



Department of Environmental Quality

Division of Air Quality

Annual Monitoring Network Plan 2025-2026



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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
NO _x	Reactive nitrogen oxides
NO _y	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 2025.

Table 1. List of designated PM_{2.5} primary monitors for 2025.

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

Method code 145 is FRM and 184 is FEM

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.

- The Ozone instrument at Red Butte station (RB) was shut down in September 2025 at the end of the special study period. This station is a special study site.
- TSP lead sampling will be resumed at the Magna site. The UDAQ waiver for lead sampling has expired, and EPA Region 8 has required that sampling be restarted for an initial period of 1–3

years to collect new data prior to submitting a new waiver request. DAQ is currently completing the necessary preparations to begin lead sampling in July 2026.

- 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. The main advantages of the digital system are 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 all 25 stations.
- The meteorological equipment was upgraded across all stations in the network to the Campbell Scientific ClimaVue 50 All-in-One Sensor.
- All changes and additions to the monitoring network are contingent upon the availability of necessary resources and the approval of EPA. They 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
Salt Lake	Lake Park (LP)	Hourly-averaged speciated VOCs began reporting May 2025
	Magna (MA)	Station fully operational as of January 6, 2026, measuring PM _{2.5} (continuous and filter-based), O ₃ , SO ₂ , NO ₂ and PM ₁₀ (filter-based)
	Beach (B4)	Station fully operational as of January 1, 2026, measuring PM _{2.5} (continuous and filter-based), O ₃ , NO ₂ and PM ₁₀ (filter-based)
Summit	Summit (RT)	PM _{2.5} filter-based sampling has been conducted since January 2026 while we await the utility connection required to begin additional measurements at the site
Tooele	Erda (ED)	In March 2026, a ceilometer was installed to assess whether it can capture dust events

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

County	Station Name	Comment
Davis	Syracuse (SY)	The station shelter has been placed at the location where the future station will operate. Arrangements are ongoing to provide power to the station
Salt Lake	Near Road (NR)	<p>The Near-Road monitoring station is planned for shutdown pending approval of the Annual Monitoring Network Plan by EPA Region 8. Unlike State and Local Air Monitoring Stations (SLAMS), which are designed to represent ambient air quality experienced by the general population across urban, suburban, and rural areas, the Near-Road station is located immediately adjacent to a major roadway and is intended to measure the direct impact of traffic emissions. Because the site does not represent the air quality exposure experienced by most residents, UDAQ proposes to discontinue operation of the station and reallocate its resources to other monitoring locations where they can provide greater benefit to the statewide monitoring network.</p> <p>If EPA Region 8 determines that the station should remain in operation, the data collected at the site would continue to be used for informational and assessment purposes. However, because the site has been redesignated as microscale, the monitor would not be designated as a SLAMS monitor, and the data would not be used for NAAQS compliance determinations.</p>
Salt Lake	Magna (MA)	TSP lead sampling will be resumed at the Magna site. The UDAQ waiver for lead sampling has expired, and EPA Region 8 has required that sampling be restarted for an initial period of 1–3 years to collect new data prior to submitting a new waiver request. DAQ is currently completing the necessary preparations to begin lead sampling in July 2026
Washington	Hurricane (HC)	Because of the projected population growth in St. George over the coming years, PM ₁₀ monitoring will be required. UDAQ is planning to install a continuous PM ₁₀ monitoring instrument by the end of 2026

As part of a grant funded through the Inflation Reduction Act (IRA), UDAQ is expanding air monitoring efforts across the state. This effort includes planning for new monitoring stations in several regions, including West Davis County, Utah County, Cache County, the West Desert, and North Salt Lake. These stations will improve air quality monitoring coverage and enhance the ability to track dust and other air pollutants.

The general locations were selected based on specific monitoring needs. For example, one site will focus on monitoring dust from dry lakebeds, while other sites are being considered in anticipation of potential changes to existing monitoring locations. Additional stations will also improve coverage in growing communities and industrial areas.

DAQ is currently working to identify the most suitable final locations for the new stations. Specific timelines and additional details are still under development.

The Utah Dust Observatory and Research Network (UDORN) was created to expand monitoring infrastructure and compiled the PM₁₀ chemical composition for heavy metals in strategic locations of the state-wide network. These sites are described in the UDORN plan: <https://deq.utah.gov/air-quality/utah-dust>.

PM_{2.5} Attainment Redesignation and Network Evaluation

The Salt Lake and Provo PM_{2.5} nonattainment areas were officially redesignated to attainment/maintenance for the 2006 24-hour PM_{2.5} National Ambient Air Quality Standard (NAAQS). The EPA final rule became effective on December 19, 2025.

Following this redesignation, an evaluation of the PM_{2.5} monitoring network is being conducted to assess current monitoring needs. The objective of this review is to identify monitors required for regulatory compliance, trend analysis, and operational support, and to determine whether any existing monitors may be eligible for discontinuation. Any future changes to the PM_{2.5} monitoring network require prior EPA approval.

1.1 Utah Air Quality Monitoring Network

The Air Quality Monitoring Network currently operates monitors at 28 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 26 locations, PM₁₀ at 12 locations, O₃ at 24 locations, NOX/NO/NO₂ at 25 locations, CO at seven locations, and SO₂ at five locations.

Of the 26 PM_{2.5} monitoring sites, 18 use filter-based equipment. Similarly, 9 of the 12 PM₁₀ 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, except RT at Summit County, while six of the 12 PM₁₀ sites have continuous monitors. Only the PM₁₀ filter base instruments at Hawthorne (HW), Environmental Quality (EQ), Beach (B4), Magna (MA), and Roosevelt (RS) run daily continuously during the year and can be used to determine the NAAQS. The Roosevelt site also has a collocated PM₁₀ 1-in-6 scheduled sampler. The Dust Study monitors are running 48-hour samples and are only active March through September 30 starting 2026.

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 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	49-035-2004	Beach (B4)	1200 S 12100 West, Magna	40.73426	-112.21029	1284
	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
	49-035-1002	Magna (MA)	9228 W 2700 S, Magna	40.71122	-112.11070	1300
	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
Summit	49-043-0001	Rail Trail (RT)	6533 North Promontory Ranch Road Park City	40.724611	-111.471681	1983
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.

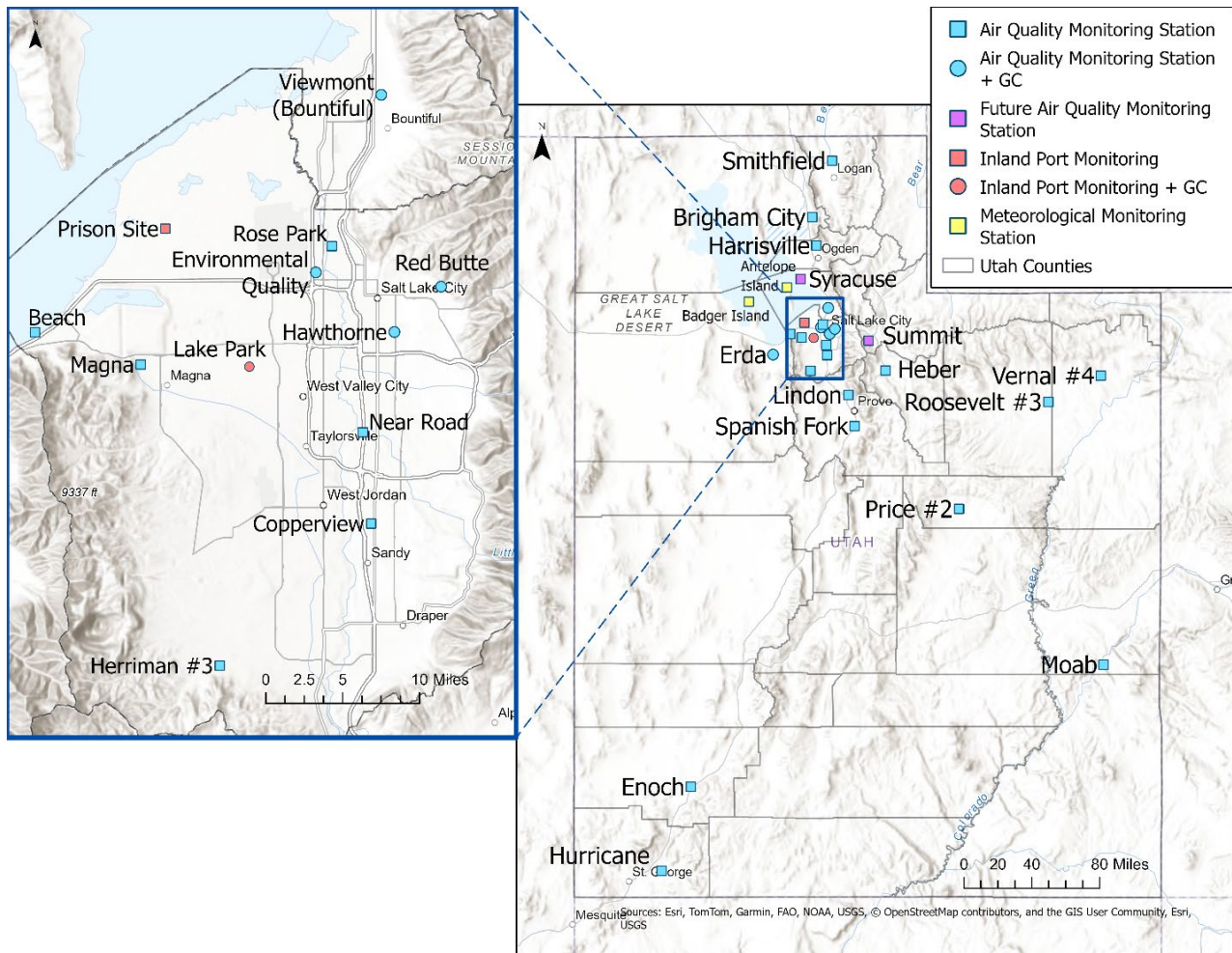


Table 5. Measured parameters at the sampling stations in Utah Air Monitoring Network.

County	Site	PM _{2.5}				PM ₁₀			PM Coarse	Speciation PM _{2.5}	O ₃	NO _x	NO ₂	NO	True NO ₂	NO _y	SO ₂	CO	NH ₃	Toxics	Carbonyls	VOCs PAMS	Formaldehyde (HCHO)*	HCL*	BC	MET
		FRM	Co-located (FRM)	Real-time	Co-located (Real-time)	FRM	Co-located	Real-time																		
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	
	<i>Antelope Island</i>																								X	
Salt Lake	Beach	1/1		X		1/1					X	X													X	
	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	
	Magna	1/1		X		1/1						X	X			X										
	Near Road	1/1		X								X	X					X								X
	Red Butte			X										X	X							X	X			X
	Rose Park	1/1	1/1	X								X	X			X	X									X
Tooele	Prison			X		1/1					X	X										X	X	X	X	
	<i>Badger Island</i>	1/1		X							X	X	X	X								X	X	X		X
Wasatch	Heber	1/1		X							X	X													X	
Summit	Rail Trail	1/1																								
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* correspond 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 (PM_{2.5})

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 21 FRM PM_{2.5} monitors and FEM continuous PM_{2.5} samplers at 26 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 (PM₁₀)

The DAQ currently operates six 24-hour FRM PM₁₀ samplers throughout the state and six FEM continuous PM₁₀ samplers.

1.2.3 Ozone (O₃)

DAQ currently operates 10 ozone monitors in Salt Lake County, one in Tooele, 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 (SO₂)

The DAQ currently operates five SO₂ monitors within the Salt Lake County. The monitor at HW was designated as population-oriented and satisfies NCore requirements.

1.2.5 Nitrogen Dioxide (NO₂)

The DAQ currently operates NO₂ monitors in 25 out of the 28 monitoring stations that are presently operational. Although Utah has demonstrated compliance with NO₂ standards, DAQ maintains NO₂ monitoring at many sites since emissions of this pollutant can lead to increased O₃ 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.

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 $\mu\text{g}/\text{m}^3$ in total suspended particles (TSP). This updated standard is ten times lower than the previous standard of 1.5 $\mu\text{g}/\text{m}^3$, 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 $\mu\text{g}/\text{m}^3$.

The State of Utah has been in compliance with the Lead National Ambient Air Quality Standards (NAAQS) since 1982. In 2005, the U.S. Environmental Protection Agency (EPA) authorized the discontinuation of lead monitoring within the state. However, following the establishment of updated lead monitoring requirements in 2008 and 2010, the Utah Division of Air Quality (DAQ) resumed lead monitoring at the Magna site from 2010 through June 2017.

Due to consistently low lead concentrations, the EPA approved a waiver in 2017 allowing the discontinuation of monitoring at this location. That waiver has since expired. The EPA Region 8 has required DAQ to resume lead sampling for an initial period of 1–3 years to collect updated data prior to submitting a new waiver request.

DAQ is currently completing the necessary preparations to begin lead sampling at the Magna station in July 2026, following the regulatory guidelines outlined in 40 CFR Part 58, Appendix D. The station will operate on a six-day sampling schedule.

Moving forward, DAQ and the EPA will continue to evaluate monitoring requirements, including source emission thresholds, population changes, and any revisions to the NAAQS that may necessitate permanent resume or expand lead monitoring in Utah.

1.3 Chemical Speciation (CSN)

The DAQ currently operates four $\text{PM}_{2.5}$ 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 $\text{PM}_{2.5}$ speciation sites, operating on a 1-in-6-day sampling schedule. Data from the speciation network is primarily used to determine $\text{PM}_{2.5}$ 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 (<i>E1 CSN, E2 CSN, E3 CSN, EC CSN TOR, EC CSN TOT</i>). Organic carbon (<i>OC1 CSN, OC2 CSN, OC3 CSN, OC4 CSN, OC CSN TOR, OC CSN TOT, OP CSN TOR</i>), OP CSN TOT, TC CSN

1.4 Multipollutant Monitoring Network (NCore)

The DAQ currently operates one multi-pollutant network NCore site, Hawthorne (HW), located in Salt Lake County. This site is equipped with several advanced measurement systems to monitor PM (PM_{2.5} and PM₁₀), ozone, NO₂, true-NO₂, trace levels of CO, SO₂, total reactive nitrogen (NO_y), carbonyl compounds, organic, and elemental carbon as well as meteorological parameters including 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 required PAMS 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 NO₂
- 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. From June 1 to August 31, carbonyl species are collected in three 8-hour samples on a 1-in-3 day schedule. For the remaining part of the year, carbonyl species are collected

in a 24-hour sample on a 1-in-3-day schedule. 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, 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, 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, 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 (PM₁₀)	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 Division of Air Quality (DAQ) currently uses the Campbell Scientific ClimaVue 50 All-in-One Sensor across all stations in the monitoring network to collect these meteorological data.

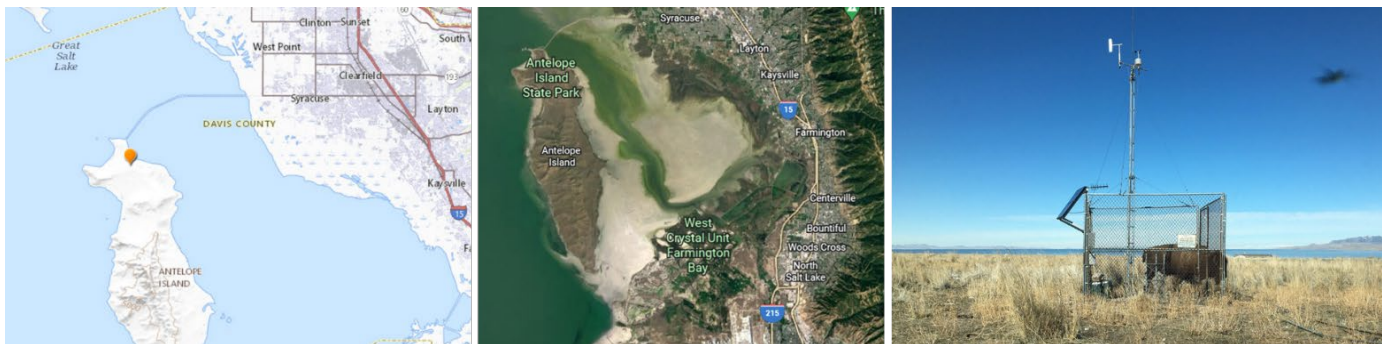
Appendix A- List of equipment used at the DAQ monitoring sites.

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	T300	Gas Filter Correlation
Carbon Monoxide (trace level)	Parts per million	Teledyne API	T300U	Gas Filter Correlation
Nitrogen Dioxide	Parts per billion	Teledyne API	T200	Gas Phase Chemiluminescence
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 _v)	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

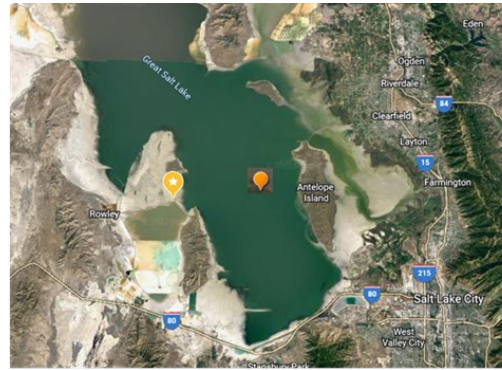
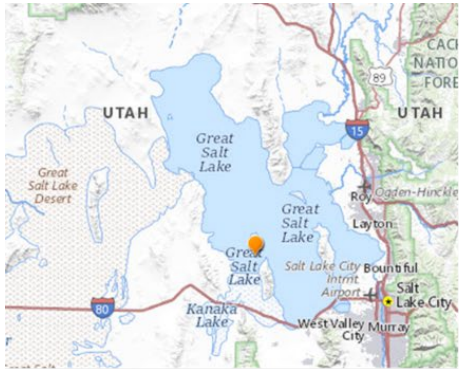
Appendix A- List of equipment used at the DAQ monitoring sites (cont.).

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	Campbell Scientific	ClimaVue 5000	All in one sensor
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

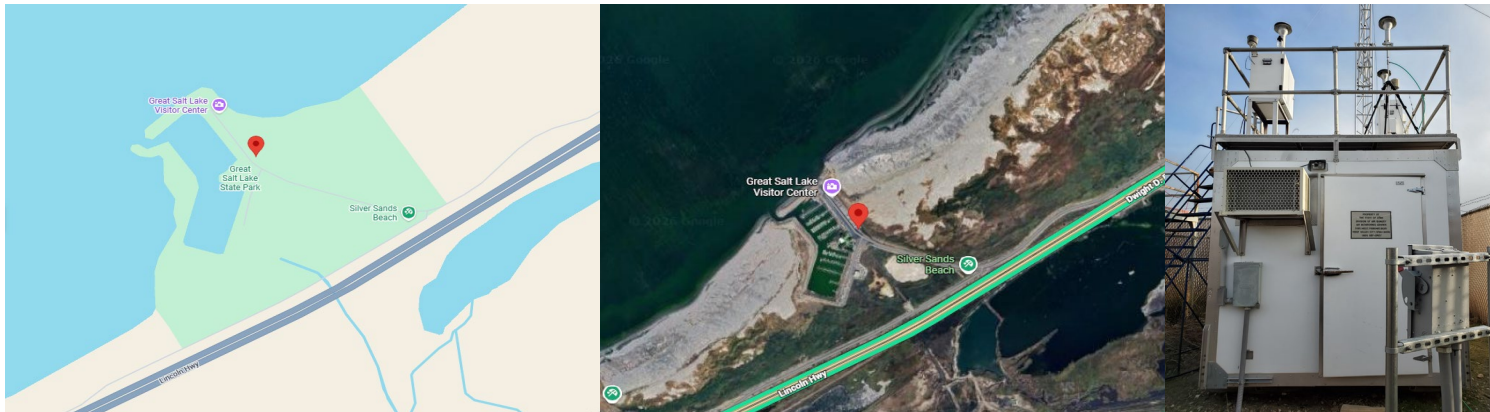
Appendix B- Site Information



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 was 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	

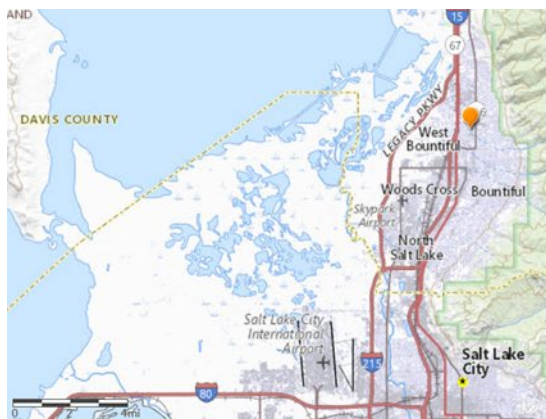


Site:	Badger Island (BI)	Longitude:	-112.561943	Station Type:	SPM
AQS#:	49-045-6001	Latitude:	40.94212	MSA:	Salt Lake City
Address:	No street address, on an Island	Elevation (m):	1285		
City:	N/A				
County:	Tooele				
Site Objective:					
This site was established to collect meteorological information 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:	Beach (B4)	Longitude:	-112.21029	Station Type:	SLAMS
AQS#:	49-035-2004	Latitude:	40.73426	MSA:	Salt Lake City
Address:	1200 S 12100 West GSL Beach Marina	Elevation (m):	1284		
City:	Magna				
County:	Salt Lake				
Site Objective:					
The site was established 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: GSL (Great Salt Lake) Beach Marina					
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}	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
PM₁₀	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	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



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 site was 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 was 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:

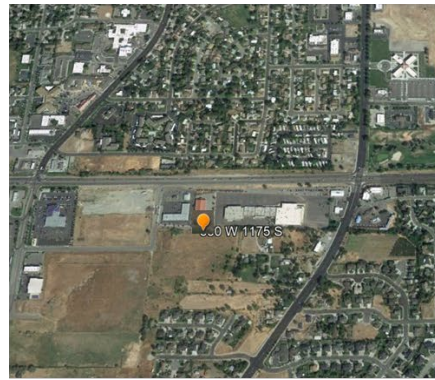
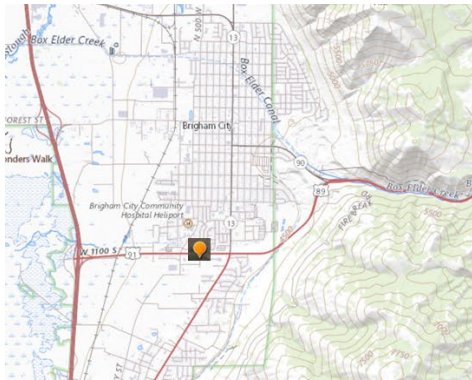
The site is located near Viewmont High School at the north end of the city of Bountiful, Davis County.

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	SLAMS- Population Neighborhood

Nitrogen Dioxide (CAPS)	Cavity Attenuated Phase Shift (CAPS)	Continuous	Population	SLAMS- Population Neighborhood
NOy	Gas Phase Chemiluminescence	Continuous	Ozone	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population	SLAMS- High Neighborhood
PM_{2.5}	Manual Gravimetric	Daily	Population	SLAMS- Population Neighborhood
PM₁₀	Manual Gravimetric	Dust schedule	Population	SLAMS- Population Neighborhood
PM_{2.5} Real Time	Synchronized Hybrid Ambient Real Time Particulate Monitor	Continuous	Air Quality Index	SLAMS- Population Neighborhood
PM₁₀ Metals	Manual Gravimetric	1 in 6 days	Population	SLAMS- Population Neighborhood
PM₁₀ Metals Co-located	Manual Gravimetric	6 samples/year	Population	SLAMS- Population Neighborhood
PM_{2.5} Speciation	Manual EPA CSN	1 in 6 days	Population	SLAMS- Population Neighborhood
VOC	Manual EPA NATTS	1 in 6 days	Population	SLAMS- Population Neighborhood
Air Toxics (hourly VOCs-PAMS)	Instrumental Gas Chromatography	Continuous	Ozone modeling input	SLAMS- Population Neighborhood
Semi-volatile	Manual EPA NATTS	1 in 6 days	Population	SLAMS- Population Neighborhood
Carbonyl compounds	Manual EPA NATTS	1 in 6 days	Population	SLAMS- Population Neighborhood
Formaldehyde and Hydrogen Chloride	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	SLAMS- Population Neighborhood
Black Carbon	Aethalometer (light absorption)	Continuous	Population	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
Precipitation	Tipping Bucket Rain Gauge & all in one sensor	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 (m):	1316		
City:	Brigham City				
County:	Box Elder				

Site Objective:

The site was established 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 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
PM₁₀	Manual Gravimetric	Dust schedule	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
Precipitation	All in one sensor	Continuous		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:

The site was 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:

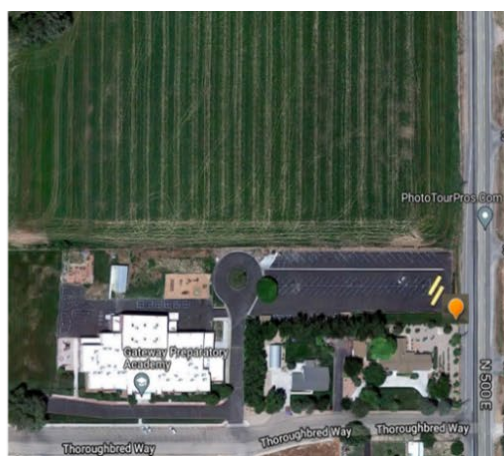
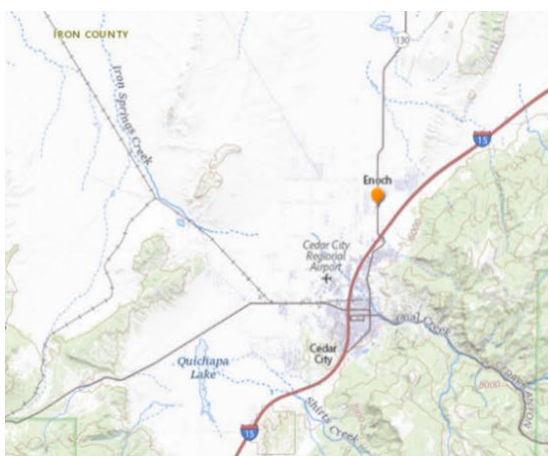
The site is in a neighborhood area of Midvale in Salt Lake County.

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
Precipitation	All in one sensor	Continuous		Urban



Site:	Enoch (EN)	Longitude:	-113.055482	Station Type:	SLAMS
AQS#:	49-021-0005	Latitude:	37.747409	MSA:	Not in MSA
Address:	201 Thoroughbred Way, Enoch, UT	Elevation (m):	1693		
City:	Enoch				
County:	Iron				

Site Objective:

The site was established 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:

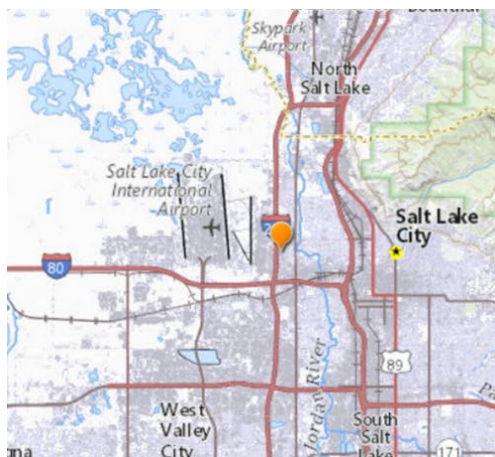
The site is in a county area near Enoch.

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
Precipitation	All in one sensor	Continuous		



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 site was established to replace 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 on 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

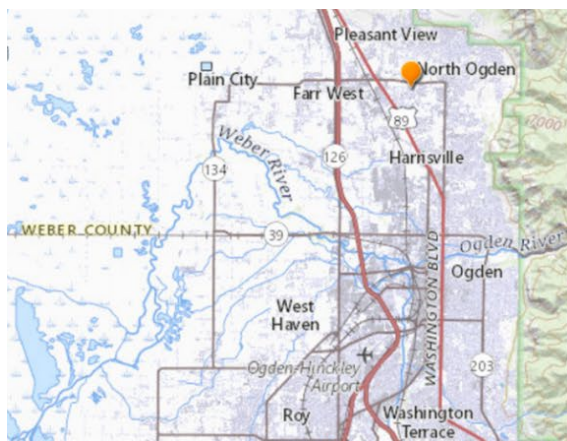
Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Ammonia	Manual NADP AMoN	Integrated 14 days	Population Exposure	SPM- Transport Regional
Trace Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- High Neighborhood
Ozone	Ultraviolet	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
PM₁₀	Manual Gravimetric	Daily	Population Exposure	SLAMS-Population Neighborhood
PM₁₀	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
Precipitation	All in one sensor	Continuous		



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:					
The site was established to determine population exposure to air pollutants.					
Does the site meet the objective? Yes, all objectives are met.					
Site Description:					
The site is 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	SLAMS- Population Neighborhood
Formaldehyde & Hydrogen Chloride	Cavity Ring Down Spectroscopy (CRDS)	Continuous	Ozone modeling input	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
Mixing Height	Optical Scattering Ceilometer	Continuous		
Precipitation	All in one sensor	Continuous		



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:

The site was established in response to an ozone saturation study indicating this as a potentially high ozone concentration area. It is also monitoring particulate matter.

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

Site Description:

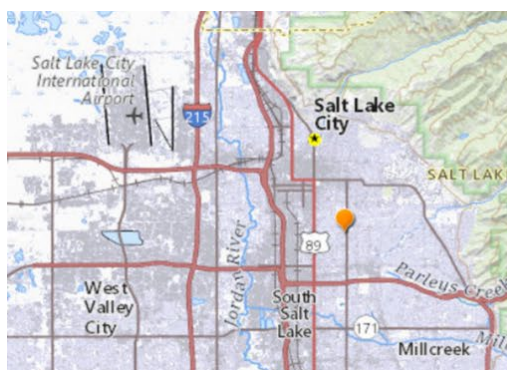
The site is located on the grounds of Majestic Elementary School in the city of Harrisville, Weber County.

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

Gaseous/Particulate Parameters

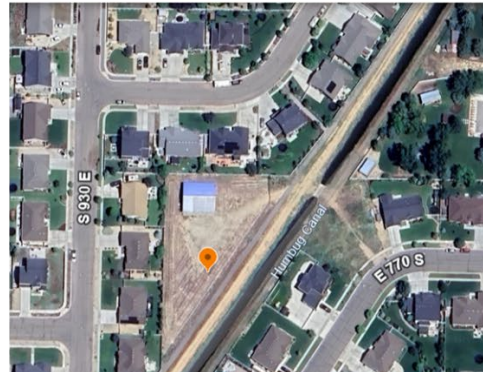
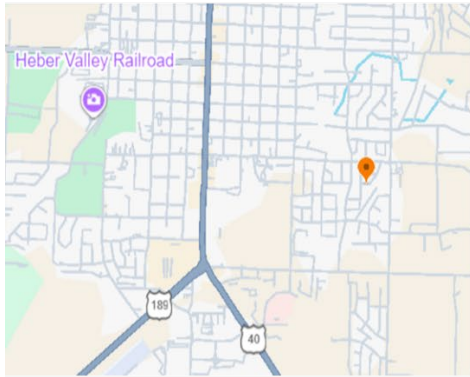
Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- High Neighborhood
Carbon Monoxide	Gas Phase Correlation	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
PM₁₀ 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
Precipitation	All in one sensor			



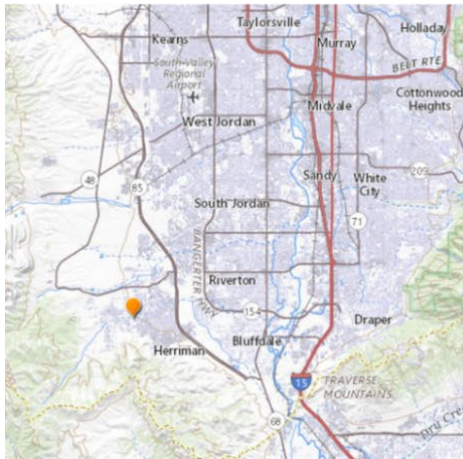
Site:	Hawthorne (HW)	Longitude:	-111.872221	Station Type:	SLAMS
AQS#:	49-035-3006	Latitude:	40.734367	MSA:	Salt Lake City
Address:	1675 South 600 East	Elevation (m):	1308		
City:	Salt Lake City				
County:	Salt Lake				
Site Objective:					
The site was established to represent population exposure in 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
PM₁₀	Manual Gravimetric	Daily	Population Exposure	SLAMS- Population Neighborhood
PM₁₀ 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	SLAMS- Population Neighborhood
Formaldehyde	Cavity Ring Down Spectroscopy (CRDS)	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
Relative Humidity	Air Temperature and Relative Humidity	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban
UV Radiation	UV Radiation sensor	Continuous	10 meters	Urban
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban
Precipitation	Tipping Bucket Rain Gauge & all in one sensor	Continuous		Urban



Site:	Heber (HB)	Longitude:	-112.036329	Station Type:	SLAMS
AQS#:	49-051-0001	Latitude:	40.497962	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: The site was 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
Precipitation	All in one sensor	Continuous		



Site:	Herriman #3 (H3)	Longitude:	-112.036329	Station Type:	SLAMS
AQS#:	49-035-3013	Latitude:	40.496412	MSA:	Salt Lake City
Address:	14058 Mirabella Drive	Elevation (m):	1534		
City:	Herriman				
County:	Salt Lake				

Site Objective:

The site was established to represent population exposure in southwest Salt Lake County.

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

Site Description:

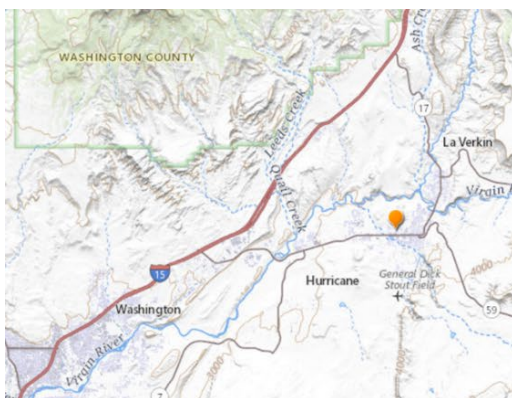
The site is at Fort Herriman Middle School in southwest Salt Lake County.

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

Gaseous/Particulate Parameters

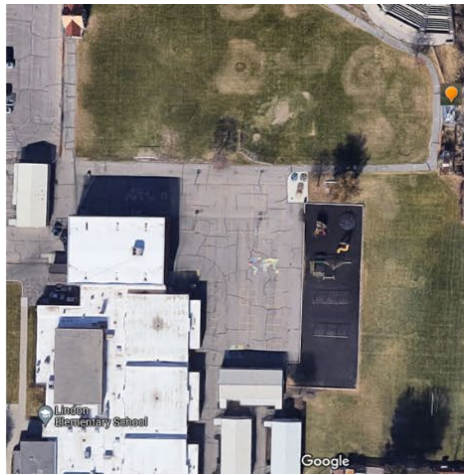
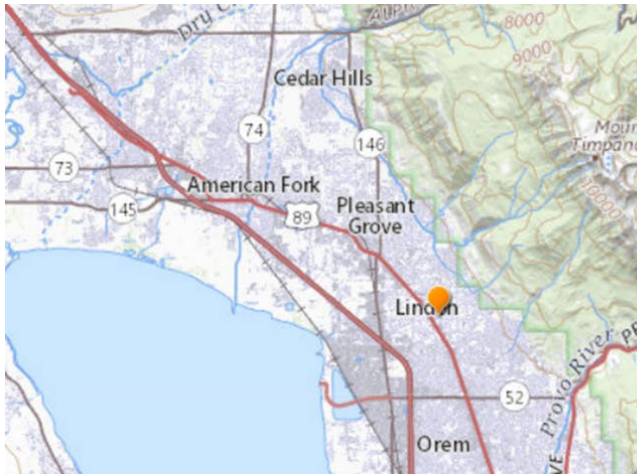
Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- High Neighborhood

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
PM₁₀ 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
Precipitation	All in one sensor	Continuous		



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: The site was established to determine population exposure to ozone in Washington County.					
Does the site meet the objective? Yes, all objectives are met.					
Site Description: The 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	10 meters	Urban
WD Sigma	Electronic EPA Method	Continuous	10 meters	Urban
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Urban
Precipitation	All in one sensor	Continuous		



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

Site Objective: The site was 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.

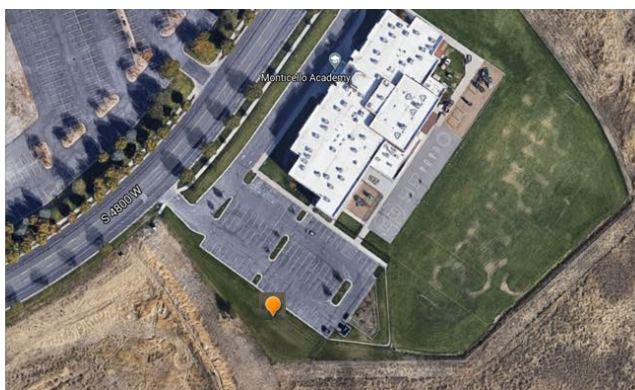
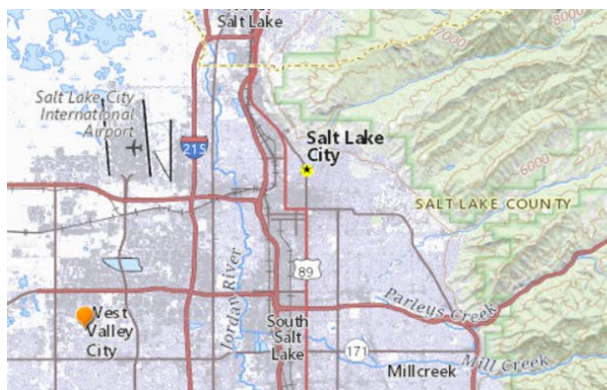
Site Description: The site is located at the Lindon Elementary School in the City of Lindon, Utah County.

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
PM₁₀ 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
Precipitation	All in one sensor	Continuous		



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				

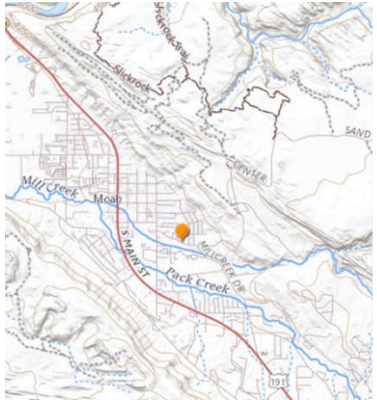
Site Objective: The site was recently established to determine the potential impact of the Inland Port on the Salt Lake Valley Airshed.
Does the site meet the objective? Yes, all objectives are met.

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

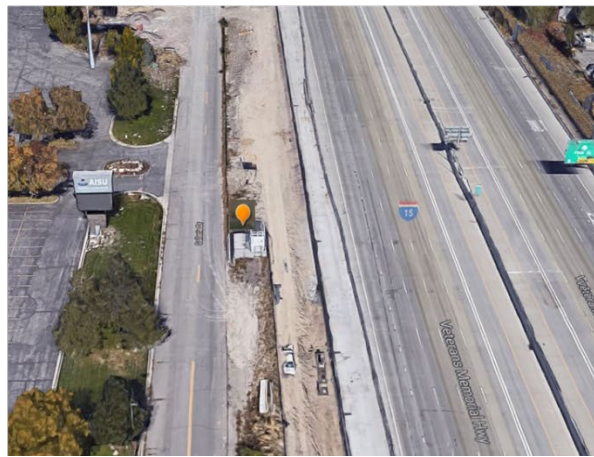
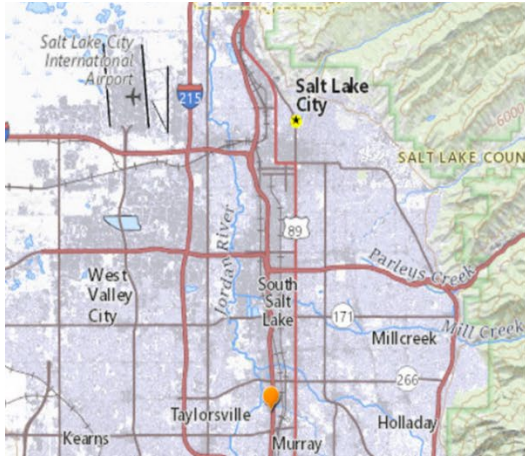
Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
PM_{2.5} Real Time	Synchronized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

PM₁₀	Manual Gravimetric	Dust schedule	Population Exposure	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
Precipitation	All in one sensor	Continuous		



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:					
The site was established to assess population exposure and support air quality forecasting.					
Does the site meet the objective? Yes, all objectives are met.					
Site Description:					
The site is 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
Precipitation	All in one sensor	Continuous		



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: The site was established to assess population exposure to and to monitor vehicular contribution to air pollution as part of the EPA NO₂ 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 14 meters from the inlet probe to the center of the nearest lane (the nearest lane is an exit lane) or 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

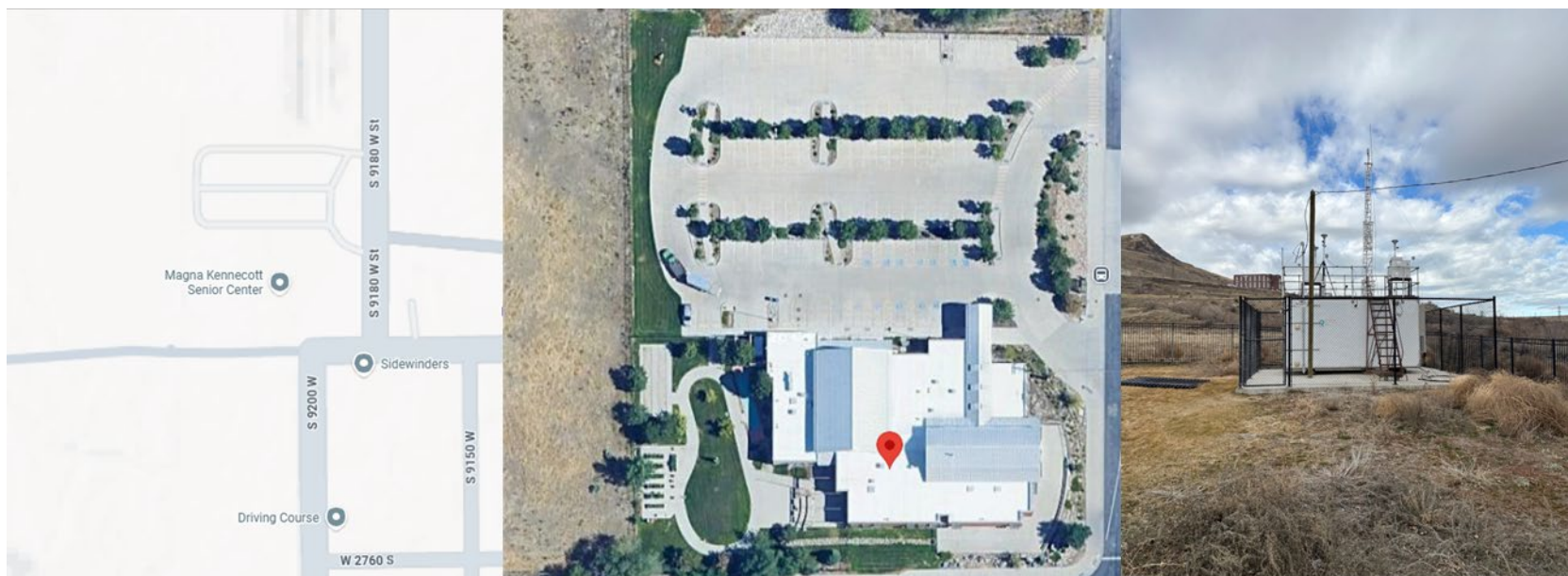
Parameter	Sampling & Analysis Method	Operating Schedule	Monitoring Objective	Spatial Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	Micro
Ozone	Ultraviolet	Continuous	Population Exposure	Micro
Carbon Monoxide	Gas Phase Correlation	Continuous	Population Exposure	Micro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

PM _{2.5}	Manual Gravimetric	Daily	Population Exposure	Micro
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	Micro
Ambient Temperature	Air Temperature and Relative Humidity Sensor- Electronic Resistance	Continuous	3 meters	Micro
Wind Direction	2D-ultrasonic anemometer	Continuous	3 meters	Micro
Wind Speed	2D-ultrasonic anemometer	Continuous	3 meters	Micro
Ambient Pressure	Barometric Pressure Transducer	Continuous	3 meters	Micro
Solar Radiation	Solar Radiation sensor	Continuous	3 meters	Micro
Precipitation	All in one sensor	Continuous		

** 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 to 100 meters of major roadways, specifically to capture the impact of traffic emissions. These sites are placed in areas with heavy vehicle activity and are more likely to record higher levels of pollutants such as NO₂ 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.

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.



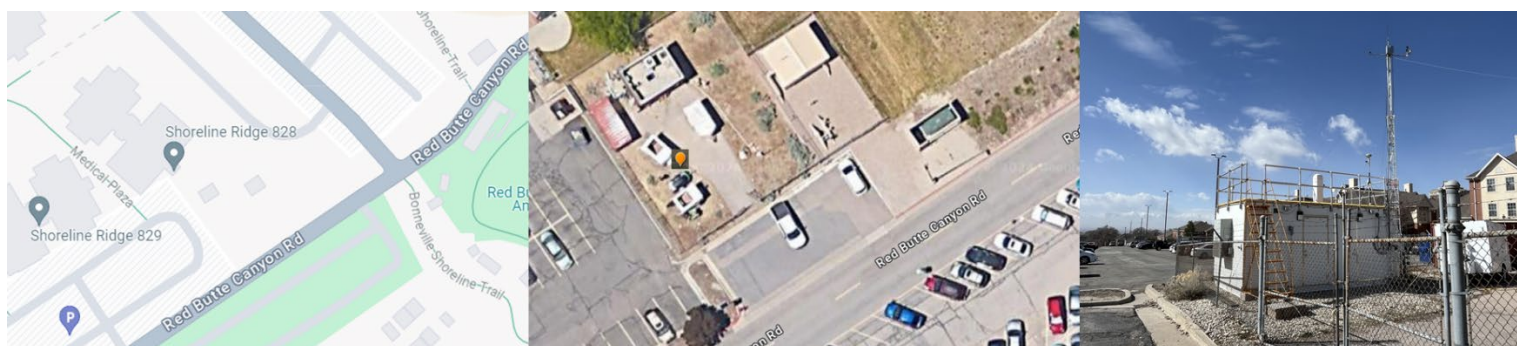
Site:	Magna (MA)	Longitude:	-112.11070	Station Type:	SPM
AQS#:	49-035-1002	Latitude:	40.71122	MSA:	Salt Lake City
Address:	9228 W 2700 S	Elevation (m):	1300		
City:	Magna				
County:	Salt Lake				
Site Objective: The site was established to assess population exposure.					
Does the site meet the objective? Yes, all objectives are met.					
Site Description: The site is in the parking lot of Magna Kennecott Senior Center.					
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
PM₁₀	Manual Gravimetric	Daily	Population Exposure	SLAMS
PM_{2.5}	Manual Gravimetric	Daily	Population Exposure	SLAMS
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
Precipitation	All in one sensor	Continuous		



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: The site was established in response to a three-state ozone study.					
Does the site meet the objective? Yes, all objectives are met.					
Site Description: The site is 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
Precipitation	All in one sensor	Continuous		



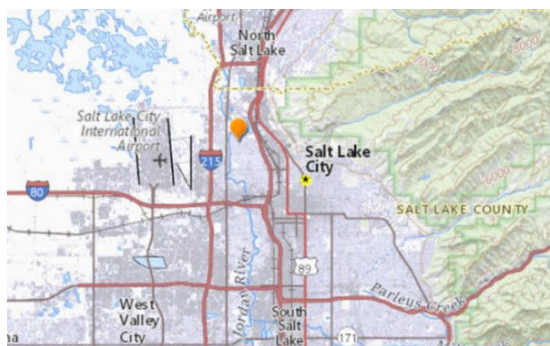
Site:	Red Butte (RB)	Longitude:	-111.828	Station Type:	SPM
AQS#:	49-035-3018	Latitude:	40.76656	MSA:	Salt Lake City
Address:	2195 Red Butte Canyon Rd	Elevation	1517		
City:	Salt Lake City				
County:	Salt Lake				
Site Objective:					
The site was established to support air quality models and research studies.					
Does the site meet the objective? Yes, all objectives are met.					
Site Description:					
The site is 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	
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 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
Relative Humidity	Air Temperature and Relative Humidity Sensor-	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	10 meters	Urban
Precipitation	Tipping Bucket Rain Gauge & All in one sensor	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: The site was 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 in the city park in the northwest 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
PM₁₀	Manual Gravimetric	Daily	Population Exposure	SLAMS- Impact Neighborhood
PM₁₀	Manual Gravimetric Co-located	1 in 6 days	Precision and Accuracy Assessment	SLAMS- Population
PM₁₀ 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
Mixing Height	Optical Scattering Ceilometer	Continuous		Urban
Precipitation	All in one sensor	Continuous		



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: The site was established to better represent PM_{2.5} exposure in this area of Salt Lake City.

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

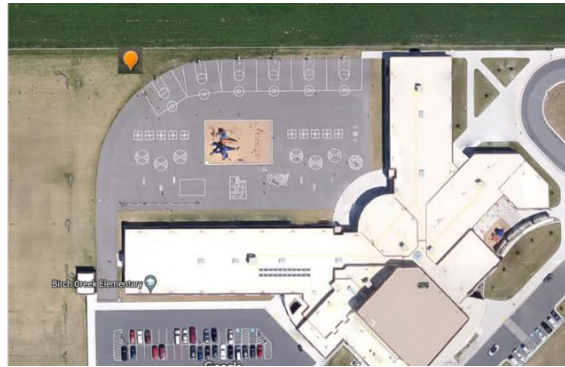
Site Description: The site is in the community of Rose Park at the north end of Salt Lake City, Salt Lake County

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
Precipitation	All in one sensor	Continuous		



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				

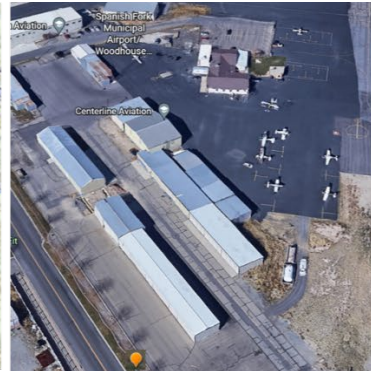
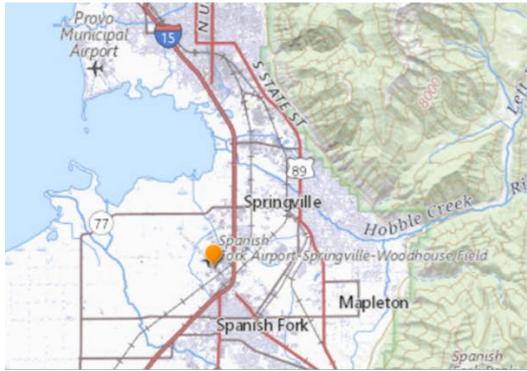
Site Objective: The site was established to replace Logan site and determine general population exposure.
Does the site meet the objective? Yes, all objectives are met.

Site Description: The 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
Precipitation	All in one sensor	Continuous		



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: The site was 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.

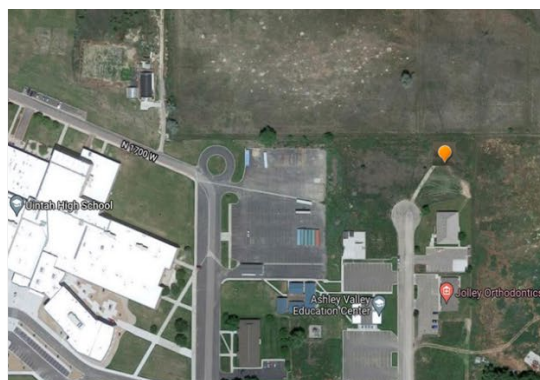
Site Description: The site is located at the Spanish Fork airport in the city of Spanish Fork, Utah County.

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

Gaseous/Particulate Parameters

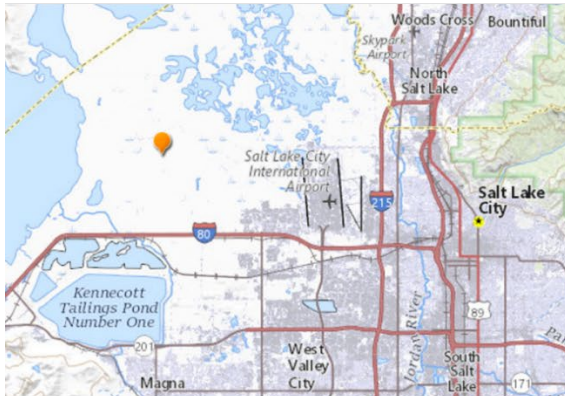
Parameter	Sampling &	Operating	Monitoring	Spatial
	Analysis Method	Schedule	Objective	Scale
Nitrogen Dioxide	Gas Phase Chemiluminescence	Continuous	Population Exposure	SLAMS- Population Neighborhood
Ozone	Ultraviolet	Continuous	Population Exposure	SLAMS- Population Neighborhood
PM_{2.5} Real Time	Synchronized 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
Precipitation	All in one sensor	Continuous		



Site:	Vernal (V4)	Longitude:	-109.560731	Station Type:	SLAMS
AQS#:	49-047-1004	Latitude:	40.464812	MSA:	NA
Address:	650 North 1650 West	Elevation (m):	1667		
City:	Vernal				
County:	Uintah				
Site Objective: The site was established 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	10 meters	Regional
WD Sigma	Electronic EPA Method	Continuous	10 meters	Regional
Solar Radiation	Solar Radiation sensor	Continuous	10 meters	Regional
Precipitation	All in one sensor	Continuous		



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: The site was 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: The 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

PM₁₀	Manual Gravimetric	Dust schedule	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
Precipitation	All in one sensor	Continuous		

