# Public Health

**Air Quality** 

2025 Ambient Air Monitoring Network Plan

June 24, 2025

# Public Health

Serving Reno, Sparks & Washoe County

# MISSION

To improve and protect our community's quality of life and increase equitable opportunities for better health.

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#### Acronyms and Abbreviations

AADT	Annual Average Daily Traffic Count
AQMD	Northern Nevada Public Health – Air Quality Management Division
AQS	Air Quality System
ARM	Approved Regional Method
ATR	Automatic Traffic Recorder
BAM	Beta Attenuation Monitor
CARB	California Air Resources Board
CBSA	Core-Based Statistical Area
cc/min	Cubic centimeter per minute
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EPA	U.S. Environmental Protection Agency
ESC	Environmental Systems Corporation
FEM	Federal Equivalent Method
FRM	Federal Reference Method
GFC	Gas Filter Correlation
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NCore	National Core multipollutant monitoring station
NDOT	Nevada Department of Transportation
NEI	National Emissions Inventory
NNPH	Northern Nevada Public Health
NO	Nitric Oxide
NO <sub>2</sub>	Nitrogen Dioxide
NOx	Oxides of Nitrogen
NOy	Reactive Oxides of Nitrogen
O <sub>3</sub>	Ozone
ORD	EPA's Office of Research and Development
PLPT	Pyramid Lake Paiute Tribe
PM <sub>2.5</sub>	Particulate Matter less than or equal to 2.5 microns in aerodynamic diameter
$PM_{10}$	Particulate Matter less than or equal to 10 microns in aerodynamic diameter
PM <sub>10-2.5</sub>	PM <sub>10</sub> minus PM <sub>2.5</sub>
ppb	parts per billion
ppm	parts per million
PWEI	Population Weighted Emissions Index
RSIC	Reno-Sparks Indian Colony
SASS	Speciation Air Sampling System
SIP	State Implementation Plan
SLAMS	State and Local Air Monitoring Station
$SO_2$	Sulfur Dioxide
SPM	Special Purpose Monitoring
SR	State Route
STN	Speciation Trends Network
TAPI	Teledyne Advanced Pollution Instrumentation, Inc.
WAMMS	Wadsworth Air and Meteorological Monitoring Site

#### Introduction

#### Purpose

The U.S. Environmental Protection Agency (EPA) finalized amendments to the ambient air monitoring regulations on October 17, 2006.<sup>1</sup> The amendments revise the technical requirements for certain types of ambient air monitoring sites, add provisions for monitoring of PM<sub>10-2.5</sub>, and reduce certain monitoring requirements for criteria pollutants. Monitoring agencies are required to submit annual monitoring network plans, conduct network assessments every five years, perform quality assurance activities, and in certain instances, have NCore sites established by January 1, 2011.

This plan was prepared and submitted as part of the fulfillment of these regulations. It represents the Northern Nevada Public Health - Air Quality Management Division's (AQMD) ambient air monitoring program activities completed in 2024 and proposed network modifications for 2025-2026.

#### **Public Inspection Process**

This monitoring network plan was available for public inspection from May 22 to June 22, 2025, at the AQMD website (<u>OurCleanAir.com</u>). A hardcopy of the plan was also available at the AQMD office. See Appendix A for AQMD's Public Inspection Plan.

#### **Agency Contacts**

For information or questions regarding the 2025 Ambient Air Monitoring Network Plan, please contact the following individuals of the AQMD.

Francisco Vega, Division Director (775) 784-7211, or <u>fvega@nnph.org</u>

Craig Petersen, Supervisor, Monitoring and Planning (775) 784-7233, or <a href="mailto:cpetersen@nnph.org">cpetersen@nnph.org</a>

Matthew McCarthy, Senior Air Quality Specialist (775) 784-7205, or <u>mmccarthy@nnph.org</u>

#### <sup>1</sup> <u>71 FR 61236-61328</u>.

#### **Overview of Northern Nevada Public Health Network Operation**

#### **Network Design**

The AQMD operated seven (7) ambient air monitoring sites in 2024 (Figure 1). The blue boundary delineates Hydrographic Area 87 (HA 87) as defined by the State of Nevada Division of Water Resources. This area was designated as "serious" non-attainment for the 24-hour PM<sub>10</sub> NAAQS until it was redesignated to "Attainment/Maintenance" effective January 7, 2016.<sup>2</sup> Washoe County is classified as "attainment" or "unclassifiable/attainment" for all other pollutants and averaging times. Table 1 lists the parameters monitored in 2024 sorted by network type and site.



Table 1
Ambient Air Monitoring Sites and Parameters Monitored

<u>Network</u> <u>Type</u> Site	O <sub>3</sub>	co	Trace CO	ON	NO <sub>2</sub>	NOX	Trace NO	NOy-NO	NOY	Trace SO <sub>2</sub>	PM <sub>10</sub> (manual)	PM <sub>10</sub> (continuous)	PM2.5 (manual)	PM2.5 (continuous)	PM <sub>10-2.5</sub> (manual)	PM <sub>10-2.5</sub> (continuous)	PM2.5 Speciation	Meteorology
Incline	$\checkmark$																	
Lemmon Valley	~																	
South Reno	~																	~
Spanish Springs	~											✓		$\checkmark$		~		✓
Sparks	$\checkmark$											$\checkmark$		~		$\checkmark$		$\checkmark$
Toll	$\checkmark$											$\checkmark$		$\checkmark$		$\checkmark$		$\checkmark$
NCore <sup>3</sup>																		
Reno4	$\checkmark$		$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		$\checkmark$
STN																		
Reno4																	$\checkmark$	
SPM																		

Notes: Meteorology for the NCore network includes ambient temperature, wind speed, wind direction, and relative humidity. The  $PM_{10}$  manual method monitor at NCore is for  $PM_{10-2.5}$  calculation only and is not submitted to AQS for data to be used in comparison to the NAAQS.

<sup>&</sup>lt;sup>3</sup> NCore monitoring began December 2010.

Except where otherwise noted, each monitor in AQMD's ambient air monitoring network meets the minimum monitoring requirements for all criteria pollutants pursuant to 40 CFR 58, Appendices A, B, C, D, and E, where applicable. Tables 2 through 10 provide pollutant specific monitoring requirements. Additional pollutant specific data may be found in the "Washoe County, Nevada, Air Quality Trends Report, 2015-2024". The 2024 population data is from the Nevada State Demographer's Office.<sup>4</sup>

		Iviiiiiiu	II WOIIItoi IIIg	<u>s Requirement</u>	101 03		
			8-hour De	sign Value			
			(2022-	-2024)	N	umber of Site	es
					Minimum		
MSA	County	Population	ppm	Site (ID)	Required	Active	Needed
Reno-Sparks	Washoe <u>Storey</u> Total	513,854 <u>4,457</u> 518,311	0.066	South Reno (0020) Lemmon Valley (2009) Spanish Springs (1007) Incline (2002)	2	7	0

Table 2
Minimum Monitoring Requirements for O <sub>3</sub>

Monitors required for SIP or Maintenance Plan: 2

Title 40 CFR 58, Appendix D, Section 4.1 requires O<sub>3</sub> monitoring in MSAs with populations above 350,000 people. Monitors are also required in MSAs with lower populations if measured O<sub>3</sub> values within that MSA are 85% or more of the NAAQS.

Table 5												
Minimum Monitoring Requirements for PM <sub>2.5</sub> SLAMS (FRM/FEM/ARM)												
				De	esign Valı	ıe						
				(2	022-2024	Number of	SLAMS	S Sites				
				Annual								
			Annual	Site	Daily	Daily	Minimum					
MSA	County	Population	$(\mu g/m^3)$	(ID)	$(\mu g/m^3)$	Site (ID)	Required	Active	Needed			
Reno-	Washoe	513,854		Snarks								
Sparks	Storey	<u>4,457</u>	7.9	(1005)	34	Reno4 (0031)	2	4	0			
Sparks	Total	518,311		(1005)								

Table 2

Monitors required for: SIP or Maintenance Plan: 0; NCore: 1

Title 40 CFR 58, Appendix D, Section 4.7.1 requires PM<sub>2.5</sub> monitoring in MSAs with populations above 500,000 people and in MSAs with lower populations if measured PM2.5 values for an MSA are 85% or more of the NAAQS.

<sup>&</sup>lt;sup>4</sup> Nevada State Demographer, "Governor Certified Population Estimates of Nevada's Counties, Cities and Towns 2004 to 2024"

IVII	nimum IVI	onitoring Red	quirements	s for Contin	1000S PIVI2	.5 Monitor	S (FEM/AK	VI/non-FI	2IVI)
				Design (2022-	Value -2024)	Number of (	Continuous	Monitors	
MSA	County	Population	Annual (ug/m <sup>3</sup> )	Annual Site (ID)	Daily (ug/m <sup>3</sup> )	Daily Site (ID)	Minimum Required	Active	Needed
Reno- Sparks	Washoe <u>Storey</u> Total	513,854 <u>4,457</u> 518,311	7.9	Sparks (1005)	34	Reno4 (0031)	1	4	0

 Table 4

 Minimum Monitoring Requirements for Continuous PM2.5 Monitors (FEM/ARM/non-FEM)

Monitors required for: SIP or Maintenance Plan: 0; NCore: 1

Title 40 CFR 58, Appendix D, Section 4.7.2 requires continuous PM<sub>2.5</sub> monitors equal to at least one-half (round up) of the minimum sites listed in Table D-5 of Title 40 CFR 58, Appendix D.

Table 5								
Mini	mum Monitoring Requirements for PM10							

			Maximum C (2022	Concentration -2024)	Ν	umber of Sites	
MSA	County	Population	µg/m <sup>3</sup>	Site (ID)	Minimum Required	Active	Needed
Reno- Sparks	Washoe <u>Storey</u> Total	513,854 <u>4,457</u> 518,311	242	Spanish Springs (1007)	4-8	4	0

Monitors required for SIP or Maintenance Plan: 4

Title 40 CFR 58, Appendix D, Section 4.6 specifies  $PM_{10}$  monitoring requirements in MSAs based on population and design values. The number of  $PM_{10}$  stations in areas where MSA populations are from 500,000-1,000,000 must be in the range of 4 to 8 stations, depending on ambient concentration levels.

	Winning Requirements for $100_2$								
			Max	Number of Monitors					
			AADT		Active	Near-	Required	Active	Area-
			counts	Required	Near-	Road	Area-Wide	Area-	Wide
CBSA	County	Population	(year)	Near-Road	Road	Needed		Wide	Needed
Reno, NV	Washoe <u>Storey</u> Total	513,854 <u>4,457</u> 518,311	170,000 <sup>5</sup> (2023)	0	0	0	0	1	0

Table 6Minimum Monitoring Requirements for NO2

Monitors required for: SIP or Maintenance Plan: 0; NCore: 1 Monitors required for PAMS: 0

EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.3.4: 0

Title 40 CFR 58, Appendix D, Section 4.3.2 requires one near-road NO<sub>2</sub> monitoring station in each CBSA with populations over 1,000,000 people. Likewise, Title 40 CFR 58, Appendix D, Section 4.3.3 requires one area-wide NO<sub>2</sub> monitoring station in each CBSA with populations over 1,000,000 people. Based on the 2024 population data from the Nevada State Demographer's Office, the Reno, NV CBSA does not require a near-road or area-wide NO<sub>2</sub> monitoring station.

<sup>5</sup> NDOT ATR 0310634 between the Plumb-Villanova Interchange 'Exit 65' & Mill St Interchange 'Exit 66'.

Winning Requirements for 502								
					Data	Numb	er of Moni	tors
				PWEI	Requirements			
				(Million	Rule Source(s)			
			Total SO <sub>2</sub>	persons-	using	Minimum		
CBSA	County	Population	(tons/year)	tons/year)	Monitoring	Required	Active	Needed
Dana	Washoe	513,854						
NV	Storey	4,457	$339.0^{6}$	175.7	n/a	0	1	0
INV	Total	518,311						

Table 7Minimum Monitoring Requirements for SO2

Monitors required for SIP or Maintenance Plan: 0; NCore: 1

EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.4.3: 0

Title 40 CFR 58, Appendix D, Section 4.4.2 requires an SO<sub>2</sub> monitoring network based on a calculated population weighted emissions index (PWEI). This index is calculated by multiplying the population of a CBSA with the National Emission Inventory (NEI) data for counties within that CBSA. The calculated value is then divided by one million in order to obtain the PWEI value. PWEI monitoring requirements are as follows: 1) one monitor in CBSAs with a PWEI value greater than 5,000, 2) two monitors in CBSAs with a PWEI value greater than 100,000, and 3) three monitors in CBSAs with a PWEI value greater than 1,000,000. As shown in Table 7, AQMD used 2024 population data from the Nevada State Demographer's Office and 2020 National Emissions Inventory data to determine that no additional SO<sub>2</sub> monitoring is required.

Table 8 Minimum Monitoring Requirements for CO

CBSA	County	Population	Required Near-Road	Active Near-Road	Needed
Reno, NV	Washoe <u>Storey</u> Total	513,854 <u>4,457</u> 518,311	0	0	0

Monitors required for: SIP or Maintenance Plan: 0; NCore: 1 EPA Regional Administrator-required monitors per 40 CER 58 App D 4 2

EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.2.2: 0

Title 40 CFR 58, Appendix D, Section 3.0 requires high sensitivity CO monitors at NCore sites. Title 40 CFR 58, Appendix D, Section 4.2 requires one CO monitor to operate collocated with one required near-road NO<sub>2</sub> monitor in CBSAs having populations over 1,000,000 people. Based on the 2024 population data from the Nevada State Demographer's Office, the Reno, NV CBSA does not require a CO monitor collocated with a near-road NO<sub>2</sub> monitor.

<sup>&</sup>lt;sup>6</sup> U.S.EPA, 2020 National Emissions Inventory (NEI) Data

Source offented i o Monitoring								
			Emission		Design	Numb	er of Moni	tors
		Pb	Inventory	Max 3-Month	Value Date			
		Emissions	Source &	Design Value	(3rd Month,	Minimum		
Source Name	Address	(tons/year)	Data Year	$(\mu g/m^3)$	Year)	Required	Active	Needed
	4895 Texas							
Reno-Stead	Ave	0.126	2020 NEI	n/a	n/a	0	0	0
Airport	Reno, NV							
Reno-Tahoe	2001 E							
International	Plumb Lane	0.123	2020 NEI	n/a	n/a	0	0	0
Airport	Reno, NV							

Table 9 Source-Oriented Pb Monitoring

Monitors required for: SIP or Maintenance Plan: 0

EPA Regional Administrator-required monitors per 40 CFR 58, App. D 4.5(c): 0

Title 40 CFR 58, Appendix D, Section 4.5(a) requires one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 or more tons per year and from each airport which emits 1.0 or more tons per year based on the most recent National Emission Inventory. All non-airport sources of Pb within the CBSA emit less than 0.5 tons per year and all airport sources within the CBSA emit less than 1.0 tons per year, according to the 2020 NEI. Table 9 includes the two largest sources of Pb emissions in Reno, NV CBSA.

Table 10Near-Road NO2, PM2.5, and CO Monitors

					Nui	nber of Mo	nitors		
CBSA	Population (year)	Max AADT Counts (year)	Required NO <sub>2</sub>	Active NO <sub>2</sub>	Required PM <sub>2.5</sub>	Active PM <sub>2.5</sub>	Required CO	Active CO	Additional Needed
Reno, NV	518,311 (2024)	$170,000^7$ (2023)	0	0	0	0	0	0	0

Title 40 CFR 58.13 and Appendix D to Title 40 CFR 58, Sections 4.2, 4.3, and 4.7 require one near-road CO monitor to operate collocated with one near-road NO<sub>2</sub> monitor in CBSAs having a population of 1,000,000 or more persons. An additional NO<sub>2</sub> monitor is required in CBSAs with a population of 2,500,000 or more persons.

<sup>&</sup>lt;sup>7</sup> NDOT ATR 0310634 between the Plumb-Villanova Interchange 'Exit 65' & Mill St Interchange 'Exit 66'.

#### **Collocation Requirements**

Title 40 CFR 58, Appendix A, Section 3 describes the number of collocated monitors required for PM<sub>2.5</sub>, PM<sub>10</sub>, and Pb networks at the Primary Quality Assurance Organization (PQAO) level. Tables 11 and 12 display how AQMD is assessing and meeting these collocation requirements.

Collocation of Manual PM <sub>2.5</sub> , PM <sub>10</sub> , and non-NCore Pb Monitors								
Number of Collocated Monitors								
Method Code	Number of Primary Monitors	Required	Active					
125	0	0	0					

Table 11

Title 40 CFR 58, Appendix A, Section 3.2.3 requires 15 percent (at least 1) of the manual method samplers be collocated. Being that AQMD only runs one manual method sampler for the calculation of PM<sub>10-2.5</sub> at the Reno4 NCore station, and all the Primary PM<sub>10</sub> monitors are continuous methods, there is no collocation requirement.

Collocation of Automated FEM PM <sub>2.5</sub> Monitors									
			Number of Active	Number of Active Collocated FEM					
Method	Number of	Number of Required	Collocated FRM	Monitors (same method designation					
Code	Primary Monitors	Collocated Monitors	Monitors	as primary)					
170	4	1	1	0					

Table 12

Title 40 CFR 58, Appendix A, Section 3.2.3 requires 15 percent of the primary monitors of each method designation (at least 1) be collocated. Values of 0.5 and greater round up. The first collocated monitor must be a designated FRM monitor. AQMD meets this requirement by having four Primary PM<sub>2.5</sub> FEM monitors with one at the Reno4 monitoring station collocated with a PM<sub>2.5</sub> FRM sampler.

#### Process to Review Changes to PM2.5 Monitoring Network

40 CFR 58.10(c) requires this annual network plan to "provide for the review of changes to a  $PM_{2.5}$ monitoring network that impact the location of a violating PM<sub>2.5</sub> monitor." There is no current plan to relocate or discontinue any PM2.5 monitor suitable for NAAQS comparison. Any changes to the PM2.5 monitoring network with impact to the location of a violating PM2.5 monitor will be documented in this section of future annual network plans.

#### SLAMS:

• <u>No modifications completed.</u>

#### NCore:

• No modifications completed.

#### Speciation Trends:

• No modifications completed.

#### SPM:

• No modifications completed.

#### **Additional Changes Completed in 2024**

#### SLAMS:

O<sub>3</sub> (Toll)

• Installed a new T-Series Teledyne O<sub>3</sub> analyzer as part of 10-year replacement schedule.

Meteorology (Sparks)

• AQMD discontinued monitoring wind speed, wind direction, and ambient temperature at the Sparks SLAMS (Appendix D).

#### NCore:

CO (Reno4)

• Installed a new T-Series Teledyne trace-level CO analyzer as part of the 10-year replacement schedule.

#### Speciation Trends:

• Installed a new Met One SuperSASS as part of the 10-year replacement schedule. This sampler was purchased using one-time 103 grant funding from EPA.

#### SPM:

• No changes completed.

#### SLAMS:

O3 and meteorology (South Reno)

• Discontinue all monitoring at the South Reno station. A formal request stating this proposal can be reviewed in Appendix B.

All pollutants and meteorology (Verdi)

• Begin monitoring PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>10-2.5</sub>, O<sub>3</sub>, and meteorology at a new site in Verdi. This station will be constructed with American Rescue Plan (ARP) grants funds from EPA. A formal request stating this proposal can be reviewed in Appendix B.

#### NCore:

#### Trace NO, NOy-NO, NOy (Reno4)

• Discontinue monitoring for NOy and its associated parameters as per NOy waiver provisions outlined in 40 CFR Part 85 Appendix D.3. The waiver request was submitted to EPA on February 5, 2025 (Appendix C) and is awaiting EPA approval.

#### Speciation Trends:

• No modifications proposed.

#### SPM:

• No modifications proposed.

#### Additional Changes Proposed for 2025-2026

#### SLAMS:

O3 (Sparks, Lemmon Valley, South Reno)

• Install new O<sub>3</sub> analyzers as part of the 10-year replacement schedule. Monitors will be purchased using EPA IRA Direct Monitoring Grant funding.

PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>10-2.5</sub> (Spanish Springs, Toll)

• Install new Met One BAM 1020's as part of the 10-year replacement schedule. Monitors will be purchased using EPA IRA Direct Monitoring Grant funding.

#### NCore:

• No changes proposed.

#### Speciation Trends:

• No changes proposed.

#### SPM:

• No changes proposed.

#### SLAMS:

PM<sub>2.5</sub> (Verdi)

• Begin monitoring PM<sub>2.5</sub> at a new site in Verdi. A formal request stating this proposal will be submitted prior to any modifications to follow the 40 CFR 58.14 criteria.

#### NCore:

#### PM<sub>2.5</sub>

• No modifications proposed.

Speciation Trends:

• No modifications proposed.

#### SPM:

• No modifications proposed.

#### **Data Submission Requirements**

Quality Assurance Data for 2024 were submitted to AQS for the: 1st guarter in May 2024

2nd quarter in September 2024 3rd quarter in November 2024 4th quarter in February 2025

Annual Data Certification for all data for 2024 was submitted to EPA on April 29, 2025.

#### **Environmental Justice and Underserved Communities**

Historically Underserved Communities are defined as:

(1) A census tract:

(I) Designated as a qualified census tract by the United States Secretary of Housing and Urban Development pursuant to 26 U.S.C. 42(d)(5)(B)(ii); or

(II) In which, in the immediately preceding census, at least 20 percent of households were not proficient in the English language.

(2) A community in this State with at least one public school:

(I) In which 75 percent or more of the enrolled pupils in the school are eligible for free or reduced-price lunches pursuant to 42 U.S.C. §§ 1751 et seq.; or

(II) That participates in universal meal service in high poverty areas pursuant to Section 104 of the Healthy, Hunger-Free Kids Act of 2010, Public Law 111-296; or

(3) A community in this State located on qualified tribal land, as defined in NRS 370.0325.

Figure 2 highlights the Historically Underserved Communities in the Reno/Sparks area.



Figure 2 Historically Underserved Communities in the Reno/Sparks Area

Four out of seven of AQMD's ambient air monitoring sites are located in communities defined above as historically underserved. Those sites are Lemmon Valley, Reno4, South Reno, and Sparks. AQMD will consider environmental justice factors during network design, siting, relocating, or discontinuing monitors, and engaging with specific communities when plans are out for public comment.

#### **Overview of Tribal Network Operations**

#### **Network Design**

One tribe operates an ambient air monitoring network within the geographic boundaries of Washoe County - The Pyramid Lake Paiute Tribe (PLPT). Table 13 summarizes the tribal sites and parameters monitored in 2024. Figure 3 shows the location of tribal lands for the Reno-Sparks Indian Colony (RSIC) and the PLPT, including PLPT's monitoring site. The RSIC does not currently operate an ambient air quality monitoring network in Washoe County. For additional detailed site information about the PLPT monitoring network including annual network plans, refer to the following contact information.

Pyramid Lake Paiute Tribe Tanda Roberts Air Quality Specialist Environmental Department P.O. Box 256 Nixon, NV 89424 (775) 574-0101 ext.18 troberts@plpt.nsn.us https://plpt.nsn.us/

<u>Network</u> Site Site ID PLPT	03	co	Trace CO	ON	NO2	NOX	Trace NO	NOy-NO	NOY	Trace SO <sub>2</sub>	PM <sub>10</sub> (manual)	PM <sub>10</sub> (continuous)	PM2.5 (manual)	PM <sub>2.5</sub> (continuous)	PM <sub>10-2.5</sub> (manual)	PM <sub>10-2.5</sub> (continuous)	PM2.5 Speciation	Meteorology
WADSAQ T-561-1026												✓						✓

 Table 13

 Tribal Ambient Air Monitoring Sites and Parameters Monitored

Figure 3 Tribal Monitoring Network



#### Incline

This site is located in a Washoe County office building at 855 Alder Avenue and is outside HA 87. It is located in a residential/commercial neighborhood. The AQMD had monitored  $PM_{10}$  (1993-2002) and CO (1993-2002) and currently monitors for O<sub>3</sub>. This site was temporarily closed from December 2005 to May 2008 for remodeling. By multi-agency cooperative agreement, the California Air Resources Board (CARB) monitored  $PM_{2.5}$  (1999-2002) and NO<sub>2</sub> (1999-2002). Since May 2008, this site only monitors for O<sub>3</sub>.

Site Name:	Incline
AQS ID:	32-031-2002
Geographical coordinates:	39° 15.025'N, 119° 57.404'W
Elevation:	6,437'
Assessor's Parcel Number:	132-020-23
Owner:	Washoe County
Location:	Inside northeast corner of Washoe County office building.
Street address:	855 Alder Avenue Incline Village, NV 89451
County:	Washoe
Distance to road:	57 meters to Tahoe Boulevard
Traffic count: <sup>8</sup>	9,800 AADT (2021-2023) (NDOT ATR 0310379 – SR28 (Tahoe Blvd), 450 feet south of Village Blvd)
Groundcover:	Paved / Vegetated
Representative area:	Reno-Sparks MSA
Hydrographic area:	90



Figure 4 Incline Monitoring Station

<sup>8</sup> Nevada Department of Transportation Traffic Information

Figure 5 Incline Monitoring Site Vicinity Aerial



#### Incline (continued)

Pollutant, POC	O3, 1
Primary / QA Collocated / Other	n/a
Parameter code	44201
Basic monitoring objective(s)	NAAQS comparison
State and a sector	Highest
Site type(s)	Concentration
Monitor type	SLAMS
Network affiliation(s)	n/a
Instrument manufacturer / model	TAPI T400
Method code	087
FRM / FEM / ARM / Other	FEM
Collecting Agency	NNPH - AQMD
Analytical Lab	n/a
Reporting Agency	NNPH - AQMD
Spatial scale	Neighborhood
Monitoring start date	June 1993
Current sampling frequency	Continuous
<b>Required sampling frequency</b>	n/a
Sampling season	01/01 - 12/31
Probe height	5.6 meters
Distance from supporting structure	2.1 meters
Distance from obstructions on roof	n/a
Distance from obstructions not on roof	None
Horizontal distance from trees	11.5 meters <sup>1</sup>
Vertical height of tree above probe	5.2 meters
Distance to furnace or incinerator flue	6.3 meters <sup>2</sup>
Distance between collocated monitors	n/a
For low volume PM instruments, is	1
any PM instrument within 1 meter?	n/a
For high volume PM instruments, is any PM instrument within 2 meters?	n/a
Unrestricted airflow	360 degrees
Probe material	Teflon
Residence time	8 seconds
Proposed modifications within the next 18 months?	None
Is it suitable for comparison against	n/a
Frequency of flow rate verification for	n/a
manual samplers (PM)	
Frequency of flow rate verification for automated analyzers (PM)	n/a
Frequency of one-point QC check	Bi-weekly (3 point)
(gastous) Date of annual performance	03/25/24
evaluation (gaseous & meteorological)	06/11/24
Date of two semi-annual flow rate	
audits (PM)	n/a

<sup>1</sup>At least 90 percent of the monitoring path is at least 10 meters from the drip line of the trees. <sup>2</sup>At least 90 percent of the monitoring path is away from the furnace flue.

Located at the Boys and Girls Club at 325 Patrician Drive, this site is outside HA 87. It is in a transitional area among residences, parks, and open fields.

Site name:	Lemmon Valley			
AQS ID:	32-031-2009			
Geographical coordinates:	39° 38.716'N, 119° 50.401'W			
Elevation:	4,925'			
Assessor's Parcel Number	080-461-31			
Owner:	Washoe County			
Location:	Inside northwest corner of Boys and Girls Club.			
Street address:	325 W. Patrician Drive Reno, NV 89506			
County:	Washoe			
Distance to road:	59 meters to Patrician Drive.			
Traffic count:	840 AADT (2021-2023) (NDOT ATR 0310926 - Patrician Drive, 150 feet west of Lemmon Drive)			
Groundcover:	Paved / Vegetated			
Representative area:	Reno-Sparks MSA			
Hydrographic area:	92B			

Figure 6 Lemmon Valley Monitoring Station



Figure 7 Lemmon Valley Monitoring Site Vicinity Aerial



# Lemmon Valley (continued)

Pollutant, POC	O <sub>3</sub> , 1
Primary / QA Collocated / Other	Primary
Parameter code	44201
Basic monitoring objective(s)	NAAQS comparison
Site type(s)	Highest
	Concentration
Monitor type	SLAMS
Network affiliation(s)	n/a
Instrument manufacturer / model	TAPI T400
Method code	087
FRM / FEM / ARM / Other	FEM
Collecting Agency	NNPH - AQMD
Analytical Lab	n/a
Reporting Agency	NNPH - AQMD
Spatial scale	Urban
Monitoring start date	January 1987
Current sampling frequency	Continuous
<b>Required sampling frequency</b>	n/a
Sampling season	01/01 - 12/31
Probe height	5.5 meters
Distance from supporting structure	2.0 meters
Distance from obstructions on roof	n/a
Distance from obstructions not on roof	None
Horizontal distance from trees	21 meters
Vertical height of tree above probe	9.8 meters
Distance to furnace or incinerator flue	6.0 meters <sup>1</sup>
Distance between collocated monitors	n/a
For low volume PM instruments, is	1
any PM instrument within 1 meter?	n/a
For high volume PM instruments, is	n/a
any PM instrument within 2 meters:	2(0.1
Duck a material	500 degrees
Probe material	7
Residence time	/ seconds
within the next 18 months?	None
Is it suitable for comparison against the annual PM25 NAAOS?	n/a
Frequency of flow rate verification for manual samplers (PM)	n/a
Frequency of flow rate verification for	
automated analyzers (PM)	n/a
Frequency of one-point QC check	D: 11 (2 : 1)
(gaseous)	DI-weekiy (3 point)
Date of annual performance	03/26/24
evaluation (gaseous & meteorological)	06/13/24
Date of two semi-annual flow rate audits (PM)	n/a

<sup>1</sup>At least 90 percent of the monitoring path is away from the furnace flue.

#### Reno4

Located at Libby C. Booth Elementary School at 1450 Stewart Street in Reno, this site is near the northern edge of the playground and bus loading/unloading zone. Reno4 began monitoring in January 2020 as a relocation of the Reno3 site. Reno4 is an NCore site and monitors for O<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>10-2.5</sub>, Trace CO, Trace SO<sub>2</sub>, NOx, and Trace NOy. Meteorological parameters including ambient temperature, relative humidity, wind speed, and wind direction are also monitored. This site is also part of EPA's national Speciation Trends Network (STN).

Site name:	Reno4
AQS ID:	32-031-0031
Geographical coordinates:	39° 31.316'N, 119° 47.724'W
Elevation:	4,461'
Assessor's Parcel Number:	013-042-01
Owner:	Washoe County School District Board
Location:	North edge of Libby Booth Elementary School property.
Street address:	1260-A Stewart St. Reno NV 89502
County:	Washoe
Distance to road:	10 meters to Stewart St. and 150 meters to Yori Ave.
Traffic count:	813 AADT (2021-2023) (NDOT ATR 0310886 - Yori Ave, 165 feet north of Stewart St.)
	≤900 Approximate AADT (NDOT Estimate – Stewart Street)
Groundcover:	Decomposed Granite
<b>Representative area:</b>	Reno-Sparks MSA
Hydrographic area:	87

Figure 8 Reno4 Monitoring Station



Figure 9 Reno4 Monitoring Site Vicinity Aerial



Pollutant, POC Primary / QA Collocated / Other Parameter code Basic monitoring objective(s) Site type(s) Monitor type Network affiliation(s) Instrument manufacturer / model	PM10, 2 Primary 81102 & 85101 NAAQS comparison Population Exposure SLAMS NCore Met One BAM 1020 122	PM2.5, 2 Primary 88101 NAAQS comparison Highest Concentration SLAMS NCore Met One BAM 1020	PM10-2.5, 2 Primary 86101 Research Support n/a SLAMS NCore Met One BAM 1020	PM2.5 Speciation, 5 Primary 88502 Research Support Population Exposure SLAMS STN, NCore
Primary / QA Collocated / Other         Parameter code         Basic monitoring objective(s)         Site type(s)         Monitor type         Network affiliation(s)         Instrument manufacturer / model	Primary 81102 & 85101 NAAQS comparison Population Exposure SLAMS NCore Met One BAM 1020 122	Primary 88101 NAAQS comparison Highest Concentration SLAMS NCore Met One BAM 1020	Primary 86101 Research Support n/a SLAMS NCore Met One BAM 1020	Primary 88502 Research Support Population Exposure SLAMS STN, NCore
Parameter code         Basic monitoring objective(s)         Site type(s)         Monitor type         Network affiliation(s)         Instrument manufacturer / model	81102 & 85101 NAAQS comparison Population Exposure SLAMS NCore Met One BAM 1020 122	88101 NAAQS comparison Highest Concentration SLAMS NCore Met One BAM 1020	86101 Research Support n/a SLAMS NCore Met One BAM 1020	88502 Research Support Population Exposure SLAMS STN, NCore
Basic monitoring objective(s)         Site type(s)         Monitor type         Network affiliation(s)         Instrument manufacturer / model	NAAQS comparison Population Exposure SLAMS NCore Met One BAM 1020 122	NAAQS comparison Highest Concentration SLAMS NCore Met One BAM 1020	Research Support n/a SLAMS NCore Met One BAM 1020	Research Support Population Exposure SLAMS STN, NCore
Site type(s)         Monitor type         Network affiliation(s)         Instrument manufacturer / model	Population Exposure SLAMS NCore Met One BAM 1020 122	Highest Concentration SLAMS NCore Met One BAM 1020	n/a SLAMS NCore Met One BAM 1020	Population Exposure SLAMS STN, NCore
Monitor type Network affiliation(s) Instrument manufacturer / model	SLAMS NCore Met One BAM 1020 122	SLAMS NCore Met One BAM 1020	SLAMS NCore Met One BAM 1020	SLAMS STN, NCore
Network affiliation(s)       Instrument manufacturer / model	NCore Met One BAM 1020 122	NCore Met One BAM 1020	NCore Met One BAM 1020	STN, NCore
Instrument manufacturer / model	Met One BAM 1020 122	Met One BAM 1020	Met One BAM 1020	
	122	Wiet Olie BAW 1020		Met One SASS;
	122		Coarse Pair	URG 3000N
Method code		170	185	SASS: 810 URG: 870
FRM / FEM / ARM / Other	FEM	FEM	FEM	Other
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a	Wood
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	UC Davis
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	January 2020	January 2020	January 2020	January 2020
Current sampling frequency	Continuous	Continuous	Continuous	1:3
Required sampling frequency	n/a	n/a	n/a	1:3
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	5.3 meters	5.1 meters	5.1 meters	SASS: 4.9 meters URG: 5.1 meters
Distance from supporting structure	2.2 meters	2.1 meters	2.1 meters	SASS: 1.8 meters URG: 2.1 meters
Distance from obstructions on roof	n/a	n/a	n/a	n/a
Distance from obstructions not on roof	None	None	None	None
Horizonal distance from trees	46.6 meters	48.1 meters	46.6 meters	SASS: 49.6 meters URG: 50.6 meters
Vertical height of tree above probe	9.9 meters	10.1 meters	10.1 meters	SASS: 10.3 meters URG: 10.1 meters
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a
Distance between collocated monitors	n/a	1.2 meters	n/a	n/a
For low volume PM instruments, is any PM instrument within 1 meter?	No	No	No	No
For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	n/a
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Probe material	n/a	n/a	n/a	n/a
Residence time	n/a	n/a	n/a	n/a
Proposed modifications within the next 18 months?	None	None	None	None
Is it suitable for comparison against the annual PM <sub>2.5</sub> NAAQS?	n/a	Yes	n/a	No
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	Monthly verifications and quarterly audits
Frequency of flow rate verification for automated analyzers (PM)	Bi-weekly verifications and quarterly audits	Bi-weekly verifications and quarterly audits	Bi-weekly verifications and quarterly audits	n/a
Frequency of one-point QC check (gaseous)	n/a	n/a	n/a	n/a
Date of annual performance evaluation (gaseous & meteorological)	n/a	n/a	n/a	n/a
Date of two semi-annual flow rate audits (PM)	01/31/24 04/24/24 07/31/24	01/31/24 04/24/24 07/31/24 10/14/24	01/31/24 04/24/24 07/31/24	03/20/24 05/22/24 09/26/24 12/12/24

Pollutant, POC	PM <sub>10</sub> , 1	PM25.1	PM10-2 5, 1	Trace CO. 1
Primary / OA Collocated / Other	Other	OA Collocated	Other	n/a
Parameter code	85101	88101	86101	42101
Basic monitoring objective(s)	Research Support	NAAQS comparison	Research Support	NAAQS comparison
Site type(s)	n/a	Population Exposure	n/a	Highest Concentration
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	NCore	NCore	NCore	NCore
Instrument manufacturer / model	Met One E-SEQ	Met One E-SEQ	Met One E-SEQ	TAPI 300EU
Method code	246	545	247	593
FRM / FEM / ARM / Other	FRM	FRM	FRM	FRM
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	n/a
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	January 2020	January 2020	January 2020	January 2020
Current sampling frequency	1:3	1:3	1:3	Continuous
Required sampling frequency	1:3	1:3	1:3	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	5.0 meters	5.0 meters	5.0 meters	5.1 meters
Distance from supporting structure	1.9 meters	1.9 meters	1.9 meters	2.0 meters
Distance from obstructions on roof	n/a	n/a	n/a	n/a
Distance from obstructions not on roof	None	None	None	None
Horizontal distance from trees	46.6 meters	48.6 meters	46.6 meters	50.4 meters
Vertical height of tree above probe	10.2 meters	10.2 meters	10.2 meters	10.1 meters
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a
Distance between collocated monitors	n/a	1.2 meters	n/a	n/a
For low volume PM instruments, is any	No	No	No	n/a
PM instrument within 1 meter?	110	110	110	11/ d
For high volume PM instruments, is any	n/a	n/a	n/a	n/a
PM instrument within 2 meters?	2 ( 0 1	2 ( 0 1		2 (0.1
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Probe material	n/a	n/a	n/a	Tetlon
Residence time	n/a	n/a	n/a	6 seconds
Proposed modifications within the payt 18 months?	None	None	None	None
Is it suitable for comparison against the				
annual PM <sub>2.5</sub> NAAOS?	n/a	Yes	n/a	n/a
Frequency of flow rate verification for	Monthly verifications	Monthly verifications	Monthly verifications	,
manual samplers (PM)	and quarterly audits	and quarterly audits	and quarterly audits	n/a
Frequency of flow rate verification for				[
automated analyzers (PM)	n/a	n/a	n/a	n/a
Frequency of one-point QC check	n/a	n/a	n/a	Weekly
(gastous) Date of annual performance evaluation				03/28/24
(gaseous & meteorological)	n/a	n/a	n/a	06/20/24
(Buscous de meteororogicar)	03/20/24	03/20/24	03/20/24	00/20/21
Date of two semi-annual flow rate audits	05/22/24	05/22/24	05/22/24	1
(PM)	09/26/24	09/26/24	09/26/24	n/a
	12/13/24	12/13/24	12/13/24	

Pollutant, POC	O <sub>3</sub> , 1	NO, 1	NO <sub>2</sub> , 1	NOx, 1
Primary / QA Collocated / Other	n/a	Primary	Primary	Primary
Parameter code	44201	42601	42602	42603
Basic monitoring objective(s)	NAAQS comparison	Research Support	NAAQS comparison	Research Support
Site type(s)	Population Exposure	n/a	Highest Concentration	n/a
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	NCore	NCore	NCore	NCore
Instrument manufacturer / model	TAPI T400	TAPI 200U	TAPI 200U	TAPI 200U
Method code	087	099	099	099
FRM / FEM / ARM / Other	FEM	FRM	FRM	FRM
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a	n/a
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	January 2020	January 2020	January 2020	January 2020
Current sampling frequency	Continuous	Continuous	Continuous	Continuous
Required sampling frequency	n/a	n/a	n/a	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	5.1 meters	5.2 meters	5.2 meters	5.2 meters
Distance from supporting structure	2.0 meters	2.1 meters	2.1 meters	2.1 meters
Distance from obstructions on roof	n/a	n/a	n/a	n/a
Distance from obstructions not on roof	None	None	None	None
Horizontal distance from trees	50.4 meters	51.6 meters	51.6 meters	51.6 meters
Vertical height of tree above probe	10.1 meters	10.0 meters	10.0 meters	10.0 meters
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a
Distance between collocated monitors	n/a	n/a	n/a	n/a
For low volume PM instruments, is any	n/a	n/a	n/a	n/a
PM instrument within 1 meter?				
For high volume PM instruments, is any	n/a	n/a	n/a	n/a
PM instrument within 2 meters?	2(0.4	2(0.4	2(0.4	2(0.4
Duck a material	500 degrees	500 degrees	360 degrees	500 degrees
Probe material Decidence time	f accorda	5 apparda	1 enion	1 enon
Residence time Proposed modifications	o seconds	5 seconds	5 seconds	5 seconds
within the next 18 months?	None	None	None	None
Is it suitable for comparison against the	n/a	n/a	n/a	n/a
annual PM2.5 NAAQS?				
manual samplers (PM)	n/a	n/a	n/a	n/a
Frequency of flow rate verification for automated analyzers (PM)	n/a	n/a	n/a	n/a
Frequency of one-point QC check (gaseous)	Weekly	Weekly (4 point w/ GPT)	Weekly (4 point w/ GPT)	Weekly (4 point w/ GPT)
Date of annual performance evaluation	03/28/24 06/20/24	03/27/24	03/27/24	03/27/24
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

Pollutant, POC	Trace NO, 1	NOy-NO, 1	NOy, 1	Trace SO <sub>2</sub> , 1
Primary / QA Collocated / Other	n/a	n/a	n/a	n/a
Parameter code	42601	42612	42600	42401
Basic monitoring objective(s)	Research Support	Research Support	Research Support	NAAQS comparison
Site type(s)	n/a	n/a	n/a	Highest Concentration
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	NCore	NCore	NCore	NCore
Instrument manufacturer / model	TAPI T200U with 501	TAPI T200U with 501	TAPI T200U with 501	TAPI T100U
Method code	699	699	699	600
FRM / FEM / ARM / Other	Other	Other	Other	FEM
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a	n/a
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	January 2020	January 2020	January 2020	January 2020
Current sampling frequency	Continuous	Continuous	Continuous	Continuous
Required sampling frequency	n/a	n/a	n/a	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	8.6 meters	8.6 meters	8.6 meters	5.1 meters
Distance from supporting structure	8.6 meters	8.6 meters	8.6 meters	2.0 meters
Distance from obstructions on roof	n/a	n/a	n/a	n/a
Distance from obstructions not on roof	None	None	None	None
Horizontal distance from trees	53.9 meters	53.9 meters	53.9 meters	50.4 meters
Vertical height of tree above probe	6.6 meters	6.6 meters	6.6 meters	10.1 meters
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a
Distance between collocated monitors	n/a	n/a	n/a	n/a
For low volume PM instruments, is any PM instrument within 1 meter?	n/a	n/a	n/a	n/a
For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	n/a
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Probe material	Teflon	Teflon	Teflon	Teflon
Residence time	8 seconds	8 seconds	8 seconds	6 seconds
Proposed modifications within the next 18 months?	Yes, see page 10	Yes, see page 10	Yes, see page 10	None
Is it suitable for comparison against the annual PM <sub>2.5</sub> NAAQS?	n/a	n/a	n/a	n/a
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	n/a
Frequency of flow rate verification for automated analyzers (PM)	n/a	n/a	n/a	n/a
Frequency of one-point QC check (gaseous)	Weekly (4 point w/ GPT)	Weekly (4 point w/ GPT)	Weekly (4 point w/ GPT)	Weekly
Date of annual performance evaluation (gaseous & meteorological)	03/22/24	03/22/24	03/22/24	03/28/24 06/20/24
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

Pollutant, POC	Wind Speed, 1	Wind Direction, 1	Ambient Temperature, 1	Relative Humidity, 1
Primary / QA Collocated / Other	n/a	n/a	n/a	n/a
Parameter code	61101 & 61103	61102 & 61104	62101	62201
Basic monitoring objective(s)	Research, Public Information	Research, Public Information	Research, Public Information	Research, Public Information
Site type(s)	n/a	n/a	n/a	n/a
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	NCore	NCore	NCore	NCore
Instrument manufacturer / model	Met One 50.5H Met One 30.5	Met One 50.5H Met One 30.5	Met One 063-1	Met One 083E
Method code	071	071	040	061
FRM / FEM / ARM / Other	n/a	n/a	n/a	n/a
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a	n/a
Reporting Agency	NNPH - AOMD	NNPH - AOMD	NNPH - AOMD	NNPH - AOMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	January 2020	January 2020	Januarv 2020	Januarv 2020
Current sampling frequency	Continuous	Continuous	Continuous	Continuous
Required sampling frequency	n/a	n/a	n/a	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	10.0 meters	10.0 meters	4 4 meters	4 4 meters
Distance from supporting structure	10.0 meters	10.0 meters	1.3 meters	1.3 meters
Distance from obstructions on roof	n/a	n/a	n/a	n/a
Distance from obstructions not on roof	None	None	None	None
Horizontal distance from trees	53.9 meters	53.9 meters	53.9 meters	53.9 meters
Vertical height of tree above probe	5.2 meters	5.2 meters	10.8 meters	10.8 meters
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a
Distance between collocated monitors	n/a	n/a	n/a	n/a
For low volume PM instruments, is any PM instrument within 1 meter?	n/a	n/a	n/a	n/a
For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	n/a
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Probe material	n/a	n/a	n/a	n/a
Residence time	n/a	n/a	n/a	n/a
Proposed modifications within the next 18 months?	None	None	None	None
Is it suitable for comparison against the annual PM2.5 NAAOS?	n/a	n/a	n/a	n/a
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	n/a
Frequency of flow rate verification for automated analyzers (PM)	n/a	n/a	n/a	n/a
Frequency of one-point QC check (gaseous)	n/a	n/a	n/a	n/a
Date of annual performance evaluation (gaseous & meteorological)	05/16/24 10/16/24	05/16/24 10/16/24	07/31/24 12/19/24	07/31/24 12/19/24
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

Located on the NV Energy property at 4110 Delucchi Lane, this site is in a transitional environment between open fields and office buildings.

Site name:	South Reno
AQS ID:	32-031-0020
Geographical coordinates:	39° 28.153'N, 119° 46.521'W
Elevation:	4,449'
Assessor's Parcel Number:	025-460-35
Owner:	Sierra Pacific Power Co.
Location:	Northeast corner of NV Energy campus.
Street address:	4110 Delucchi Lane Reno, NV 89502
County:	Washoe
Distance to road:	37 meters to Delucchi Lane.
Traffic count:	4,233 AADT (2021-2023) (NDOT ATR 0310690 - Neil Road, 515 feet north of Delucchi Lane) 9,167 AADT (2021-2023) (NDOT ATR 0311159 - Airway Drive, south of McCarran Blvd.) ≤900 Approximate AADT (NDOT Estimate – Delucchi Lane)
Groundcover:	Gravel / Dirt / Vegetated
Representative area:	Reno-Sparks MSA
Hydrographic area:	87

Figure 10 South Reno Monitoring Station



Figure 11 South Reno Monitoring Site Vicinity Aerial



# South Reno (continued)

Pollutant, POC	O3, 1	Wind Speed, 1	Wind Direction, 1	Ambient Temperature, 1
Primary / QA Collocated / Other	n/a	n/a	n/a	n/a
Parameter code	44201	61101	61102	62101
<b>Basic monitoring objective(s)</b>	NAAQS comparison	Public Information	Public Information	Public Information
Site type(s)	Highest Concentration	n/a	n/a	n/a
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	n/a	n/a	n/a	n/a
Instrument manufacturer / model	TAPI T400	Met One 50.5H Met One 30.5	Met One 50.5H Met One 30.5	Met One 063-1
Method code	087	071	071	040
FRM / FEM / ARM / Other	FEM	n/a	n/a	n/a
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a	n/a
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	January 1988	January 2014	January 2014	January 2014
Current sampling frequency	Continuous	Continuous	Continuous	Continuous
Required sampling frequency	n/a	n/a	n/a	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	3.9 meters	10.0 meters	10.0 meters	5.0 meters
Distance from supporting structure	1.1 meters	10.0 meters	10.0 meters	5.0 meters
Distance from obstructions on roof	n/a	n/a	n/a	n/a
Distance from obstructions not on roof	None	None	None	None
Horizontal distance from trees	27.5 meters	27.2 meters	27.2 meters	27.2 meters
Vertical height of tree above probe	4.8 meters	n/a	n/a	3.7 meters
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a
Distance between collocated monitors	n/a	n/a	n/a	n/a
For low volume PM instruments, is	1	I	1	1
any PM instrument within 1 meter?	n/a	n/a	n/a	n/a
For high volume PM instruments, is	n/a	n/a	n/a	n/a
any PM instrument within 2 meters?				
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Probe material	Tetlon	n/a	n/a	n/a
Residence time	6 seconds	n/a	n/a	n/a
within the next 18 months?	Yes, see page 10	Yes, see page 10	Yes, see page 10	Yes, see page 10
Is it suitable for comparison against the annual PM <sub>2.5</sub> NAAQS?	n/a	n/a	n/a	n/a
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	n/a
Frequency of flow rate verification for automated analyzers (PM)	n/a	n/a	n/a	n/a
Frequency of one-point QC check	Bi-weekly (3 point)	n/a	n/a	n/a
Date of annual performance	03/25/24	None	None	09/27/24
Date of two semi-annual flow rate	n/a	n/a	n/a	n/a
audits (PM)			12 4	
# **Spanish Springs**

Located on the north side of Lazy 5 Regional Park in Spanish Springs, this site is located outside of HA 87. It is in a transitional area between open rangeland, residential areas, and the Washoe County Public Library. The Spanish Springs site began monitoring O<sub>3</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, and PM<sub>10-2.5</sub> as a SPM on January 1, 2017, and was converted to a SLAMS on July 1, 2018. It began monitoring wind speed, wind direction, and ambient temperature as a SPM on January 1, 2019, and was converted to a SLAMS on January 1, 2019.

Site name:	Spanish Springs
AQS ID:	32-031-1007
Geographical coordinates:	39°37.287' N, 119°43.124' W
Elevation:	4,485'
Assessor's Parcel Number:	083-024-06
Owner:	Washoe County
Location:	North side of Lazy 5 Regional Park.
Street address:	7200 Pyramid Way Sparks, NV 89436
County:	Washoe
<b>Distance to road:</b> 460 meters to Pyramid Hwy and 99 meters to Aquene Court.	
Traffic count:	40,667 AADT (2021-2023) (NDOT ATR 0311128 – SR445 (Pyramid Hwy), 0.25 miles north of Sparks Blvd.)
	(NDOT Estimate – Aquene Court)
Groundcover:	Paved / Vegetated
Representative area:	Reno-Sparks MSA
Hydrographic area:	85



Figure 12 Spanish Springs Monitoring Station

Figure 13 Spanish Springs Site Vicinity Aerial



# **Spanish Springs (continued)**

Pollutant, POC	$PM_{10}, 1$	PM <sub>2.5</sub> , 1	PM <sub>10-2.5</sub> , 1	O3, 1	
Primary / QA Collocated / Other	Primary	Primary	Primary	n/a	
Parameter code	81102 & 85101	88101	86101	44201	
Basic monitoring objective(s)	NAAQS comparison	NAAQS comparison	Research Support	NAAQS comparison	
Site type(s)	Population Exposure	Population Exposure	n/a	Highest Concentration	
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	n/a	n/a	n/a	n/a	
Instrument manufacturer / model	Met One BAM 1020	Met One BAM 1020	Met One BAM 1020 Coarse Pair	TAPI T400	
Method code	122	170	185	087	
FRM / FEM / ARM / Other	FEM	FEM	FEM	FEM	
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	
Analytical Lab	n/a	n/a	n/a	n/a	
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	January 2017	January 2017	January 2017	January 2017	
Current sampling frequency	Continuous	Continuous	Continuous	Continuous	
Required sampling frequency	n/a	n/a	n/a	n/a	
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	
Probe height	5.0 meters	5.1 meters	5.1 meters	3.9 meters	
Distance from supporting structure	2.1 meters	2.2 meters	2.2 meters	1.0 meters	
Distance from obstructions on roof	n/a	n/a	n/a	n/a	
Distance from obstructions not on roof	n/a	n/a	n/a	n/a	
Horizontal distance from trees	34 meters	35 meters	33 meters	35 meters	
Vertical height of tree above probe	1.6 meters	1.5 meters	1.5 meters	2.7 meters	
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a	
Distance between collocated monitors	n/a	n/a	n/a	n/a	
For low volume PM instruments, is any PM instrument within 1 meter?	No	No	No	n/a	
For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	n/a	
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees	
Probe material	n/a	n/a	n/a	Teflon	
Residence time	n/a	n/a	n/a	6 seconds	
Proposed modifications within the next 18 months?	None	None	None	None	
Is it suitable for comparison against the annual PM <sub>2.5</sub> NAAQS?	n/a	Yes	n/a	n/a	
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	n/a	
Frequency of flow rate verification for automated analyzers (PM)	Bi-weekly and quarterly audits	Bi-weekly and quarterly audits	Bi-weekly and quarterly audits	n/a	
Frequency of one-point QC check (gaseous)	n/a	n/a	n/a	Bi-weekly (3 point)	
Date of annual performance evaluation (gaseous & meteorological)	n/a	n/a	n/a	03/26/24 06/13/24 11/21/24	
Date of two semi-annual flow rate audits (PM)	02/16/24 05/3/24 08/29/24 12/02/24	02/16/24 05/3/24 08/29/24 12/02/24	02/16/24 05/3/24 08/29/24 12/02/24	n/a	

# **Spanish Springs (continued)**

Pollutant, POC	Wind Speed, 1	Wind Direction, 1	Ambient Temperature, 1	
Primary / QA Collocated / Other	n/a	n/a	n/a	
Parameter code	61101	61102	62101	
Basic monitoring objective(s)	Public Information	Public Information	Public Information	
Site type(s)	n/a	n/a	n/a	
Monitor type	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	n/a	n/a	n/a	
Instrument manufacturer / model	Met One 50.5H Met One 30.5	Met One 50.5H Met One 30.5	Met One 063-1	
Method code	071	071	040	
FRM / FEM / ARM / Other	n/a	n/a	n/a	
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	
Analytical Lab	n/a	n/a	n/a	
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	January 2019	January 2019	January 2019	
Current sampling frequency	Continuous	Continuous	Continuous	
Required sampling frequency	n/a	n/a	n/a	
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	
Probe height	10.0 meters	10.0 meters	4.0 meters	
Distance from supporting structure	10.0 meters	10.0 meters	1.1 meters	
Distance from obstructions on roof	n/a n/a		n/a	
Distance from obstructions not on	Nono	Nona	Nono	
roof	INDITE	INOILE	None	
Horizontal distance from trees	35 meters	35 meters	33 meters	
Vertical height of tree above probe	n/a	n/a	2.6 meters	
Distance to furnace or incinerator flue	n/a n/a		n/a	
Distance between collocated monitors	n/a	n/a	n/a	
For low volume PM instruments, is any PM instrument within 1 meter?	n/a	n/a	n/a	
For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	
Unrestricted airflow	360 degrees	360 degrees	360 degrees	
Probe material	n/a	n/a	n/a	
Residence time	n/a	n/a	n/a	
Proposed modifications within the next 18 months?	None	None	None	
Is it suitable for comparison against the annual PM2.5 NAAQS?	n/a	n/a	n/a	
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	
Frequency of flow rate verification for automated analyzers (PM)	n/a	n/a	n/a	
Frequency of one-point QC check (gaseous)	n/a	n/a	n/a	
Date of annual performance evaluation (gaseous & meteorological)	10/10/24	10/10/24	08/29/24	
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	

**Sparks** 

The Sparks site is located on US Postal Service property at 750 Fourth Street. The site is surrounded by commercial property, a residential neighborhood and is adjacent to Dilworth Middle School. In 2007 the Sparks site was moved approximately 55 meters north of its previous location, due to tree growth affecting siting criteria.

Site name:	Sparks
AQS ID:	32-031-1005
Geographical coordinates:	39° 32.455'N, 119° 44.806'W
Elevation:	4,409'
Assessor's Parcel Number:	033-253-04
Owner:	United States Postal Service
Location:	East end of US Postal Service back parking lot.
Street address:	750 4 <sup>th</sup> Street Sparks, NV 89431
County:	Washoe
Distance to road:	50 meters to Prater Way and 103 meters to 4 <sup>th</sup> Street.
Traffic count:	13,200 AADT (2021-2023) (NDOT ATR 0310497 - Prater Way, 100 feet east of Pyramid Way) 1,750 AADT (2021-2023) (NDOT ATR 0310892 - 4th Street 123 feet north of Tasker Way & 129 feet south of York
	Way)
Groundcover:	Paved / Vegetated / Decomposed Granite
Representative area:	Reno-Sparks MSA
Hydrographic area:	87

Figure 14 Sparks Monitoring Station



Figure 15 Sparks Monitoring Site Vicinity Aerial



# Sparks (continued)

Pollutant. POC	PM <sub>10</sub> , 4 & 3	PM2 5, 1	PM10-2 5, 1	O <sub>3</sub> , 1
Primary / OA Collocated / Other	Primary	Primary	Primary	n/a
Parameter code	81102 & 85101	88101	86101	442.01
Basic monitoring objective(s)	NAAQS comparison	NAAQS comparison	Research Support	NAAOS comparison
Site type(s)	Population Exposure	Highest Concentration	n/a	Population Exposure
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	n/a	n/a	n/a	n/a
Instrument manufacturer / model	Met One BAM 1020	Met One BAM 1020	Met One BAM 1020 Coarse Pair	TAPI T400
Method code	122	170	185	087
FRM / FEM / ARM / Other	FEM	FEM	FEM	FEM
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a	n/a
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	April 1988	January 2012	July 2014	January 1979
Current sampling frequency	Continuous	Continuous	Continuous	Continuous
Required sampling frequency	n/a	n/a	n/a	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	4.9 meters	5.0 meters	4.9 meters	4.6 meters
Distance from supporting structure	2.1 meters	2.1 meters	2.1 meters	1.7 meters
Distance from obstructions on roof	n/a	n/a	n/a	n/a
Distance from obstructions not on roof	None	None	None	None
Horizontal distance from trees	34.9 meters	34.9 meters	34.9 meters	35.4 meters
Vertical height of tree above probe	12.5 meters	12.4 meters	12.5 meters	12.8 meters
Distance to furnace or incinerator flue	n/a	n/a	n/a	n/a
Distance between collocated monitors	n/a	n/a	n/a	n/a
For low volume PM instruments, is any PM instrument within 1 meter?	No	No	No	n/a
For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	n/a
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Probe material	n/a	n/a	n/a	Teflon
Residence time	n/a	n/a	n/a	7 seconds
Proposed modifications within the next 18 months?	None	None	None	None
Is it suitable for comparison against the annual PM <sub>2.5</sub> NAAQS?	n/a	Yes	n/a	n/a
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	n/a
Frequency of flow rate verification for automated analyzers (PM)	Bi-weekly and quarterly audits	Bi-weekly and quarterly audits	Bi-weekly and quarterly audits	n/a
Frequency of one-point QC check (gaseous)	n/a	n/a	n/a	Bi-weekly (3 point)
Date of annual performance evaluation (gaseous & meteorological)	n/a	n/a	n/a	03/26/24 06/12/24 09/18/24
Date of two semi-annual flow rate audits (PM)	01/25/24 05/03/24 08/29/24 12/02/24	01/25/24 05/03/24 08/29/24 12/02/24	01/25/24 05/03/24 08/29/24 12/02/24	n/a

# Sparks (continued)

Folloant, FOC     Wind Speed, 1     Wind Direction, 1     Temperature, 1       Primary / QA Collocated / Other     n/a     n/a     n/a       Parameter code     661101     661102     62101       Basie monitoring objective(s)     Public Information     Public Information     Public Information       Network affiliation(s)     n/a     n/a     n/a       Instrument manufacturer / model     Mct One 30.5     Mct One 63.5     Mct One 663.1       Instrument manufacturer / model     Mct One 30.5     Mct One 663.1     Mct One 63.1       Removing Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Analytical Lab     n/a     n/a     n/a       Reporting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Monitoring start date     January 2014     January 2014     January 2014       Current sampling frequency     n/a     n/a     n/a       Required sampling grequency     n/a     n/a     n/a       Distance from obstructions on roof     n/a     n/a     n/a       Distance from obstructions not roof     None     None<	Dellastant DOC	Wind Correct 1	Wind Dimestion 1	Ambient	
Primary / QA Collocated / Other $n'a$ $n'a$ $n'a$ Parameter code611016110262101Basic monitoring objective(s)Public InformationPublic InformationPublic InformationSite type(s) $n'a$ $n'a$ $n'a$ Monitor typeSLAMSSLAMSSLAMSNetwork affiliation(s) $n/a$ $n/a$ $n'a$ Instrument manufacturer / modelMet One 30.5Met One 30.5Met One 063-1Method code071071040FRM / FEM / ARM / Other $n'a$ $n'a$ $n'a$ Collecting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDAnalytical Lab $n'a$ $n'a$ $n'a$ Reporting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodMonitoring start dateJanuary 2014January 2014January 2014Current sampling frequency $n'a$ $n'a$ $n'a$ Required sampling frequency $n'a$ $n'a$ $n'a$ Statace from obstructions not on roof $p'a$ $n/a$ $n'a$ Distance from obstructions not on roof $p'a$ $n/a$ $n'a$ For laby volume PM instruments, is any PM instrument within 1 meters? $n'a$ $n'a$ For laby totume PM instruments, is any PM instrument within 2 meters? $n'a$ $n'a$ Probe material $n'a$ $n'a$ $n'a$ Frequency of flow rate verification for manual samplers (PM) $n/a$ $n'a$	Pollutant, POC	Wind Speed, 1 	wind Direction, I	Temperature, 1	
Parameter code611016110262101Basic monitoring objective(s)Public InformationPublic InformationPublic InformationBasic monitoring objective(s)n/an/an/aMonitor typeSLAMSSLAMSSLAMSNetwork affiliation(s)n/an/an/aInstrument manufacturer / modelMet One 30.5Met One 30.5Met One 663-1Method code071071040FRM / FEM / RM / Othern/an/aRM / FEM / ARM / Othern/an/aRaporting AgencyNNPH - AQMDNNPH - AQMDAnalytical Labn/an/aReporting AgencyNNPH - AQMDNNPH - AQMDNeptical scaleNeighborhoodNeighborhoodMonitoring start dateJanuary 2014January 2014Current sampling frequencyContinuousContinuousContinuousContinuousContinuousRequired sampling frequencyn/an/aDistance from obstructions on roofNoneNoneIorrace to furnace or incinerator fluen/an/aDistance trom obstructions not on roofNoneNoneNone PM instruments, is any PM instrument within 1 meter?n/an/aProbe heightn/an/an/aDistance tower or incinerator fluen/an/aProbe modificationsn/an/aDistance from obstructions not on roofNoneNoneNoneNoneNoneNone PM instruments, is any Probe m	Primary / QA Collocated / Other	n/a	n/a	n/a	
Basic monitoring objective(s)     Public Information     Public Information     Public Information       Site type(s)     n/a     n/a     n/a       Monitor type     SLAMS     SLAMS     SLAMS       Instrument manufacturer / model     Mct One 30.5     Mct One 603.1       Method code     071     071     040       PRM / FEM / ARM / Other     n'a     n'a     n'a       Collecting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Analytical Lab     n'a     n'a     n'a       Reporting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Spatial scale     Neighborhood     Neighborhood     Neighborhood     Neighborhood       Monitoring start date     January 2014     January 2014     January 2014     January 2014       Current sampling frequency     n/a     n/a     n/a     n/a       Sampling season     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31       Distance from obstructions on oof     n'a     n/a     n'a       Distance from obstructions on ooof     n'a     n/a	Parameter code	61101	61102	62101	
Site type(s)n/an/an/aMonitor typeSLAMSSLAMSSLAMSNetwork affiliation(s)n/an/an/aInstrument manufacturer / modelMet One 30.5Met One 30.5Method code071071040FRM / FEM / ARM / Othern/an/an/aInal Collecting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDAnalytical Labn/an/an/aMonitoring start dateJanuary 2014January 2014January 2014January 2014January 2014Current sampling frequencyn/an/aMonitoring scason01/01 - 12/3101/01 - 12/31Otheres10.0 meters10.0 metersDistance from obstructions not on roofNoneNoneHorizontal distance from obstructions not on roofNoneNoneNoneNoneNoneNoneHorizontal distance from obstructions not on roofn/an/aDistance to furnace or incinerator fluen/an/aDistance to furnace or incinerator fluen/an/aProb materialn/an/an/aProposed	Basic monitoring objective(s)	Public Information	Public Information	Public Information	
Monitor type     SLAMS     SLAMS     SLAMS       Network affiliation(s)     n/a     n/a     n/a       Instrument manufacturer / model     Mct One 30.5     Mct One 30.5     Mct One 63.1       Method code     071     071     040       FRM / FEM / ARM / Other     n/a     n/a     n/a       Collecting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Analytical Lab     n/a     n/a     n/a       Reporting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Spatial scale     Neighborhood     Neighborhood     Neighborhood       Mequired sampling frequency     Continuous     Continuous     Continuous       Required sampling frequency     n'a     n'a     n/a       Sampling scason     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31       Probe height     10.0 meters     10.0 meters     5.0 meters       Distance from supporting structure     10.0 meters     38.5 meters     38.5 meters       Distance from obstructions on roof     n/a     n/a     n/a     n/a  D	Site type(s)	n/a	n/a	n/a	
Network affiliation(s)n/an/an/aInstrument manufacturer / modelMct One 30.5Mct One 30.5Mct One 063-1Method code071071040FRM / FEM / ARM / Othern/an/an/aCollecting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDAnalytical Labn'an'an/aReporting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodMonitoring start dateJanuary 2014January 2014January 2014Current sampling frequencycontinuousContinuousContinuousRequired sampling frequencyn/an/an/aSampling season01/01 - 12/3101/01 - 12/3101/01 - 12/31Probe height10.0 meters10.0 meters5.0 metersDistance from obstructions not on roofn/an/an/aIbitance from obstructions not on roofn/an/an/aDistance form obstructions not no rofNoneNoneNoneDistance to furnace or incinerator fluen/an/an/aDistance to furnace or incinerator fluen/an/an/aDistance to furnace or meters?n/an/an/aPM instruments, is any PM instrument within 1 meters?n/an/an/aProbe materialn/an/an/an/aProbe networ offloc tree comparison against the annual PM_s NAAQS?n/an/an/aProbeen doifi	Monitor type	SLAMS	SLAMS	SLAMS	
Instrument manufacturer / model     Met One 30.5     Met One 30.5     Met One 063-1       Method code     071     071     071     040       FRM / FEM / ARM / Other     n/a     n/a     n/a       Collecting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Analytical Lab     n/a     n/a     n/a       Reporting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Spatial scale     Neighborhood     Neighborhood     Neighborhood       Monitoring start date     January 2014     January 2014     January 2014       Current sampling frequency     n/a     n/a     n/a       Continuous     Continuous     Continuous     Continuous       Required sampling scason     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31       Distance from supporting structure     10.0 meters     10.0 meters     5.0 meters       Distance from obstructions not on roof     None     None     None       Horizontal distance from trees     38.5 meters     38.5 meters     38.5 meters       Distance for norbstructions not on roof     n/a <th>Network affiliation(s)</th> <th>n/a</th> <th>n/a</th> <th>n/a</th>	Network affiliation(s)	n/a	n/a	n/a	
Method code071071040FRM / FEM / ARM / Othern/an/an/an/aCollecting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDAnalytical Labn/an/an/aReporting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodMonitoring start dateJanuary 2014January 2014January 2014Current sampling frequencyContinuousContinuousContinuousRequired sampling frequencyn/an/an/aSampling season01/01 - 12/3101/01 - 12/3101/01 - 12/31Probe height10.0 meters10.0 meters5.0 metersDistance from obstructions on roofn/an/an/aIbitance from obstructions on roofNoneNoneNoneHorizontal distance from trees38.5 meters38.5 meters38.5 metersDistance from obstructions on roofn/an/an/aIbitance from uniteration fluen/an/an/aDistance from uniteration fluen/an/an/aDistance to furnace or incinerator fluen/an/an/aDistance from uniteringn/an/an/aPor high volume PM instruments, is any PM instrument within 1 meter?n/an/aProbe materialn/an/an/aFor high volume PM instruments, is any PM instrument within 2 meters?360 degrees360 degreesProbe materialn/a	Instrument manufacturer / model	Met One 30.5	Met One 30.5	Met One 063-1	
FRM / FEM / ARM / Other $n'a$ $n'a$ $n'a$ $n'a$ Collecting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDAnalytical Lab $n'a$ $n/a$ $n/a$ Reporting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodMonitoring start dateJanuary 2014January 2014January 2014Current sampling frequencyContinuousContinuousContinuousRequired sampling geason01/01 - 12/3101/01 - 12/3101/01 - 12/31Probe height10.0 meters10.0 meters5.0 metersDistance from supporting structure10.0 meters10.0 meters5.0 metersDistance from obstructions on roofn/an/an/aDistance from obstructions not on roofNoneNoneNoneHorizontal distance from trees38.5 meters38.5 meters38.5 metersDistance formace or incinerator fluen/an/an/aDistance between collocated monitorsn/an/an/aFor high volume PM instruments, is any PM instrument within 1 meter?n/an/an/aProposed modificationsn/an/an/an/aProposed modificationsn/an/an/an/aProposed modificationsn/an/an/an/aProposed modificationsn/an/an/an/aDistance form treesn/an/an/an/aFrequency of flow rate verific	Method code	071	071	040	
Collecting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Analytical Lab     n/a     n/a     n/a       Reporting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Spatial scale     Neighborhood     Neighborhood     Neighborhood     Neighborhood       Monitoring start date     January 2014     January 2014     January 2014     January 2014       Current sampling frequency     n/a     n/a     n/a     n/a       Sampling season     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31       Probe height     10.0 meters     10.0 meters     5.0 meters     10.0 meters       Distance from supporting structure     10.0 meters     10.0 meters     38.5 meters     38.5 meters       Distance from obstructions not on roof     n/a     n/a     n/a     n/a       Distance to furnace or incinerator flue     n/a     n/a     n/a     n/a       Distance to furnace or incinerator flue     n/a     n/a     n/a     n/a       Distance to furnace or incinerator flue     n/a     n/a     n/a     n/a <th>FRM / FEM / ARM / Other</th> <th>n/a</th> <th>n/a</th> <th>n/a</th>	FRM / FEM / ARM / Other	n/a	n/a	n/a	
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	Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	

The Toll Road site is located at 684A State Route 341 (Geiger Grade), one-half mile east of US Highway 395. The site is near the edge of a residential neighborhood and adjacent to an area that is becoming commercially developed with an apartment complex and storage units. The Toll site began monitoring PM<sub>2.5</sub> and PM<sub>10-2.5</sub> on January 1, 2019, and was converted to a SLAMS on January 1, 2020.

Site name:	Toll		
AQS ID:	32-031-0025		
Geographical coordinates:	39° 23.990'N, 119° 44.376'W		
Elevation:	4,570'		
Assessor's Parcel Number:	017-011-22		
Owner:	Washoe County School District Board		
Location:	North end of Washoe County School District parking lot.		
Street address:	684A State Route 341 Reno, NV 89521		
County:	Washoe		
Distance to road:	21 meters to SR341 (Geiger Grade Road).		
Traffic count:	8,817 AADT (2021-2023) (NDOT ATR 0310137 - SR 341, 0.4 miles east of US 395)		
Groundcover:	Paved parking lot		
Representative area:	Reno-Sparks MSA		
Hydrographic area:	87		

Figure 16 Toll Monitoring Station



Figure 17 Toll Monitoring Site Vicinity Aerial



# Toll (continued)

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Primary (QA Collocated / Other)     Primary (QA Co	Pollutant, POC	PM10, 2	PM2.5, 1	PM10-2.5, 1	03, 1
Parameter code     81101 & 88101     88101     86101     44201       Basic monitoring objective(s)     NAAQS comparison     Research Support     NAAQS comparison       Site type(s)     Concentration     Population Exposure     n/a     Population Exposure       Monitor type     SLAMS     SLAMS     SLAMS     SLAMS     SLAMS       Network affiliation(s)     n/a     n/a     n/a     m/a       Instrument manufacturer / model     Met One BAM 1020     Met One BAM 1020     Coarse Pair       Method code     122     170     185     087       FRM / FFM / ARM / Other     FFM     FFM     NPH - AQMD     NPH - AQMD     NPH - AQMD       Collecting Agency     NNPH - AQMD     NPH - AQMD     NPH - AQMD     NPH - AQMD     NPH - AQMD       Spatial set     Na/gh contains and the m/a     n/a     n/a     n/a       Spatial set     Na/gh contains and the max - 1996     January 2019     January 2	Primary / QA Collocated / Other	Primary	Primary	Primary	n/a
Basic monitoring objective(s)     NAAQS comparison     Research Support     NAAQS comparison       Site type(s)     Higbest Concentration     Population Exposure     n/a     Population Exposure       Nonitor type     SLAMS     SLAMS     SLAMS     SLAMS       Network affiliation(s)     n/a     n/a     n/a     n/a       Met One BAM 1020     Met One BAM 1020     Coarse Pair     TAPI 400E       Method code     122     170     185     087       FRM / FEM / ARM / Other     FEM     FEM     FEM     FEM     FEM       Analytical Lab     n/a     n/a     n/a     n/a     n/a       Reporting Agency     NNPH - AQMD       Match 1996     January 2019     January 2019     March 1996     Coarcent sampling frequency     n/a     n/a     n/a     n/a       Required sampling frequency     n/a     n/a     n/a     n/a     n/a       State from supporting structure     2.1 meters     5.1 meters     1.2 meters     1.2 meters	Parameter code	81102 & 85101	88101	86101	44201
Site type(s)Chick Concentration Deputation Exposuren/aPopulation ExposureMonitor typeSLAMSSLAMSSLAMSSLAMSNetwork affiliation(s)n/an/an/an/aInstrument manufacturer / modelMet One BAM 1020Met One BAM 1020Course PairTAPI 400EMethod code122170185087FRM / FEM / ARM / OtherFEMFEMFEMFEMCollecting AgencyNNPII - AQMDNNPII - AQMDNNPII - AQMDNNPII - AQMDAnalytical Labn/an/an/an/aReporting AgencyNNPI - AQMDNNPII - AQMDNNPI - AQMDNNPI - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodNeighborhoodMonitoring start dateMarch 1996January 2019January 2019January 2019Sampling scason01.01 - 123101.01 - 123101.01 - 123101.01 - 1231Probe height5.0 meters5.1 meters5.0 meters4.0 metersDistance from obstructions on roofn/an/an/an/aDistance from obstructions on roofn/an/a	Basic monitoring objective(s)	NAAQS comparison	NAAQS comparison	Research Support	NAAQS comparison
Monitor type     SLAMS     SLAMS     SLAMS     SLAMS     SLAMS     SLAMS       Network affiliation(s)     n/a     n/a     n/a     n/a     n/a     n/a       Instrument manufacturer / model     Met One BAM 1020     Met One BAM 1020     Coarse Pair     TAPI 400E       Method code     122     170     185     087       FRM / FEM / ARM / Other     FEM     FEM     FEM     FEM       Onlecting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Spatial scale     Neighborhood     Neighborhood     Neighborhood     Neighborhood     Neighborhood       Monitoring start date     March 1996     January 2019     January 2019     March 1996       Sampling sceaon     01/01 - 12/31	Site type(s)	Highest Concentration	Population Exposure	n/a	Population Exposure
Network affiliation(s) $n/a$ $n/a$ $n/a$ $n/a$ Instrument manufacturer / modelMct One BAM 1020Mct One BAM 1020Mct One BAM 1020TAPI 400EMethod code122170185087FEM / FEM / ARM / OtherFEMFEMFEMAnalytical Lab $n/a$ $n/a$ $n/a$ $n/a$ Analytical Lab $n/a$ $n/a$ $n/a$ $n/a$ Reporting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDSpatial scaleNcighorhoodNcighorhoodNcighorhoodMonitoring start dateNcighorhoodNcighorhoodNcighorhoodRequired sampling frequencyContinuousContinuousContinuousRequired sampling frequency $n/a$ $n/a$ $n/a$ Sampling scason01/01 - 12/3101/01 - 12/3101/01 - 12/31Probe height5.0 meters5.1 meters5.0 metersDistance from obstructions on roof $n/a$ $n/a$ $n/a$ NoneNoneNoneNoneNoneNoneNoneNoneNoneNoneDistance from obstructions not on roof $n/a$ $n/a$ $n/a$ Toriact bight of tree above probe0.3 meters0.2 meters0.3 metersDistance to urnace or incherator flue nay PM instrument xithin 1 meter?NoNoNoneNoNo $n/a$ $n/a$ Probeheight of tree above probe0.3 meters0.2 meters360 degreesJostance frow obstructions not on n/a $n/a$ <	Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Instrument manufacturer / model     Met One BAM 1020     Met One BAM 1020     Course Pair Course Pair     TAPI 400E       Method code     122     170     185     087       FRM / FEM / ARM / Other     FEM     FEM     FEM     FEM     FEM       Collecting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Analytical Lab     n/a     n/a     n/a     n/a     n/a       Reporting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Spatial scale     Neighborhood     Neighborhood     Neighborhood     Neighborhood     Neighborhood       Current sampling frequency     Continuous     Continuous     Continuous     Continuous     Continuous       Sampling scason     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31       Distance from obstructions on on on n/a     n/a     n/a     n/a     n/a       Distance from obstructions not on none     None     None     None     None       Distance from trace or incinearotrin fue n/a     n/a     n/a	Network affiliation(s)	n/a	n/a	n/a	n/a
Method code122170185087FRM / FEM / ARM / OtherFEMFEMFEMFEMFEMCollecting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDNNPH - AQMDAnalytical Labn/an/an/an/aReporting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodMonioring start dateMarch 1996January 2019January 2019ContinuousContinuousContinuousContinuousRequired sampling frequencyn/an/an/aSampling scason0101 - 123101/01 - 123101/01 - 1231Probe height5.0 meters5.1 meters5.0 meters4.0 metersDistance from supporting structure2.1 meters2.2 meters1.1 metersDistance from obstructions not on rofNoneNoneNoneHorizontal distance from irees8.3 meters10.3 meters8.3 metersDistance from obstructions not on rofn/an/an/aDistance from irees8.3 meters0.2 meters0.3 metersDistance from irees8.3 meters0.2 meters0.3 metersDistance from ireen/an/an/aDistance from irees8.3 meters0.2 meters0.3 metersDistance for incace or incineator fincen/an/an/aDistance for incace or incineator fincen/an/an/aDistance for incace or incineator fincen/a <th>Instrument manufacturer / model</th> <th>Met One BAM 1020</th> <th>Met One BAM 1020</th> <th>Met One BAM 1020 Coarse Pair</th> <th><b>TAPI 400E</b></th>	Instrument manufacturer / model	Met One BAM 1020	Met One BAM 1020	Met One BAM 1020 Coarse Pair	<b>TAPI 400E</b>
FRM / FEM / ARM / OtherFEMFEMFEMFEMCollecting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDNNPH - AQMDAnalytical Labn'an'an/aReporting AgencyNNPH - AQMDNNPH - AQMDNNPH - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodMonitoring start dateMarch 1996January 2019January 2019Gurrent sampling frequencyContinuousContinuousContinuousRequired sampling frequencyn'an'an'aRequired sampling frequencyn'an/an/aStance from supporting structure2.1 meters2.2 meters1.1 metersDistance from obstructions on cooln'an'an'aDistance from obstructions on cooln'an'an'aMorie for the obstructions on cooln'an'an'aDistance from obstructions on cooln'an'an'aDistance from obstructions on cooln'an'an'aDistance from obstructions on cooln'an'an'aDistance to uncare or incinerator fluen'an'an'aDistance to uncare or incinerator fluen'an'an'aDistance to furace	Method code	122	170	185	087
Collecting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Analytical Lab     n/a     n/a     n/a     n/a     n/a       Reporting Agency     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD     NNPH - AQMD       Spatial scale     Neighborhood     Neighborhood     Neighborhood     Neighborhood       Monitoring start date     March 1996     January 2019     January 2019     March 1996       Current sampling frequency     Continuous     Continuous     Continuous     Continuous       Sampling season     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31     01/01 - 12/31       Distance from obstructions on roof     n/a     n/a     n/a     n/a       Distance from obstructions on roof     n/a     n/a     n/a     n/a       Distance from obstructions on roof     None     None     None     None       Horizontal distance from trees     8.3 meters     10.3 meters     9.5 meters       Distance from obstructions on roof     n/a     n/a     n/a     n/a       Distance between collocated monitors     n/a	FRM / FEM / ARM / Other	FEM	FEM	FEM	FEM
Analytical Lab     n'a     n'a     n'a     n'a     n'a     n'a       Reporting Agency     NNPH - AQMD     March 1996     Current sampling frequency     Continuous     So     March 1996     January 2019     Janu	Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Reporting AgencyNNPHI - AQMDNNPHI - AQMDNNPHI - AQMDNNPHI - AQMDSpatial scaleNeighborhoodNeighborhoodNeighborhoodNeighborhoodMonitoring start dateMarch 1996January 2019January 2019March 1996Current sampling frequencyn'an'an'an'aSampling scason01/01 - 12/3101/01 - 12/3101/01 - 12/3101/01 - 12/31Probe height5.0 meters5.1 meters5.0 meters4.0 metersDistance from supporting structure2.1 meters2.1 meters2.1 meters1.2 metersDistance from obstructions not on rofn/an/an/an/aProbe height0.3 meters10.3 meters8.3 meters9.5 metersDistance from obstructions not on rofNoneNoneNoneNoneHorizontal distance from trees8.3 meters10.3 meters0.3 meters1.3 metersDistance to incrace or incinerator fluen'an/an/an/aDistance to furace or incinerator fluen'an/an/an/aDistance to furace or incinerator fluen'an/an/am/aDistance to furace or incinerator fluen'an/an/an/aDistance to furace or incinerator fluen'an/an/an/aDistance to furace or incinerator fluen'an/an/an/aDistance to runace or incinerator fluen'an/an/an/aInderse fluen'an/an/a <th>Analytical Lab</th> <th>n/a</th> <th>n/a</th> <th>n/a</th> <th>n/a</th>	Analytical Lab	n/a	n/a	n/a	n/a
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Required sampling frequencyn/an/an/an/aSampling season01/01 - 12/3101/01 - 12/3101/01 - 12/3101/01 - 12/31Probe height5.0 meters5.1 meters5.0 meters4.0 metersDistance from supporting structure2.1 meters2.1 meters1.2 metersDistance from obstructions on roofn/an/an/an/aDistance from obstructions on roofn/an/an/an/aDistance from obstructions on roofn/an/an/an/aDistance from obstructions on roofNoneNoneNoneNoneHorizontal distance from trees8.3 meters10.3 meters0.2 meters0.3 metersDistance to furnace or incinerator fluen/an/an/an/aDistance to furnace or incinerator fluen/an/an/an/aAny PM instruments, isn/an/an/an/aany PM instruments, isn/an/an/an/aany PM instrument within 2 meters?360 degrees360 degrees360 degreesProbe materialn/an/an/an/an/aResidence timen/an/an/an/aProbe materialn/an/an/an/aProbe materialn/an/an/an/aProbe materialn/an/an/an/aResidence timen/an/an/an/aProbe materialn/an/an/an/aRe	Current sampling frequency	Continuous	Continuous	Continuous	Continuous
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Probe height5.0 meters5.1 meters5.0 meters4.0 metersDistance from supporting structure2.1 meters2.2 meters2.1 meters1.2 metersDistance from obstructions on oofn/an/an/an/aDistance from obstructions not on roofNoneNoneNoneNoneHorizontal distance from trees8.3 meters10.3 meters8.3 meters9.5 metersUrrical distance from trees0.3 meters0.3 meters1.3 meters1.3 metersDistance to furnace or incinerator fluen/an/an/an/aDistance between collocated monitorsn/an/an/an/aFor low volume PM instruments, is any PM instrument within 1 meter?NoNoNon/aProbe materialn/an/an/an/an/aProbe materialn/an/an/an/an/aPropose didications within th next 18 months?NoneNoneNoneNoneNoneNoneNoneNoneNoneNoneNoneProposed modifications manual samplers (PM)n/an/an/an/aFrequency of flow rate verification for manual samplers (PM)m/an/an/an/aPrequency of flow rate verification for audits (gaseous)n/an/an/an/aDistance from obstruction for audits (gaseous)n/an/an/an/aDistance from semination for audits (gaseous)n/an/an/an/a <tr< th=""><th>Sampling season</th><th>01/01 - 12/31</th><th>01/01 - 12/31</th><th>01/01 - 12/31</th><th>01/01 - 12/31</th></tr<>	Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Distance from supporting structure2.1 meters2.2 meters2.1 meters1.2 metersDistance from obstructions on roofn/an/an/an/an/aDistance from obstructions no roofn/an/an/an/aDistance from obstructions no roofNoneNoneNoneNoneHorizontal distance from trees8.3 meters10.3 meters8.3 meters9.5 metersUrrical height of tree above probe0.3 meters0.2 meters0.3 meters1.3 metersDistance between collocated monitorsn/an/an/an/aFor low volume PM instruments, is any PM instruments, is any PM instruments, is any PM instrument, is any PM instruments, is any PM instrument within 1 meter?NoNoNoProbe materialn/an/an/an/an/aProbosed modifications within the next 18 months?NoneNoneNoneNoneNoneNoneNoneNoneNoneNoneNonePrequency of flow rate verification for manual samplers (PM)m/an/an/an/aFrequency of flow rate verification for gasousN/an/an/an/aDistance treen/an/an/an/an/aDistance treen/an/an/an/an/aProposed modifications within the next 18 months?NoneNoneNoneNonePrequency of flow rate verification for manual samplers (PM)Bi-weekly and quarterly auditsn/an/a	Probe height	5.0 meters	5.1 meters	5.0 meters	4.0 meters
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Distance from obstructions not on roofNoneNoneNoneNoneHorizontal distance from trees8.3 meters10.3 meters8.3 meters9.5 metersVertical height of tree above probe0.3 meters0.2 meters0.3 meters1.3 metersDistance to furnace or incinerator fluen/an/an/an/aFor low volume PM instruments, is any PM instrument within 1 meter?NoNoNon/aFor high volume PM instruments, is any PM instrument within 1 meter?n/an/an/an/aTor bigh volume PM instruments, is any PM instrument within 1 meter?n/an/an/an/aProbe materialn/an/an/an/an/aProbe materialn/an/an/an/an/aProbe materialn/an/an/an/an/aProbesed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual Samplers (PM)n/an/an/an/aFrequency of flow rate verification for automated analyzers (PM)n/am/an/an/aProquency of one-point QC check (gaseous)n/an/an/an/a03/21/24Discosel & discosel & m/an/an/an/a03/21/2403/21/24Discosel & for two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/24Discosel & m/an/an/an/an/a11/21/24Dist	Distance from obstructions on roof	n/a	n/a	n/a	n/a
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Horizontal distance from trees 8.3 meters 10.3 meters 8.3 meters 9.5 meters   Vertical height of tree above probe 0.3 meters 0.2 meters 0.3 meters 1.3 meters   Distance to furnace or incinerator flue n/a n/a n/a n/a   Distance between collocated monitors n/a n/a n/a n/a   For low volume PM instruments, is any PM instruments, is any PM instrument within 1 meter? No No No No   For high volume PM instruments, is any PM instrument within 2 meters? n/a n/a n/a n/a   Unrestricted airflow 360 degrees 360 degrees 360 degrees 360 degrees   Probe material n/a n/a n/a n/a 7 seconds   Proposed modifications None None None None None   within the next 18 months? n/a n/a n/a n/a   Frequency of flow rate verification for automated analyzers (PM) Bi-weekly and quarterly audits muterly audits n/a   Frequency of one-point QC check (gaseous) n/a n/a n/a n/a   Mate n/a n/a n/a n/a 03/25/24   Pate of two semi-annual flow rate 03/21/24 03/21/24 03/21/24	roof	None	None	None	None
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Distance to furnace or incinerator fluen/an/an/an/aDistance between collocated monitorsn/an/an/an/aFor low volume PM instruments, is any PM instrument within 1 meter?NoNoNon/aFor high volume PM instruments, is any PM instrument within 1 meter?n/an/an/an/aFor high volume PM instruments, is any PM instrument within 2 meters?n/an/an/an/aInrestricted airflow360 degrees360 degrees360 degrees360 degreesProbe materialn/an/an/an/aTeflonResidence timen/an/an/a7 secondsProposed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual PM2.5 NAAQS?n/an/an/an/aFrequency of flow rate verification for manual samplers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsn/an/aFrequency of one-point QC check (gaseous)n/an/an/a03/25/24Date of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/2403/21/2403/21/2403/21/2403/21/2403/21/2403/21/2403/21/2403/21/24Date of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2409/23/24n/a	Vertical height of tree above probe	0.3 meters	0.2 meters	0.3 meters	1.3 meters
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For low volume PM instruments, is any PM instrument within 1 meter?NoNoNon/aFor high volume PM instruments, is any PM instrument within 2 meters?n/an/an/an/aUnrestricted airflow360 degrees360 degrees360 degrees360 degreesProbe materialn/an/an/an/aResidence timen/an/an/a7 secondsProposed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual PM2.5 NAAQS?n/an/an/an/aFrequency of flow rate verification for automated analyzers (PM)n/aBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsn/an/aFrequency of one-point QC check (gaseous)n/an/an/a03/25/24 06/11/2403/21/24 06/26/2403/21/24 06/26/2403/21/24 06/26/2403/21/24 06/26/24n/aDate of two semi-annual flow rate audits (PM)03/21/24 09/23/2403/21/24 09/23/2403/21/24 09/23/2403/21/24 09/23/24n/a	Distance between collocated monitors	n/a	n/a	n/a	n/a
For high volume PM instruments, is any PM instrument within 2 meters?n/an/an/an/aUnrestricted airflow360 degrees360 degrees360 degrees360 degreesProbe materialn/an/an/aTeflonResidence timen/an/an/a7 secondsProposed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual PM2.5 NAAQS?n/aYesn/an/aFrequency of flow rate verification for manual samplers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsn/an/aFrequency of non-point QC check (gaseous)n/an/an/an/an/aDate of annual performance evaluation (gaseous & meteorological)n/an/a03/21/2403/21/2403/21/24Date of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/24n/a03/21/2409/23/2409/23/2409/23/24n/an/a	For low volume PM instruments, is any PM instrument within 1 meter?	No	No	No	n/a
Unrestricted airflow360 degrees360 degrees360 degrees360 degreesProbe materialn/an/an/an/aTeflonResidence timen/an/an/an/a7 secondsProposed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual PM2.5 NAAQS?n/aYesn/an/aFrequency of flow rate verification for automated analyzers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly (3 point)Date of annual performance evaluation (gascous & meteorological)03/21/2403/21/2403/21/2403/21/2403/21/24Date of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/2403/21/24n/a	For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	n/a
Probe materialn/an/an/aTeflonResidence timen/an/an/a7 secondsProposed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual PM2.5 NAAQS?n/aYesn/an/aFrequency of flow rate verification for manual samplers (PM)N/aBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly audits03/25/24 (1/24)Date of annual performance evaluation (gaseous & meteorological)03/21/2403/21/2403/21/24 (06/26/24)	Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Residence timen/an/an/a7 secondsProposed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual PM2.5 NAAQS?n/an/aYesn/an/aFrequency of flow rate verification for manual samplers (PM)n/aNaNan/an/aFrequency of flow rate verification for manual samplers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsDi-weekly and quarterly auditsNaN/aDate of annual performance evaluation (gaseous & meteorological)N/aNaNaNaNaNaDate of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/2403/21/24NaNaDate of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/24NaNaDate of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/24NaNaDate of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/24NaNa	Probe material	n/a	n/a	n/a	Teflon
Proposed modifications within the next 18 months?NoneNoneNoneNoneIs it suitable for comparison against the annual PM2.5 NAAQS?n/an/aYesn/an/aFrequency of flow rate verification for manual samplers (PM)n/an/an/an/an/aFrequency of flow rate verification for automated analyzers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsn/an/aFrequency of one-point QC check (gaseous)n/an/an/an/a03/25/24Date of annual performance evaluation (gaseous & meteorological)n/a03/21/2403/21/2403/21/24Date of two semi-annual flow rate audits (PM)03/21/2403/21/2403/21/2403/21/2409/23/2409/23/2409/23/2409/23/24n/an/a	Residence time	n/a	n/a	n/a	7 seconds
Is it suitable for comparison against the annual PM2.5 NAAQS?n/aN/an/aFrequency of flow rate verification for manual samplers (PM)n/an/an/an/aFrequency of flow rate verification for automated analyzers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsn/aFrequency of one-point QC check (gaseous)N/an/an/an/an/aDate of annual performance evaluation (gaseous & meteorological)n/an/an/a03/25/24 06/26/2403/21/24 06/26/2403/21/24 06/26/2403/21/24 06/26/2403/21/24 06/26/2403/21/24 06/26/2403/21/24 06/26/2403/21/24 06/26/24n/a	Proposed modifications within the next 18 months?	None	None	None	None
Frequency of flow rate verification for manual samplers (PM)n/an/an/aFrequency of flow rate verification for automated analyzers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsDi-weekly and quarterly auditsBi-weekly and quarterly auditsn/aFrequency of one-point QC check (gaseous)n/an/an/an/an/aDate of annual performance evaluation (gaseous & meteorological)n/an/an/a03/25/24 06/26/2403/21/24 06/26/24	Is it suitable for comparison against the annual PM <sub>2.5</sub> NAAQS?	n/a	Yes	n/a	n/a
Frequency of flow rate verification for automated analyzers (PM)Bi-weekly and quarterly auditsBi-weekly and quarterly auditsBi-weekly and quarterly auditsDi-weekly and auditsDi-weekly and quarterly auditsDi-weekly and auditsDi-weekly auditsDi-weekly auditsDi-weekly auditsDi-weekly auditsDi-weekly auditsDi-weekly auditsDi-weekly auditsDi-weekly auditsDi-weekly audits	Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	n/a
Automated analyzers (FM)quarterry addressquarterry addressquarterry addressquarterry addressFrequency of one-point QC check (gaseous)n/an/an/an/aBi-weekly (3 point)Date of annual performance evaluation (gaseous & meteorological)n/an/an/an/a03/25/24 06/11/24 	Frequency of flow rate verification for automated analyzers (PM)	Bi-weekly and	Bi-weekly and	Bi-weekly and	n/a
n/a   n/a   n/a   n/a   Bi-weekly (3 point)     Date of annual performance evaluation (gaseous & meteorological)   n/a   n/a   n/a   03/25/24     Date of two semi-annual flow rate audits (PM)   03/21/24   03/21/24   03/21/24   03/21/24	Frequency of one-point OC check	quarterry address	quarterry audits	quarterry addits	
Date of annual performance evaluation (gaseous & meteorological)     n/a     n/a     03/25/24 06/11/24 11/21/24       Date of two semi-annual flow rate audits (PM)     03/21/24 06/26/24 09/23/24     03/21/24 06/26/24 06/26/24 09/23/24     03/21/24 03/21/24 06/26/24 06/26/24 09/23/24     03/21/24 01/24/24	(gaseous)	n/a	n/a	n/a	Bi-weekly (3 point)
Date of two semi-annual flow rate audits (PM)     03/21/24 06/26/24 09/23/24     03/21/24 06/26/24 09/23/24     03/21/24 06/26/24 09/23/24     n/a	Date of annual performance evaluation (gaseous & meteorological)	n/a	n/a	n/a	03/25/24 06/11/24 11/21/24
	Date of two semi-annual flow rate audits (PM)	03/21/24 06/26/24 09/23/24	03/21/24 06/26/24 09/23/24	03/21/24 06/26/24 09/23/24	n/a

# Toll (continued)

Pollutant, POC	Wind Speed, 1	Wind Direction, 1	Ambient Temperature, 1	
Primary / QA Collocated / Other	n/a	n/a	n/a	
Parameter code	61101	61102	62101	
Basic monitoring objective(s)	Public Information	Public Information	Public Information	
Site type(s)	n/a	n/a	n/a	
Monitor type	SLAMS	SLAMS	SLAMS	
Network affiliation(s)	n/a	n/a	n/a	
Instrument manufacturer / model	Met One 50.5H Met One 30.5	Met One 50.5H Met One 30.5	Met One 063-1	
Method code	071	071	040	
FRM / FEM / ARM / Other	n/a	n/a	n/a	
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	
Analytical Lab	n/a	n/a	n/a	
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	
Spatial scale	Neighborhood	Neighborhood	Neighborhood	
Monitoring start date	January 2014	January 2014	January 2014	
Current sampling frequency	Continuous	Continuous	Continuous	
Required sampling frequency	n/a	n/a	n/a	
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	
Probe height	10.0 meters	10.0 meters	4.5 meters	
Distance from supporting structure	10.0 meters	10.0 meters	4.5 meters	
Distance from obstructions on roof	n/a	n/a	n/a	
Distance from obstructions not on				
roof	None	None	None	
Horizontal distance from trees	8.4 meters	8.4 meters	8.4 meters	
Vertical height of tree above probe	n/a	n/a	0.8 meters	
Distance to furnace or incinerator flue	n/a	n/a	n/a	
Distance between collocated monitors	n/a	n/a	n/a	
For low volume PM instruments, is any PM instrument within 1 meter?	n/a n/a		n/a	
For high volume PM instruments, is any PM instrument within 2 meters?	n/a	n/a	n/a	
Unrestricted airflow	360 degrees	360 degrees	360 degrees	
Probe material	n/a	n/a	n/a	
Residence time	n/a	n/a	n/a	
Proposed modifications within the next 18 months?	None	None	None	
Is it suitable for comparison against the annual PM2.5 NAAOS?	n/a	n/a	n/a	
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a	
Frequency of flow rate verification for automated analyzers (PM)	n/a	n/a	n/a	
Frequency of one-point QC check (gaseous)	n/a	n/a	n/a	
Date of annual performance evaluation (gaseous & meteorological)	None	None	11/21/24	
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	



Air Quality

Please contact Craig Petersen for questions and comments at, <u>cpetersen@nnph.org</u>

# Appendix A

# Public Inspection Plan

# **Public Inspection Plan**

The Northern Nevada Public Health issued a press release on May 22, 2025, to inform the public of the Annual Network Plan 30-day comment period. The press release provided a web link to the draft plan and explained how to submit written comments during the comment period. A copy of the press release, all comments received during the comment period, and AQMD's response to the comments are included below.

1. No comments received.

Press Release

NNPH.ORG

English | Español

# Public Health N E W S R O O M

# NNPH AIR QUALITY DIVISION SEEKS PUBLIC COMMENT ON ANNUAL AMBIENT AIR MONITORING NETWORK PLAN AND 5-YEAR NETWORK ASSESSMENT

May 22, 2025

May 22, 2025. Reno/Sparks, Nevada. – Northern Nevada Public Health – Air Quality Management Division (AQMD) is requesting written comments from the public on its draft 2025 Ambient Air Monitoring Network Plan and its draft 2025 Ambient Air Monitoring Network Assessment.

Comments will be accepted until midnight on June 22, 2025, and may be submitted via email to <u>AQMDPlanning@nnph.org</u>.

All correspondence must include the commenter's first and last name and a complete mailing address.

Air Monitoring Network Plans are required annually by the U.S. Environmental Protection Agency (EPA). The plan provides detailed information on the specific location of each

monitoring station, siting criteria, monitoring methods and objectives, sampling frequency, pollutants measured at each station, and aerial photographs showing their physical location. It also summarizes network modifications completed over the last 12 months and proposed network modifications over the next 18 months. The 2025 plan is substantially similar to the 2024 Ambient Air Monitoring Network Plan. A summary of all completed and proposed changes can be found on pages 9 through 11 of the plan.

Air Monitoring Network Assessments are required every five years by the EPA. The primary objectives of the Network Assessments are to determine whether the network meets the monitoring objectives defined in Appendix D of 40 CFR Part 58. The assessments also evaluate whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate to incorporate into the ambient air monitoring network. The 2025 Assessment is also substantially similar to the 2020 Assessment.

For more information on NNPH Air Quality Management Division's efforts, visit <u>OurCleanAir.com</u>.

#### ###

Northern Nevada Public Health (NNPH) is nationally accredited by the Public Health Accreditation Board and has jurisdiction over all public health matters in Reno, Sparks, and Washoe County through the policy-making District Board of Health. NNPH consists of five divisions: Administrative Health Services, Air Quality Management, Community and Clinical Health Services, Environmental Health Services and Epidemiology & Public Health Preparedness. <u>More info can be found here</u>.

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# Appendix **B**

# 58.14 Network Modification Request for South Reno and Verdi SLAMS



May 22, 2025

Dena Vallano Manager, Air Quality Analysis Office U.S. Environmental Protection Agency, Region 9 75 Hawthorne Street, AIR-7 San Francisco, CA 94105

Subject: Proposed Modification to the Northern Nevada Public Health, Air Quality Management Division Ambient Air Monitoring Network

Dear Ms. Vallano:

Pursuant to 40 CFR 58.14, the Northern Nevada Public Health, Air Quality Management Division (AQMD) requests review and approval for a modification to the existing ambient air monitoring network. The AQMD is proposing to:

 Close the South Reno State and Local Air Monitoring Station (SLAMS) (AQS ID 32-031-0020) including discontinuation of all monitors (Ozone and meteorology); and
Initiate a SLAMS (proposed AQS ID 32-031-2010) in the Verdi area of western Washoe County to monitor Ozone, PM<sub>10</sub>, PM<sub>2.5</sub>, PM<sub>10-2.5</sub>, and meteorology.

If you require additional information, feel free to contact me or Mr. Matt McCarthy at (775) 784-7205.

Sincerely,

Craig Petersen Supervisor, Monitoring and Planning Air Quality Management Division Northern Nevada Public Health

cc: Laura Barry, EPA Region 9 Matt McCarthy, AQMD Francisco Vega, AQMD Attachment A

40 CFR 58.14(c)(1) Criteria Test for the South Reno Ozone Monitor

			Des	ign Value	s (2020-20	024)									
		Year 1	Year 2	Year 3	Year 4	Year 5	Ave D.V.								
Parame te r	Averaging Times	2020	2021	2022	2023	2024	2020- 2024	Ştd.	Jes. (S) Student	olo confidence	of Data of Data Values (n)	Umer Cl	05 80°10	AMOS Test	
O3 (ppm)	8-hr	0.067	0.068	0.070	0.069	0.066	0.068	0.002	2.13	5	0.070	0.070	0.056	FAIL	

# Attachment B

Closure of the South Reno SLAMS including discontinuing Ozone monitoring

#### Ozone

Although the discontinuation of ozone monitoring at the South Reno SLAMS does not pass the criteria test described in 40 CFR 58.14(c)(1), AQMD is requesting discontinuation based on the following:

- 1. The monitor has had design values at or below the 2015 NAAQS during the previous five years (2020-2024).
- 2. The monitor is not the only ozone monitor in Washoe County. Ozone monitoring will continue at seven SLAMS including the proposed Verdi SLAMS.
- 3. The population that is currently served by the South Reno ozone monitor, will still be served by Toll, Sparks, and Reno4 ozone monitors which are all less than 6 miles away.
- 4. Ozone concentrations at the South Reno SLAMS correlate well to the Toll, Sparks, and Reno4 monitors that will serve the population that South Reno currently serves.
- 5. The monitor is not required and is not the last within a nonattainment or maintenance area. All of Washoe County is designated as attainment for all ozone NAAQS. Washoe County is not a maintenance area for any ozone NAAQS.
- 6. The other requirements of Appendix D will continue to be met.
- 7. Table 1 references the minimum monitoring requirements for Ozone for our current population.

			8-hour D	esign Value (2022-2024)	Num	ber of Si	ites
					Minimum		
MSA	County	Population	ppm	Site (ID)	Required	Active	Needed
Reno- Sparks	Washoe <u>Storey</u> Total	513,854 <u>4,457</u> 518,311	0.066	South Reno (0020) Spanish Springs (1007) Incline (2002) Lemmon Valley (2009)	2	7	0

Table 1	
Minimum Monitoring Requirements for O	3

# Attachment C

Initiation of a SLAMS in Verdi to monitor Ozone,  $PM_{10}$ ,  $PM_{2.5}$ ,  $PM_{10-2.5}$ , and Meteorology

#### Initiation of a SLAMS in the Verdi area (Western Washoe County)

Initiating a SLAMS to monitor Ozone,  $PM_{10}$ ,  $PM_{2.5}$ ,  $PM_{10-2.5}$ , and Meteorology is based on 40 CFR 58.14(b). The AQMD is requesting approval of the Verdi SLAMS to be in conjunction with the discontinuation of the South Reno SLAMS. The points below support the AQMD request.

- 1. A SLAMS in the Verdi area is a recommendation in the 2020 and 2025 Network Assessments.
- On May 11, 2023, AQMD received a \$213,204 Enhanced Air Quality Monitoring for Communities Award from EPA for the establishment of the new monitoring station in Verdi.
- 3. In conjunction with the proposed South Reno SLAMS closure, the overall balance of the PM and ozone network Area Served and Population Served distributions will be improved.
- 4. In conjunction with the proposed South Reno SLAMS closure, the AQMD will be able to maintain staffing and budgetary capacity.
- 5. AQMD has received formal approval from the Washoe County School District (WCSD) to establish a SLAMS at the Verdi Elementary School in Verdi. In addition to WCSD approval, AQMD has received approval for rights of entry from Truckee Meadows Water Authority (TMWA). TMWA owns the road to access 180 Bridge St. Verdi, NV (APN 038-060-46) for which will be entry point of the Verdi SLAMS.
- 6. The proposed location will not prohibit any planned future development included in the Washoe County School District Master Plan.

Figure 1 Proposed Changes to Washoe County Monitoring Network



Cita Nama.	
Sue Name:	Veral
AQS ID:	32-031-2010
Geographical coordinates:	39° 31.257' N, 119° 59.309' W
Elevation:	4,895
Assessor's Parcel Number:	038-060-27
Owner:	Washoe County School District Board
Location:	South side of Verdi Elementary School
Street address:	180 Bridge St. Verdi. NV 89439
County:	Washoe
Distance to road:	190 meters to SR425 E, 23 meters to Power House Rd.
Traffic count:	2500 AADT (2021-2023) (NDOT ATR 0310012 – SR425 E. 155' W of Second St.)
Groundcover:	Decomposed Granite
Representative area:	Reno-Sparks MSA
Hydrographic Area	16

# **Proposed Verdi SLAMS Detailed Site Information**

Figure 2 Proposed Verdi SLAMS (looking north)



|--|

Pollutant, POC	PM10, 1	PM <sub>2.5</sub> , 1	PM10-2.5, 1	O3, 1
Primary / QA Collocated / Other	Primary	Primary	Primary	n/a
Parameter code	81102 & 85101	88101	86101	44201
Desis menitoring abienting (s)	NAAQS	NAAQS	Dessent Server ent	NAAQS
Basic monitoring objective(s)	comparison	comparison	Research Support	comparison
$S$ : $t_{\alpha}$ $t_{\alpha}$ $r_{\alpha}$ $r_{\alpha}$	Population	Population		Population
Site type(s)	Exposure	Exposure	n/a	Exposure
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	n/a	n/a	n/a	n/a
	Met One BAM	Met One BAM	Met One BAM	T 1 DI T 100
Instrument manufacturer / model	1020	1020	1020 Coarse Pair	1API 1400
Method code	122	170	185	087
FRM / FEM / ARM / Other	FEM	FEM	FEM	FEM
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a	n/a
Reporting Agency	NNPH - AOMD	NNPH - AOMD	NNPH - AOMD	NNPH - AOMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	01/01/2026 (est)	01/01/2026 (est)	01/01/2026 (est)	01/01/2026 (est)
Current sampling frequency	Continuous	Continuous	Continuous	Continuous
Required sampling frequency	n/a	n/a	n/a	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Prohe height	4.7 meters	4.7 meters	4.7 meters	4.8 meters
Distance from supporting structure	2.0 meters	2.0 meters	2.0 meters	2.1 meters
Distance from obstructions on roof	2.0 meters	2.0 m/s	2.0 m/o	2.1 meters
Distance from obstructions on root	II/ d	11/ d	11/ d	11/ d
roof	n/a	n/a	n/a	n/a
Horizontal distance from trees	n/a	n/a	n/a	n/a
Vertical height of tree above probe	n/a n/a	n/a	n/a	n/a
Distance to furnace or incinerator	II/ d	II/d	11/ d	11/ d
flue	n/a	n/a	n/a	n/a
Distance between collocated			,	
monitors	n/a	n/a	n/a	n/a
For low volume PM instruments, is			),	
any PM instrument within 1 meter?	No	No	No	n/a
For high volume PM instruments, is				
any PM instrument within 2	n/a	n/a	n/a	n/a
meters?				
Unrestricted airflow	360 degrees	360 degrees	360 degrees	360 degrees
Probe material	n/a	n/a	n/a	Teflon
Residence time	n/a	n/a	n/a	6 seconds
Proposed modifications	n/a	n/a	n/a	n/a
within the next 18 months?	II/ d	n/ d	II/ d	11/ d
Is it suitable for comparison against	n/a	Yes	n/a	n/a
the annual PM2.5 NAAQS?		1.00		
Frequency of flow rate verification	n/a	n/a	n/a	n/a
for manual samplers (PM)	D' 11 1	<b>D</b> ' 11 1	<b>D' 11 1</b>	
Frequency of flow rate verification	B1-weekly and	B1-weekly and	B1-weekly and	n/a
Tor automated analyzers (PNI)	quarterly audits	quarterly audits	quarterly audits	D:
(requency of one-point QC cneck	n/a	n/a	n/a	Bi-weekly (3
(gaseous) Date of annual norfermance				point)
evaluation (gaseous &	n/a	n/a	n/o	n/o
meteorological)	11/a	11/a	11/a	11/a
Date of two semi-annual flow rate				
audits (PM)	n/a	n/a	n/a	n/a

Proposed Verdi SL	AMS
-------------------	-----

Pollutant, POC	Wind Speed, 1	Wind Direction, 1	Ambient Temperature, 1
Primary / QA Collocated / Other	n/a	n/a	n/a
Parameter code	61101	61102	62101
Basic monitoring objective(s)	Public Information	Public Information	Public Information
Site type(s)	n/a	n/a	n/a
Monitor type	SLAMS	SLAMS	SLAMS
Network affiliation(s)	n/a	n/a	n/a
Instrument manufacturer / model	Met One 30.5	Met One 30.5	Met One 063-1
Method code	071	071	040
FRM / FEM / ARM / Other	n/a	n/a	n/a
Collecting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Analytical Lab	n/a	n/a	n/a
Reporting Agency	NNPH - AQMD	NNPH - AQMD	NNPH - AQMD
Spatial scale	Neighborhood	Neighborhood	Neighborhood
Monitoring start date	01/01/2026 (est)	01/01/2026 (est)	01/01/2026 (est)
Current sampling frequency	Continuous	Continuous	Continuous
Required sampling frequency	n/a	n/a	n/a
Sampling season	01/01 - 12/31	01/01 - 12/31	01/01 - 12/31
Probe height	10.0 meters	10.0 meters	5.0 meters
Distance from supporting structure	10.0 meters	10.0 meters	5.0 meters
Distance from obstructions on roof	n/a	n/a	n/a
Distance from obstructions not on	N	N	N
roof	None	None	None
Horizontal distance from trees	n/a	n/a	n/a
Vertical height of tree above probe	n/a	n/a	n/a
Distance to furnace or incinerator flue	n/a	n/a	n/a
Distance between collocated monitors	n/a	n/a	n/a
For low volume PM instruments, is any PM instrument within 1 meter?	n/a	n/a	n/a
For high volume PM instruments, is			
any PM instrument within 2 meters?	n/a	n/a	n/a
Unrestricted airflow	360 degrees	360 degrees	360 degrees
Probe material	n/a	n/a	n/a
Residence time	n/a	n/a	n/a
Proposed modifications			
within the next 18 months?	n/a	n/a	n/a
Is it suitable for comparison against the annual PM2.5 NAAOS?	n/a	n/a	n/a
Frequency of flow rate verification for manual samplers (PM)	n/a	n/a	n/a
Frequency of flow rate verification	n/a	n/a	n/a
Frequency of one-noint OC check			
(gaseous)	n/a	n/a	n/a
Date of annual performance evaluation (gaseous & meteorological)	n/a	n/a	n/a
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a

Figure 3 Proposed Verdi SLAMS Site Plan



Figure 4 Proposed Verdi SLAMS Distance to Roadway



Figure 5 Proposed Verdi SLAMS Shelter Description



## Monitoring Station

- 1. Quick Space container shelter, 8' 6" x 20', anchor mounted.
- 2. 10-meter, T-135 telescoping Aluma Tower with building brackets (no guy wiring).
- 3. 200A, single-phase 120V/240V underground power service.
- 4. Chain link security fence, 7' in height.

#### Instrumentation (inside shelter)

- 1. Teledyne-API T400 ozone analyzer.
- 2. Teledyne-API T700 Calibrator.
- 3. Teledyne-API T701 Zero Air Generator.
- 4. Met One BAM 1020 continuous PM<sub>10</sub> monitor.
- 5. Met One BAM 1020 continuous PM<sub>2.5</sub> monitor.
- 6. Agilaire 8872 data logger.
- 7. T-Sentry 140 Station Temp sensor.

#### Instrumentation (on tower)

- 1. Met One 30.5 sonic anemometer.
- 2. Met One 063-1 ambient temperature sensor.

## Instrumentation (on roof)

- 1. Met One BAM 1020  $PM_{10}$  inlet.
- 2. Met One BAM 1020 PM<sub>2.5</sub> inlet.
- 3. Wireless Broadband Antenna

#### Interior Heating/Cooling

1. Mitsubishi 1.5 Ton Mini Split System.

Appendix C

NOy Waiver Request



February 5, 2025

Dena Vallano Manager, Monitoring and Analysis Section U.S. Environmental Protection Agency, Region IX 75 Hawthorne Street San Francisco, CA 94105-3901

Subject: Request for NOy Waiver

Dear Ms. Vallano,

Northern Nevada Public Health, AQMD has been operating a federally mandated NOy instrument as part of EPA NCore requirements since 2020 at our Reno4 site (AQS ID 32-031-0031) and between 2011 and 2020 at our Reno3 site (AQS ID 32-031-0016). Hourly average data from the monitor has been submitted to the EPA AQS database using the required method code 699 and parameter code 42600.

The analysis of 24-hour NOx vs. NOy averages shows statistically insignificant differences between NOx and NOy measurements as demonstrated in the three figures included below. Since the middle of 2024, the amount of time and financial resources spent on NOy monitoring has far exceeded that of the other parameters at the Reno4 monitoring site. Additionally, an instrument malfunction has caused a loss of the previous two quarters of data. Neither the manufacturer's technical support staff, nor AQMD have been able to identify the problem. In order to better utilize the resources of AQMD, we are requesting that the EPA Administrator grant a waiver permitting NOx monitoring to be substituted for the required NOy monitoring at the Reno4 NCore site as allowed in 40 CFR Part 58 Appendix D.3: Design Criteria for NCore sites.

The data represented in the figures below support the case that the difference between NOx and NOy measurements at Reno4 are statistically insignificant and that on average NOz is non-existent. The data used to create the analysis comes from the EPA AQS database and is available for independent verification by EPA if desired. AQMD proposes to close this monitor immediately upon receipt of an approval letter from the Administrator.

Please contact Matthew McCarthy at (775) 784-7205 if you have any questions or concerns.

Sincerely,

Azaveda Vega

Francisco Vega, P.E., MBA Director, Air Quality Management Division Northern Nevada Public Health

cc: Laura Berry, EPA Region 9 Craig Petersen, AQMD Matthew McCarthy, AQMD

AIR QUALITY MANAGEMENT DIVISION 1001 East Ninth Street, Building B-171, Reno, Nevada 89512 AQMD Office: 775-784-7200 | Fax: 775-784-7225 | OurCleanAir.com Serving Reno, Sparks and all of Washoe County, Nevada. Date: February 5, 2025 Subject: Request for NOy Waiver Page: 2 of 3







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## Appendix D

## Sparks Met Removal

From:	Barry, Laura
То:	McCarthy, Matthew
Subject:	RE: Discontinuation of WSP, WDR, and Ambient Temp at Sparks
Date:	Monday, March 3, 2025 11:39:16 AM
Attachments:	image001.png
	image002.png
	image003.png
	image004.png
	image005.png
	image006.png

## This Message Is From an External Sender

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Report Suspicious

Thanks Matt!

From: McCarthy, Matthew <MMcCarthy@nnph.org>Sent: Thursday, February 27, 2025 2:12 PMTo: Barry, Laura <Barry.Laura@epa.gov>

**Cc:** Petersen, Craig <CPetersen@nnph.org>; McMullen, Ben <BMcMullen@nnph.org>; Schnieder, Brendan <BSchnieder@nnph.org>; Crawford, Michael <MCrawford@nnph.org>; Volk, Jordan <JVolk@nnph.org>

Subject: Discontinuation of WSP, WDR, and Ambient Temp at Sparks

**Caution:** This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Hi Laura,

Back in October, we notified you that we were planning on discontinuing the collection of Wind Speed, Wind Direction, and Ambient Temperature continuous data at our Sparks site (AQS: 32-031-1005). As you mentioned in the meeting, there is no approval process required for us to stop collecting this data, but I wanted to notify you that we did end up following through with that. We will not be reporting this data into AQS starting with the January 1, 2025 data. An end date will be set in AQS for December 31, 2024. The ANP will reflect this change going forward.

Thank you!

Matt McCarthy Senior Air Quality Specialist Air Quality Management Division

Public Health

O: <u>775-784-7205</u> 1001 E Ninth St. Bldg. B Reno, NV 89512



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