS ID	4th-Highest Daily Maximum 8-hour Average (ppm)			3-year Design Value (ppm)
		2013	2014	2015	
Boise–White Pine	Ada 160010017	0.074/0.071	0.065	0.064	0.067/0.066
Meridian–St. Luke's	Ada 160010010	0.062	0.062	0.066	0.063

Notes: A monitor violates the 8-hour ozone NAAQS if the 3-year average of the annual 4th-highest daily maximum average exceeds 0.070 ppm. Concentration data are denoted with/without exceptional event data included.

Table A4. 2013–2015 CO design values (1-hour).

Site	County/ AQS ID	1st-/2nd-Highest 1-hour Average (ppm)		
		2013	2014	2015
Boise–Eastman	Ada 160010014	4.0/3.0	4.7/4.4	12.6/5.7
Meridian–St. Luke's	Ada 160010010	1.2/1.1	1.1/1.1	1.4/1.3
Meridian–Near-Road	Ada 160010023	1.3/1.2	1.3/1.2	1.2/1.2

Note: A monitor violates the 1-hour CO NAAQS if it exceeds 35 ppm more than once per year.

Table A5. 2013–2015 CO design values (8-hour).

Site	County/ AQS ID	1st-/2nd-Highest 8-hour Average (ppm)		
		2013	2014	2015
Boise–Eastman	Ada 160010014	1.7/1.4	2.1/2.1	2.6/2.5
Meridian–St. Luke's	Ada 160010010	0.9/0.9	1.0/0.7	1.2/1.0
Meridian–Near-Road	Ada 160010023	0.9/0.9	0.9/0.8	1.1/0.9

Note: A monitor violates the 8-hour CO NAAQS if it exceeds 9 ppm more than once per year.

Table A6. 2013–2015 SO_2 design values.

Site	County/ AQS ID	99th Percentile – Highest Daily Maximum 1-hour Average (ppb)			3-year Design Value (ppb)
		2013	2014	2015	
Pocatello–STP	Bannock 160050004	40	38	45	41
Soda Springs	Caribou 160290031	31	23	23	26
Meridian–St. Luke's	Ada 160010010	11	5	3	6

Note: A monitor violates the 1-hour SO_2 NAAQS if the 3-year average of the annual 99th percentile highest daily maximum 1-hour averages exceeds 75 ppb.

Table A7. 2013–2015 NO_2 design values.

Site	County/ AQS ID	98th Percentile – Highest Daily Maximum 1-hour Average (ppb)			3-year Design Value (ppb)
		2013	2014	2015	
Meridian Near-road	Ada 160010023	39	43	47	43

Note: A monitor violates the 1-hour NO_2 NAAQS if the 3-year average of the annual 98th percentile highest daily maximum 1-hour averages exceeds 100 ppb.

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Appendix B. Craters of the Moon and Hells Canyon Monitoring Stations (Improve Network)

DEQ is leveraging the IMPROVE monitoring network to fulfill requirements for the $PM_{2.5}$ transport (Hells Canyon) and $PM_{2.5}$ background (Craters of the Moon National Monument) monitoring sites (Figure B1).

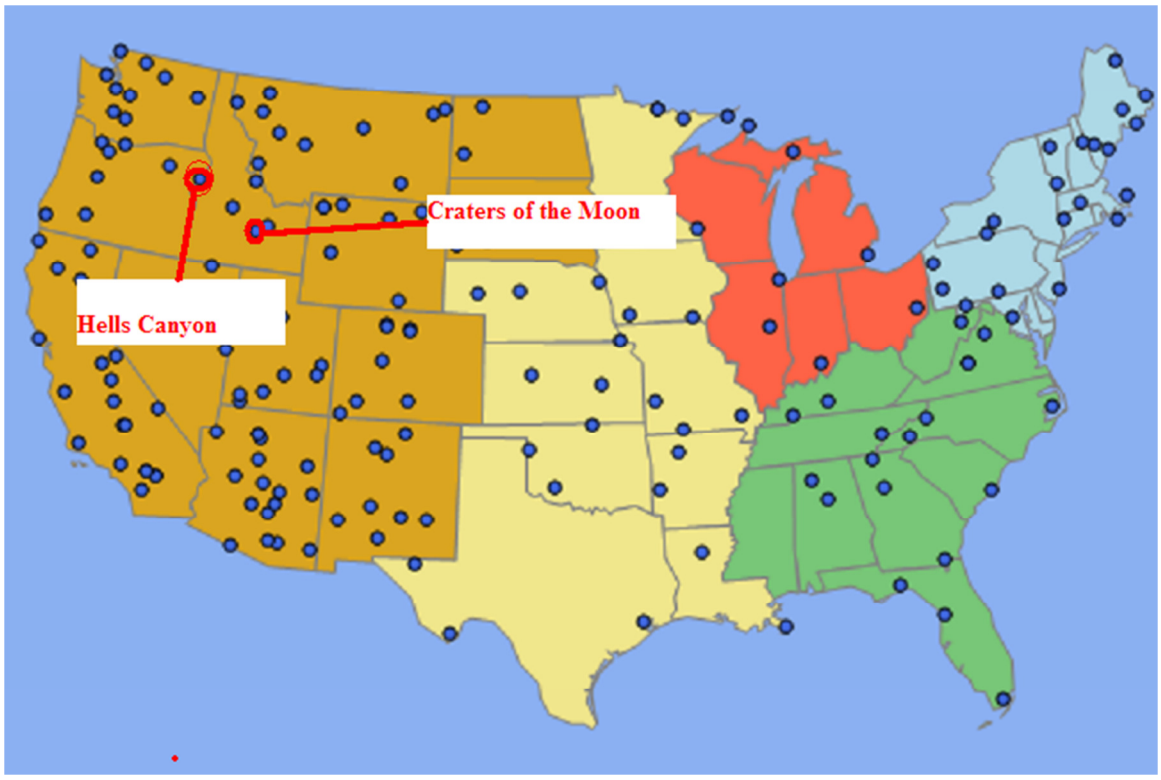

Figure B1. IMPROVE monitoring network.

A history of the IMPROVE monitoring network can be found at: *http://vista.cira.colostate.edu/improve/Default.htm*. The *IMPROVE program* was initiated in 1985 as an extensive long-term monitoring program to establish current visibility conditions, track changes in visibility, and determine causal mechanism for the visibility impairment in national parks and wilderness areas.

Craters of the Moon

Monitoring began at the Craters of the Moon site in 1992 (Figure B2). Metadata for the site can be found at *http://vista.cira.colostate.edu/improve/Web/Sitebrowser/Sitebrowser.aspx?SiteID=69*. Raw data gathered at this site can be found at *http://views.cira.colostate.edu/web/*.

Figure B2. Craters of the Moon sampling platform.

Figure B3 shows the typical background concentration of $PM_{2.5}$ of 1–6 µg/m^3. On occasion, the monitor is impacted by smoke from regional fires and other burning activities.

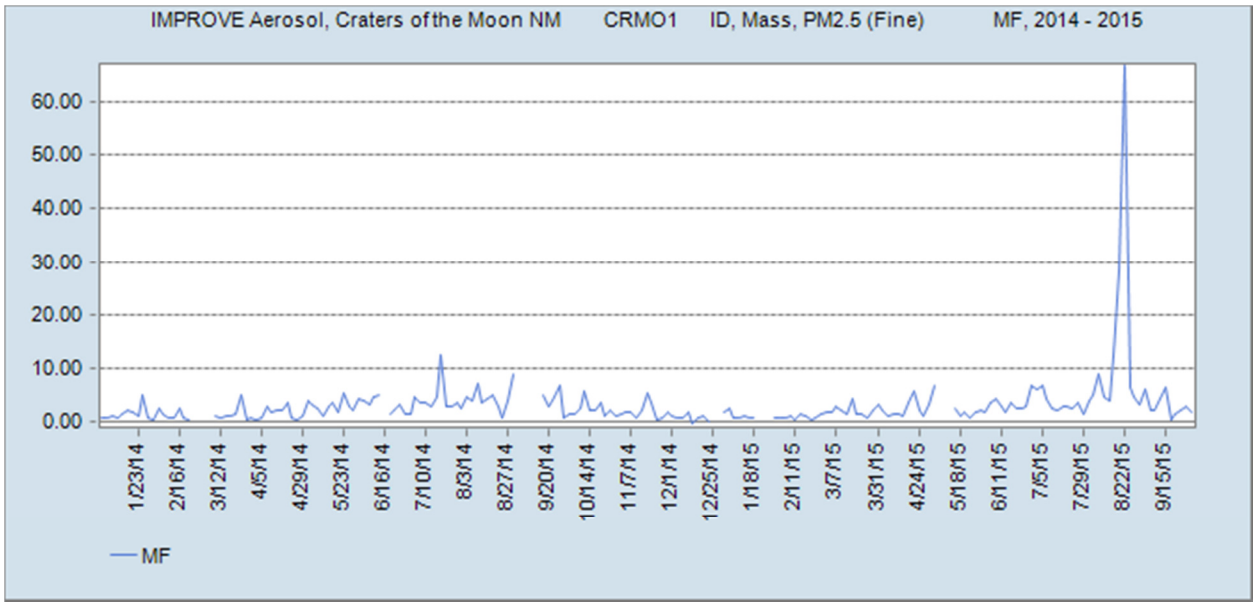

Figure B3. 2014–2015 $PM_{2.5}$ measured at Craters of the Moon IMPROVE site.

Hells Canyon

Monitoring began at the Hells Canyon site in 2001 (Figure B4). Metadata for the site can be found at *http://vista.cira.colostate.edu/improve/Web/Sitebrowser/Sitebrowser.aspx?SiteID=69*. Raw data gathered at this site can be found at *http://views.cira.colostate.edu/web/*.

Figure B4. Hells Canyon monitoring station.

Figure B5 shows the Hells Canyon $PM_{2.5}$ measurements for 2014–2015. Typical transport concentrations of 2–6 µg/m^3 are represented; however, on occasion values can be higher. Typically, elevated levels of $PM_{2.5}$ are associated with either summer/fall smoke impacts or regional winter-time stagnation events.

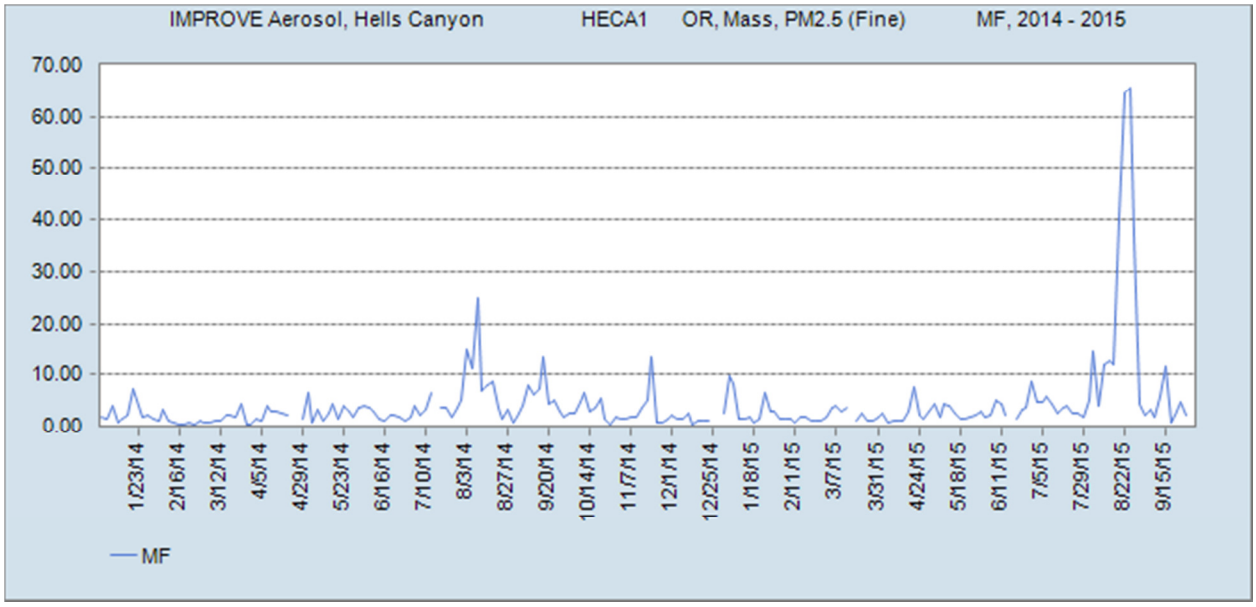

Figure B5. 2014–2015 $PM_{2.5}$ measured at Hells Canyon IMPROVE site.

Appendix C. EPA-DEQ Correspondence

There is nothing reportable for this year's annual network plan.

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Appendix D. 40 CFR Part 58—Appendix D and E Checklists

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PART 58 APPENDIX D SITE EVALUATION FORM FOR PM2.5				
APPLICABLE SECTION	REQUIREMENT	CRITERIA MET?		
		YES	NO	N/A
4.7.1(a)	States, and where applicable local agencies must operate the minimum number of required $PM_{2.5}$ SLAMS sites listed in Table D-5 of this appendix. Use the form below and Table D-5 to verify if each of your MSAs have the appropriate number of SLAMS FRM/FEM/ARM samplers.	X		
4.7.1(b)	Each required SLAMS FRM/FEM/ARM monitoring stations or sites must be sited to represent area-wide air quality in the given MSA (typically neighborhood or urban spatial scale, though micro-or middle-scale okay if it represent many such locations throughout the MSA).	X		
4.7.1(b)(1)	At least one SLAMS FRM/FEM/ARM monitoring station is to be sited at neighborhood or larger scale in an area of expected maximum concentration for each MSA where monitoring is required by 4.7.1(a).	X		
4.7.1(b)(2)	For CBSAs with a population of 1,000,000 or more persons, at least one FRM/FEM/ARM $PM_{2.5}$ monitor is to be collocated at a near-road NO_2 station.			X
4.7.1(b)(3)	For MSAs with additional required SLAMS sites, a FRM/FEM/ARM monitoring station is to be sited in an area of poor air quality.	X*		
4.7.2	Each State must operate continuous $PM_{2.5}$ analyzers equal to at least one-half (round up) the minimum required sites listed in Table D-5 of this appendix. At least one required continuous analyzer in each MSA must be collocated with one of the required FRM/FEM/ARM monitors, unless at least one of the required FRM/FEM/ARM monitors is itself a continuous FEM or ARM monitor, in which case no collocation requirement applies.	X		
4.7.3	Each State shall install and operate at least one $PM_{2.5}$ site to monitor for regional background and at least one $PM_{2.5}$ site to monitor regional transport (note locations in comment field). Non-reference PM2.5 monitors such as IMPROVE can be used to meet this requirement.	X**		
4.7.4	Each State shall continue to conduct chemical speciation monitoring and analyses at sites designated to be part of the $PM_{2.5}$ Speciation Trends Network (STN).	X		

Comments:

*DEQ has several sites in Idaho that are not found within an officially listed MSA, but DEQ has retained SLAMS FRM/FEM/ARM monitoring stations there due to moderate to poor air quality. Those sites include Pinehurst, Salmon, and St. Maries.

**DEQ uses the IMPROVE network's Hells Canyon site for PM2.5 regional transport and the Craters of the Moon National Monument site for PM2.5 regional background.

MSA Description[1]	MSA population[2,3]	Design Value for years 2013-2015	Minimum required number of PM2.5 SLAMS FRM/FEM/ARM sites (from Table D-5)	Present number of PM2.5 SLAMS FRM/FEM/ARM sites in MSA	Present number of continuous PM2.5 analyzers in MSA	Present number of PM2.5 STN analyzers in MSA
Boise City-Nampa, ID MSA	616,561	8.5 (annual)	2	2	4	2
Logan, UT-ID MSA	125,442	35 (24-hour)	1	1	1	0

[1]see http://www2.census.gov/econ/susb/data/msa_codes_2007_to_2011.txt)

[2]Minimum monitoring requirements apply to the metropolitan statistical area (MSA). CBSA includes both MSAs and micropolitan statistical areas.

[3]Population based on latest available census figures.

Table D-5 of Appendix D to Part 58 – PM2.5 Minimum Monitoring Requirements		
MSA population[1, 2]	Most recent 3-year design value ≥85% of any PM2.5 NAAQS[3]	Most recent 3-year design value <85% of any PM2.5 NAAQS[3, 4]
>1 million	3	2
500K to 1 million	2	1
50K to <500K[5]	1	0

[1]Minimum monitoring requirements apply to the Metropolitan statistical area (MSA).
[2]Population based on latest available census figures. https://www.census.gov/
[3]The $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) levels and forms are defined in 40 CFR part 50.
[4]These minimum monitoring requirements apply in the absence of a design value.
[5]Metropolitan statistical areas (MSA) must contain an urbanized area of 50,000 or more population.

PART 58 APPENDIX D SITE EVALUATION FORM FOR PM10				
APPLICABLE SECTION	REQUIREMENT	CRITERIA MET?		
		YES	NO	N/A
4.6(a)	Table D-4 indicates the approximate number of permanent stations required in MSAs to characterize national and regional PM10 air quality trends and geographical patterns. Use the form below and Table D-4 to verify if your PM10 network has to appropriate number of samplers.	X		
Comments:				

MSA Description[1]	MSA population[2, 3]	Minimum required number of PM10 stations (from Table D-4)	Present number of PM10 stations in MSA
Boise City-Nampa, ID MSA	616,561	1-2	2

[1]see http://www2.census.gov/econ/susb/data/msa_codes_2007_to_2011.txt
[2]Minimum monitoring requirements apply to the Metropolitan statistical area (MSA). CBSA includes both MSAs and micropolitan statistical areas.
[3]Population based on latest available census figures.

Table D-4 of Appendix D to Part 58 – PM10 Minimum Monitoring Requirements			
MSA population[1, 2]	High concentration2	Medium concentration3	Low concentration4 5
>1 million	6-10	4-8	2-4
500K to 1 million	4-8	2-4	1-2
250K to 500K	3-4	1-2	0-1
100K to 250K	1-2	0-1	0

[1]Selection of urban areas and actual numbers of stations per area will be jointly determined by EPA and the State agency.
[2]High concentration areas are those for which ambient PM10 data show ambient concentrations exceeding the PM10 NAAQS by 20 percent or more.
[3]Medium concentration areas are those for which ambient PM10 data show ambient concentrations exceeding 80 percent of the PM10 NAAQS.
[4]Low concentration areas are those for which ambient PM10 data show ambient concentrations less than 80 percent of the PM10 NAAQS.
[5]These minimum monitoring requirements apply in the absence of a design value.

PART 58 APPENDIX D SITE EVALUATION FORM FOR SO2				
APPLICABLE SECTION	REQUIREMENT	CRITERIA MET?		
		YES	NO	N/A
4.4.1	State and, where appropriate, local agencies must operate a minimum number of required SO_2 monitoring sites (based on PWEI calculation specified in 4.4.2 – use Table 1 and 2 below to determine minimum requirement for each CBSA)	X		
4.4.2(a)(1)	Is the monitor sited within the boundaries of the parent CBSA and is it one of the following site types: population exposure, highest concentration, source impacts, general background, or regional transport?	X		
4.4.3(a)	Has the EPA Regional Administrator required additional SO_2 monitoring stations above the minimum number of monitors required in 4.4.2? If so, note location in comment field.	X*		
4.4.5(a)	Is your agency counting an existing SO2 monitor at an NCore site in a CBSA with a minimum monitoring requirement?	X		
Comments: *DEQ is conducting source/highest concentration monitoring in Pocatello and Soda Springs.				

Table 1.					
CBSA Description[1]	CBSA population[1, 2]	total amount of SO2 in tons per year emitted within the CBSA (used 2014 NEI[4])	PWEI (population x total emissions ÷ 1,000,000)	Minimum required number of SO2 monitors in CBSA (see Table 2 below)	Present number of SO2 monitors in CBSA
Boise City, ID	616,561	2693.38	1660.63	0	1

[1]see http://www.census.gov/population/metro/data/def.html
[2]Minimum monitoring requirements apply to the Core Based statistical area (CBSA). CBSA includes both metropolitan and micropolitan statistical areas.
[3]Population based on latest available census figures.
[4]see http://www.epa.gov/ttn/chief/eiinformation.html

Table 2. Minimum SO2 Monitoring Requirements (Section 4.4.2 of App D to Part 58)	
PWEI (Population weighted Emission Index) Value	Require number of SO2 monitors
>= 1,000,000	3
>= 100,000 but < 1,000,000	2
>= 5,000 but < 100,000	1

PART 58 APPENDIX D SITE EVALUATION FORM FOR CARBON MONOXIDE (CO)					
APPLICABLE SECTION	REQUIREMENT	OBSERVED	CRITERIA MET?		
			YES	NO	N/A
4.2.1(a)	One CO monitor is required to operate collocated with one required near-road NO_2 monitor in CBSAs having a population of 1,000,000 or more persons. If a CBSA has more than one required near-road NO_2 monitor, only one CO monitor is required to be collocated with a near-road NO_2 monitor within that CBSA.		X*		
4.2.2(a)	Has the EPA Regional Administrator required additional CO monitoring stations above the minimum number of monitors required in 4.2.1? If so, note location in comment field.		X**		

Comments:
*As described in the network plan, DEQ is technically not required to operate a near road site presently, but DEQ chose to continue monitoring at the end of the pilot study to obtain an ongoing data record.

**DEQ has two additional monitors that are required. One is at DEQ's St. Lukes – Meridian, ID N-Core site, and the other one is at DEQ's Boise – Eastman CO maintenance area site.

MSA Description[1]	CBSA population[2, 3]	Minimum required number of SLAMS CO sites	Present number of SLAMS CO sites in MSA
Boise City-Nampa, ID MSA	616,561	1 – Near Road* 1 – N-Core** 1 – Maintenance Area**	3

[1]see http://www2.census.gov/econ/susb/data/msa_codes_2007_to_2011.txt
[2]Minimum monitoring requirements apply to the Core Based statistical area (CBSA). CBSA includes both metropolitan and micropolitan statistical areas.

[3]Population based on latest available census figures.

PART 58 APPENDIX D SITE EVALUATION FORM FOR NITROGEN DIOXIDE (NO2)				
APPLICABLE SECTION	REQUIREMENT	CRITERIA MET?		
		YES	NO	N/A
4.3.2(a)	Near-road NO2 Monitors: One microscale near-road NO_2 monitoring station in each CBSA with a population of 500,000 or more persons.	X*		
4.3.2(a)	Near-road NO2 Monitors: An additional near-road NO_2monitoring station is required for any CBSA with a population of 2,500,000 persons, or in any CBSA with a population of 500,000 or more persons that has one or more roadway segments with 250,000 or greater AADT count.			X
4.3.2(b)	Near-road NO2 Monitors: Measurements at required near-road NO_2 monitor sites utilizing chemiluminescence FRMs must include at a minimum: NO, NO_2, and NO_X	X*		
4.3.3(a)	Area-wide NO2 Monitoring: One monitoring station in each CBSA with a population of 1,000,000 or more persons to monitor a location of expected highest NO_2 concentrations representing the neighborhood or larger spatial scales.			X
Comments: *As described in the network plan, DEQ is technically not required to operate a near road site presently, but DEQ chose to continue monitoring at the end of the pilot study to obtain an ongoing data record.				

Table 1					
CBSA Description[1]	CBSA population[2, 3]	Required number of Near-road NO2 sites	Present number of Near-road NO2 sites	Required number of Area-wide NO2 sites	Present number of Area-wide NO2 sites
Boise City-Nampa, ID MSA	616,561	1*	1*	0	0

[1]see http://www2.census.gov/econ/susb/data/msa_codes_2007_to_2011.txt
[2]Minimum monitoring requirements apply to the Core Based statistical area (CBSA). CBSA includes both metropolitan and micropolitan statistical areas.
[3]Population based on latest available census figures.

PART 58 APPENDIX D SITE EVALUATION FORM FOR OZONE				
APPLICABLE SECTION	REQUIREMENT	CRITERIA MET?		
		YES	NO	N/A
4.1(b)	At least one O_3 site for each MSA, or CSA if multiple MSAs are involved, must be designed to record the maximum concentration (note location in comment field).	X*		
4.1(c)	The appropriate spatial scales for O_3 sites are neighborhood, urban, and regional (note deviations in comment field).	X		
4.1(f)	Confirm that the monitoring agency consulted with EPA R10 when siting the maximum O3 concentration site.	X		
4.1(i)	O3 is being monitored at SLAMS monitoring sites during the "ozone season" as specified in Table D-3 of Appendix D to Part 58.	X		
Comments: *DEQ's White Pine Elementary site in Boise serves as the maximum concentration site.				

MSA Description[a]	MSA population[1, 2]	Minimum required number of SLAMS O3 sites (from Table D-2)	Present number of SLAMS O3 sites in CBSA	
Boise City – Nampa, ID MSA	616,561	2	2	
[a]see http://www2.census.gov/econ/susb/data/msa_codes_2007_to_2011.txt				

Table D-2 of Appendix D to Part 58 - SLAMS O3 Monitoring Minimum Requirements		
MSA population[1, 2]	Most recent 3-year design value concentrations ≥85% of any O3 NAAQS[3]	Most recent 3-year design value concentrations <85% of any O3 NAAQS[3, 4]
>10 million	4	2
4-10 million	3	1
350,000-<4 million	2	1
50,000-<350,000[5]	1	0

[1]Minimum monitoring requirements apply to the Metropolitan statistical area (MSA). CBSA includes both MSAs and micropolitan statistical areas.
[2]Population based on latest available census figures.
[3]The ozone (O3) National Ambient Air Quality Standards (NAAQS) levels and forms are defined in 40 CFR part 50.
[4]These minimum monitoring requirements apply in the absence of a design value.
[5]Metropolitan statistical areas (MSA) must contain an urbanized area of 50,000 or more population.

Table D-3 of Appendix D to Part 58—Ozone Monitoring Season by State		
State	Begin month	End Month
Alaska	April	October
Idaho	May	September
Oregon	May	September
Washington	May	September

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Athol**_____ SITE ADDRESS__**NE corner of Pastime St. and Grove Ave., Athol ID 83801**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Shawn Sweetapple – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.			X*	
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:
* A pump house is located 2.5 meters away from the monitor. The pump house height is 2.8 meters above the height of the inlet. This monitor (e-sampler) is operated seasonally and is not a SLAMS site. The predominant wind direction during the season of highest pollutant concentration is from the South and not impeded by the pump house.

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Garwood**_____ SITE ADDRESS__**17506 N. Ramsey Rd., Rathdrum ID 83858**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Shawn Sweetapple – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.			X*	
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:
*The monitor is located on school grounds as a way to assess pollutants at a site with sensitive populations. This monitor (e-sampler) is operated seasonally and is not a SLAMS site. The predominant wind direction during the season of highest pollutant concentration is from the West and not impeded by the school building.

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Lancaster**_____ SITE ADDRESS__**West Lancaster Rd., Hayden, ID 83835**

AQS ID__**160550003**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Shawn Sweetapple – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb					
SITE NAME__**Mt. Hall**_____ SITE ADDRESS__**1275 Idaho 1, Bonners Ferry ID 83805** AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016** EVALUATOR__**Shawn Sweetapple – Idaho DEQ**					
APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					
Other Comments:					

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Pinehurst**_____ SITE ADDRESS__**106 Church Street, Pinehurst ID 83850**

AQS ID__**160790017**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Shawn Sweetapple – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Porthill**_____ SITE ADDRESS__**Tavern Farm Rd., Porthill ID 83853**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Shawn Sweetapple – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Sandpoint**_____ SITE ADDRESS__**U of I Research Center – 2105 N. Boyer Ave., Sandpoint ID 83864**

AQS ID__**160170003**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Shawn Sweetapple – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**St. Maries**_____ SITE ADDRESS__**USFS Building - St. Maries ID, 83666**

AQS ID__**160090010**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Shawn Sweetapple – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Cottonwood**_____ SITE ADDRESS__**BLM Field Office – 1 Butte Dr., Cottonwood ID 83522**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Zac Bishop – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.			X*	
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.			X**	
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

* A tree is located 6 meters away from the monitor. The tree height is 7 meters above the height of the inlet. This monitor (e-sampler) is operated seasonally and is not a SLAMS site. The predominant wind direction during the season of highest pollutant concentration is not impeded by the tree.

**The monitor is approximately 6 meters from the drip line of a tree.

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Grangeville**_____ SITE ADDRESS__**USFS Compound – Grangeville ID 83530**

AQS ID__**160490002**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Zac Bishop – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb					
SITE NAME__**Juliaetta**_____ SITE ADDRESS__**3rd Street, Juliaetta, ID 83535** AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016** EVALUATOR__**Zac Bishop – Idaho DEQ**					
APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					
Other Comments:					

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb					
SITE NAME__**Lewiston**_____ SITE ADDRESS__**1200 29th Street, Lewiston ID 83501** AQS ID__**160690012**_____ EVALUATION DATE__**5/1/2016** EVALUATOR__**Zac Bishop – Idaho DEQ**					
APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					
Other Comments:					

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Moscow**_____ SITE ADDRESS__**1025 Plant Sciences Rd., Moscow ID 83843**

AQS ID__**160570005**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Zac Bishop – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Potlatch**_____ SITE ADDRESS__**510 Elm Street, Potlatch ID 83855**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Zac Bishop – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR CO

SITE NAME__**Eastman**_____ SITE ADDRESS__**166 N. 9th Street, Boise ID 83702**

AQS ID__**160010014**_____ EVALUATION DATE__**5/1/2016**_____ EVALUATOR___**Leah Arnold – Idaho DEQ**_____

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	For neighborhood or larger spatial scale sites the probe must be located 2-15 meters above ground level and must be at least 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.	Eastman is a microscale site.			X
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet (exception is street canyon or source-oriented sites where buildings and other structures are unavoidable).		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.			X*	
	(c) No trees should be between source and probe inlet for microscale sites.		X**		
6. SPACING FROM ROADWAYS	2. (b) Microscale CO monitor probes in downtown areas or urban street canyon locations shall be located a minimum distance of 2 meters and a maximum distance of 10 meters from the edge of the nearest traffic lane.			X***	
	2. (c) Microscale CO monitor inlet probes in downtown areas or urban street canyon locations shall be located at least 10 meters from an intersection and preferably at a midblock location.		X		
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex) for reactive gases.		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X****		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section.					

Other Comments:

*Probe inlet is approximately 1 meter from tree branch. The City of Boise has worked with DEQ to keep the tree trimmed, but cutting the tree down is not favored.

**Trees are on North and South sides of probe inlet and not the West side where the traffic (CO source) occurs.

***Probe inlet is located at approximately 0.5 meters horizontally from nearest traffic lane. DEQ used a lamp post to route, conceal, and protect the probe line in. This lamp post is positioned 0.5 meters from the nearest traffic lane.

****This site is not an N-Core site. Its sample residence time is longer than 20 seconds.

PART 58 APPENDIX E SITE EVALUATION FORM FOR CO

SITE NAME__**N-Core**_____ SITE ADDRESS__**Eagle Road & I-84, Meridian ID 83642**

AQS ID__**160010010**_____ EVALUATION DATE__**5/1/2016**_____ EVALUATOR___**Ed Jolly – Idaho DEQ**_____

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	For neighborhood or larger spatial scale sites the probe must be located 2-15 meters above ground level and must be at least 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet (exception is street canyon or source-oriented sites where buildings and other structures are unavoidable).		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	2. (b) Microscale CO monitor probes in downtown areas or urban street canyon locations shall be located a minimum distance of 2 meters and a maximum distance of 10 meters from the edge of the nearest traffic lane.				X
	2. (c) Microscale CO monitor inlet probes in downtown areas or urban street canyon locations shall be located at least 10 meters from an intersection and preferably at a midblock location.				X
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex) for reactive gases.		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					
Other Comments:					

Roadway average daily traffic, vehicles per day	Minimum distance[1] (meters)
≤10,000	10
15,000	25
20,000	45
30,000	80
40,000	115
50,000	135
≥60,000	150

[1] Distance from the edge of the nearest traffic lane. The distance for intermediate traffic counts should be interpolated from the table values based on the actual traffic count.

PART 58 APPENDIX E SITE EVALUATION FORM FOR CO

SITE NAME__**Near Roadway**_____ SITE ADDRESS__**1311 East Central Drive, Meridian ID 83642**

AQS ID__**160010023**_____ EVALUATION DATE__**5/1/2016**_____ EVALUATOR___**Ed Jolly – Idaho DEQ**_____

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	For neighborhood or larger spatial scale sites the probe must be located 2-15 meters above ground level and must be at least 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet (exception is street canyon or source-oriented sites where buildings and other structures are unavoidable).		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.			X*	
	(c) No trees should be between source and probe inlet for microscale sites.		X		
6. SPACING FROM ROADWAYS	2. (b) Microscale CO monitor probes in downtown areas or urban street canyon locations shall be located a minimum distance of 2 meters and a maximum distance of 10 meters from the edge of the nearest traffic lane.				X
	2. (c) Microscale CO monitor inlet probes in downtown areas or urban street canyon locations shall be located at least 10 meters from an intersection and preferably at a midblock location.				X
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex) for reactive gases.		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					

Other Comments:
*Tree is 6.8 meters from inlet. Total height of tree is only approximately 0.5 meters above inlet.

Roadway average daily traffic, vehicles per day	Minimum distance[1] (meters)
≤10,000	10
15,000	25
20,000	45
30,000	80
40,000	115
50,000	135
≥60,000	150

[1] Distance from the edge of the nearest traffic lane. The distance for intermediate traffic counts should be interpolated from the table values based on the actual traffic count.

PART 58 APPENDIX E SITE EVALUATION FORM FOR NO, NOx, NO2, and NOy

SITE NAME_ **N-Core** SITE ADDRESS__**Eagle Road & I-84, Meridian ID 83642**

AQS ID__**160010010**_____ EVALUATION DATE__**5/1/2016**_____

EVALUATOR__**Ed Jolly – Idaho DEQ**_____

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	For neighborhood or larger spatial scale sites the probe must be located 2-15 meters above ground level and must be at least 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. Microscale near-road NO_2 monitoring sites are required to have sampler inlets between 2 and 7 meters above ground level. If located near the side of a building or wall, then locate the sampler probe on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale and larger avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
	(d) For near-road NO_2 monitoring stations, the monitor probe shall have an unobstructed air flow, where no obstacles exist at or above the height of the monitor probe, between the monitor probe and the outside nearest edge of the traffic lanes of the target road segment.				X
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	See spacing requirements table below		X		
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex).		X		
	(c) Sampling probes for reactive gas monitors at NCore and at NO_2 sites must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					
Other Comments:					

[1]Distance from the edge of the nearest traffic lane. The distance for intermediate traffic counts should be interpolated from the table values based on the actual traffic count.

[2]Applicable for ozone monitors whose placement has not already been approved as of December 18, 2006.

Roadway average daily traffic, vehicles per day	Minimum distance[1] (meters)	Minimum distance[1, 2] (meters)
≤1,000	10	10
10,000	10	20
15,000	20	30
20,000	30	40
40,000	50	60
70,000	100	100
≥110,000	250	250

PART 58 APPENDIX E SITE EVALUATION FORM FOR NO, NOx, NO2, and NOy

SITE NAME_ **Near Roadway** SITE ADDRESS__**1311 East Central Drive, Meridian ID 83642**

AQS ID__**160010023**_____ EVALUATION DATE__**5/1/2016**_____

EVALUATOR__**Ed Jolly – Idaho DEQ**_____

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	For neighborhood or larger spatial scale sites the probe must be located 2-15 meters above ground level and must be at least 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. Microscale near-road NO_2 monitoring sites are required to have sampler inlets between 2 and 7 meters above ground level. If located near the side of a building or wall, then locate the sampler probe on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale and larger avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
	(d) For near-road NO_2 monitoring stations, the monitor probe shall have an unobstructed air flow, where no obstacles exist at or above the height of the monitor probe, between the monitor probe and the outside nearest edge of the traffic lanes of the target road segment.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.			X*	
	(c) No trees should be between source and probe inlet for microscale sites.		X		
6. SPACING FROM ROADWAYS	See spacing requirements table below		X**		
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex).		X		
	(c) Sampling probes for reactive gas monitors at NCore and at NO_2 sites must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					

Other Comments:

*Tree is 6.8 meters from inlet. Total height of tree is only approximately 0.5 meters above inlet.

**Meets the near-roadway specific requirements per the near-roadway Technical Assistance Document.

[1]Distance from the edge of the nearest traffic lane. The distance for intermediate traffic counts should be interpolated from the table values based on the actual traffic count.

[2]Applicable for ozone monitors whose placement has not already been approved as of December 18, 2006.

Roadway average daily traffic, vehicles per day	Minimum distance[1] (meters)	Minimum distance[1, 2] (meters)
≤1,000	10	10
10,000	10	20
15,000	20	30
20,000	30	40
40,000	50	60
70,000	100	100
≥110,000	250	250

PART 58 APPENDIX E SITE EVALUATION FORM FOR O3

SITE NAME__**N-Core**_____ SITE ADDRESS__**Eagle Road & I-84, Meridian, ID 83642**_____

AQS ID__**160010010**_____EVALUATION DATE__**5/1/2016**_____EVALUATOR__**Ed Jolly – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.		X		
	(b) To minimize scavenging effects, the probe inlet must be away from furnace or incineration flues or other minor sources of SO_2 or NO.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.				X*
6. SPACING FROM ROADWAYS	See spacing requirements table below		X		
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex).		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					

Other Comments:
*Not a microscale site.

Roadway average daily traffic, vehicles per day	Minimum distance[1] (meters)	Minimum distance[1, 2] (meters)
≤1,000	10	10
10,000	10	20
15,000	20	30
20,000	30	40
40,000	50	60
70,000	100	100
≥110,000	250	250

[1]Distance from the edge of the nearest traffic lane. The distance for intermediate traffic counts should be interpolated from the table values based on the actual traffic count.
[2]Applicable for ozone monitors whose placement has not already been approved as of December 18, 2006.

PART 58 APPENDIX E SITE EVALUATION FORM FOR O3

SITE NAME__**White Pine Elementary**_____ SITE ADDRESS_**401 E. Linden St., Boise ID 83706**

AQS ID__**160010017**_____EVALUATION DATE__**5/1/2016**___EVALUATOR__**Ed Jolly/Leah Arnold – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.		X		
	(b) To minimize scavenging effects, the probe inlet must be away from furnace or incineration flues or other minor sources of SO_2 or NO.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.				X*
6. SPACING FROM ROADWAYS	See spacing requirements table below		X		
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex).		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					

Other Comments:
*Not a microscale site.

Roadway average daily traffic, vehicles per day	Minimum distance[1] (meters)	Minimum distance[1, 2] (meters)
≤1,000	10	10
10,000	10	20
15,000	20	30
20,000	30	40
40,000	50	60
70,000	100	100
≥110,000	250	250

[1]Distance from the edge of the nearest traffic lane. The distance for intermediate traffic counts should be interpolated from the table values based on the actual traffic count.
[2]Applicable for ozone monitors whose placement has not already been approved as of December 18, 2006.

PART 58 APPENDIX E SITE EVALUATION FORM FOR SO2

SITE NAME__**N-Core**_____ SITE ADDRESS__**Eagle Road & I-84, Meridian ID 83642**_____

AQS ID__**160010010**_____ EVALUATION DATE__**5/1/2016**_____EVALUATOR__**Ed Jolly – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	There are no roadway spacing requirements for SO2.				X
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex).		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Boise Fire Station**_____ SITE ADDRESS__**16th and Front Street, Boise ID 83702**

AQS ID__**160010009**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Leah Arnold – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Garden Valley**_____ SITE ADDRESS__**946 Banks Lowman Rd., Garden Valley ID 83622**

AQS ID__**160150002**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Leah Arnold – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb					
SITE NAME__**Idaho City**_____ SITE ADDRESS__**3851 Hwy 21, Idaho City ID 83631** AQS ID__**160150001**_____ EVALUATION DATE__**5/1/2016** EVALUATOR__**Leah Arnold – Idaho DEQ**					
APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					
Other Comments:					

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**McCall**_____ SITE ADDRESS__**500 N. Mission Street, McCall ID 83638**

AQS ID__**160850002**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Leah Arnold – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.			X*	
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:
*Small tree is located at 8.7 meters away from monitor.

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Nampa**_____ SITE ADDRESS__**Nampa Fire Station – 923 1st Street South, Nampa ID 83651**

AQS ID__**160270002**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Leah Arnold – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb					
SITE NAME__**N-Core**_____ SITE ADDRESS__**Eagle Road & I-84, Meridian ID 83642** AQS ID__**160010010**_____ EVALUATION DATE__**5/1/2016** EVALUATOR__**Ed Jolly – Idaho DEQ**					
APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					
Other Comments:					

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Weiser**_____ SITE ADDRESS__**690 W. Indianhead Rd., Weiser ID 83672**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Ed Jolly – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb					
SITE NAME__**Ketchum**_____ SITE ADDRESS__**111 West 8th Street, Ketchum ID 83340** AQS ID__**160130004**_____ EVALUATION DATE__**5/1/2016** EVALUATOR__**Drew Jones – Idaho DEQ**					
APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					
Other Comments:					

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Paul**_____ SITE ADDRESS__**201 N. 1st Street West, Paul ID 83347**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Drew Jones – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.			X*	
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.			X**	
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? See below.					

Other Comments:

*Tree stands 5.1 meters taller than probe inlet. Tree is only located 5.2 meters away from probe inlet.

**Tree is located 5.2 meters away from probe inlet. Higher branches overhang probe inlet. DEQ will contact the school where the monitor is located to try to get approval for tree to be trimmed.

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Twin Falls**_____ SITE ADDRESS__**650 W. Addison, Twin Falls ID 83301**

AQS ID__**160830007**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Drew Jones – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR SO2

SITE NAME__**Pocatello Sewage Treatment Plant**_____SITE ADDRESS__**Batiste Chubbuck Rd., Pocatello ID 83204**

AQS ID__**160050004**_____ EVALUATION DATE__**5/1/2016**_____EVALUATOR__**Marshall Magee – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.	Site is Middle Scale.			X
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.		X		
6. SPACING FROM ROADWAYS	There are no roadway spacing requirements for SO2.				X
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex).		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR SO2

SITE NAME__**Soda Springs**_____SITE ADDRESS__**5-mile Road, Soda Springs ID 83276**

AQS ID__**160290031**_____ EVALUATION DATE__**5/1/2016**_____EVALUATOR__**Marshall Magee – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood scale avoid placing the monitor probe inlet near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site.	Site is Middle-Micro Scale.			X
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the probe inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The probe inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the probe inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.		X		
6. SPACING FROM ROADWAYS	There are no roadway spacing requirements for SO2.				X
9. PROBE MATERIAL & RESIDENCE TIME	(a) Sampling train material must be FEP Teflon or borosilicate glass (e.g., Pyrex).		X		
	(c) Sampling probes for reactive gas monitors at NCore must have a sample residence time less than 20 seconds.		X		
Are there any changes that might compromise original siting criteria? If so, provide detail in comment section. No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Pocatello**_____ SITE ADDRESS__**Corner of Garrett and Gould Streets, Pocatello ID 83204**

AQS ID__**160050015**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Marshall Magee – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Franklin**_____ SITE ADDRESS__**East 4800 South Road, Franklin ID 83237**

AQS ID__**160410001**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Marshall Magee – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb					
SITE NAME__**Soda Springs**_____SITE ADDRESS__**Caribou Hospital – 300 S. 3rd Street West, Soda Springs ID 83276** AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016** EVALUATOR__**Marshall Magee – Idaho DEQ**					
APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					
Other Comments:					

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Idaho Falls**_____ SITE ADDRESS__**Hickory and Sycamore Streets, Idaho Falls ID 83402**

AQS ID__**160190011**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Ryan Rossi – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Rexburg**_____ SITE ADDRESS__**Madison Middle School – 575 W. 7th Street, Rexburg ID 83440**

AQS ID__**N/A**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Ryan Rossi – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

PART 58 APPENDIX E SITE EVALUATION FORM FOR PM2.5, PM10, PM10-2.5,and Pb

SITE NAME__**Salmon**_____ SITE ADDRESS__**N. Charles Street, Salmon ID 83467**

AQS ID__**160590004**_____ EVALUATION DATE__**5/1/2016**

EVALUATOR__**Ryan Rossi – Idaho DEQ**

APPLICABLE SECTION	REQUIREMENT	COMMENTS	CRITERIA MET?		
			YES	NO	N/A
2. HORIZONTAL AND VERTICLE PLACEMENT	2-15 meters above ground level (AGL) for neighborhood or larger spatial scale, 2-7 meters for microscale spatial scale sites and middle spatial scale $PM_{10-2.5}$ sties. 1 meter vertically or horizontally away from any supporting structure, walls, *etc.,* and away from dusty or dirty areas. If located near the side of a building or wall, then locate on the windward side relative to the prevailing wind direction during the season of highest concentration potential.		X		
3. SPACING FROM MINOR SOURCES	(a) For neighborhood or larger spatial scales avoid placing the monitor near local, minor sources. The source plume should not be allowed to inappropriately impact the air quality data collected at a site. Particulate matter sites should not be located in an unpaved area unless there is vegetative ground cover year round.		X		
4. SPACING FROM OBSTRUCTIONS	(a) To avoid scavenging, the inlet must have unrestricted airflow and be located away from obstacles. The separation distance must be at least twice the height that the obstacle protrudes above the probe inlet.		X		
	(b) The inlet must have unrestricted airflow in an arc of at least 180 degrees. This arc must include the predominant wind direction for the season of greatest pollutant concentration potential. For particle sampling, a minimum of 2 meters of separation from walls, parapets, and structures is required for rooftop site placement.		X		
5. SPACING FROM TREES	(a) To reduce possible interference the inlet must be at least 10 meters or further from the drip line of trees.		X		
	(c) No trees should be between source and probe inlet for microscale sites.	Not a microscale site			X
6. SPACING FROM ROADWAYS	Spacing from roadways is dependent on the spatial scale and ADT count. See section 6.3(b) and figure E-1 for specific requirements.		X		
Are there any changes that might compromise original siting criteria? No.					

Other Comments:

Appendix E. Public Comments and Responses

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www.idahoconservation.org

Idaho Conservation League

PO Box 844, Boise, ID 83701
208.345.6933

6/13/16

Steve Miller
Air Quality Division
DEQ State Office
1410 N. Hilton
Boise, ID 83706

Submitted via email: steve.miller@deq.idaho.gov

RE: Idaho Conservation League Comments on the Draft Annual Ambient Air Quality Monitoring Network Plan

Dear Mr. Miller:

Thank you for the opportunity to comment on the draft 2016 Annual Ambient Air Quality Monitoring Network Review. Since 1973, the Idaho Conservation League (ICL) has been Idaho's voice for clean water, clean air, and wilderness—values that are the foundation to Idaho's extraordinary quality of life. The ICL works to protect these values through public education, outreach, advocacy and policy development. As Idaho's largest state-based conservation organization, we represent over 25,000 supporters, many of whom have a deep personal interest in air quality.

After reviewing the changes proposed in the draft plan, ICL is generally concerned that the monitoring network is not robust enough to support the three objectives the air-monitoring network is designed to meet. Our specific recommendations are included in the attached comments at the end of this letter.

Please do not hesitate to contact me at 208-345-6933 ext. 23 or ahopkins@idahoconservation.org if you have any questions regarding our comments or if we can provide you with any additional information on this matter.

Sincerely,

Austin Hopkins
Conservation Assistant

VOC Monitoring

DEQ eliminated VOC monitoring in the Treasure Valley in 2009. ICL provided comments at the time urging DEQ to resume monitoring for VOCs in the expectation of stricter ozone standards. The EPA recently promulgated a more stringent ozone NAAQS of 0.07 ppm. In response, DEQ should include VOC monitoring as part of an overall ozone-monitoring network, particularly in the Treasure Valley. VOC compounds are major contributors to ozone, with ozone primarily generated by reactions between VOCs and nitrogen compounds (NOx) during the summer months. We urge DEQ to begin VOC monitoring in order to provide a multifaceted control strategy to address the multiple pollutants that increase ozone levels.

NO_2 Monitoring

DEQ currently monitors NO_2 at one location – the near-road monitoring station in Meridian, ID. Due to proposed revisions from the EPA, DEQ is intending to discontinue monitoring at this site. If monitoring at this site is discontinued, it is unclear where NO_2 monitoring will be performed. We ask DEQ to clarify where NO_2 monitoring will be conducted if this site is discontinued and how compliance with the NO_2 NAAQS will be evaluated as a result of this change.

PM Monitoring

PM data is reported as a 24-hour average to facilitate comparison with NAAQS. DEQ states this 24-hour period will extend from midnight-midnight at local standard time. While a comparison with the NAAQS does require a 24-hour average, we believe it's inappropriate to use definite time windows when calculating averages. Instead we suggest utilizing a 24-hour rolling average in order to more accurately monitor PM. A rolling average will serve as better protection for residents in the event that PM levels exceed NAAQS standards within a 24-hour window but over the course of two consecutive days.

Data Completeness

Data completeness issues erode confidence in DEQ's ability to meet the objectives air-monitoring network and demonstrate compliance with NAAQS. DEQ should provide a narrative, within the draft report, explaining the reason for data completeness issues at each occurrence and the impact of this lack of data on air quality determinations and projected NAAQS compliance.

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hilton • Boise, Idaho 83706 • (208) 373-0502
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
John H. Tippets, Director

July 7, 2016

Austin Hopkins
Conservation Assistant
Idaho Conservation League
PO Box 844
Boise, ID 83701

Subject: DEQ Response to Idaho Conservation League (ICL) comments on 2016 draft Ambient Air Quality Monitoring Network Plan

Dear Mr. Hopkins:

Idaho DEQ provided a 30-day public opportunity to comment on its 2016 Ambient Air Quality Monitoring Network Plan. This is my response to the comments submitted by ICL.

The adequacy of DEQ's air monitoring network with regards to the number of monitors DEQ operates is directly a result of the funds and resources available to DEQ. DEQ has to comply with federally mandated monitoring requirements before discretionary monitoring sites can be established. At this time, DEQ does not have funds to incorporate VOC monitoring. Original VOC monitoring was the result of a short-term grant.

If final EPA rule revisions allow DEQ to shut down its near road NO2 site, DEQ plans to do so. Thereafter, an NO2 monitor will be initiated at DEQ's N-Core site to continue such monitoring.

DEQ will continue to abide by Clean Air Act protocols for particulate matter data calculations and conventions. In terms of data being reported for Air Quality Index purposes, that data is based off of a sliding 12-hour scale, or the most recent 12 hours of data. If pollutant conditions change significantly, then those hours of the 12-hour scale are weighted even more heavily to reflect real-time conditions. This is referred to as the Nowcast Air Quality Index method and is intended to provide more timely information to the public.

The last comment recommends that "DEQ should provide a narrative, within the draft report, explaining the reason for data completeness issues at each occurrence and the impact of this lack of data on air quality determinations and projected NAAQS compliance." Ambient air monitoring is a complex process, and data completeness can be compromised potentially due to many unforeseen and diverse circumstances throughout the monitoring period. To explain each of these occurrences would extend beyond the scope of the Ambient Air Quality Monitoring

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Network Plan. DEQ has summarized data completeness issues and associated impacts, within the scope of this plan, in section 5 and Appendix A. Aside from this plan, DEQ can more readily provide this information through a variety of other records and can satisfy any public records request for this type of information.

Please let me know if you have any questions or requests. I can be reached at (208) 373-0432.

Sincerely,

Steve Miller
Air Quality Monitoring Coordinator
Idaho Department of Environmental Quality

C: Tiffany Floyd, DEQ AQ Division Administrator
Bruce Louks, DEQ Manager, MMEI

Steve Miller
Ambient Air Quality Monitoring Network Coordinator
Air Quality Division
DEQ State Office
1410 N. Hilton
Boise, ID 83706
June 22, 2016
Subject: Draft 2016 Annual Ambient Air Quality Monitoring Network Plan

Mr. Miller,

Thank you for the opportunity to comment on the Draft 2016 Annual Ambient Air Quality Monitoring Network Plan (ANP). I also appreciate that due a change in statutes this March (81 FR 17248), my letter will now be included in the Final ANP, as well as DEQ comments and potential changes made from the draft ANP.

My comments on the draft ANP are relative to five issues: 1) the merging of the City of Pinehurst into part of Shoshone County; 2) Pinehurst and the Pinehurst Expansion Areas' lack of Redesignation to Attainment regarding PM 10; 3) Omissions regarding the Franklin nonattainment situation; 4) Omission in Table 2 in Appendix A; and 5) the location of the Pinehurst monitoring station.

Issue 1. The "PM10 Monitoring Network" portion of the draft ANP on page 21 states in part, "The following airsheds are classified as "moderate" nonattainment for the 24-hour PM10 NAAQS:
* Shoshone County-partial (including the entire city of Pinehurst)
* Fort Hall Reservation (Bannock County—partial, Power County—partial) The Fort Hall Reservation nonattainment area is on Tribal land and is not administered by DEQ."

DEQ has erroneously merged 2 distinct nonattainment areas within Shoshone County for the second consecutive year. The City of Pinehurst went into nonattainment by operation of law in 1987 and had an required attainment date of 12/31/1994. The Pinehurst Expansion area was added several years later. It included an area south of Pinehurst known as Pine Creek and had a required attainment date of 12/31/2000. The ANP's from 2010-2014 have correctly stated,
* Shoshone County – partial (excluding City of Pinehurst)
* Pinehurst (Shoshone County – partial – City of Pinehurst)

This information is available on the EPA's Green Book. "Pinehurst, ID (Moderate - Nonattainment) Shoshone Co (P) City of Pinehurst and Shoshone Co, ID (Moderate - Nonattainment) Shoshone Co (P) excluding Pinehurst. (See: https://www3.epa.gov/airquality/greenbook/pbcs.html#ID)

Proposed resolution: DEQ needs to return to correctly referencing each Pinehurst nonattainment area.

Issue 2. DEQ has failed since the 2001-2002 ANP and everywhere else, to properly state the actual status of these two nonattainment areas. Per 66 FR 44304 (Aug. 23, 2001) page 44307, the EPA issued Clean Data Determinations (CCDs):

> "Pinehurst PM–10 nonattainment area was in attainment of the PM–10 standards as of its attainment date of December 31, 1994. EPA also finds that the Pinehurst expansion PM–10 nonattainment area attained the PM–10 standards as of its attainment date of December 31, 2000. Consistent with CAA section 188, the areas will remain moderate PM–10 nonattainment areas and will avoid the additional planning requirements that apply to serious PM–10 nonattainment areas.

> These findings of attainment should not be confused, however, with a redesignation to attainment under CAA section 107(d) because Idaho has not, for either the Pinehurst PM–10 nonattainment area or the Pinehurst expansion PM–10 nonattainment area, submitted a maintenance plan as required under section 175(A) of the CAA or met the other CAA requirements for redesignations to attainment. The designation status in 40 CFR part 81 will remain moderate nonattainment for both areas in Shoshone County until such time as Idaho meets the CAA requirements for redesignations to attainment." (See: https://www.gpo.gov/fdsys/pkg/FR-2001-08-23/pdf/01-21334.pdf)

The 2001-2002 Annual Ambient Air Quality Monitoring Network Plan (ANP) summarized the above,

> "Prior to this event, the most recent exceedance was recorded in *February of 1998*. EPA has recently determined that the City of Pinehurst and the "expansion" area adjacent to the city *have attained the PM10 NAAQS* (CFR Vol 66 No 164, Aug 2001), and pending public comment this *rule* will go into effect October 22, 2001."

There was no "Rule" that went into effect on October 22, 2001. The statement misleads the reader. It meant if no one protested EPA's findings before, then this statement holds true: "The designation status in 40 CFR part 81 will remain moderate nonattainment for both areas in Shoshone County until such time as Idaho (DEQ) meets the CAA requirements for redesignations to attainment."

In a Public Records Request (PRR), I asked for all communications among DEQ staff and between DEQ & EPA staff that discussed DEQ's actions on the redesignation process. I received an 18-pg thread of emails spanning from 2001-2010. Someone sent everyone the 8/23/2001 CDD on the same day. From October 2002-April 2003, DEQ was discussing data for Limited Maintenance Plans (LMP) for both Pinehurst areas and the Sandpoint area. The next time Pinehurst was mentioned again was in 2007 (6 years after the CDD), "EPA is of the opinion that even though Pinehurst needs a PM10 Maintenance Plan, but because Pinehurst will be declared non-attainment for PM2.5, it is best for Idaho to focus on PM2.5 attainment and maintenance (which will capture the needs of PM10 as well). " Pinehurst did not go into PM 2.5 nonattainment as predicted. In 2010, both Pinehurst and Sandpoint are discussed again, "The Sandpoint SIP is essentially ready to go out the door. EPA Region X has basically told us to hold off until early next year before sending it in because they are swamped. The Pine Hurst SIP is still on the back burner and EPA doesn't appear to be in a hurry to see it anytime soon." The final Dec. 13, 2010 email, "We have had very limited discussions about a Pinehurst LMP with Sue and Mike." DEQ's Strategic Plan 2015–2018 fails to mention any PM 10 issues with Pinehurst at all.

In an April 21, 2016 PRR to DEQ, I asked for a copy of:

> "Any single document that DEQ has told/notified the Public or the area's local governement (sic) officials that: A.) Pinehurst & the Pinehurst Expansion area have received EPA's Clean Data Determinations for PM 10; or B.) that the areas remain in "nonattainment" because DEQ has not submitted a Request for Redesignation and Maintenance Plan. Likely 2001-2002. Certainly BLM does not know, in 2015: "Air Quality: Prescribed burning would produce smoke, adding particulate matter to the airshed in the Pinehurst area. Pinehurst is already a non-attainment area for National Ambient Air Quality Standards for PM-10, primarily due to residential wood smoke." [I cannot find one in the public domain or DEQ's website. I do find one that I requested EPA put onto Pinehurst's page in their Green Book.]

DEQ's response was simply: **"None exist"**. DEQ has deceived the elected officials of Shoshone County & Pinehurst, as well as the citizenry and equally as importantly, the world who relies on their website for accurate information to repost onto their websites, studies & reports. Two examples include this Federal Highway Administration 2003 paper on "Transportation/Air Quality Issues in Rural Areas" https://www.planning.dot.gov/documents/rural/rural_aq_final_rpt.htm#id and this FEMA document: Criteria Pollutant Area Summary Report As of March 02, 2006 http://www.fema.gov/media-library-data/20130726-1808-25045-0607/ea.txt

In July 2015, I emailed the EPA Green Book site saying,

> "I would like to know when the EPA will be adding a very important document into the link regarding "Pinehurst, Idaho, PM-10 Nonattainment Area Plan Summary"? It was posted on the Federal Register almost 14 years ago (2001): "Finding of Attainment for PM-10; Shoshone County (City of Pinehurst and Pinehurst Expansion Area)"

The Region 10 Air Planning Team quickly responded,

> "Hello Ms. Higdem Thank you for contacting the EPA about the Pinehurst, Idaho PM nonattainment areas. We agree with your suggestion to add the PM-10 attainment finding information in the Pinehurst PM-10 nonattainment area plan summary. We've made the addition and it should show up on the webpage shortly."

This EPA entry, made last year, was the only place online that this information was viewable to anyone. The second place came after DEQ stated "None Exist" in April 2016. In a subsection on Monitoring "Attainment versus Nonattainment" the Pinehurst section has seen this added:

> "On August 23, 2001, EPA published a finding that the two areas had attained the PM10 standard by their respective attainment dates (66 FR 4403). However, the designation status in 40 CFR part 81 remains moderate nonattainment for both areas until such time as Idaho meets the Clean Air Act requirements for redesignations to attainment. DEQ is planning to complete and submit the redesignation request by December 2016."

This month I emailed DEQ,

> "Additionally, DEQ's website recently added language which addresses Pinehurst & Pinehurst Expansion areas PM 10 nonattainment as now awaiting DEQ actions. It states that DEQ plans to submit a request to redesignate by December 2016. It does not mention the 10-yr Maintenance Plan that accompanies the request. Does DEQ plan to submit both by the end of this year? This potential action is not cited in any DEQ documentation I have found, including the strategy plan through 2018."

DEQ's response,

> "I am not familiar with/where it states "now awaiting DEQ actions". I can tell you that a re-designation request cannot be made without a Maintenance Plan. This is a CAA requirement. I believe this has been communicated in the past and in the community advisory committee meetings.
>
> DEQ plans to submit the PM10 Maintenance Plan along with a re-designation request. The PM10 Plan will be developed as the current PM2.5 Annual NAA SIP is developed because the information developed through the PM2.5 NAA SIP process is critical to the development of controls and contingency measures in the area which are required as part of a successful PM10 maintenance plan submittal/redesignation. I hope that makes sense."

Apparently the "Attainment versus Nonattainment" revision was made without the knowledge of key DEQ staff, including you, and may not be completely accurate in what its intentions are. I find it hard to believe that DEQ would be waiting until Pinehurst went into nonattainment again on some PM NAAQS, to prepare the redesignation request; however, the true reason is unknown.

This same section of DEQ's website says, "DEQ and local governments are working to gain redesignation in all areas that are meeting outdoor air quality standards. Redesignation is a complicated and lengthy process that can take up to 2 years for each area." This statement was true for all other Idaho areas going into nonattainment simultaneously, and a couple that required extensions, yet the Pinehurst and Pinehurst Expansions areas, with no PM 10 NAAQS violations since at least 1994, has not seen the process fulfilled yet: 22 years later. In fact, this page of EPA's Green Book will demonstrate that these two areas have already waited the longest in the nation between receiving EPA's Clean Data Determinations (CDDs) and redesignation. Except for San Bernadino, CA who had a CDD in 2002, the rest of the 51 of 80 original areas received their CDDs at least 5 years ago. https://www3.epa.gov/airquality/greenbook/pfrnrpt2.html#PM-10.1990.Pinehurst By the time the two areas have completed their two 10-year Maintenance Plans, this pre-1994 issue will have taken almost half a century to be resolved.

IDAPA 58.01.01.578 "Designation of attainment, Unclassifiable and Nonattainment Areas" states, "01. Annual Review. The Department shall annually review the available ambient air quality data and when appropriate, redesignate areas as attainment, unclassifiable or nonattainment with the standards in 40 CFR Part 50. (Law passed on 5-1-1994) DEQ has performed an illusory annual review, via the ANP's, but has failed to implement, thus violating the rest of this statute.

Proposed resolution: DEQ should amend the draft ANP to reflect the real situation the reason the Pinehurst and Pinehurst Expansion Areas are in, why they are still classified as "moderate" nonattainment and propose to complete and submit the redesignation request and Maintenance Plan by December 2016 as stated on the website.

Issue 3. In the "PM2.5 Core NAAQS Compliance Monitoring Network" section, page 22 states, "The Cache Valley airshed (Franklin-Logan MSA) has been a classified ongoing nonattainment area for the 24-hour PM2.5 NAAQS (35 micrograms per cubic meter)." While this is true, it fails to reference 80 FR 69172-69173 (11/9/2015), which states the EPA is proposing to reclassify the area to Serious nonattainment because the area cannot "practicably attain the 2006 PM2.5 NAAQS by the applicable Moderate area attainment date of December 31, 2015." If the area is redesignated to Serious nonattainment DEQ will be required to submit an updated emissions inventory, Best Available Control Measures (BACM)/Best Available Control Technology (BACT), and revisions to its Nonattainment New Source Review (NNSR) program within 18 months. https://www.gpo.gov/fdsys/pkg/FR-2015-11-09/pdf/2015-28358.pdf

Under section 188(d) of the Act, a state may apply to EPA for up to two one-year extensions of the Moderate area attainment date, which EPA may grant if the state satisfies certain conditions. DEQ's comment letter to EPA opposed a redesignation to Serious nonattainment and instead requested a one-year extension of Moderate nonattainment because the State has complied with all requirements and commitments in the implementation plan and the preliminary data shows that both the 98th percentile and annual mean are below the PM 2.5 NAAQS. EPA has not issued a final rule yet as to whether the area will remain Moderate for another year or redesignate to Serious.

I was told that Pinehurst could not use the FRM as the primaary monitor for NAAQS because daily observations were required, yet this nonattainment area had FRM (POC 1 & 88101) monitor observations every third day rather than daily. (The other 2 monitors that were onsite had incomplete data.) I do not understand the contrast in primary monitor decisions.

Proposed resolution. DEQ needs to detail all of this information rather than state the area is in "ongoing nonattainment". The ANP is a public document, the public and equally as important, the affected local government(s), need to know exactly what is going on because it could affect the local economy. It can also affect DEQ's staffing levels, budget and SIP priorities, especially if EPA rejects DEQ's request.

Issue 4. Page 2 of Appendix A shows "Table A2. 2013–2015 design values for core PM2.5 monitoring stations—federal reference or federal equivalent method (primary monitor)." The content of this table has remained fairly constant over the years. If one look at it in the 2009 ANP, it will noted that these statistics are presented for both the FRM and the Continuous monitors. I realize that FEMs were not authorized at that time, but having the statistics for both monitors, with/without exceptional events and denoting which monitor was the primary, would improve the public's knowledge. Particularly, I point to the 2009 ANP entries for Pinehurst. The FRM had a DV of 34 µg/m3 and the Continuous monitor had a DV of 41 µg/m3. Being able to compare these figures allows one to note that the Continuous monitor would obviously fail any comparability assessments and prevent it from later becoming a primary FEM. By failing to denote which monitor is the primary or how collocated monitors compared, its many readers remain ignorant.

Proposed resolution. Amend Table A2 to include the data from all monitors at the Core sites where collocation occurs and then denote which monitor was used as the primary for NAAQS.

Issue 5. The Site Evaluation form in Appendix D, on page 61/96, failed to note monitoring site at Pinehurst has seen some any changes in the Spacing from Minor Sources. DEQ sent filters from 2011-2013 to the lab for a speciation analysis. There were certain anomalies that have precluded a final report from the lab for nearly a year now. Without seeing the report, it is possible to speculate that the emission sources and quantities were not exactly what was expected. If this is true, an evaluation of the nearby sources of these emissions should be performed. Issues with the current monitor site location include:

1) The station is located on the eastern grounds of Pinehurst Elementary School property. This past school year the school district shuttered its other elementary school in Osburn and merged its students into Pinehurst Elementary School, virtually doubling the school's enrollment. The children in prior years were dropped off in front of the school (west side); however, that area is now reserved for buses for drop off and pick up. The number of buses has necessarily greatly increased. The WSV Citizens Advisory Committee has noted in meetings that these buses are idling in front of the school for long periods of time twice daily. DEQ staff is concerned because these buses only have retrofitted heaters.

The children being transported to school by personal vehicles have now been directed to drop the children off on the east side of the school and within yards of the monitoring station. Drivers must drive a short road which gets congested, and slowly follow jersey barriers set in a circular design in a line of vehicles which are idling as they slowly get to the designated drop off location. DEQ staff is quite concerned about the effects this idling could have on the monitor, especially in the winter months. The 2nd most common air flow direction is from west to east, which means there is a great potential for the emissions from both the increased number of idling buses and the vehicles who have never driven in the area.

2) There is a large earthmoving business with a great of machinery that operates in a non-paved yard in very close proximity to the monitoring site. This area is in direct line with the prevalent south-to-north air flow patterns that can easily affect the monitor. Only a thin corrugated steel wall separates the dirt yard from the grassed yard the site in near. There is second large commercial business adjacent to this business that is also not paved. These two businesses are contributing to fugitive dust emissions that flow toward the station.

2) There are 3 conifer trees that may be far enough away from the monitoring station, but they are also south of and in the prevalent south-north air flow pattern. They have grown taller than the monitoring station since it was first moved to the location about 20 years ago.

4) The site is located on school property and when asked, DEQ cannot locate any agreement, including a lease, with the school authorizing DEQ to occupy school property. DEQ has also stated that they have never financially compensated the school district for the use of its property. The school districts in Shoshone County are struggling to make ends meet, as evidenced by the merging of 2 schools and many staff lay-offs. DEQ should have been compensating the school district all along, rather than taking advantage of it.

Proposed resolution. Re-evaluate the appropriateness of the monitor site's location, especially since this last year has seen a dramatic increase in nearby vehicle emissions.

Included at the end of this comment letter are a photo of the monitoring site with its influences labeled and a diagram showing the pollution roses.

In summary, according to the EPA in their recent "Revisions to Ambient Monitoring Quality Assurance and Other Requirements; Final Rule", "The annual monitoring network plan process provides an important communications and planning pathway between monitoring agencies, EPA Regional Offices, and the general public." "Accordingly, the EPA is revising the regulatory language in the last sentence of 40 CFR 58.10(a)(1) from ''The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall reference and address any received comments'' to ''The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments.''

I have read every ANP and 5-year Network Assessment, and it would seem that the wording seldom changes in areas that it should and they often lack enough detail to be considered fully communicative, especially knowing this is the defining document for the state's air quality program and it's contents will be read and used by a variety of other agencies, local governments and the public. Omitting crucial details on Pinehurst's PM 10 nonattainment situation does not give the reader any sense of the reality of the situation and is not in the best interests of anyone. DEQ simply must find the time and resources and quit stalling on its last PM 10 area to redesignate to attainment. Omitting details on the Franklin PM 2.5 issue does not give the reader any sense of the reality of the situation or advance warning as to potential consequences not only to DEQ, but also the local governments and their citizenry. Returning to completely citing NAAQS-applicable data and denoting the primary monitor will be very communicative to all who read this document. Finally, please strongly consider re-locating the Pinehurst monitor station to a more appropriate location because the increasing influences on it can negatively impact its effectiveness and because the school district should be receiving payment for the use of its land.

Respectfully submitted,

Jann C. Higdem
Pinehurst resident and
Shoshone County researcher

CC: Shoshone County Board of Commissioners

This photo shows the monitoring station in relation, school, trees and the 2 dust-contributing businesses (South of station). Vehicles dropping students off are now routed down the dead-end street north of the station into a large circular idling pattern whose northern jersey barrier boundary is south of the road.

Pollution roses in relation to the Pinehurst Monitoring Station (Source: WSV NAA TSD)

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor
John H. Tippets, Director

July 7, 2016

Jann Higdem
Pinehurst Resident, and
Shoshone County Researcher

Subject: DEQ Response to Comments on DEQ's 2016 draft Ambient Air Quality Network Plan

Dear Ms. Higdem:

Idaho DEQ provided a 30-day public opportunity to comment on its 2016 Ambient Air Quality Monitoring Network Plan. This is my response to the comments you submitted to DEQ. Your submittal, attached to this letter, consisted of five distinct issues, labeled Issue 1 through Issue 5.

Issues 1-3 pertain to the language DEQ used in the ANP that establishes the need for air quality monitoring in Idaho's airsheds with nonattainment designations and under air quality maintenance plans. As you have suggested in Issue 1, in Section 5.1 of the ANP DEQ has changed the description for the Pinehurst PM_{10} designations to:

* Shoshone County – partial (excluding City of Pinehurst)
* Pinehurst (Shoshone County – partial – City of Pinehurst)

DEQ does not feel it pertinent to the scope of the ANP, per Section 58.10, Subpart B to Part 58 of the CFR, to provide detailed information on an airshed's regulatory status in the ANP document. DEQ does agree that this information should be readily available to the public and
DEQ has added two web links for two EPA web pages that provide background regulatory information on the individual airsheds and their designations:

https://yosemite.epa.gov/r10/airpage.nsf/283d45bd5bb068e68825650f0064cdc2/e2ab2cc6df433b8688256b2f00800ff8?OpenDocument

https://www3.epa.gov/airquality/greenbook/

Issue 4 recommended that DEQ amend Table A2 to include the data from all monitors at the Core sites where collocation occurs and then denote which monitor was used as the primary for NAAQS. To address this we need to define "collocation" in a regulatory context as it pertains to Part 58 Appendix A. In this context collocation refers to precision assessments for "regulatory" monitors reporting the same pollutant. The Meridian St. Luke's site is the only site in DEQ's Core $PM_{2.5}$ monitoring network that has this type of collocation and this recommendation would only be applicable for the one site. The purpose of Table A2 is to reconcile sampling frequencies with recent Design Values. Table 6 in the ANP lists those individual monitors at each site and distinguishes between SLAMS $PM_{2.5}$ monitors that are suitable for NAAQS assessment and those continuous $PM_{2.5}$ special purpose monitors (SPM) that are used for AQI purposes, and because they are SPM, these monitors are not regulatory and are not suitable for NAAQS. Should circumstances change in the future, DEQ will consider this recommendation.

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In Issue 5 you listed four points concerned with the siting of the Pinehurst $PM_{2.5}$ monitor. Below are a summary of those four points with my comment regarding each:

Idling buses and vehicles used to bring children to and from school produce emissions that affect the monitor - DEQ has looked at this and has concluded that there are no discernible impacts to the monitor from these sources. DEQ discussed this with the school district transportation superintendent and was told the buses do not idle for long periods of time because the School District feels they don't want the school children or the bus drivers breathing the diesel fumes. Additionally, the buses are retrofitted with heaters that provide heat to the seating compartment of the bus, without idling the drive train of the diesel engine. The School District encourages citizens to contact them if they see or hear buses not adhering to the no idling zone. DEQ has looked at monitoring data to discern peaks in short-term (e.g. hourly) data that would suggest impacts to the monitor from local sources. Regardless of the day of the week, DEQ saw no evidence of this.

Near the monitor, a "large earthmoving" business might be impacting the monitor – The "large earthmoving business" was investigated during SIP development activities. DEQ interviewed the owner of the business to assess activities that occur at the business. Impacts to the monitor from this equipment yard were evaluated coupling hourly $PM_{2.5}$ and wind data along with reported equipment idling times. DEQ concluded that there were no discernable impacts from this facility.

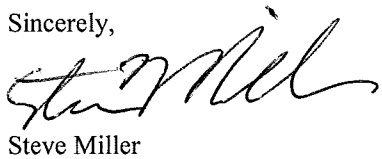
There are three conifer trees that might be obstructing air flow to the monitor- DEQ believes the Pinehurst monitoring site meets all listed Appendix E (Subpart G, Part 58) EPA siting criteria, including the distance to the dripline of nearby trees ($\geq$ 10 meters). DEQ also believes that the leaf canopy density of those conifer trees is not sufficeint to create a formidable obstacle of air flowing to the monitor.

DEQ is taking advantage of the school district by not compensating them for placing monitors on school grounds- Since 1997, when the $PM_{2.5}$ monitoring site was established at this location, DEQ has understood that Kellogg School District and Pinehurst School Administration supports our presence at this location.

At this time DEQ feels strongly that the site's location is appropriate for the monitoring objectives defined in the ANP. DEQ will continue to evaluate its' monitoring sites annually, and if issues regarding the 40CFR Part 58 siting requirements are found, DEQ will either mitigate those issues to EPA's satisfaction, seek a waiver from EPA if appropriate, or relocate the monitor to a new site that will satisfy the monitoring objectives and meet the siting criteria.

Please let me know if you have any questions. I can be reached at (208) 373-0432, or at steve.miller@deq.idaho.gov.

Sincerely,



Steve Miller
Air Quality Monitoring Network Coordinator,
Idaho Department of Environmental Quality