UTAH DEPARTMENT of ENVIRONMENTAL QUALITY

Division of Air Quality

Annual Monitoring Network Plan 2025

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GLOSSARY

DAQ	Division of Air Quality
AQS	Air Quality System (EPA database)
BC	Black Carbon
CBSA	Core-Based Statistical Area
CFR	Code of Federal Regulations
CO	Carbon monoxide
CSN	Chemical Speciation Network
EMP	Enhanced Monitoring Plan
EPA	U.S. Environmental Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method
LHD	Local Health Department
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NASA	The National Aeronautics and Space Administration
NATTS	National Air Toxics Trends Stations
NCore	National Core multi-pollutant monitoring stations
NO	Nitric oxide
NO_2	Nitrogen dioxide
NOx	Reactive nitrogen oxides
NOy	Total reactive nitrogen
O_3	Ozone
PAMS	Photochemical Assessment Monitoring Stations
PAHs	Polycyclic aromatic hydrocarbons
$PM_{2.5}$	Particulate matter with an equivalent diameter less than or equal to 2.5 µm
PM_{10}	Particulate matter with an equivalent diameter less than or equal to 10 µm
ppb	Parts per billion (one part in 10^9)
ppm	Parts per million (one part in 10^6)
SIP	State Implementation Plan
SLAMS	State or Local Air Monitoring Stations
SO_2	Sulfur dioxide
SPM	Special Purpose Monitor
µg	Microgram (10^{-6} grams)
VOC	Volatile Organic Compound

EXECUTIVE SUMMARY

Each year, the Air Monitoring Section of the Division of Air Quality (DAQ) produces a Monitoring Network Plan in accordance with federal regulations (40 CFR § 58.10). This document informs stakeholders, including the public, private sector, and government about the current state and upcoming changes to the State's Air Monitoring Network, which operates in compliance with the Code of Federal Regulations (40 CFR § 58). DAQ continually seeks input from the aforementioned parties on improvements to the current level of service or to provide additional accommodations where requested and needed. The Annual Monitoring Network Plan reflects the network changes DAQ implements to enhance the quality, coverage, reliability, and cost efficiency of the division's monitoring efforts.

Statement of Compliance

According to the requirement of 40 CFR 58, Subpart B, all stations and monitors deployed within Utah's Air Quality Monitoring Network meet the requirements of appendices A, C, D, and E of the aforementioned subpart. As of 2024, Utah's Air Quality Monitoring Network has no active Prevention of Serious Deterioration (PSD) air monitoring program stations; Appendix B does not apply to any stations or monitors in Utah because this appendix pertains to PSD air monitoring stations.

Primary Monitor Designation

A primary monitor is defined as the one *"identified by the monitoring organization that provides concentration data used for comparison to the NAAQS. For any specific site, only one monitor for each pollutant can be designated in AQS as primary monitor for a given period of time. The primary monitor identifies the default data source for creating a combined site record for purposes of NAAQS comparisons."* (40 CFR 58.1).

Each year, DAQ carefully chooses and designates suitable primary monitors for each monitoring station and each pollutant according to data completeness and integrity. The primary monitors are designated prior to data certification in Q1 of the following year during the regular QC process. Federal Equivalent Method (FEM) $PM_{2.5}$ monitor data was not used prior to January 1, 2015, as it did not meet quality assurance requirements. As of January 1, 2015, FEM $PM_{2.5}$ monitoring was used for data substitution and co-locations as required in 49 CFR Part 50 Appendix N and 40 CFR Part 58 Appendix A 3.2. Table 1. lists the designated Parameter Occurrence Code (POC) for the primary monitor designations for the year 2024.

Table 1. List of designated $PM_{2.5}$ primary monitors for 2024.

Site ID	Site Name	Method	Primary POC	Co-Located with
49-03-0005	Brigham City #3	145	1	-
49-05-0007	Smithfield	145	1	FRM, FEM
49-007-1003	Price	184	5	-
49-011-0004	Bountiful Viewmont	184	3	FEM
49-013-0002	Roosevelt	184	4	FRM, FEM
49-019-0007	Moab	184	1	-
49-021-0005	Enoch	184	1	-
49-035-2005	Copper View	145	1	FEM
49-035-3006	Hawthorne	145	1	FEM
49-035-3010	Rose Park	184	1	FRM, FEM
49-035-3013	Herriman #3	184	5	FEM
49-035-3014	Lake Park	184	1	-
49-035-3015	Environmental Quality	184	3	FRM
49-035-3016	Prison	184	1	-
49-035-3018	Red Butte	184	3	-
49-035-4002	Near Road	145	3	FEM
49-045-0004	Erda	184	3	FRM
49-047-1004	Vernal #4	184	4	FRM
49-049-4001	Lindon	145	1	FRM, FEM
49-049-5010	Spanish Fork	145	1	FEM
49-051-0001	Heber	145	1	FEM
49-053-0007	Hurricane	184	3	-
49-057-1003	Harrisville	184	3	FRM

Network Changes

Changes to the Utah's Air Quality Monitoring Network are intended to improve the effectiveness of monitoring efforts and to ensure compliance with the EPA National Ambient Air Monitoring Strategy.

- Current and future monitoring activities and/or sites are required in the Wasatch Front to meet the Enhanced Monitoring Plan (EMP) requirements as the Wasatch Front was re-designated to serious nonattainment status for ozone.

The DAQ is developing an Enhanced Monitoring Plan (EMP) in fulfillment of federal regulations, 40 CFR Part 58, Appendix D 5(h). These regulations, require that any states with any area designated moderate and above 8-hour O_3 nonattainment, and any state within the Ozone Transport Region (OTR), develop, implement, and submit an EMP for O_3 to the regional office of the Environmental Protection Agency (EPA) no later than October 1, 2019, or two years following the effective date of a designation to a classification

of moderate or above O_3 nonattainment. The EMP is intended to provide monitoring organizations the flexibility to implement any additional monitoring beyond the minimum requirements for the State and Local Air Monitoring Stations (SLAMS) to complement the needs of their area.

The DAQ, with input from the Technical Analysis, Section SIP modelers, and the Air Monitoring Section, identified additional measurements needed and the most strategic sampling locations to better understand ozone formation and transport in the Wasatch Front non-attainment area. As part of the Enhanced Monitoring Plan (EMP), hourly averaged measurements of speciated volatile organic compounds (VOCs) (PAMS target list compounds), Cavity Attenuated Phase Shift (CAPS) Spectroscopy True NO_2, and total reactive nitrogen (NOY) are planned for six sites along the Wasatch front and are currently being reported for Bountiful (BV), Erda (ED), Red Butte (RB) and Lake Park (LP). Additionally, hourly averaged speciated VOC measurements are collected at the Environmental Quality (EQ) station. A sixth site is still being planned for a location to be determined (TBD) toward the south end of the valley.

Hourly averaged measurements of mixing height, formaldehyde, and hydrogen chloride have been implemented at selected sites (see table below) to support O_3 local air quality modeling and O_3 research studies. Hourly averaged mixing layer height data collected at the PAMS site (HW) has been sent to the Unified Ceilometer Network (UCN). In the near future, data from stations operating complementary equipment to meet EMP requirements will also be sent to the UCN (https://ucn-portal.org/)

These additional measurements, conducted year-round as part of the EMP, will be reviewed to confirm that the location remains optimal.

- The data loggers at the network sites are being replaced with a digital data logging system. This new system is based on the Campbell Scientific CR6 platform and collects data using the Modbus protocol. Main advantages of the digital system include increased flexibility in scheduling PZS sequences and the elimination of issues common to analog data collection, such as overrange events, calibration imprecisions, and voltage irregularities caused by power disruptions. Additionally, the digital platform enables the collection of diagnostic data from gaseous and particulate monitoring instruments. This diagnostic information helps operators identify and resolve instrument malfunctions more quickly, reducing downtime and minimizing data loss or invalidation. Digital loggers are now in use at 14 of the 23 stations. These stations are: Brigham City (BG), Bountiful (BV), Copperview (CV), Herriman (H3), Heber (HB), Lake Park (LP), Moab (M7), Near Road (NR), Price (P2), Red Butte (RB), Rose Park (RP), Spanish Fork (SF), Smithfield (SM), and Prison (ZZ). The rest of the stations will be upgraded to the CR6 loggers as resources permit.

All changes and additions to the monitoring network are contingent upon the availability of necessary resources and the approval of EPA, and are summarized in Table 2, Table 3 and the section following Table 3.

Table 2. List the recently implemented monitoring site changes to the air monitoring network.

County	Station Name	Comment
Box Elder	Brigham City (BG)	As part of the Salt Lake Dust Study, filter-based PM_{10} measurements began in February 2025
Davis	Bountiful (BV)	Non-regulatory hourly-averaged formaldehyde and hydrogen chloride measurements began in Spring 2024. Hourly-averaged speciated volatile organic compounds (VOCs) from the PAMS target list measurements began in Summer 2024. As part of the Salt Lake Dust Study, filter-based PM_{10} measurements began in mid-September 2024
Salt Lake	Environmental Quality (EQ)	Non-regulatory hourly-averaged formaldehyde measurements are available for all of 2024
	Hawthorne (HW)	Non-regulatory hourly-averaged formaldehyde measurements are available for all of 2024
	Lake Park (LP)	This station is part of the Enhanced Monitoring Plan (EMP) and includes measurements of hourly-averaged speciated volatile organic compounds (VOCs) from the PAMS target list. Hourly-averaged speciated VOCs are expected to begin reporting by Summer 2025 As part of the Salt Lake Dust Study, filter-based PM_{10} measurements began in mid-September 2024
	Red Butte (RB)	Non-regulatory hourly-averaged formaldehyde measurements are available for all of 2024
	Prison (ZZ)	Non-regulatory hourly-averaged Hydrogen chloride measurements are available for all 2024 Non-regulatory hourly-averaged formaldehyde measurements began in August 2024 As part of the Salt Lake Dust Study, filter-based PM_{10} measurements began in mid-September 2024
	Saltair (SA)	This Met station was removed on January 16, 2024
Wasatch	Heber	Station fully operational as of August 1, 2024, measuring $PM_{2.5}$ (continuous and filter-based), O_3, and NO_2. $PM_{2.5}$ filter sampling began at September 2024
Tooele	Erda (ED)	Non-regulatory hourly-averaged formaldehyde and hydrogen chloride measurements are available for all of 2024

Table 3. List the proposed monitoring site changes to the air monitoring network.

County	Station Name	Comment
Summit	Summit	The DAQ in coordination with the Local Health Department (LHD), local officials and DAQ modelers and have selected a site and are working on resolving all permit and power requirements. This station is expected to be fully operational by Q4 of 2025.

As part of a grant funded through the Inflation Reduction Act (IRA), DAQ is working to expand air monitoring efforts across the state. This includes planning for new monitoring stations in several regions: West Davis County, Utah County, Cache County, the West Desert, and North Salt Lake. These new stations will improve air quality coverage and help track dust and pollution more effectively.
Each general location has been selected based on specific needs. For example, one site will monitor dust from dry lakebeds, others are being considered in anticipation of possible changes to existing monitoring stations, and others will enhance coverage in growing communities and industrial areas. These efforts will provide a clearer picture of air pollution across Utah. Work is underway to identify the most suitable final locations, though specific timelines and further details are still being developed.
In addition, DAQ is evaluating the potential reuse of two former monitoring sites, Syracuse Causeway and Beach Marina, near the Great Salt Lake to support dust monitoring.
Additionally, while not a monitoring site, the Division has purchased a building in Vernal to be used as a field office and work space for monitoring activities conducted by staff living in the area. Work is underway to update the space to our needs.
As part of the GSL dust concern additional monitoring is being anticipated and will likely result in additional monitoring around the lake and in other parts of the state once details and resources are solidified.

1.1 Utah Air Quality Monitoring Network

The Air Quality Monitoring Network currently operates monitors at 25 locations statewide. Two of these monitoring sites were established in accordance with Utah Senate Bill 144, which directs the Department of Environmental Quality to set up and maintain monitoring facilities to assess the environmental impact of the Inland Port development project. These sites are the Lake Park site (LP) and the new Prison site (ZZ)

Most of the Utah DAQ sites and monitors are identified as SLAMS. SLAMS monitors meet specific siting and quality assurance criteria defined in federal regulations. DAQ also operates some monitors identified as SPMs, which are used to fulfill very specific and usually short-term monitoring goals. SPM monitors are also required to meet certain federal regulations established in 40 CFR Part 58, Appendix A. If they operate for more than two years, their data can be used by the U.S. EPA to determine compliance with the NAAQS.

The DAQ monitoring stations are strategically located to measure both local and regional levels of air pollutants, including particulate matter (PM), gaseous pollutants, and meteorological variables. Currently, $PM_{2.5}$ is measured at 23 locations, PM_{10} at ten locations, O_3 at 23 locations, NOX/NO/NO_2 at 23 locations, CO at seven locations, and SO_2 at four locations

Of the 23 $PM_{2.5}$ monitoring sites, 15 use filter-based equipment. Similarly, 7 of the 10 PM_{10} sites also use filter-based equipment, including four that are part of the Dust Study. All $PM_{2.5}$ sites with filter-based measurements are also equipped with continuous monitors, while six of the 10 PM_{10} sites have continuous monitors. Only the PM10 filter base instruments at Hathorne (HW), Environmental Quality (EQ) and the two at Roosevelt which run daily continuously during the year can be used to determine the NAAQS because the ones as part of the dust project are running during February 1 through September 30.

Of the 23 $PM_{2.5}$ monitoring sites, 15 use filter-based equipment. Similarly, seven of the 10 PM_{10} sites use filter-based monitors, including four that are part of the Dust Study. All $PM_{2.5}$ sites with filter-based measurements are also equipped with continuous monitors, while six of the 10 PM_{10} sites have continuous monitors.
Please note that only the PM_{10} filter-based instruments at Hawthorne (HW), Environmental Quality (EQ), and the two at Roosevelt, which operate year-round, along with the continuous monitors, can be used to determine compliance with the NAAQS. The PM_{10} filter-based monitors associated with the Dust Study operate only from February 1 through September 30.

Meteorological parameters, including wind speed, wind direction, temperature, relative humidity, and solar radiation, are measured at most sampling sites. The location and elevation of the monitoring sites, the EPA Air Quality System (AQS) site codes, and the measured variables at each station are provided in Table 4 and Table 5. A Map of Utah showing the location of all monitoring sites in the DAQ monitoring Network is displayed in Figure 1.

Moreover, the network includes stations that participate in several EPA monitoring programs, including the National Core (NCore), Speciation Trends Network (STN), Chemical Speciation Network (CSN), Photochemical Assessment Monitoring Stations (PAMS), National Air Toxics Trends (NATTS), Ammonia Monitoring Network (AMoN), and Near-road Monitoring station.

Data collected at these stations is primarily used for the following objectives:

- Evaluating population exposure to air pollutants
- Tracking the spatial distribution of air pollutants
- Assessing historical trends in air pollution
- Supporting compliance with ambient air quality standards (primary and secondary)
- Supporting air quality models and research studies
- Informing the general public of air pollution levels via mobile apps and web pages
- Developing State Implementation Plans (SIPs) and legislative air pollution control measures
- Tracking the effectiveness of air pollution control strategies
- Activating control measures during high air pollution episodes, such as restricting wood burning during winter-time inversions
- Monitoring of specific emission sources and air pollutants
- National monitoring goals and studies

The sampling sites are strategically located to meet the monitoring objectives outlined above. For instance, some sites are selected to measure PM concentrations in highly populated areas while others are chosen to assess the extent of ozone transport and its precursors into the Wasatch Front and the Uinta Basin. The DAQ is continually working to optimize the monitoring instruments in its network.

A list of the methods and equipment used to measure the parameters in the network is provided in Appendix A, while Appendix B includes the monitoring instrument list, site-specific objectives, spatial scale, measured parameters, sampling frequency, and methods.

Table 4. Utah Air Monitoring Network Site Locations.

County	AQS code	Station Name	Station Address	Latitude	Longitude	Elevation (meters)
Cache	49-005-0007	**Smithfield (SM)**	675 West 220 North, Smithfield	41.84267	-111.852064	1379
Box Elder	49-003-0005	**Brigham City (BG)**	350 West 1175 South, Brigham City	41.485039	-112.021484	1316
Weber	49-057-1003	**Harrisville (HV)**	425 West 2550 North, Harrisville	41.302685	-111.986476	1320
Davis	49-011-0004	**Bountiful (BV)**	171 West 1370 North, Bountiful	40.902945	-111.884505	1309
	49-011-6001	**Antelope Island (AI)**	Great Salt Lake	41.039404	-112.231541	1355
Salt Lake	49-035-2005	**Copperview (CV)**	8449 South Monroe St., Midvale	40.597911	-111.894162	1343
	49-035-3015	**Environmental Quality (EQ)**	1950 West 240 North, Salt Lake City	40.777028	-111.94585	1284
	49-035-3006	**Hawthorne (HW)**	1675 South 600 East, Salt Lake City	40.734367	-111.872221	1308
	49-035-3013	**Herriman #3 (H3)**	14058 Mirabella Drive, Herriman	40.496412	-112.036329	1534
	49-035-3014	**Lake Park (LP)**	2782 South Corporate Park Dr., West Valley City	40.709905	-112.008684	1295
	49-035-4002	**Near Road (NR)**	5001 South Galleria Dr, Murray	40.662868	-111.901874	1305
	49-035-3018	**Red Butte (RB)**	2195 Red Butte Canyon Rd., Salt Lake City	40.76656	-111.828	1517
	49-035-3010	**Rose Park (RP)**	1400 West Goodwin Ave., Salt Lake City	40.795514	-111.930996	1283
	49-035-3016	**Prison Site (ZZ)**	1480 North 8000 West	40.80793	-112.087772	1287
Wasatch	49-051-0001	**Heber (HB)**	Heber City Site #1 Water Conservation District lot, 626 E 1200 S Heber City	40.497962	-112.036329	1524
Utah	49-049-4001	**Lindon (LN)**	50 North Main St., Lindon	40.339505	-111.713486	1444
	49-049-5010	**Spanish Fork (SF)**	2050 N. 300 W., Spanish Fork (airport)	40.136369	-111.658011	1380
Tooele	49-045-0004	**Erda (ED)**	2135 West Erda Way, Erda	40.600565	-112.355782	1321
	49-045-6001	**Badger Island (BI)**	Great Salt Lake	40.94212	-112.561943	1285
Duchesne	49-013-0002	**Roosevelt (RS)**	290 South 1000 West, Roosevelt	40.294175	-110.008961	1585
Uintah	49-047-1004	**Vernal #4 (V4)**	600 North 1650 West, Vernal	40.464812	-109.560731	1667
Carbon	49-007-1003	**Price #2 (P2)**	351 South 2500 East, Price	39.595749	-110.770097	1737
Iron	49-021-0005	**Enoch (EN)**	201 Thoroughbred Way, Enoch	37.747409	-113.055482	1693
Grand	49-019-0007	**Moab (M7)**	691 S Mill Creek Dr. Moab	38.566055	-109.537167	1259
Washington	49-053-0007	**Hurricane (HC)**	147 North 870 West, Hurricane	37.179138	-113.305105	992

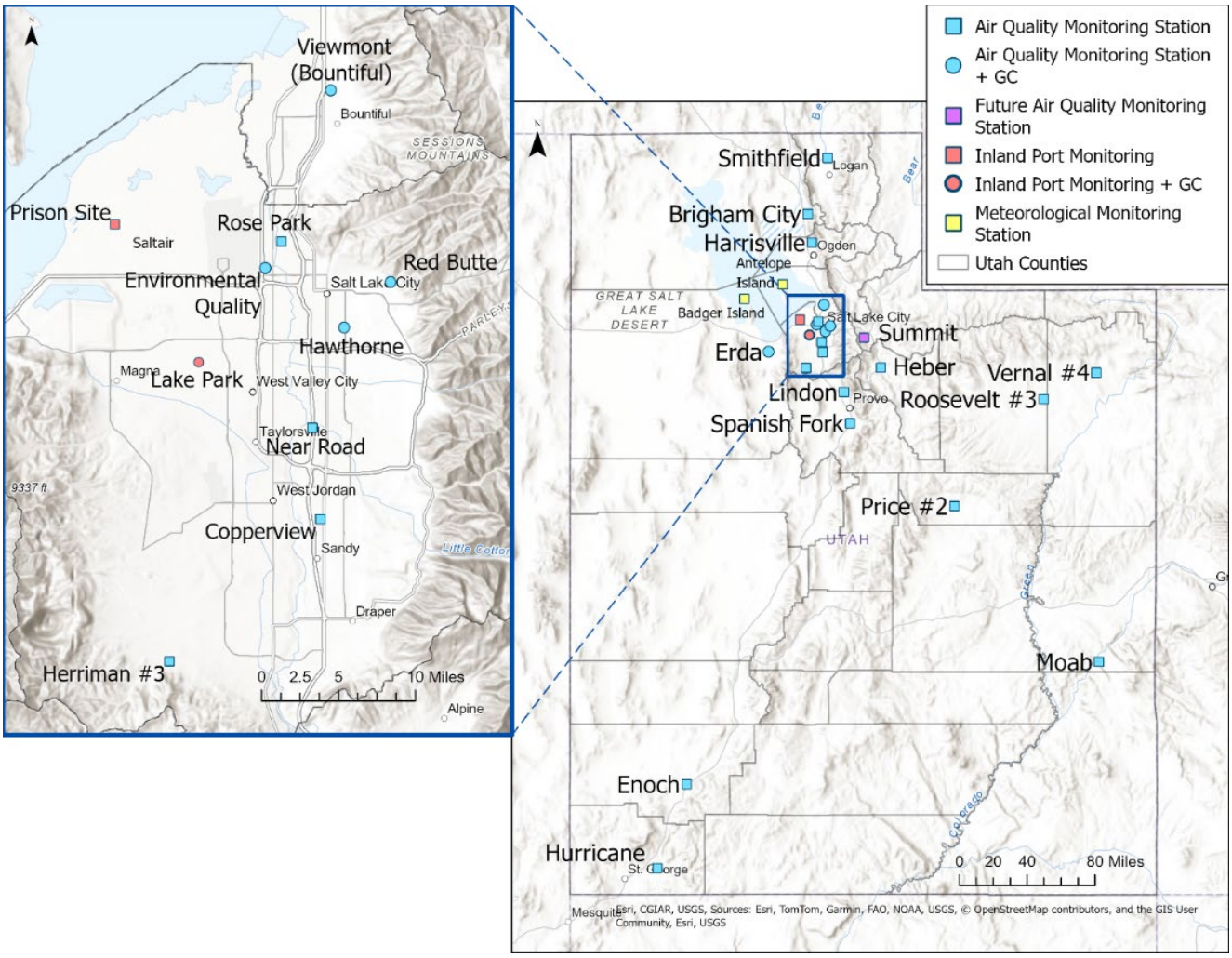


Figure 1. Map of Utah showing the location of all monitoring sites in Utah Air Monitoring Network**.**

Table 5. Measured parameters at the sampling stations in Utah Air Monitoring Network.

County	Site	$PM_{2.5}$				PM_{10}																			
		FRM	Co-located (FRM)	Real-time	Co-located (Real-time)	FRM	Co-located	Real-time	PM Coarse	Speciation $PM_{2.5}$	O_3	NO NO_2 NO_x	True NO_2	NO_y	SO_2	CO	NH_3	Toxics	Carbonyls	VOCs PAMS	Formaldehyde (HCHO)*	HCL*	BC	MET
Cache	Smithfield	1/1	1/1	X	X					1/6	X	X											X	X
Box Elder	Brigham City	1/1		X		1/1					X	X												X
Weber	Harrisville	1/1		X				X			X	X				X								X
Davis	Bountiful	1/1		X		1/1				1/6	X	X	X	X				X	X	X	X	X	X	X
	Antelope Island																							X
Salt Lake	Copperview	1/1		X							X	X			X	X								X
	Environmental Quality	1/1		X		1/1		X	X		X	X			X	X	X			X	X			X
	Hawthorne	1/1		X	X	1/1		X	X	1/3	X	X	X	X	X	X			X	X	X			X
	Herriman #3			X	X			X			X	X												X
	Lake Park			X		1/1					X	X											X	X
	Near Road	1/1		X							X	X				X								X
	Red Butte			X							X		X	X						X	X			X
	Rose Park	1/1	1/1	X							X	X			X	X								X
	Prison			X		1/1					X	X									X	X	X	X
Tooele	Erda	1/1		X							X	X	X	X						X	X	X		X
	Badger Island																							X
Wasatch	Heber	1/1		X							X	X												X
Utah	Lindon	1/1	1/6	X				X		1/6	X	X				X							X	X
	Spanish Fork	1/1		X							X	X												X
Uintah	Vernal	1/1		X							X	X												X
Duchesne	Roosevelt	1/1		X	X	1/1	1/6	X	X		X	X												X
Carbon	Price #2			X							X	X												X
Iron	Enoch			X							X	X												X
Grand	Moab			X							X	X												X
Washington	Hurricane			X							X	X												X

*Non-regulatory monitor; sites in *italic font* corresponds to remote stations; 1/1 are sampled daily; 1/3 are sampled every three days; 1/6 are sampled every sixth day. **Note:** Co-located means an additional monitor(s) that can either be of the same type or of a different type. It can be an FRM and an FEM or a pair of FRM's or a pair of FEM's or in some cases it may also mean a third or fourth monitor at the same location.

1.2 Criteria Pollutants DAQ Network

1.2.1 Particulate Matter-Fine (PM2.5)

DAQ currently operates 24-hour Federal Reference Method (FRM) and Federal Equivalent Method (FEM) $PM_{2.5}$ samplers throughout the state to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS), evaluate population exposure, support SIP development, and model performance evaluation as well as monitor PM levels in source and receptor areas. The DAQ currently uses 15 FRM $PM_{2.5}$ monitors and FEM continuous $PM_{2.5}$ samplers at 23 sampling sites distributed throughout the state. Some continuous monitors operate in co-location with FRM filter-based measurements for comparability assessment. Data obtained from the continuous monitors is used to support forecasting, mobile apps, web pages, and reporting the Air Quality Index (AQI) information at the AIRNow website (www.airnow.gov).

1.2.2 Particulate Matter (PM_{10})

The DAQ currently operates eight 24-hour FRM PM_{10} samplers throughout the state and six FEM continuous PM_{10} samplers.

1.2.3 Ozone (O_3)

DAQ currently operates ten ozone monitors in Salt Lake County, two in Utah County, and one each in Davis, Weber, Box Elder, Cache, Wasatch, Uintah, Duchesne, Carbon, Iron, Grand, and Washington counties.

1.2.4 Sulfur Dioxide (SO_2)

The DAQ currently operates four SO_2 monitors within the Salt Lake County. The monitor at HW was designated as population-oriented and satisfies NCore requirements.

1.2.5 Nitrogen Dioxide (NO_2)

The DAQ currently operates NO_2 monitors in 23 out of the 25 monitoring stations that are presently operational. Although Utah has demonstrated compliance with NO_2 standards, DAQ maintains NO_2 monitoring at many sites since emissions of this pollutant can lead to increased O_3 levels and $PM_{2.5}$ formation, often resulting in pollution levels exceeding the NAAQS.

1.2.6 Carbon Monoxide (CO)

The DAQ currently operates a total of seven CO monitors, five in Salt Lake County and one each in Utah and Weber counties. These monitors assess population exposure to emissions from anthropogenic activities and support CO maintenance plans. EPA's minimum requirements for CO monitoring include placing monitors near roadways in certain urban areas to assess CO concentrations associated with traffic emissions. Additionally, co-location of CO monitors with near-roadway nitrogen dioxide (NO_2) monitoring sites is required. To meet these requirements, a CO monitor is located along I-15 at 5001 South Galleria Drive in Murray, at the Near-Road (NR) site. Finally, CO monitors also support model performance.

1.2.7 Lead (Pb)

Historically, major sources of lead emissions came from combustion of leaded fuel as on-road motor vehicle fuel emissions. However, given that leaded gasoline for automobiles was completely eliminated by the end of 1995 in the U.S., the only sources of lead in Utah include extraction and processing of metallic ores as well as piston-engine aircrafts' emissions.

On November 12, 2008, the EPA revised the primary and secondary NAAQS for lead to 0.15 µg/m³ in total suspended particles (TSP). This updated standard is ten times lower than the previous standard of 1.5 µg/m³, which was issued by the EPA in 1978. To comply with the standard, a rolling three-month average lead concentration must not exceed 0.15 µg/m³.

The State of Utah has been in compliance with the lead NAAQS since 1982, and in 2005, the EPA authorized the discontinuation of lead monitoring in the state. However, following the establishment of new lead monitoring requirements by the EPA in 2008 and 2010, DAQ resumed lead monitoring at Magna, a site near the Kennecott copper smelter, from 2010 until June 2017. Due to the extremely low concentrations observed, the EPA approved the discontinuation of monitoring at this site in 2017. This waiver is now expired and we will be moving forward with a new waiver application.

Moving forward, DAQ and the EPA will continue to monitor the requirements, including source emission thresholds, population changes, and any revisions to the NAAQS that may trigger the need to resume lead monitoring in Utah. Additionally, the DAQ will assess any new or existing lead sites with changes in emission levels to determine if further monitoring is necessary.

1.3 Chemical Speciation (CSN)

The DAQ currently operates four $PM_{2.5}$ chemical speciation sites, including Hawthorne (HW), Bountiful Viewmont (BV), Lindon (LN), and Smithfield (SM). HW site in Salt Lake County is an EPA-designated CSN monitoring station, operating on a 1-in-3-day sampling schedule. BV in Davis County, LN in Utah County, and SM in Cache County are SLAMS $PM_{2.5}$ speciation sites, operating on a 1-in-6-day sampling schedule. Data from the speciation network is primarily used to determine $PM_{2.5}$ chemical composition and sources as well as the spatial and temporal variation in its components. There are over 50 species consisting of ions, elements, and carbon species reported by the CSN sites. A list of parameters measured in the CSN sites are provided in Table 6.

Table 6. List of parameters measured at the DAQ monitoring CSN sites.

Parameter (Method)	Compounds
$PM_{2.5}$ Speciation (Met One SASS/SuperSASS Nylon)	Ammonium Ion, Sodium Ion, Potassium Ion, Nitrate Ion, Sulfate Ion

$PM_{2.5}$ (Met One SASS/SuperSASS Teflon)	Antimony, Arsenic, Aluminum, Barium, Bromine, Cadmium, Calcium, Chromium, Cobalt, Copper, Chlorine, Cerium, Cesium, Iron, Lead, Indium, Manganese, Nickel, Magnesium, Phosphorus, Selenium, Tin, Titanium, Vanadium, Silicon, Silver, Zinc, Strontium, Sulfur, Rubidium, Potassium, Sodium, Zirconium
$PM_{2.5}$ (URG 3000N w/Pall Quartz filter and Cyclone Inlet)	Elemental carbon (*E1 CSN, E2 CSN, E3 CSN, EC CSN TOR, EC CSN TOT*). Organic carbon (*OC1 CSN, OC2 CSN, OC3 CSN, OC4 CSN, OC CSN TOR, OC CSN TOT, OP CSN TOR*), OP CSN TOT, TC CSN

1.4 Multipollutant Monitoring Network (NCore)

The DAQ currently operates one multi-pollutant network NCore site, Hawthorne, located in Salt Lake County. This site is equipped with several advanced measurement systems to monitor PM ($PM_{2.5}$ and PM_{10}), ozone, NO_2, true-NO_2, trace levels of CO, SO_2, total reactive nitrogen (NO_y), carbonyl compounds, organic, and elemental carbon as well as meteorological parameters including the Mixing Layer Height. This site satisfies federal requirements for the Photochemical Assessment Monitoring Station (PAMS) network program.

1.5 Photochemical Assessment Monitoring System (PAMS)

The DAQ currently operates one PAMS site at Hawthorne, located in Salt Lake County. The PAMS program is designed with the objective to produce an air quality database to be used to evaluate and refine ozone prediction models. In addition, the program will assist to identify and quantify the ozone precursors, establish the temporal patterns and associated meteorological conditions to assist and refine the control strategies. DAQ is measuring the following parameters at the PAMS required site:

- Carbonyls
- Meteorological parameters: ambient temperature, wind direction, wind speed, atmospheric pressure, relative humidity, precipitation, mixing layer height, solar radiation, and UV radiation
- Speciated VOCs
- True NO_2
- NO/NO_y
- Ozone
- Continuous Formaldehyde

The DAQ-PAMS site collects hourly speciated VOC measurements with a Markes/Agilent autoGC (Figure 2) which operates on a year-round basis. Carbonyl species are collected in a three 8-hour averaged samples per day on a 1-in-3-day schedule from June 1 to August 31 and 1 in 24-hour on a 1-in-3-day for the remaining part of the year. The list of the speciated VOCs and carbonyls measured at the site are listed in Table 7.

Figure 2. Markes/Agilent autoGC.

Table 7. List of PAMS VOCs and Carbonyls measured at the DAQ PAMS site.

Parameter	Compounds
VOCs	Total NMOC (non-methane organic compound), n-Dodecane, Ethane, Ethylene, Propane, Propylene, Acetylene, n-Butane, Isobutane, trans-2-Butene,cis-2-Butene, 1,3-Butadiene, n-Pentane, Isopentane, 1-Pentene, trans-2-Pentene, cis-2-Pentene, 3-Methylpentane, n-Hexane, n-Heptane, n-Octane, n-Nonane, n-Decane, Cyclopentane, Isoprene, 2,2-Dimethylbutane, 1-Hexene, 2-Methyl-1-pentene, 2,4-Dimethylpentane, Cyclohexane, 3-Methylhexane, 2,2,4-Trimethylpentane, 2,3,4-Trimethylpentane, 3-Methylheptane, Methylcyclohexane, Methylcyclopentane, 2-Methylhexane, 1-Butene, 2,3-Dimethylbutane, 2-Methylpentane, 2,3-Dimethylpentane, n-Undecane, 2-Methylheptane, 2-Methylheptane, m/p Xylene, Benzene, Toluene, Ethylbenzene, o-Xylene, 1,3,5-Trimethylbenzene, 1,2,4-Trimethylbenzene, n-Propylbenzene, Isopropylbenzene, o-Ethyltoluene, m-Ethyltoluene, p-Ethyltoluene, m-Diethylbenzene, p-Diethylbenzene, Styrene, 1,2,3-Trimethylbenzene
Carbonyls	Formaldehyde, Acetaldehyde, Propionaldehyde, Butyraldehyde, Hexanaldehyde, Valeraldehyde, Crotonaldehyde, Acetone, Methyl ethyl ketone, Benzaldehyde

1.6 Air Toxics Trends

The DAQ has been participating in the EPA-funded Urban Air Toxics Monitoring Program since 1999. In January 2003, the air toxics monitoring equipment was re-located from West Valley to Bountiful Viewmont (BV) in order to co-locate the air toxics monitors with $PM_{2.5}$ speciation samplers, which would provide a more complete characterization of monitored air pollutants.

Currently, more than 90-VOCs, 10-carbonyls, 19-PAHs, and 11-metals are measured as part of the air toxics trends program. The samples are collected on a 1-in-6-day sampling schedule over a 24-hour period. The list of the air toxics measured at the site are listed in Table 8

Table 8. List of toxics measured at the DAQ NATTS site.

Parameter	Compounds
VOCs	Carbon disulfide, Propylene, Acetylene, Freon 114, 1,3-Butadiene, n-Octane, Methyl tert-butyl ether, Tert-amyl methyl ether, tert-Butyl ethyl ether, Ethyl acrylate, Methyl methacrylate, Acrolein, Methyl isobutyl ketone, Ethylene oxide, Acetonitrile, Acrylonitrile, Chloromethane, Dichloromethane, Chloroform, Carbon tetrachloride, Bromoform, Trichlorofluoromethane, Chloroethane, 1,1-Dichloroethane, Methyl chloroform, Ethylene dichloride, Tetrachloroethylene, Tetrachloroethylene, 1,1,2,2-Tetrachloroethane, Bromomethane, 1,1,2-Trichloroethane, 1,1,2-Trichloro-1,2,2-trifluoroethane, Dichlorodifluoromethane, Trichloroethylene, 1,1-Dichloroethylene, Bromodichloromethane, 1,2-Dichloropropane, trans-1,3-Dichloropropene, trans-1,3-Dichloropropene, cis-1,3-Dichloropropene, Dibromochloromethane, Chloroprene, Bromochloromethane, trans-1,2-Dichloroethylene, cis-1,2-Dichloroethene, Ethylene dibromide, Hexachlorobutadiene, Vinyl chloride, m/p Xylene, Benzene, Toluene, Ethylbenzene, o-Xylene, 1,3,5-Trimethylbenzene, 1,2,4-Trimethylbenzene, Styrene, Chlorobenzene, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 1,2,4-Trichlorobenzene. Total NMOC (non-methane organic compound), Ethane, n-dodecane, Ethylene, Propane, n-Butane, Iso-Butane, Trans-2-Butene,Cis-2-Butene,n-Pentane, Isopentane, 1-Pentene, trans-2-Pentene, trans-2-Pentene, cis-2-Pentene, 3-Methylpentane, n-Hexane, n-Heptane, n-Nonane, n-Decane, Cyclopentane, Isoprene, 2,2-Dimethylbutane, 1-Hexene, 2-Methyl-1-pentene, 2,4-Dimethylpentane, Cyclohexane, 3-Methylhexane, 2,2,4-Trimethylpentane, 2,3,4-Trimethylpentane, 3-Methylheptane, alpha-Pinene, beta-Pinene, Methylcyclopentane, Methylcyclohexane, 2-Methylhexane, 1-Butene, 2,3-Dimethylbutane, 2-Methylpentane, 2,3-Dimethylpentane, n-Undecane, 2-Methylheptane, n-Propylbenzene, Isopropylbenzene, o-Ethyltoluene, m-Ethyltoluene, p-Ethyltoluene, m-Diethylbenzene, p-Diethylbenzene, 1,2,3-Trimethylbenzene
Carbonyls	Formaldehyde, Acetaldehyde, Propionaldehyde, Butyraldehyde, Hexanaldehyde, Valeraldehyde, Crotonaldehyde, Acetone, Methyl ethyl ketone, Benzaldehyde
PAHs	Naphthalene, Acenaphthene, Acenaphthylene, Fluorene, Phenanthrene, Anthracene, Fluoranthene, Pyrene, Chrysene, Coronene, Perylene, Benzo[a]anthracene, Benzo[b]fluoranthene, Benzo[k]fluoranthene, Benzo[e]pyrene, Dibenzo[a,h]anthracene, Benzo[g,h,i]perylene, Benzo[a]pyrene, Indeno[1,2,3-cd]pyrene
Metals (PM_{10})	Antimony, Arsenic, Beryllium, Cadmium, Chromium, Cobalt, Lead, Manganese, Nickel, Mercury, Selenium

1.7 Mercury Deposition Network

Mercury was of significant health and environmental concern in Utah. Advisories limiting the consumption of fish were issued for certain lakes and watersheds due to their elevated mercury levels in 2008. DAQ was part of the National Mercury Deposition Network, measuring mercury dry deposition from 2009 to summer 2017, and measurements were discontinued after consultation with the EPA.

1.8 Meteorological Monitoring Network

Meteorological parameters, including ambient temperature, relative humidity, ambient pressure, solar radiation, and wind speed and direction, are currently measured at multiple sites throughout the state. These measurements help characterize the complex wind patterns and micrometeorology within Utah's airshed and support air quality modeling and the analysis of trends in co-located air pollutants. The DAQ currently uses sonic anemometer systems, such as the RM Young 2D sonic sensors (model 86004), to measure wind parameters. In addition, pyranometers (Campbell Scientific CS301) are used to measure incoming solar radiation.

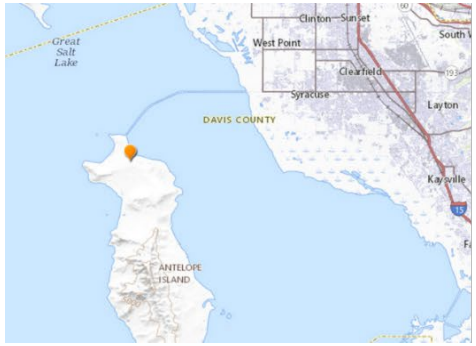
Appendix A- List of equipment used at the DAQ monitoring sites.

Parameter	Units	Mfg	Model #	Details
$PM_{2.5}$ FRM	Micrograms/cubic meter (25 C)	Thermo	2025i	Low volume sampler (filter) with very sharp cut cyclone (VSCC) - Gravimetric
$PM_{2.5}$ FEM	Micrograms/cubic meter (25 C)	Thermo	5030i Sharp	Beta Attenuation plus nephelometer
	Micrograms/cubic meter (25 C)	Teledyne API	T640/T640X	Broadband Spectroscopy
PM_{10} FRM	Micrograms/cubic meter (25 C)	Thermo	2025i	Low volume sampler (filter) - Gravimetric
PM_{10} FEM	Micrograms/cubic meter (25 C)	MetOne	E-BAM PLUS	Beta Attenuation Mass Monitor
$PM_{2.5}$ Speciation	Micrograms/cubic meter (LC)	Met One SASS	Met One SASS/SuperSASS	Met One SASS/SuperSASS: Teflon/Energy dispersive XRF; Nylon/Ion Chromatography
	Micrograms/cubic meter (LC)	URG	3000N	URG 3000N w/Pall Quartz Filter-Organic/Inorganic Carbon
Carbon Monoxide	Parts per million	Teledyne API	T300U	Gas Filter Correlation
Carbon Monoxide (trace level)	Parts per million	Teledyne API	T300	Gas Filter Correlation
Nitrogen Dioxide (trace)	Parts per billion	Teledyne API	T200U	Gas Phase Chemiluminescence
Nitrogen Dioxide (CAPS true)	Parts per billion	Teledyne API	N500	Cavity Attenuated Phase Shift (CAPS) Spectroscopy
Reactive Oxides of Nitrogen (NO_Y)	Parts per billion	Teledyne API	T200U	Chemiluminescence with External Thermo converter
Sulfur Dioxide	Parts per billion	Teledyne API	T100	Pulsed Fluorescent
Sulfur Dioxide (trace)	Parts per billion	Teledyne API	T100U	Pulsed Fluorescent
Ozone	Parts per million	Teledyne API	T400	Ultraviolet Absorption
Ozone	Parts per million	Teledyne API	T265	Gas Phase Chemiluminescence
Black Carbon	Micrograms/cubic meter (LC)	Magee	AE33	Aethalometer - Optical Absorption
Air Toxics (carbonyls)	Parts per billion Carbon	ATEC	8000	SILICA-DNPH-CARTRIDGE-KI O3 SCRUB - HPLC
Air Toxics (VOCs)	Parts per billion Carbon	ATEC	2200	6L SUBATM SS CANISTER or SS-CANISTER-PRESSURIZED
Air Toxics (PM_{10} Metals)	Nanograms/cubic meter (25 C)	TISCH	TE-Wilbur10	Tisch Model TE-Wilbur10 Low-Volume Sampler

Appendix A- List of equipment used at the DAQ monitoring sites (cont.).

Parameter	Units	Mfg	Model #	Details
Air Toxics (PAHs)	Nanograms/cubic meter (25 C)	TISCH	TE-Wilbur-BL	High Volume Sampler (PUF) GC/MS TO-13
Air Toxics (hourly VOCs)	Parts per billion Carbon	Agilent/Markes CIA	T890B	Preconcentrator trap/thermal desorber - electronic drier - Markes CIA TD/Agilent GC dual FID - carbon response
Hydrogen Chloride (HCL)	Parts per billion	Picarro	G2108	Cavity Ring Down Spectroscopy (CRDS)
Formaldehyde (HCHO)	Parts per billion	Picarro	G2307	Cavity Ring Down Spectroscopy (CRDS)
Mixing Height	Meters	Vaisala	CL-51	Optical Scattering Ceilometer
Mixing Height	Meters	Vaisala	CL-61	Optical Scattering Ceilometer
Wind Direction/Speed	Meter per second or mile per hour	RM Young	Ultrasonic Anemometer-86004	Sonic Anemometer
Relative Humidity	Percent relative humidity			Electronic RH Sensor
Solar Radiation	Watts per square meter			Electronic Sensors
UV radiation	Watts per square meter	Apogee	Apogee SU-200-SS	
Ambient Temperature	Degrees Fahrenheit			Electronic Temperature Sensor
Barometric Pressure	Millibars			Electronic Sensors

Appendix B- Site Information



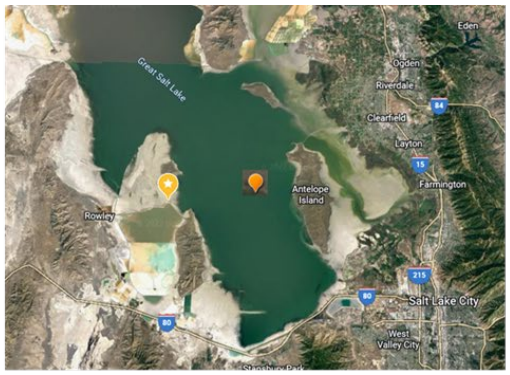
Site:	Antelope Island (AI)	Longitude:	-112.231541	Station Type:	SPM
AQS#:	49-011-6001	**Latitude:**	41.039404	**MSA:**	Ogden-Clearfield
Address:	Antelope Island	**Elevation (m):**	1355		
City:	N/A				
County:	Davis				

Site Objective:
This site is established to collect meteorological information for air quality modeling inputs.
Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is on Antelope Island State Park, near the ranger residences, in Davis County.
Can data from this site be used to evaluate NAAQS? No

Meteorological Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Tower Height	Spatial Scale
Relative Humidity	Elec. Thin Film	Continuous	6 meters	Urban
Ambient Temperature	Elec. Resistance	Continuous	6 meters	Urban
Wind Direction	Elec. Resistance Level 1	Continuous	6 meters	Urban
WD Sigma	Elec. EPA Method	Continuous	6 meters	Urban
Wind Speed	Elec. Chopped Signal Level 1	Continuous	6 meters	Urban



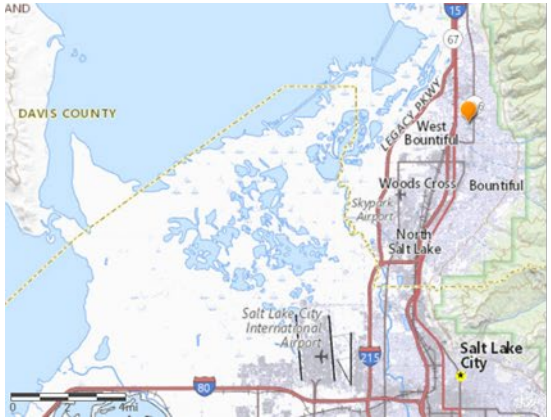
Site:	Badger Island (BI)	Longitude:	-112.231541	Station Type:	SPM
AQS#:	49-011-6001	**Latitude:**	40.94212	**MSA:**	Salt Lake City
Address:	No street address, on an Island	**Elevation (m):**	1285		
City:	N/A				
County:	Davis				

Site Objective:
This site is established to collect meteorological information for air quality modeling inputs.
Does the site meet the objective? Yes, all objectives are met.

Site Description: The site is on Badger Island
Can data from this site be used to evaluate NAAQS? No

Meteorological Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Tower Height	Spatial Scale
Relative Humidity	Elec. Thin Film	Continuous	6 meters	Urban
Ambient Temperature	Elec. Resistance	Continuous	6 meters	Urban
Wind Direction	Elec. Resistance Level 1	Continuous	6 meters	Urban
WD Sigma	Elec. EPA Method	Continuous	6 meters	Urban
Wind Speed	Elec. Chopped Signal Level 1	Continuous	6 meters	Urban



Site:	Bountiful Viewmont (BV)	Longitude:	-111.884505	Station Type:	SLAMS
AQS#:	49-011-0004	**Latitude:**	40.902945	**MSA:**	Ogden-Clearfield
Address:	1370 North 171 West	**Elevation (m):**	1309		
City:	Bountiful				
County:	Davis				

Site Objective:
The Bountiful Viewmont site is established to determine public exposure to air pollution. The site also monitors emissions from nearby oil refineries and local sand and gravel operations. Previous monitoring and saturation studies have recorded high ozone concentrations. This site is chosen for intensive speciation of $PM_{2.5}$ under the EPA Chemical Speciation Network (CSN), gaseous volatile organic compounds under the EPA National Air Toxics Trends Network (NTTN) including hexavalent chromium and carbonyl compounds and hourly VOC_PAMS measurements, Nitrogen dioxide, true Nitrogen dioxide and Reactive Oxides of Nitrogen are monitored under the Enhanced Monitoring Plan (EMP) to in support of the ozone monitoring.

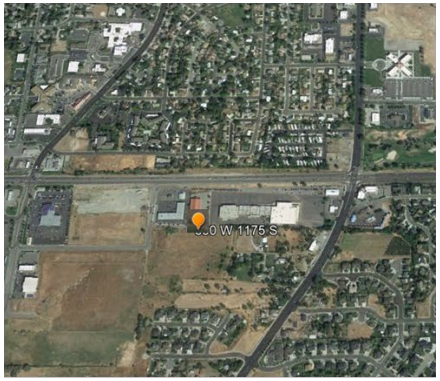
Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is located near Viewmont High School at the north end of the city of Bountiful, Davis County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale

Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Nitrogen Dioxide (CAPS	Cavity Attenuated Phase Shift	Continuous	Population Exposure	SLAMS- Population Neighborhood
NOy	Gas Phase Chemiluminescence	Continuous	Ozone modeling input	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
PM_{10}	Manual Gravimetric	Daily (Feb 1-Sep	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
PM_{10} Metals	Manual Gravimetric	1 in 6 days	Population Exposure	SLAMS- Population Neighborhood
PM_{10} Metals Co-located	Manual Gravimetric	6 samples/year	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Speciation	Manual EPA CSN	1 in 6 days	Population Exposure	SLAMS- Population Neighborhood
VOC	Manual EPA NATTS	1 in 6 days	Population Exposure	SLAMS- Population Neighborhood
Air Toxics (hourly VOCs-PAMS)	Instrumental Gas Chromatography	Continuous	Ozone modeling input	Population Neighborhood
Semi-volatile	Manual EPA NATTS	1 in 6 days	Population Exposure	SLAMS- Population Neighborhood
Carbonyl compounds	Manual EPA NATTS	1 in 6 days	Population Exposure	SLAMS- Population Neighborhood
Formaldehyde and Hydrogen Chloride	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	Population Neighborhood
Black Carbon	Aethalometer (light absorption)	Continuous	Population Exposure	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban
Precipitation	Tipping Bucket Rain Gauge	Continuous		Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban



Site:	Brigham City# 3 (BG)	Longitude:	-112.021484	Station Type:	SLAMS
AQS#:	49-003-0005	**Latitude:**	41.485039	**MSA:**	Ogden-Clearfield
Address:	350 West 1175 South	**Elevation**	1316		
City:	Brigham City				
County:	Box Elder				

Site Objective:
Site established to contain to assess population exposure and to help the forecasters with ozone and $PM_{2.5}$ predictions.

Does the site meet the objective? Yes, all objectives are met.

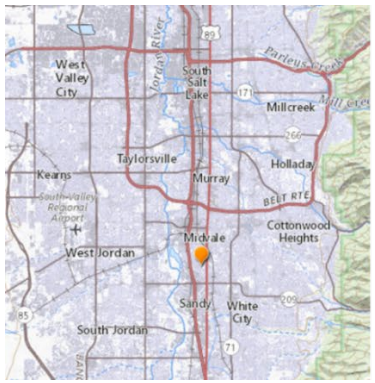
Site Description:
The site is located in near a neighborhood area of Brigham City in Box Elder County

Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood
PM_{10}	Manual Gravimetric	Daily (Feb 1-Sep 30)	Population Exposure	SLAMS- Population Neighborhood

$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban




Site:	Copperview (CV)	Longitude:	-111.894162	Station Type:	SLAMS
AQS#:	49-035-2005	**Latitude:**	40.597911	**MSA:**	Salt Lake City
Address:	8449 South Monroe St.	**Elevation (m):**	1343		
City:	Midvale				
County:	Salt Lake				

Site Objective:
Site established to assess population exposure in southeast Salt Lake County and to help the forecasters with ozone and PM2.5 predictions.

Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is located in a neighborhood area of Midvale in Salt Lake County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood
Carbon Monoxide, Trace	Gas Phase Correlation	Continuous	Population Exposure	SLAMS- Population Neighborhood
Sulfur Dioxide, Trace	Pulsed Fluorescence	Continuous	Population Exposure	SLAMS- Population Neighborhood

$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban

Site:	Enoch (EN)	Longitude:	-113.055482	Station Type:	SLAMS
AQS#:	49-021-0005	**Latitude:**	37.747409	**MSA:**	Not in MSA
Address:	3840 North 325 East	**Elevation (m):**	1693		
City:	Enoch				
County:	Iron				

Site Objective:
Site established to contain to assess population exposure and to help the forecasters with ozone and PM2.5 predictions.

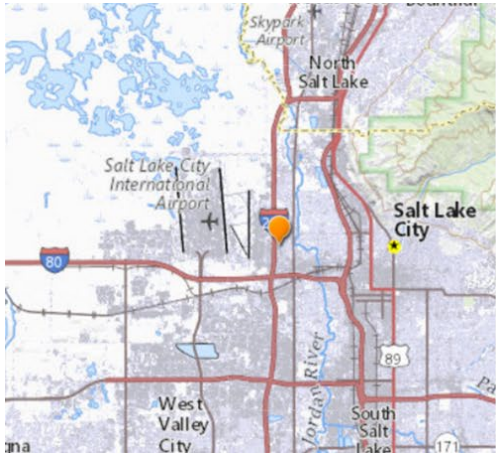
Does the site meet the objective? Yes, all objectives are met.

Site Description:
This site is located in a county area near Enoch.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood

$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban




Site:	Environmental Quality (EQ)	Longitude:	-111.94585	Station Type:	SLAMS
AQS#:	49-035-3015	**Latitude:**	40.777028	**MSA:**	Salt Lake City
Address:	1950 West 240 North	**Elevation (m):**	1284		
City:	Salt Lake City				
County:	Salt Lake				

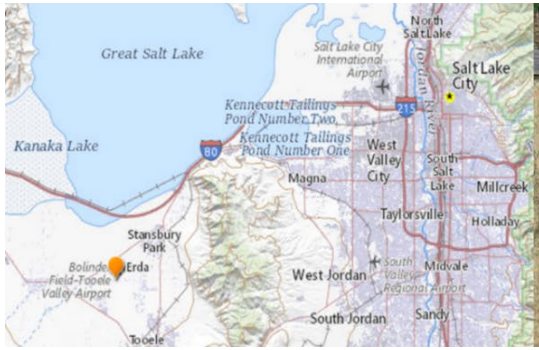
Site Objective:
The Air Monitoring Center site is established to replace the Rose Park station as an area of further investigation of $PM_{2.5}$ in Salt Lake County.
Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is located at the roof of the Technical Support Center in the city of Salt Lake, Salt Lake County**.**
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Ammonia	Manual NADP AMoN	Integrated 14 days	Population Exposure	SPM-Transport Regional
Trace Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- High Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- High Neighborhood

Carbon Monoxide	Gas Phase Correlation	Continuous	Population Exposure	SLAMS- High Neighborhood
Sulfur Dioxide, Trace	Pulsed Fluorescence	Continuous	Population Exposure	SLAMS- High Neighborhood
AirToxics (hourly VOCs- PAMS)	Instrumental Gas Chromatography	Continuous	Ozone modeling input	Population Neighborhood
Formaldehyde	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- High Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
PM_{10}	Manual Gravimetric	Daily	Population Exposure	SLAMS-Population Neighborhood
PM_{10}	Beta Attenuation Mass Monitor	Continuous	Air Quality Index	SLAMS-Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	15 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	15 meters	Urban
Wind Direction	2D-ultrasonic-anemometer transducers	Continuous	15 meters	Urban
Wind Speed	2D-ultrasonic-anemometer transducers	Continuous	15 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	15 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	15 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	15 meters	Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban



Site:	Erda (ED)	Longitude:	-112.355782	Station Type:	SLAMS
AQS#:	49-045-0004	**Latitude:**	40.600565	**MSA:**	Salt Lake City
Address:	2163 West Erda Way	**Elevation (m):**	1321		
City	Erda				
County:	Tooele				

Site Objective:
This site is established to determine population exposure to air pollutants.

Does the site meet the objective? Yes, all objectives are met.

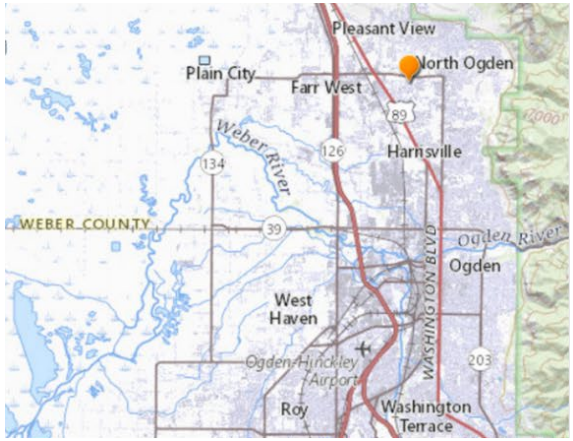
Site Description:
The site is located in the city of Erda, Tooele County.

Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Nitrogen Dioxide (CAPS true)	Cavity Attenuated Phase Shift (CAPS)	Continuous	Population Exposure	SLAMS- Population Neighborhood
NOy	Gas Phase Chemiluminescence	Continuous	Ozone modeling input	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood

Air Toxics (hourly VOCs-PAMS)	Instrumental Gas Chromatography	Continuous	Ozone modeling input	Population Neighborhood
Formaldehyde & Hydrogen Chloride	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	3 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban



Site:	Harrisville (HV)	Longitude:	-111.986476	Station Type:	SLAMS
AQS#:	49-057-1003	**Latitude:**	41.302685	**MSA:**	Ogden-Clearfield
Address:	425 West 2550 North	**Elevation (m):**	1320		
City:	Harrisville				
County:	Weber				

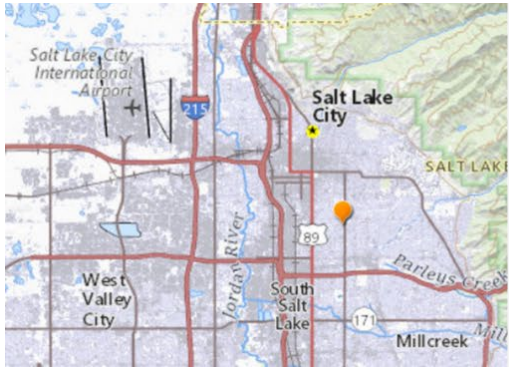
Site Objective:
This site is established in response to an ozone saturation study indicating this as a potentially high ozone concentration area. It is monitoring particulate matter
Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is located on the grounds of Majestic Elementary School in the city of Harrisville, Weber County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood
Carbon Monoxide	Gas Phase Correlation	Continuous	Population Exposure	SLAMS-High Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood

$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
PM_{10} Real Time	Beta Attenuation Mass Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban




Site:	Hawthorne (HW)	Longitude:	-111.872221	Station Type:	SLAMS
AQS#:	49-035-3006	**Latitude:**	40.734367	**MSA:**	Salt Lake City
Address:	1675 South 600 East	**Elevation (m):**	1308		
City:	Salt Lake City				
County:	Salt Lake				

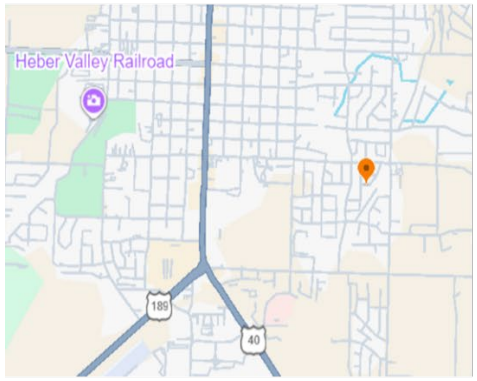
Site Objective:
This site is established to represent population exposure in the Salt Lake City area. This site is also designated as the EPA NCORE site for Utah.
Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is located at Hawthorne Elementary School in the southeast section of Salt Lake City, Salt Lake County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Nitrogen Dioxide (CAPS true)	Cavity Attenuated Phase Shift (CAPS)	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood
Carbon Monoxide Trace Level	Gas Phase Correlation	Continuous	Population Exposure	SLAMS-High Neighborhood
NOy Trace Level	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood

SO2 Trace Level	Pulsed Fluorescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Speciation	Manual EPA CSN	1 in 3 days	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
PM_{10}	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
PM_{10} Real Time	Beta Attenuation Mass Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
PM_{coarse}	Manual Gravimetric Subtraction	Daily	Population Exposure	SLAMS- Population Neighborhood
Air Toxics (hourly VOCs-PAMS)	Instrumental Gas Chromatography	Continuous	Ozone modeling input	Population Neighborhood
Formaldehyde	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	3 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Relative Humidity	Air Temperature and Relative Humidity	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	4 meters	Urban
UV Radiation	UV Radiation sensor	Continuous	4 meters	Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban
Precipitation	Tipping Bucket Rain Gauge	Continuous		Urban



Site:	Heber (HB)	Longitude:	-112.0363	Station Type:	SLAMS
AQS#:	49-051-0001	**Latitude:**	40.4979	**MSA:**	Heber
Address:	Heber City Site #1 Water Conservation District lot, 626 E 1200 S Heber City	**Elevation (m):**	1524		
City:	Heber				
County:	Heber				

Site Objective:
This site is established to represent population exposure in Heber county.
Does the site meet the objective? Yes, all objectives are met.

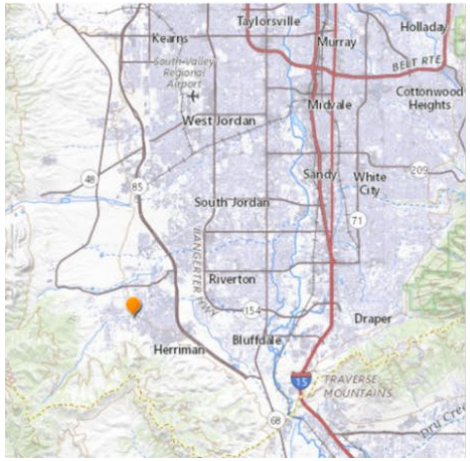
Site Description:
The site is located at Public Power Utility Facility, in a residential area and near a small canal

Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood

$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban



Site:	Herriman #3 (H3)	Longitude:	-112.036329	Station Type:	SLAMS
AQS#:	49-035-3012	**Latitude:**	40.496412	**MSA:**	Salt Lake City
Address:	14058 Mirabella Drive	**Elevation (m):**	1534		
City:	Herriman				
County:	Salt Lake				

Site Objective:
This site is established to represent population exposure in southwest the Salt Lake County.
Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is located at Fort Herriman Middle School in southwest Salt Lake County
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood

$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor Co-located	Continuous	Precision and Accuracy	SLAMS- Population Neighborhood
PM_{10} Real Time	Beta Attenuation Mass Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban

Site:	Hurricane (HC)	Longitude:	-113.305105	Station Type:	SLAMS
AQS#:	49-053-0007	**Latitude:**	37.179138	**MSA:**	St George
Address:	147 North 870 West	**Elevation (m):**	992		
City:	Hurricane				
County:	Washington				

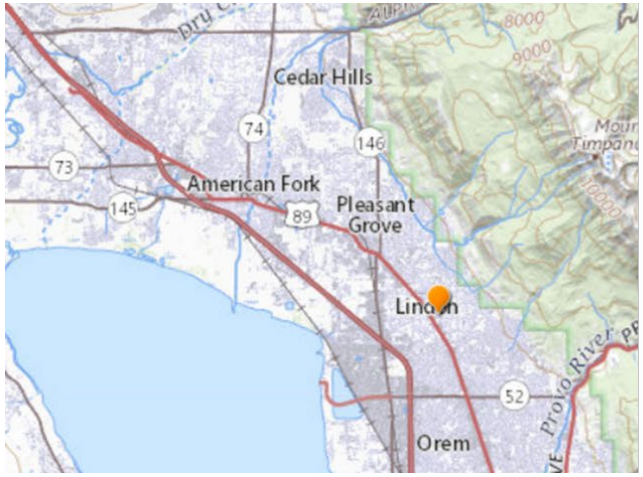
Site Objective: This site is established to determine population exposure to ozone in Washington County
Does the site meet the objective? Yes, all objectives are met.

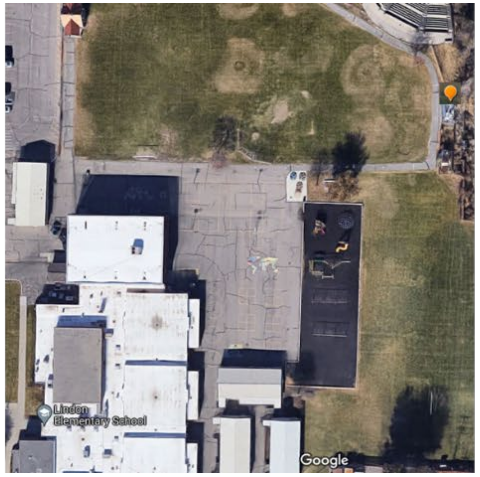
Site Description: This site is located behind the Hurricane City offices
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood

Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	2 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban





Site:	Lindon (LN)	Longitude:	-111.713486	Station Type:	SLAMS
AQS#:	49-049-4001	**Latitude:**	40.339505	**MSA:**	Provo - Orem
Address:	50 North Main	**Elevation (m):**	1444		
City:	Lindon				
County:	Utah				

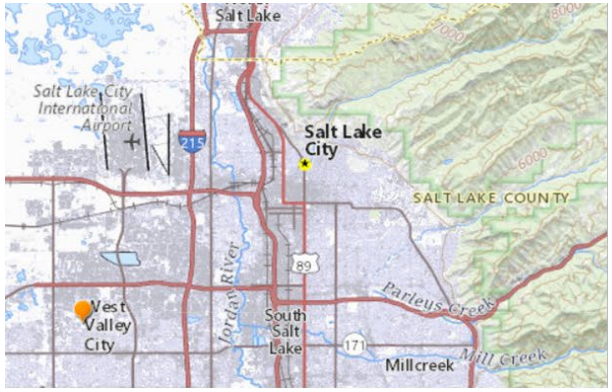
Site Objective: This site is established to determine PM emissions from commercial and industrial sources. Historically, this site has reported the highest PM values in Utah County
Does the site meet the objective? Yes, all objectives are met.

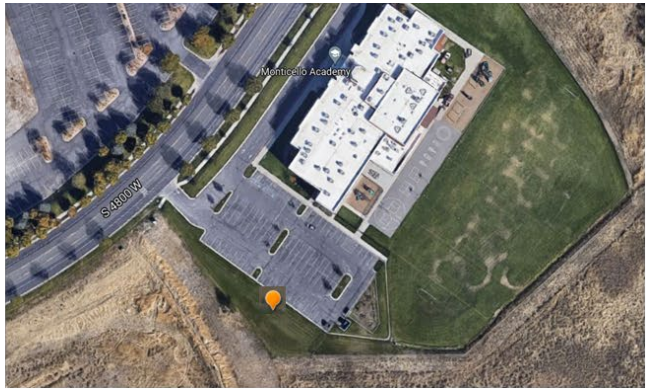
Site Description: The site is located at the Lindon Elementary School in the City of Lindon, Utah County
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood

Carbon Monoxide	Gas Phase Correlation	Continuous	Population Exposure	SLAMS-High Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population
$PM_{2.5}$	Manual Gravimetric Co-located	1 in 6 days	Precision and Accuracy Assessment	SLAMS- Population
$PM_{2.5}$ Speciation	Manual EPA CSN	1 in 6 days	Population Exposure	SLAMS- Population
PM_{10} Real Time	Beta Attenuation Mass Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Black Carbon	Aethalometer (light absorption)	Continuous	Population Exposure	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban





Site:	Lake Park (LP)	Longitude:	-112.008684	Station Type:	SLAMS
AQS#:	49-035-3014	**Latitude:**	40.709905	**MSA:**	Salt Lake City
Address:	2782 South Corporate Park Dr.	**Elevation (m):**	1295		
City:	West Valley City				
County:	Salt Lake				

Site Objective: This site recently established to determine the potential impact of the Inland Port on the Salt Lake Valley Airshed.
Does the site meet the objective? Yes, all objectives are met.

Site Description: This site is located near the parking lot of Monticello Academy in West Valley City, Salt Lake County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Black Carbon	Aethalometer (light absorption)	Continuous	Population Exposure	SLAMS- Population Neighborhood

Air Toxics (hourly VOCs-PAMS)	Instrumental Gas Chromatography	Continuous	Ozone modeling input	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban

Site:	Moab (M7)	Longitude:	-109.537167	Station Type:	SPM
AQS#:	49-019-0007	**Latitude:**	38.566055	**MSA:**	NA
Address:	691 S Mill Creek Dr.	**Elevation (m):**	1259		
City	Moab				
County:	Grand				

Site Objective:
Site established to assess population exposure and support air quality forecasting

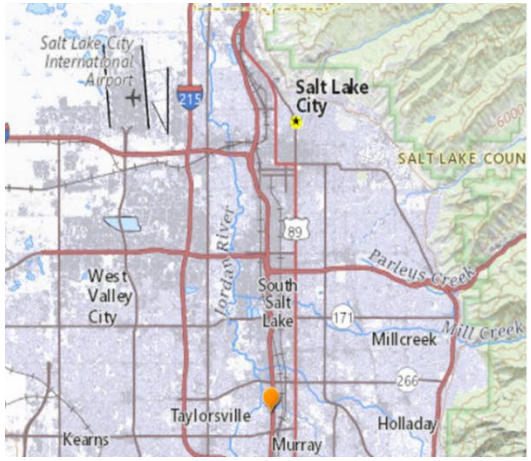
Does the site meet the objective? Yes, all objectives are met.

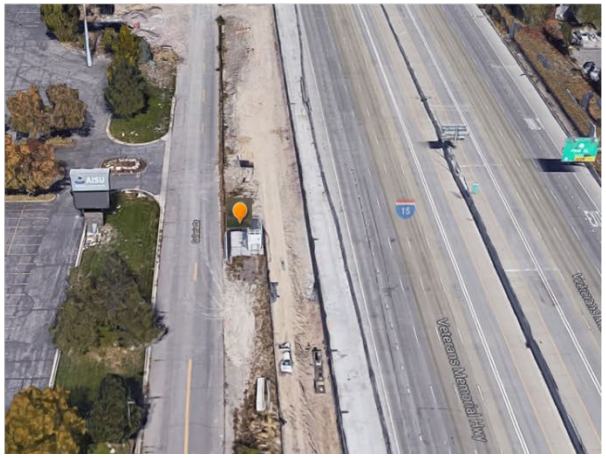
Site Description:
in Moab, Grand County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SPM
Ozone	Ultraviolet	Continuous	Population Exposure	SPM
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SPM

Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Regional
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Regional
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Regional
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Regional
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Regional
WD Sigma	Electronic EPA Method	Continuous	10 meters	Regional
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Regional





Site:	Near Road (NR)	Longitude:	-111.901874	Station Type:	SLAMS
AQS#:	49-035-4002	**Latitude:**	40.662868	**MSA:**	Salt Lake City
Address:	5001 South Galleria Dr.	**Elevation (m):**	1305		
City:	Murray				
County:	Salt Lake				

Site Objective: This site recently established to assess population exposure to and to monitor vehicular contribution to air pollution as part of the EPA NO_2 monitoring
Does the site meet the objective? Yes, all objectives are met.

Site Description: A site was found for the Near Road monitor on I-15 at the address 4951 South Galleria Dr, Murray. The site is located at 14 meters from the inlet probe to the center of the nearest lane (the nearest lane is an exit lane) or It is 19 meters to center of the nearest lane that supports normal traffic flow.
Can data from this site be used to evaluate NAAQS? NO*

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
Carbon Monoxide	Gas Phase Correlation	Continuous	Population Exposure	SLAMS-High Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood

$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	3 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	3 meters	Urban
Wind Direction	2D-ultrasonic anemometer	Continuous	3 meters	Urban
Wind Speed	2D-ultrasonic anemometer	Continuous	3 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	3 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	3 meters	Urban

[*] *State and Local Air Monitoring Stations (SLAMS) are strategically placed to represent general air quality across urban, suburban, and rural areas. These sites follow specific siting criteria designed to avoid direct influence from nearby pollution sources like industrial areas or highways. The goal is to reflect typical population exposure and provide broad spatial coverage.*
In contrast, near-road monitoring sites are located within 50 meters of major roadways, specifically to capture the impact of traffic emissions. These sites are placed in areas with heaviest vehicle activity and are more likely to record higher levels of pollutants such as NO_2 and $PM_{2.5}$. Due to their proximity to major traffic, near-road sites are more likely to exceed the NAAQS compared to more widely distributed SLAMS stations.

A few key points to consider:

- *Near-road sites are designed to assess the impact of traffic emissions, which can elevate pollutants like $PM_{2.5}$. Including these sites in the broader NAAQS calculation could distort the results, as they represent areas with high vehicle emissions that may not be indicative of the general population's exposure to $PM_{2.5}$.*
- *The primary aim of the $PM_{2.5}$ NAAQS is to protect public health across a broader region. Near-road monitoring, on the other hand, focuses on localized hotspots with high traffic volumes. These hotspots may have elevated $PM_{2.5}$ concentrations that exceed the NAAQS, but they don't reflect the typical exposure experienced by the general population, which is usually lower, especially in areas farther from traffic.*
- *Near Road Site is a microscale monitor and using this to determine compliance with NAAQS would be inaccurate as the air quality at these specific locations may not be representative of the larger areas.*
- *The Near Road Site is a microscale monitor, and using it to determine compliance with the NAAQS may be inaccurate, as the air quality at such specific location may not be representative of the broader surrounding area.*

Because near-road sites do not fully represent the exposure of the majority of the population, excluding their data from NAAQS calculations helps provide a more accurate picture of air quality and exposure levels that affect the general public.


Site:	Price #2 (P2)	Longitude:	-110.770097	Station Type:	SPM
AQS#:	49-007-1003	**Latitude:**	39.595749	**MSA:**	Price
Address:	351 South 2500 East	**Elevation (m):**	1737		
City:	Price				
County:	Carbon				

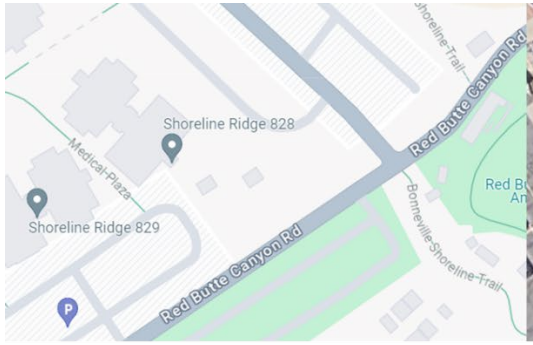
Site Objective: This site is established in response to a three-state ozone study. It is funded by the Bureau of Land Management
Does the site meet the objective? Yes, all objectives are met.

Site Description: This site is located in a farm field 3.6 Km east of Price
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS-High Neighborhood

$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SPM
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Regional
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Regional
Wind Direction	2D-ultrasonic anemometer	Continuous	10 meters	Regional
Wind Speed	2D-ultrasonic anemometer	Continuous	10 meters	Regional
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Regional
WD Sigma	Electronic EPA Method	Continuous	10 meters	Regional
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Regional



Site:	Red Butte (RB)	Longitude:	-111.8285	Station Type:	SPM
AQS#:	49-035-3018	**Latitude:**	40.7667	**MSA:**	Salt Lake City
Address:	2195 Red Butte canyon Rd	**Elevation (m):**	1517		
City:	Salt Lake City				
County:	Salt Lake				

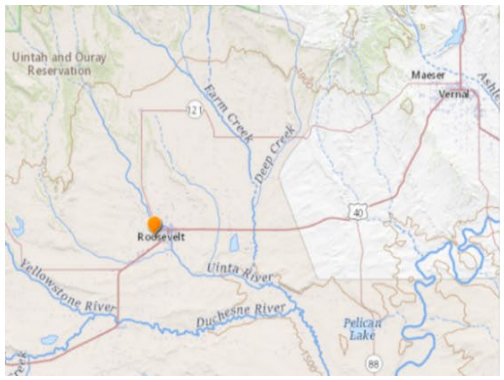
Site Objective:
This site is established to support air quality models and research studies
Does the site meet the objective? Yes, all objectives are met.

Site Description:
The site is located at the University of Utah Research Met in the southeast section of Salt Lake City, Salt Lake County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide (CAPS true)	Cavity Attenuated Phase Shift (CAPS)	Continuous	Population Exposure	SPM
Ozone	Ultraviolet	Continuous	Population Exposure	SPM
NOy Trace Level	Gas Phase Chemiluminescence	Continuous	Population Exposure	SPM
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SPM

Air Toxics (hourly VOCs-PAMS)	Instrumental Gas Chromatography	Continuous	Ozone modeling input	SPM
Formaldehyde	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	SPM
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	2 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Relative Humidity	Air Temperature and Relative	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban
UV Radiation	UV Radiation sensor	Continuous	4 meters	Urban
Precipitation	Tipping Bucket Rain Gauge	Continuous		Urban




Site:	Roosevelt (RS)	Longitude:	-110.008961	Station Type:	SLAMS
AQS#:	49-013-0002	**Latitude:**	40.294175	**MSA:**	NA
Address:	290 South 1000 West	**Elevation (m):**	1585		
City:	Roosevelt				
County:	Duchesne				

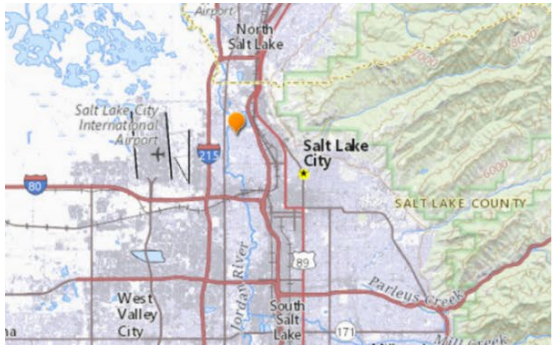
Site Objective: This site is established to determine maximum ozone and $PM_{2.5}$ concentrations in Duchesne County
Does the site meet the objective? Yes, all objectives are met.

Site Description: The site is located in the city park North West section of Roosevelt.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood

$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor Co-located	Continuous	Precision and Accuracy	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population
PM_{10}	Manual Gravimetric	Daily	Population Exposure	SLAMS-Impact Neighborhood
PM_{10}	Manual Gravimetric Co-located	1 in 6 days	Precision and Accuracy Assessment	SLAMS- Population
PM_{10} Real Time	Beta Attenuation Mass Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban
Ambient Temperature	Elec. Resistance	Continuous	2 meters	Urban
Temperature Difference	Math Channel	Continuous	2 meters	Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban




Site:	Rose Park (RP)	Longitude:	-111.930996	Station Type:	SLAMS
AQS#:	49-035-3010	**Latitude:**	40.795514	**MSA:**	Salt Lake City
Address:	1250 North 1400 West	**Elevation (m):**	1283		
City:	Salt Lake City				
County:	Salt Lake				

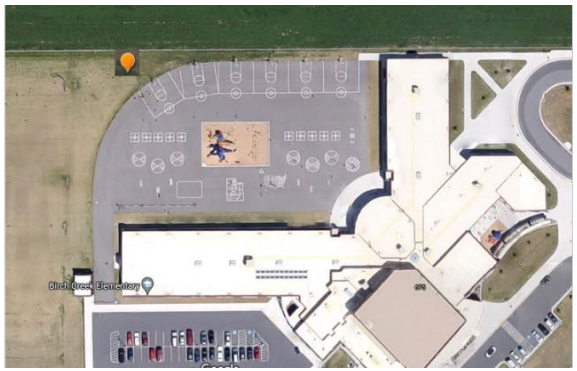
Site Objective: This site is established to better represent PM2.5 exposure in this area of Salt Lake City
Does the site meet the objective? Yes, all objectives are met.

Site Description: The site is located in the community of Rose Park at the north end of Salt Lake City, Salt Lake County
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
Carbon Monoxide	Gas Phase Correlation	Continuous	Population Exposure	SLAMS- Population Neighborhood
Sulfur Dioxide	Pulsed Fluorescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population

$PM_{2.5}$	Manual Gravimetric Co-located	Daily	Precision and Accuracy Assessment	SLAMS- Population
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban



Site:	Smithfield (SM)	Longitude:	-111.852064	Station Type:	SLAMS
AQS#:	49-005-0007	**Latitude:**	41.84267	**MSA:**	Logan
Address:	675 West 220 North	**Elevation (m):**	1379		
City:	Smithfield				
County:	Cache				

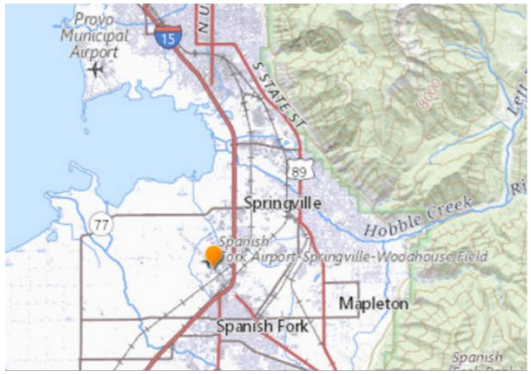
Site Objective: Site established to replace Logan site and determine general population exposure.
Does the site meet the objective? Yes, all objectives are met.

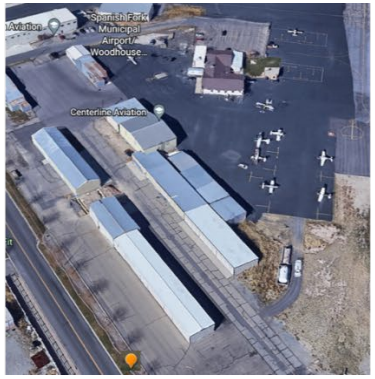
Site Description: This site is located at Birch Creek Elementary School in Cache County. It is approximately 7 miles north of Logan
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Speciation	Manual EPA CSN	1 in 6 days	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Precision and Accuracy	SLAMS- Population Neighborhood

$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor Co-located	Continuous	Precision and Accuracy	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric Co-located	Daily	Precision and Accuracy Assessment	SLAMS- Population Neighborhood
Black Carbon	Aethalometer (light absorption)	Continuous	Population Exposure	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban





Site:	Spanish Fork (SF)	Longitude:	-111.658011	Station Type:	SLAMS
AQS#:	49-049-5010	**Latitude:**	40.136369	**MSA:**	Provo - Orem
Address:	300 West 2050 North	**Elevation (m):**	1380		
City:	Spanish Fork				
County:	Utah				

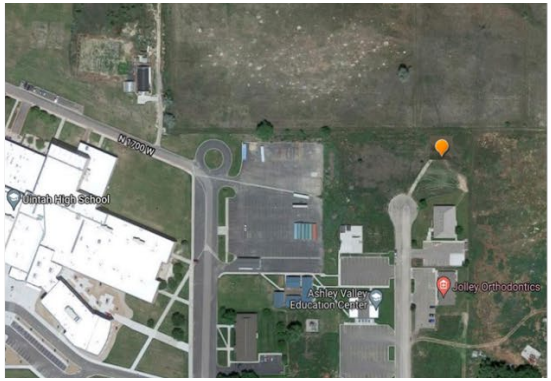
Site Objective: This site is established to determine the boundary of the high ozone and $PM_{2.5}$ concentrations in Utah County.
Does the site meet the objective? Yes, all objectives are met.

Site Description: The site is located at the Spanish Fork airport in the city of Spanish Fork, Utah County.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood

Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban



Site:	Vernal (V4)	Longitude:	-109.560731	Station Type:	SLAMS
AQS#:	49-047-1004	**Latitude:**	40.464812	**MSA:**	NA
Address:	628 North 1700 West	**Elevation (m):**	1667		
City:	Vernal				
County:	Uintah				

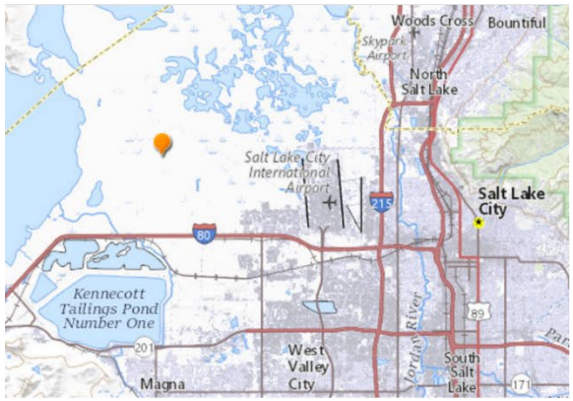
Site Objective: This site is established was set up in response to an ozone study**.**
Does the site meet the objective? Yes, all objectives are met.

Site Description: The site is located at the northwest of the city of Vernal.
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	Regional
Ozone	Ultraviolet	Continuous	Population Exposure	Regional
Ozone	Gas Phase Chemiluminescence	Continuous	Population Exposure	Regional
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS-Population

$PM_{2.5}$	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Regional
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Regional
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Regional
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Regional
Ambient Pressure	Barometric Pressure Transducer	Continuous	2 meters	Regional
WD Sigma	Electronic EPA Method	Continuous	10 meters	Regional
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Regional




Site:	Prison (ZZ)	Longitude:	-112.087772	Station Type:	SPM
AQS#:	49-035-3016	**Latitude:**	40.80793	**MSA:**	Salt Lake City
Address:	8000 W 1480 N	**Elevation (m):**	1287		
City:	Salt Lake City				
County:	Salt Lake				

Site Objective: This site recently established to determine the potential impact of the Inland Port on the Salt Lake Valley Airshed.
Does the site meet the objective? Yes, all objectives are met.

Site Description: This site is located at the new State Prison north of I-80 on the southern border of the Great Salt Lake in Salt Lake County
Can data from this site be used to evaluate NAAQS? Yes

Gaseous/Particulate Parameters

Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SPM
Ozone	Ultraviolet	Continuous	Population Exposure	SPM
$PM_{2.5}$ Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SPM

PM_{10}	Manual Gravimetric	Daily (Feb 1-Sep 30)	Population Exposure	SPM
Black Carbon	Aethalometer (light absorption)	Continuous	Population Exposure	SPM
Formaldehyde and Hydrogen Chloride	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	SPM
Meteorological Parameters				
Parameter	**Sampling & Analysis Method**	**Operating Schedule**	**Tower Height**	**Spatial Scale**
Relative Humidity	Air Temperature and Relative Humidity Sensor- Electronic Thin Film	Continuous	10 meters	Urban
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	10 meters	Urban
Wind Direction	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Wind Speed	2D-ultrasonic anemometer transducers	Continuous	10 meters	Urban
Ambient Pressure	Barometric Pressure Transducer	Continuous	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban

Response to Public Comments