NORTHERN NEVADA

Public Health

Air Quality

2024 Ambient Air Monitoring Network Plan

June 28, 2024

NORTHERN NEVADA

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_2	Nitrogen Dioxide
NO_x	Oxides of Nitrogen
NO_y	Reactive Oxides of Nitrogen
O_3	Ozone
ORD	EPA's Office of Research and Development
PLPT	Pyramid Lake Paiute Tribe
$PM_{2.5}$	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_{coarse}	PM_{10} minus $PM_{2.5}$
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.[1] The amendments revise the technical requirements for certain types of ambient air monitoring sites, add provisions for monitoring of PM_{coarse}, 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 2023 and proposed network modifications for 2024-2025.

Public Inspection Process

This monitoring network plan was available for public inspection from May 25 to June 25, 2024, at the AQMD website (OurCleanAir.com). 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 2024 Ambient Air Monitoring Network Plan, please contact the following individuals of the AQMD.

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

Craig Petersen, Supervisor, Monitoring and Planning
(775) 784-7233, or cpetersen@nnph.org

Daniel Timmons, Senior Air Quality Specialist
(775) 784-7205, or drtimmons@nnph.org

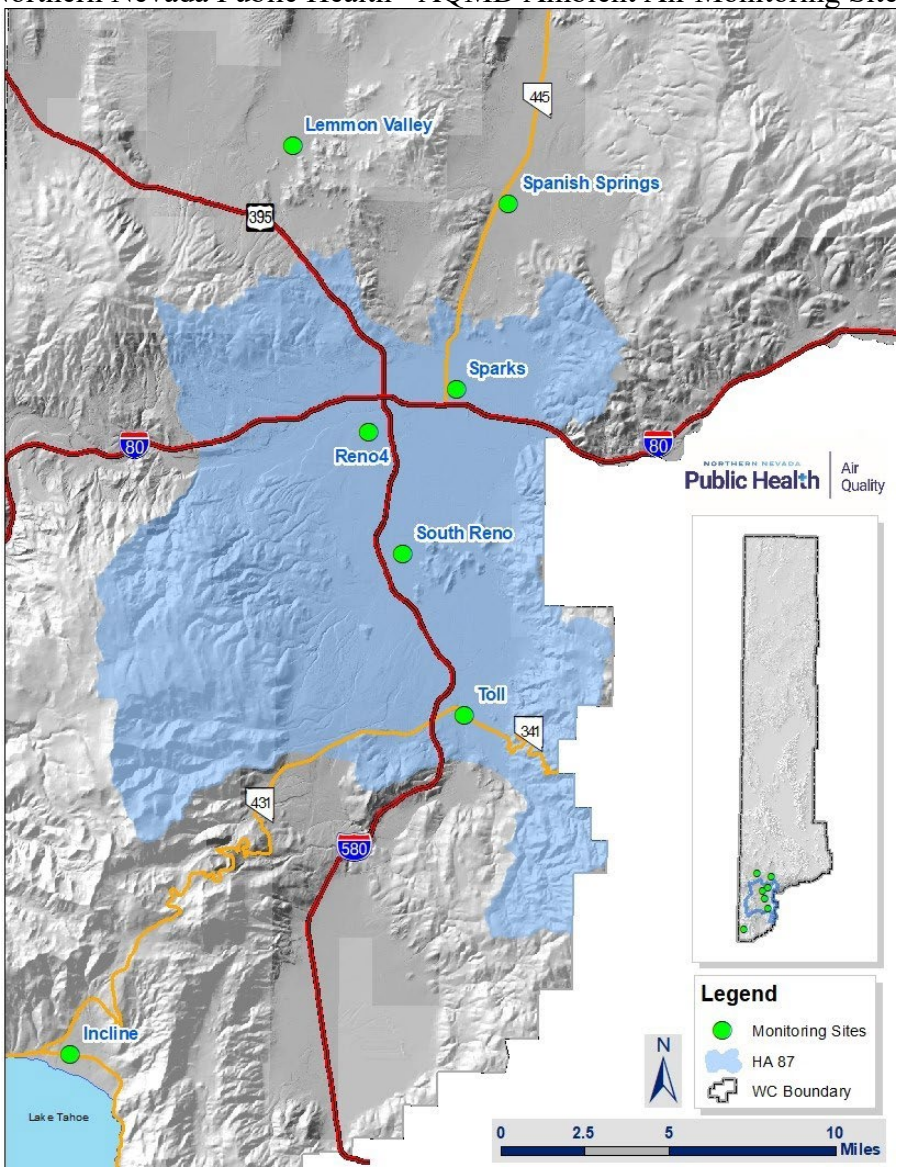
[1] 71 FR 61236-61328.

Overview of Northern Nevada Public Health Network Operation

Network Design

The AQMD operated seven (7) ambient air monitoring sites in 2023 (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_{10} NAAQS until it was redesignated to "Attainment/Maintenance" effective January 7, 2016.[2] Washoe County is classified as "attainment" or "unclassifiable/attainment" for all other pollutants and averaging times. Table 1 lists the parameters monitored in 2023 sorted by network type and site.

Figure 1
Northern Nevada Public Health - AQMD Ambient Air Monitoring Sites



[2] 80 FR 76232 (December 8, 2015).

Table 1
Ambient Air Monitoring Sites and Parameters Monitored

Network Type Site	O_3	CO	Trace CO	NO	NO_2	NO_x	Trace NO	NOy-NO	NOy	Trace SO_2	PM_{10} (manual)	PM_{10} (continuous)	$PM_{2.5}$ (manual)	$PM_{2.5}$ (continuous)	PM_{coarse} (manual)	PM_{coarse} (continuous)	$PM_{2.5}$ Speciation	Meteorology
Incline	✓																	
Lemmon Valley	✓																	
South Reno	✓																	✓
Spanish Springs	✓											✓		✓		✓		✓
Sparks	✓											✓		✓		✓		✓
Toll	✓											✓		✓		✓		✓
NCore[3]																		
Reno4	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
STN																		
Reno4																	✓	
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_{coarse} calculation only and is not submitted to AQS for data to be used in comparison to the NAAQS.

[3] NCore monitoring began December 2010.

Minimum Monitoring Requirements

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, 2013-2022". The 2023 population data are from the Nevada State Demographer's Office.[4]

Table 2
Minimum Monitoring Requirements for O_3

MSA	County	Population	8-hour Design Value (2021-2023)		Number of Sites		
			ppm	Site (ID)	Minimum Required	Active	Needed
Reno-Sparks	Washoe Storey Total	508,759 4,454 513,213	0.069	South Reno (0020) Sparks (1005) Spanish Springs (1007) Incline (2002)	2	7	0

Monitors required for SIP or Maintenance Plan: 2

Title 40 CFR 58, Appendix D, Section 4.1 requires O_3 monitoring in MSAs with populations above 350,000 people. Monitors are also required in MSAs with lower populations if measured O_3 values within that MSA are 85% or more of the NAAQS.

Table 3
Minimum Monitoring Requirements for $PM_{2.5}$ SLAMS (FRM/FEM/ARM)

MSA	County	Population	Design Value (2021-2023)				Number of SLAMS Sites		
			Annual ($\mu g/m^3$)	Annual Site (ID)	Daily ($\mu g/m^3$)	Daily Site (ID)	Minimum Required	Active	Needed
Reno-Sparks	Washoe Storey Total	508,759 4,454 513,213	9.7	Sparks (1005)	59	Reno4 (0031)	2	4	0

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

Title 40 CFR 58, Appendix D, Section 4.7.1 requires $PM_{2.5}$ monitoring in MSAs with populations above 500,000 people and in MSAs with lower populations if measured $PM_{2.5}$ values for an MSA are 85% or more of the NAAQS.

4 Nevada State Demographer, "Governor Certified Population Estimates of Nevada's Counties, Cities and Towns 2002 to 2023"

Table 4
Minimum Monitoring Requirements for Continuous $PM_{2.5}$ Monitors (FEM/ARM/non-FEM)

MSA	County	Population	Design Value (2021-2023) Annual ($\mu g/m^3$)	Annual Site (ID)	Daily ($\mu g/m^3$)	Daily Site (ID)	Number of Continuous Monitors Minimum Required	Active	Needed
Reno-Sparks	Washoe Storey Total	508,759 4,454 513,213	9.7	Sparks (1005)	59	Reno4 (0031)	1	4	0

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

Title 40 CFR 58, Appendix D, Section 4.7.2 requires continuous $PM_{2.5}$ 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
Minimum Monitoring Requirements for PM_{10}

MSA	County	Population	Maximum Concentration (2021-2023) $\mu g/m^3$	Site (ID)	Number of Sites Minimum Required	Active	Needed
Reno-Sparks	Washoe Storey Total	508,759 4,454 513,213	319	Toll (0025)	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.

Table 6
Minimum Monitoring Requirements for NO_2

CBSA	County	Population	Max AADT counts (year)	Number of Monitors Required Near-Road	Active Near-Road	Near-Road Needed	Required Area-Wide	Active Area-Wide	Area-Wide Needed
Reno, NV	Washoe Storey Total	508,759 4,454 513,213	169,000[5] (2022)	0	0	0	0	1	0

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_2 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_2 monitoring station in each CBSA with populations over 1,000,000 people. Based on the 2023 population data from the Nevada State Demographer's Office, the Reno, NV CBSA does not require a near-road or area-wide NO_2 monitoring station.

[5] NDOT ATR 0310634 between the Plumb-Villanova Interchange 'Exit 65' & Mill St Interchange 'Exit 66'.

Table 7
Minimum Monitoring Requirements for SO_2

CBSA	County	Population	Total SO_2 (tons/year)	PWEI (Million persons-tons/year)	Data Requirements Rule Source(s) using Monitoring	Number of Monitors		
						Minimum Required	Active	Needed
Reno, NV	Washoe Storey Total	508,759 4,454 513,213	339.0[6]	173.9	n/a	0	1	0

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_2 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 8, AQMD used 2023 population data from the Nevada State Demographer's Office and 2020 National Emissions Inventory data to determine that no additional SO_2 monitoring is required.

Table 8
Minimum Monitoring Requirements for CO

CBSA	County	Population	Number of Monitors		
			Required Near-Road	Active Near-Road	Needed
Reno, NV	Washoe Storey Total	508,759 4,454 513,213	0	0	0

Monitors required for: SIP or Maintenance Plan: 0; NCore: 1
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_2 monitor in CBSAs having populations over 1,000,000 people. Based on the 2023 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_2 monitor.

[6] U.S.EPA, 2020 National Emissions Inventory (NEI) Data

Table 9
Source-Oriented Pb Monitoring

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

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 10 includes the two largest sources of Pb emissions in Reno, NV CBSA.

Table 10
Near-Road NO_2, $PM_{2.5}$, and CO Monitors

CBSA	Population (year)	Max AADT Counts (year)	Number of Monitors						
			Required NO_2	Active NO_2	Required $PM_{2.5}$	Active $PM_{2.5}$	Required CO	Active CO	Additional Needed
Reno, NV	508,759 (2023)	169,000[7] (2022)	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_2 monitor in CBSAs having a population of 1,000,000 or more persons. An additional NO_2 monitor is required in CBSAs with a population of 2,500,000 or more persons.

[7] 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 $PM_{2.5}$, PM_{10}, 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.

Table 11
Collocation of Manual $PM_{2.5}$, PM_{10}, and non-NCore Pb Monitors

Method Code	Number of Primary Monitors	Number of Collocated Monitors	
		Required	Active
125	0	0	0

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 $PM_{10-2.5}$ at the Reno4 NCore station, and all the Primary PM_{10} monitors are continuous methods, there is no collocation requirement.

Table 12
Collocation of Automated FEM $PM_{2.5}$ Monitors

Method Code	Number of Primary Monitors	Number of Required Collocated Monitors	Number of Active Collocated FRM Monitors	Number of Active Collocated FEM Monitors (same method designation as primary)
170	4	1	1	0

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 $PM_{2.5}$ FEM monitors with one at the Reno4 monitoring station collocated with a $PM_{2.5}$ 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 PM2.5 monitoring network that impact the location of a violating PM2.5 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.

Network Modifications Completed in 2023

SLAMS:
CO (Sparks)

- Took existing CO analyzer offline and discontinued CO monitoring at the Sparks monitoring station. See Appendix B, Network Modification Request/Approval for approved Sparks CO monitor discontinuation.

NCore:

- No modifications completed.

Speciation Trends:

- No modifications completed.

SPM:

- No modifications completed.

Additional Changes Completed in 2023

SLAMS:
PM_{10}, $PM_{2.5}$, PM_{coarse} (Sparks)

- Install new Met One BAM 1020's as part of the 10-year replacement schedule. These monitors were purchased using one-time 103 grant funding received in 2022.

Meteorology (South Reno, Spanish Springs, Sparks, and Toll)

- Install new Met One 30.5 Wind Speed and Wind Direction sensors.

NCore:
Meteorology (Reno 4)

- Install new Met One 30.5 Wind Speed and Wind Direction sensor.

SO2, NOx (Reno4)

- Install new T-Series Teledyne trace-level SO2 and NOx analyzers as part of the 10-year replacement schedule.

PM_{10}, $PM_{2.5}$, PM_{coarse} (Reno4)

- Install new Met One BAM 1020's as part of the 10-year replacement schedule. These monitors were purchased using one-time 103 grant funding received in 2022.

Speciation Trends:

- No changes completed.

SPM:

- No changes completed.

Network Modifications Proposed for 2024-2025

SLAMS:
O3 and meteorology (South Reno)

- Discontinue all monitoring at the South Reno station. A formal request stating this proposal will be submitted prior to any modifications to follow the 40 CFR 58.14 criteria.

NCore:

- No modifications proposed.

Speciation Trends:

- No modifications proposed.

SPM:
All pollutants and meteorology (Verdi)

- Begin monitoring PM_{10}, $PM_{2.5}$, PM_{coarse}, O_3, 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 will be submitted prior to any modifications to follow the 40 CFR 58.14 criteria.

Additional Changes Proposed for 2024-2025

SLAMS:

- No changes proposed.

NCore:
CO (Reno 4)

- Install new CO analyzer as part of the 10-year replacement schedule.

Speciation Trends:

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

SPM:

- No changes proposed.

$PM_{2.5}$ Monitoring Network Modifications Proposed for 2024-2025

SLAMS:
$PM_{2.5}$
- No modifications proposed.

NCore:
$PM_{2.5}$
- No modifications proposed.

Speciation Trends:
- No modifications proposed.

SPM:
$PM_{2.5}$ (Verdi)
- Begin monitoring $PM_{2.5}$ 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.

Data Submission Requirements

Quality Assurance Data for 2023 were submitted to AQS for the:
1st quarter in June 2023
2nd quarter in August 2023
3rd quarter in December 2023
4th quarter in March 2024

Annual Data Certification for all data for 2023 was submitted to EPA on April 26, 2024.

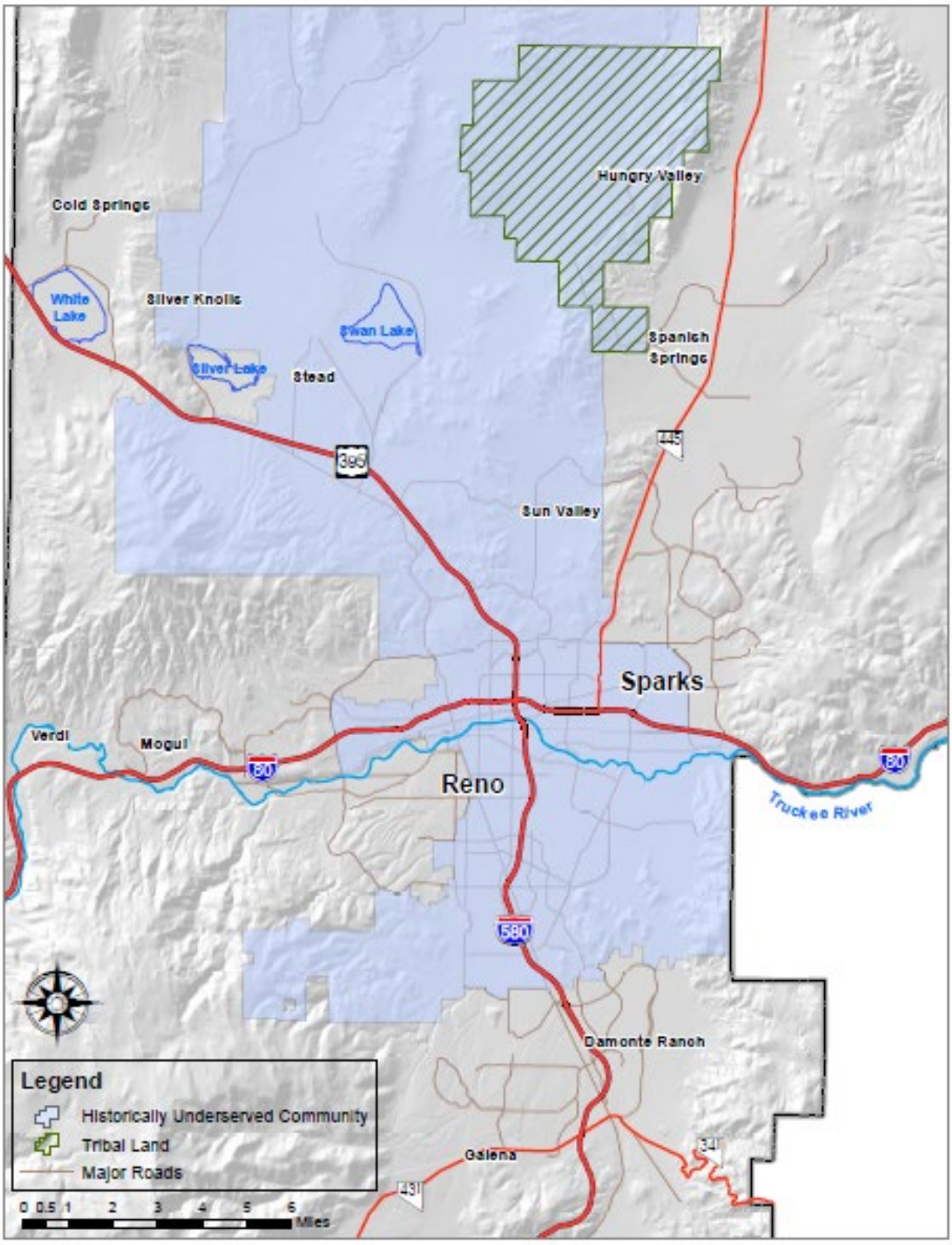
Environmental Justice and Underserved Communities

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

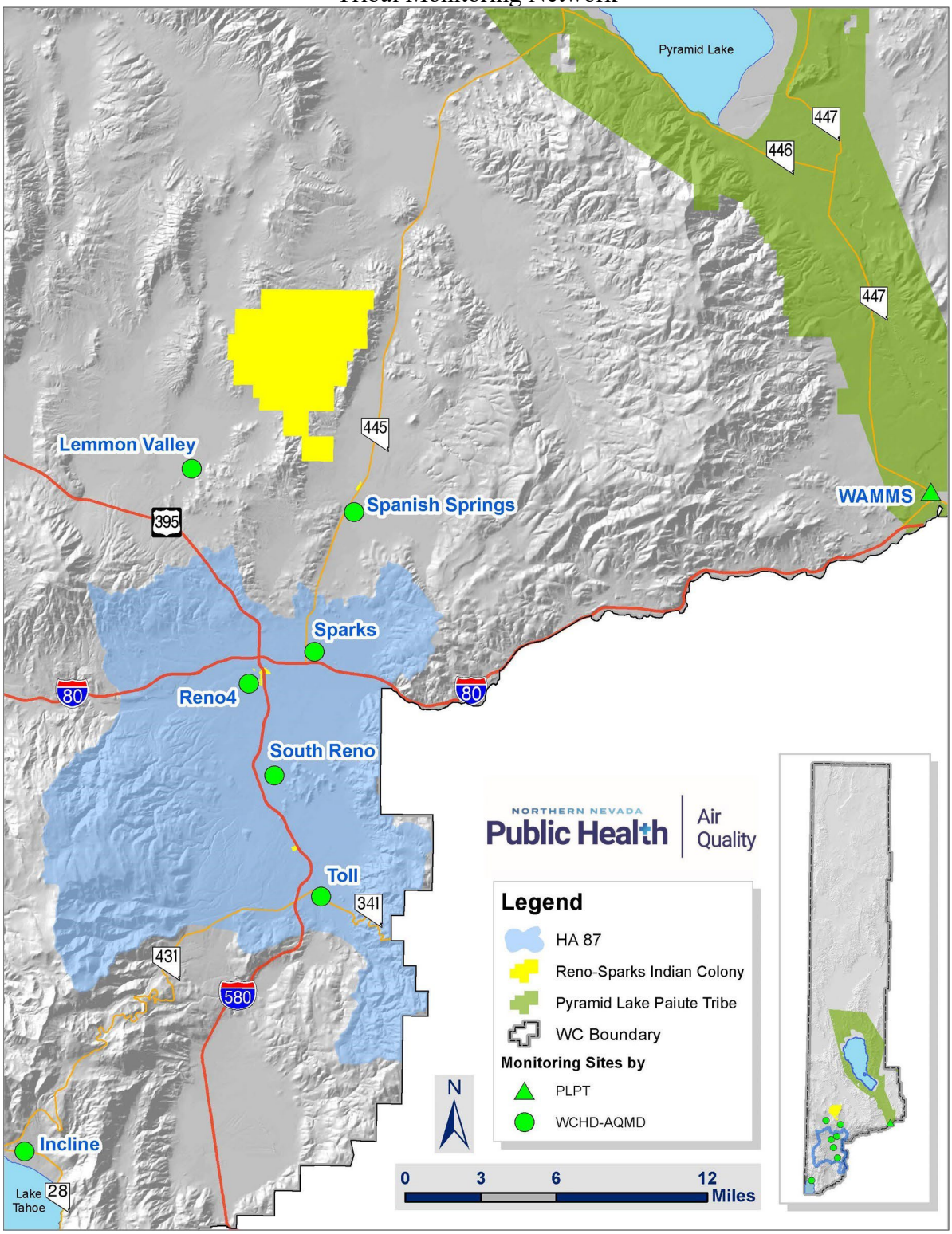
One tribe operates an ambient air monitoring network within the geographic boundaries of Washoe County - The Pyramid Lake Paiute Tribe (PLPT). Table 13 summarizes the tribal sites and parameters monitored in 2023. Figure 3 shows the location of tribal lands for the Reno-Sparks Indian Colony (RSIC) and 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/

Table 13
Tribal Ambient Air Monitoring Sites and Parameters Monitored

Network Site Site ID PLPT	O_3	CO	Trace CO	NO	NO_2	NO_x	Trace NO	NOy-NO	NOy	Trace SO_2	PM_{10} (manual)	PM_{10} (continuous)	$PM_{2.5}$ (manual)	$PM_{2.5}$ (continuous)	PM_{coarse} (manual)	PM_{coarse} (continuous)	$PM_{2.5}$ Speciation	Meteorology
WADSAQ T-561-1026												✓						✓

Figure 3
Tribal Monitoring Network



Incline

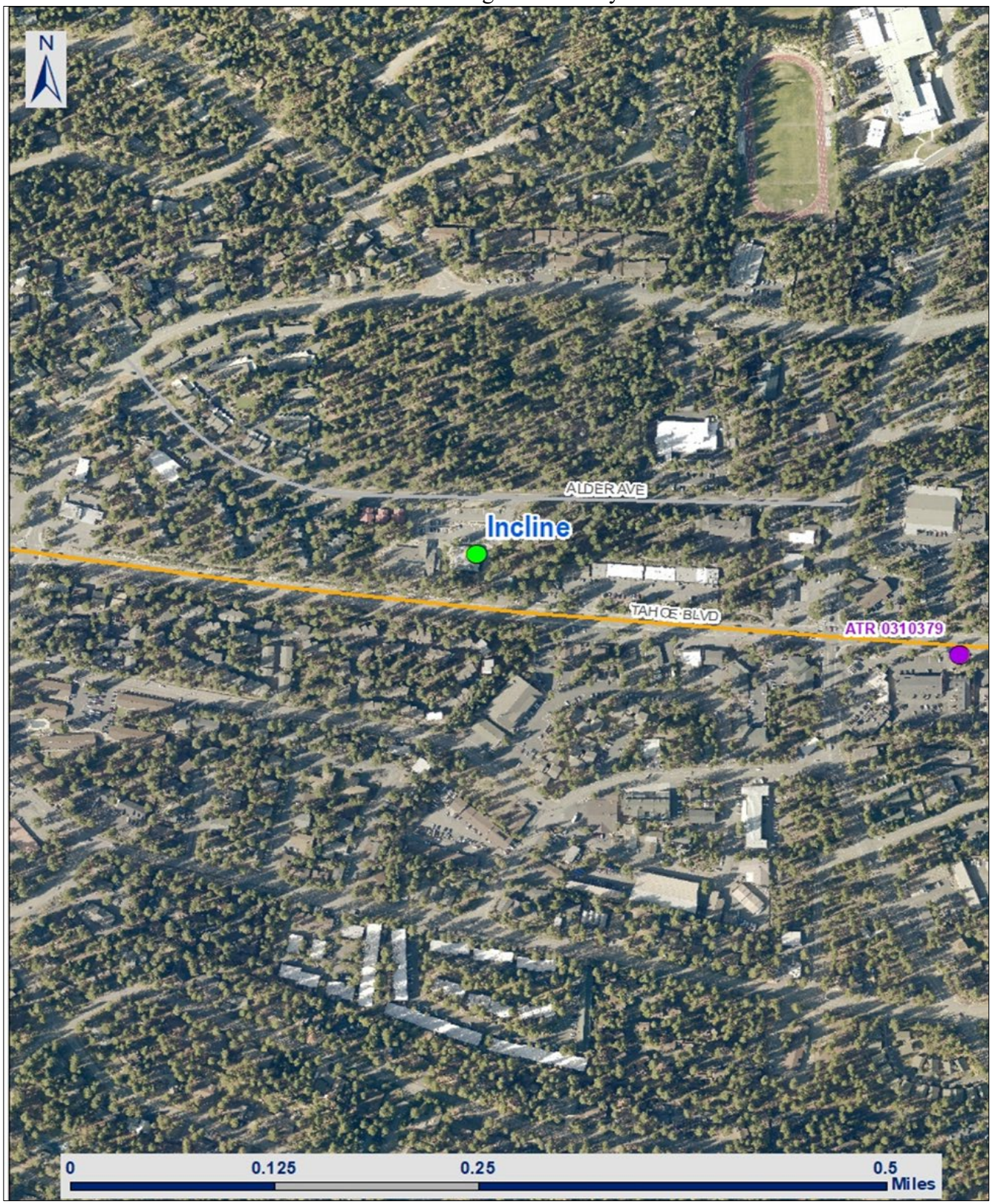
This site is located in a Washoe County office building at 855 Alder Avenue and is outside HA 87. It is located in a residential/commercial neighborhood. The AQMD had monitored PM_{10} (1993-2002) and CO (1993-2002) and currently monitors for O_3. This site was temporarily closed from December 2005 to May 2008 for remodeling. By multi-agency cooperative agreement, the California Air Resources Board (CARB) monitored $PM_{2.5}$ (1999-2002) and NO_2 (1999-2002). Since May 2008, this site only monitors for O_3.

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:[8]	9,617 AADT (2020-2022) (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

[8] Nevada Department of Transportation Traffic Information

Figure 5
Incline Monitoring Site Vicinity Aerial



Incline (continued)

Pollutant, POC	O_3, 1
Primary / QA Collocated / Other	n/a
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	Neighborhood
Monitoring start date	June 1993
Current sampling frequency	Continuous
Required sampling frequency	n/a
Sampling season	01/01 – 12/31
Probe height	5.3 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	10.8 meters[1]
Vertical height of tree above probe	8.7 meters
Distance to furnace or incinerator flue	6.3 meters[2]
Distance between collocated monitors	n/a
For low volume PM instruments, is 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 the annual $PM_{2.5}$ NAAQS?	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 (gaseous)	Bi-weekly (3 point)
Date of annual performance evaluation (gaseous & meteorological)	03/17/23 06/21/23 09/20/23
Date of two semi-annual flow rate audits (PM)	n/a

[1]At least 90 percent of the monitoring path is at least 10 meters from the drip line of the trees.
[2]At least 90 percent of the monitoring path is away from the furnace flue.

Lemmon Valley

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:	747 AADT (2020-2022) (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_3, 1
Primary / QA Collocated / Other	Primary
Parameter code	44201
Basic monitoring objective(s)	NAAQS comparison
Site type(s)	Population Exposure
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
Required sampling frequency	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	9.5 meters
Distance to furnace or incinerator flue	9.1 meters[1]
Distance between collocated monitors	n/a
For low volume PM instruments, is 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	7 seconds
Proposed modifications within the next 18 months?	None
Is it suitable for comparison against the annual $PM_{2.5}$ NAAQS?	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 (gaseous)	Bi-weekly (3 point)
Date of annual performance evaluation (gaseous & meteorological)	03/15/23 06/14/23 09/11/23 11/30/23
Date of two semi-annual flow rate audits (PM)	n/a

[1]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_3, PM_{10}, $PM_{2.5}$, PM_{coarse}, Trace CO, Trace SO_2, NO_x, and Trace NO_y. 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:	39º 31.316'N, 119º 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:	847 AADT (2020-2022) (NDOT ATR 0310886 - Yori Ave, 165 feet north of Stewart St.)
	≤900 Approximate AADT (NDOT Estimate – Stewart Street)
Groundcover:	Decomposed Granite
Representative area:	Reno-Sparks MSA
Hydrographic area:	87

Figure 8
Reno4 Monitoring Station

Figure 9
Reno4 Monitoring Site Vicinity Aerial

Reno4 (continued)

Pollutant, POC	PM_{10}, 2	$PM_{2.5}$, 2	$PM_{10-2.5}$, 2	$PM_{2.5}$ Speciation, 5
Primary / QA Collocated / Other	Primary	Primary	Primary	Primary
Parameter code	81102 & 85101	88101	86101	88502
Basic monitoring objective(s)	NAAQS comparison	NAAQS comparison	Research Support	Research Support
Site type(s)	Population Exposure	Highest Concentration	n/a	Population Exposure
Monitor type	SLAMS	SLAMS	SLAMS	SLAMS
Network affiliation(s)	NCore	NCore	NCore	STN, NCore
Instrument manufacturer / model	Met One BAM 1020	Met One BAM 1020	Met One BAM 1020 Coarse Pair	Met One SASS; URG 3000N
Method code	122	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	5.2 meters	5.1 meters	5.1 meters	SASS: 4.9 meters URG: 5.1 meters
Distance from supporting structure	2.2 meters	2.2 meters	2.2 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	42.0 meters	43.2 meters	42.0 meters	SASS: 44.7 meters URG:46.0 meters
Vertical height of tree above probe	9.8 meters	9.9 meters	9.9 meters	SASS: 10.1 meters URG: 9.9 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 $PM_{2.5}$ 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)	02/03/23 04/13/23 08/15/23 10/16/23	02/03/23 04/13/23 08/15/23 10/16/23	02/03/23 04/13/23 08/15/23 10/16/23	03/29/23 06/15/23 09/20/23 12/15/23 12/28/23

Reno4 (continued)

Pollutant, POC	PM_{10}, 1	$PM_{2.5}$, 1	$PM_{10-2.5}$, 1	Trace CO, 1
Primary / QA Collocated / Other	Other	QA 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	4.9 meters
Distance from supporting structure	2.0 meters	2.0 meters	2.0 meters	1.9 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	42.0 meters	43.2 meters	42.0 meters	45.7 meters
Vertical height of tree above probe	10 meters	10 meters	10 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 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 $PM_{2.5}$ NAAQS?	n/a	Yes	n/a	n/a
Frequency of flow rate verification for manual samplers (PM)	Monthly verifications and quarterly audits	Monthly verifications and quarterly audits	Monthly verifications 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 (gaseous)	n/a	n/a	n/a	Weekly
Date of annual performance evaluation (gaseous & meteorological)	n/a	n/a	n/a	03/28/23 06/16/23 09/22/23 12/20/23
Date of two semi-annual flow rate audits (PM)	03/29/23 06/15/23 09/20/23 12/15/23	03/29/23 06/15/23 09/20/23 12/15/23	03/29/23 06/15/23 09/20/23 12/15/23	n/a

Reno4 (continued)

Pollutant, POC	O_3, 1	NO, 1	NO_2, 1	NO_X, 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	5.1 meters	5.1 meters	5.1 meters
Distance from supporting structure	2.1 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	45.7 meters	46.9 meters	46.9 meters	46.9 meters
Vertical height of tree above probe	9.9 meters	9.9 meters	9.9 meters	9.9 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	6 seconds	5 seconds	5 seconds	5 seconds
Proposed modifications within the next 18 months?	None	None	None	None
Is it suitable for comparison against the annual $PM_{2.5}$ 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	Weekly (4 point w/ GPT)	Weekly (4 point w/ GPT)	Weekly (4 point w/ GPT)
Date of annual performance evaluation (gaseous & meteorological)	03/28/23 06/16/23 09/22/23 12/20/23	03/29/23 06/16/23 09/21/23 12/21/23	03/29/23 06/16/23 09/21/23 12/21/23	03/29/23 06/16/23 09/21/23 12/21/23
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

Reno4 (continued)

Pollutant, POC	Trace NO, 1	NO_Y-NO, 1	NO_Y, 1	Trace SO_2, 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	2.1 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	47.7 meters	47.7 meters	47.7 meters	45.7 meters
Vertical height of tree above probe	6.4 meters	6.4 meters	6.4 meters	9.9 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?	None	None	None	None
Is it suitable for comparison against the annual $PM_{2.5}$ 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)	03/28/23 06/16/23 09/21/23	03/28/23 06/16/23 09/21/23	03/28/23 06/16/23 09/21/23	03/28/23 06/16/23 09/22/23 12/20/23
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

Reno4 (continued)

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	061 071	061 071	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 - 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	9.7 meters	9.7 meters	9.7 meters	9.7 meters
Distance from supporting structure	9.7 meters	9.7 meters	9.7 meters	9.7 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	47.7 meters	47.7 meters	47.7 meters	47.7 meters
Vertical height of tree above probe	5.3 meters	5.3 meters	5.3 meters	5.3 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 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 $PM_{2.5}$ 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)	n/a	n/a	n/a	n/a
Date of annual performance evaluation (gaseous & meteorological)	03/17/23 04/27/23 11/29/23	03/17/23 04/27/23 11/29/23	03/17/23 12/15/23	03/21/23 12/15/23
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

South Reno

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:	39º 28.153'N, 119º 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:	4,467 AADT (2020-2022) (NDOT ATR 0310690 - Neil Road, 515 feet north of Delucchi Lane)
	9,633 AADT (2020-2022) (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	O_3, 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
Basic monitoring objective(s)	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	061 071	061 071	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	4.0 meters	10.0 meters	10.0 meters	5.0 meters
Distance from supporting structure	1.2 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 meters	27 meters	27 meters	27 meters
Vertical height of tree above probe	13 meters	3 meters	3 meters	12 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	n/a	n/a	n/a
Residence time	6 seconds	n/a	n/a	n/a
Proposed modifications 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 $PM_{2.5}$ 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)	Bi-weekly (3 point)	n/a	n/a	n/a
Date of annual performance evaluation (gaseous & meteorological)	03/22/23 06/13/23 09/12/23 12/12/23	12/13/23	12/13/23	09/01/23
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

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_3, PM_{10}, $PM_{2.5}$, and $PM_{10-2.5}$ 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, 2020.

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
Distance to road:	460 meters to Pyramid Hwy and 99 meters to Aquene Court.
Traffic count:	39,500 AADT (2020-2022) (NDOT ATR 0311128 – SR445 (Pyramid Hwy), 0.25 miles north of Sparks Blvd.)
	≤900 Approximate AADT (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	$PM_{2.5}$, 1	$PM_{10-2.5}$, 1	O_3, 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	4.0 meters
Distance from supporting structure	2.1 meters	2.2 meters	2.2 meters	1.1 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	33 meters	34 meters	33 meters	35 meters
Vertical height of tree above probe	n/a	n/a	n/a	1.0 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 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 $PM_{2.5}$ 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	03/15/23 06/13/23 09/11/23 11/30/23
Date of two semi-annual flow rate audits (PM)	02/16/23 05/18/23 08/18/23 12/21/23	02/16/23 05/18/23 08/18/23 12/21/23	02/16/23 05/18/23 08/18/23 12/21/23	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	061 071	061 071	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	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 roof	None	None	None
Horizontal distance from trees	32 meters	32 meters	32 meters
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?	None	None	None
Is it suitable for comparison against the annual $PM_{2.5}$ 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)	02/16/23 05/02/23 06/08/23 10/05/23	02/16/23 05/02/23 06/08/23 10/05/23	02/16/23
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a

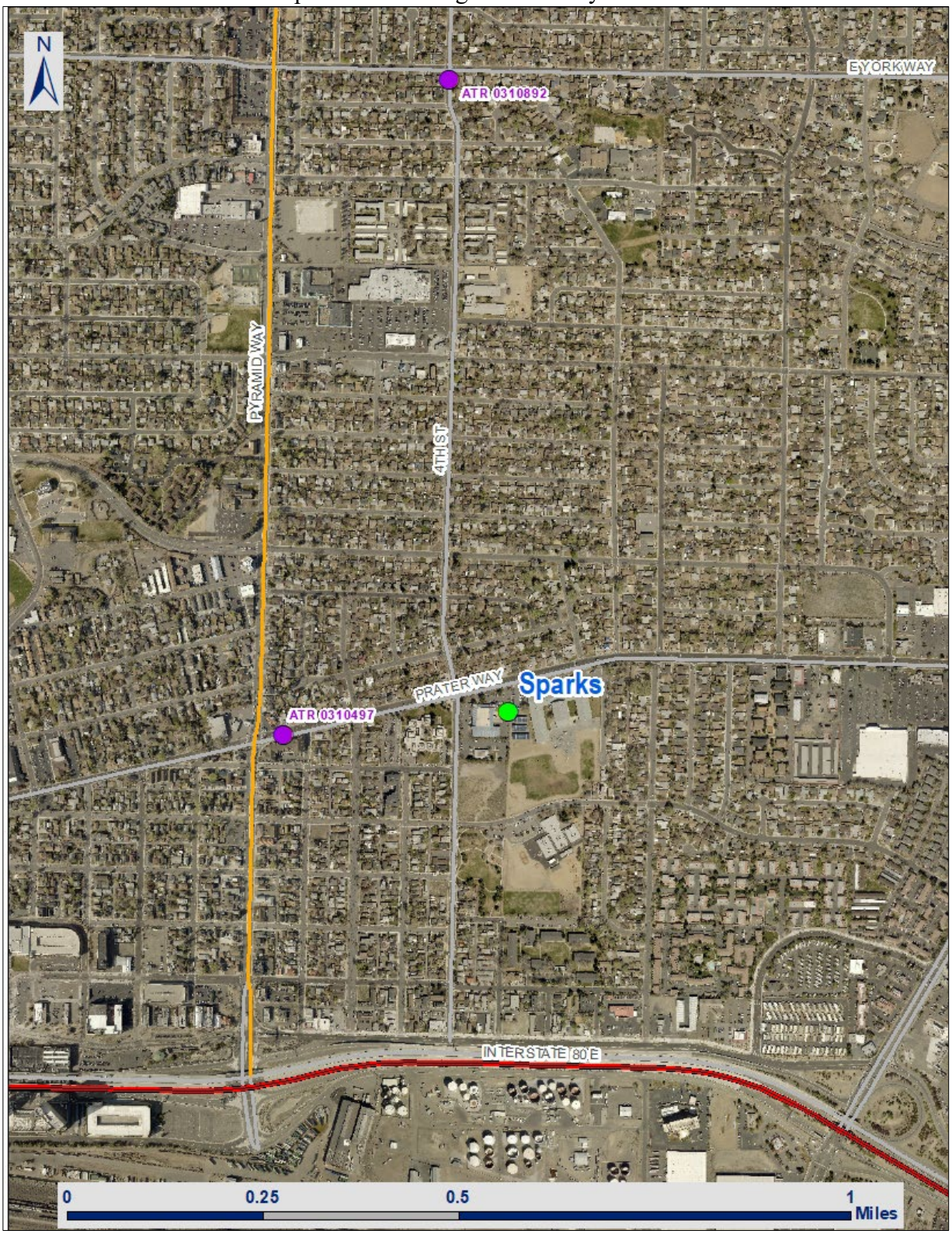
Sparks

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 4th Street Sparks, NV 89431
County:	Washoe
Distance to road:	50 meters to Prater Way and 103 meters to 4th Street.
Traffic count:	13,300 AADT (2020-2022) (NDOT ATR 0310497 - Prater Way, 100 feet east of Pyramid Way)
	1,850 AADT (2020-2022) (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_{10}, 4 & 3	$PM_{2.5}$, 1	$PM_{10-2.5}$, 1	CO, 1
Primary / QA Collocated / Other	Primary	Primary	Primary	n/a
Parameter code	81102 & 85101	88101	86101	42101
Basic monitoring objective(s)	NAAQS comparison	NAAQS comparison	Research Support	NAAQS 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 300EU
Method code	122	170	185	093
FRM / FEM / ARM / Other	FEM	FEM	FEM	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	April 1988	January 2012	July 2014	January 1980
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	5.0 meters	5.0 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	26 meters	26 meters	26 meters	27 meters
Vertical height of tree above probe	10.9 meters	11 meters	11 meters	11.4 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	3 seconds
Proposed modifications within the next 18 months?	None	None	None	Discontinue
Is it suitable for comparison against the annual $PM_{2.5}$ 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	03/17/23 06/13/23 09/12/23 11/30/23
Date of two semi-annual flow rate audits (PM)	02/03/23 04/14/23 08/14/23 10/16/23	02/03/23 04/14/23 08/14/23 10/16/23	02/03/23 04/14/23 08/14/23 10/16/23	n/a

Sparks (continued)

Pollutant, POC	O_3, 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
Basic monitoring objective(s)	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	061 071	061 071	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 1979	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	4.6 meters	10.0 meters	10.0 meters	5.0 meters
Distance from supporting structure	1.7 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	26 meters	27 meters	27 meters	27 meters
Vertical height of tree above probe	11.4 meters	6 meters	6 meters	11 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	n/a	n/a	n/a
Residence time	3 seconds	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 $PM_{2.5}$ 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)	Bi-weekly (3 point)	n/a	n/a	n/a
Date of annual performance evaluation (gaseous & meteorological)	03/17/23 06/13/23 09/12/23 11/30/23	12/13/23	12/13/23	09/19/23
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a	n/a

Toll

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 $PM_{2.5}$ and $PM_{10-2.5}$ on January 1, 2019, and was converted to a SLAMS on January 1, 2020.

Site name:	Toll
AQS ID:	32-031-0025
Geographical coordinates:	39º 23.990'N, 119º 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:	12,167 AADT (2020-2022) (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)

Pollutant, POC	PM_{10}, 2	$PM_{2.5}$, 1	$PM_{10-2.5}$, 1	O_3, 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)	Highest Concentration	Population Exposure	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 400E
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	March 1996	January 2019	January 2019	March 1996
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	4.0 meters
Distance from supporting structure	2.1 meters	2.2 meters	2.2 meters	1.2 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 meters	25 meters	25 meters	27 meters
Vertical height of tree above probe	2.0 meters	1.9 meters	1.9 meters	3.0 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 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 $PM_{2.5}$ 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	03/22/23 06/15/23 09/20/23 12/12/23
Date of two semi-annual flow rate audits (PM)	03/24/23 06/20/23 09/25/23 12/21/23	03/24/23 06/20/23 09/25/23 12/21/23	03/24/23 06/20/23 09/25/23 12/21/23	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	061 071	061 071	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	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 roof	None	None	None
Horizontal distance from trees	29 meters	29 meters	29 meters
Vertical height of tree above probe	n/a	n/a	2.0 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 $PM_{2.5}$ 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)	12/13/23	12/13/23	09/01/23
Date of two semi-annual flow rate audits (PM)	n/a	n/a	n/a

NORTHERN NEVADA
Public Health
Air Quality

Please contact Craig Petersen for
questions and comments at,
cpetersen@nnph.org

Appendix A

Public Inspection Plan

Public Inspection Plan

The Northern Nevada Public Health issued a press release in English on May 24, 2024, and a press release in Spanish on May 29, 2024, to inform the public of the annual network plan comment period. The press releases provided a web link to the draft plan and explained how to submit written comments during the comment period. A copy of the press releases, all comments received during the comment period, and AQMD's response to the comments are included below.

Press Release

NNPH.ORG

English | Español

NORTHERN NEVADA
Public Health
NEWSROOM

NNNP – AIR QUALITY MANAGEMENT SEEKS COMMENT ON ANNUAL AMBIENT AIR MONITORING NETWORK PLAN

May 24, 2024

May 24, 2024. Reno/Sparks, Nev. – Northern Nevada Public Health's Air Quality Management Division (AQMD) is requesting written public comment on its draft 2024 Ambient Air Monitoring Network Plan, an annual report which provides a detailed description of how and where air pollution is monitored in Washoe County.

Currently, the air monitoring network includes seven locations within the county: Incline Village, Lemmon Valley, Downtown Reno, South Reno, Spanish Springs, Sparks, and Toll Road (near the Virginia City foothills). One or more of the following pollutants are measured at each site: carbon monoxide, oxides of nitrogen, ozone, sulfur dioxide, PM10, and PM2.5.

Air Monitoring Network Plans are required by the U.S. Environmental Protection Agency (EPA), and require the specific location of each monitoring station, siting criteria, monitoring methods and objectives, frequency of sampling, pollutants measured at each station, and aerial photographs showing their physical location.

This plan also summarizes network modifications completed over the last 12 months and proposed network modifications over the next 18 months.

The 2024 plan is substantially similar to the 2023 Ambient Air Monitoring Network Plan, except for the AQMD request and EPA approval to discontinue carbon monoxide monitoring at the Sparks station. A summary of all completed and proposed changes may be found on pages 9-11 of the plan.

Comments will be accepted until midnight on June 24, 2024, and may be submitted via e-mail to HealthAirQuality-Planning@nnph.org. All correspondence must include first and last name and a complete mailing address.

For more information regarding Northern Nevada Public Health's air quality efforts, visit the Air Quality Management Division's website at OurCleanAir.com.

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Please note the Washoe County Health District changed its name to Northern Nevada Public Health on Aug. 31, 2023. More information is here.

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. More info can be found here.

Spanish Press Release

NNPH.ORG

English | Español

NORTHERN NEVADA
Public Health
NEWSROOM

NNNP – LA ADMINISTRACIÓN DE LA CALIDAD DEL AIRE SOLICITA COMENTARIO SOBRE EL PLAN ANUAL DE LA RED DE MONITOREO DEL AIRE AMBIENTAL

May 29, 2024

Reno/Sparks, Nev. mayo 29, 2024 – La División de Administración de la Calidad del Aire (AQMD por sus siglas en ingles) de Northern Nevada Public Health solicita comentario público por escrito sobre su borrador de Plan de la Red de Monitoreo del Aire Ambiental de 2024 (en inglés), un informe anual que ofrece una descripción detallada de cómo y dónde se monitorea la contaminación del aire en el condado de Washoe.

Actualmente, la red de monitoreo del aire incluye siete ubicaciones dentro del condado: Incline Village, Lemmon Valley, centro de Reno, Reno Sur, Spanish Springs, Sparks, y Toll Road (cerca de las estribaciones de Virginia City). Uno o más de los siguientes contaminantes se miden en cada sitio: monóxido de carbono, óxidos de nitrógeno, ozono, dióxido de azufre, PM10 y PM2.5.

Los planes de la Red de Monitoreo del Aire son requeridos por la Agencia de Protección del Medio Ambiente de EE. UU. (EPA por sus siglas en ingles), y requieren la ubicación especifica de cada estación de monitoreo, criterios de ubicación, métodos y objetivos de

monitoreo, la frecuencia del muestreo, los contaminantes medidos en cada estación y fotografías aéreas que muestren su ubicación física. Este plan también resume las modificaciones de la red completadas en los últimos 12 meses y las modificaciones de la red propuestas para los próximos 18 meses.

El plan de 2024 es sustancialmente similar al Plan de la Red de Monitoreo del Aire Ambiental de 2023, excepto por la petición de AQMD y la aprobación de la EPA para descontinuar el monitoreo de monóxido de carbono en la estación de Sparks. Un resumen de todos los cambios realizados y propuestos puede encontrarse en las páginas 9 a 11 del plan.

Se aceptarán comentarios hasta la medianoche del 24 de junio de 2024 y podrán enviarse por correo electrónico a HealthAirQuality-Planning@nnph.org. Toda la correspondencia debe incluir nombre y apellido y una dirección postal completa.

Para más información sobre los esfuerzos de calidad del aire de Northern Nevada Public Health, visite el sitio de la División de Administración de la Calidad del Aire OurCleanAir.com.

###

Favor de notar que el Distrito de Salud del Condado de Washoe ha cambiado su nombre a Northern Nevada Public Health el 31 de agosto, 2023. Más información aquí.

Northern Nevada Public Health (NNPH) es nacionalmente acreditado por la Junta de Acreditación de Salud Pública y tiene jurisdicción sobre sobre todos los asuntos de salud pública en Reno, Sparks, y Washoe County mediante su Junta Directiva del Distrito de Salud del Condado de Washoe. El Distrito consiste en cinco divisiones: Servicios de Salud Administrativos, Administración de Calidad del Aire, Servicios de Salud Comunitaria y Clínica, Servicios de Salud Ambiental y Epidemiologia y Preparación para Salud Publica. Más información aquí.

Comment 1

From: Petersen, Craig
To: Gennavie Bronczyk
Cc: Candace Stowell; Health - AQ-Planning
Subject: RE: 2023 Annual Network Plan for Washoe County
Date: Monday, June 10, 2024 4:20:07 PM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png

Gennavie,
Per your request, and due to the Reno Sparks Indian Colony (RSIC) not currently operating an ambient air monitoring network in Washoe County, we will be removing RSIC contact information from the Tribal Monitoring section of our 2024 Ambient Air Monitoring Network Plan.
Figure 3 of the Plan will still show the location of RSIC tribal lands, but will not include any current or historic monitoring sites.
Thank you for reviewing our plan and submitting comments.
Sincerely,

NORTHERN NEVADA Public Health

Craig Petersen
Supervisor - Monitoring and Planning
Air Quality Management Division

O: 775-784-7233
1001 E Ninth St. Bldg. B Reno, NV 89512
OurCleanAir.com

NNPH.org

From: Petersen, Craig
Sent: Friday, May 24, 2024 11:45 AM
To: Gennavie Bronczyk <gbronczyk@rsic.org>
Cc: Candace Stowell <cstowell@rsic.org>; Health - AQ-Planning <Health-AQ-Planning@nnph.org>
Subject: RE: 2023 Annual Network Plan for Washoe County

Hi Gennavie,
Thank you very much for your comments regarding our 2024 Ambient Air Monitoring Network Plan.
All comments received will be considered and included in our final submittal package to EPA.
Sincerely,

Craig Petersen
Supervisor - Monitoring and Planning

NORTHERN NEVADA
Public Health

Air Quality Management Division

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From: Gennavie Bronczyk <gbronczyk@rsic.org>
Sent: Friday, May 24, 2024 9:03 AM
To: Health - AQ-Planning <Health-AQ-Planning@nnph.org>
Cc: Candace Stowell <cstowell@rsic.org>
Subject: 2023 Annual Network Plan for Washoe County

[**NOTICE:** This message originated outside of Washoe County -- **DO NOT CLICK** on **links** or open **attachments** unless you are sure the content is safe.]

Good Morning,

Please remove the Reno-Sparks Indian Colony from the Draft 2024 Ambient Air Monitoring Network Plan.

Thank you,

Gennavie Bronczyk, Assistant Planner
Planning and Community Development Department
Reno-Sparks Indian Colony
1937 Prosperity Lane
Reno, NV 89502
775-785-1363 ext. 5406
www.rsic.org
RSIC Planning

Appendix B

Network Modification Request/Approval

Sparks CO Discontinuation

NORTHERN NEVADA Public Health | Air Quality

Dena Vallano
Manager, Monitoring and Analysis Section
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street
San Francisco, CA 94105

October 17, 2023

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

Dear Ms. Vallano:

Pursuant to 40 CFR Part 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 discontinue Carbon Monoxide (CO) monitoring at the Sparks SLAMS (AQS ID: 32-031-1005) effective December 31, 2023.

The proposed modification is consistent with AQMD's most recent Annual Network Plan (2023). Attached are the data demonstrations to support AQMD's proposal to discontinue CO monitoring at the Sparks SLAMS.

If you require additional information, please contact Mr. Craig Petersen or me at (775) 784-7200.

Sincerely,

Francisco Vega, P.E.
Director
Air Quality Management Division

Attachments: Discontinuation of CO Monitoring at the Sparks SLAMS (AQS ID: 32-031-1005)

E-Copy: Randall Chang, EPA Region 9
Francisco Vega, AQMD
Craig Petersen, AQMD
Daniel Timmons, AQMD
Brendan Schnieder, AQMD

Attachment A
Discontinuation of CO Monitoring at the Sparks SLAMS (AQS ID: 32-031-1005)

Discontinuation of CO monitoring at the Sparks SLAMS is based on 40 CFR 58.14(c)(1), including the points below.
:

1. The monitor has shown attainment during the previous five years (2018-2022), specifically:
   a. The monitor has not exceeded nor violated the current 1-hour NAAQS of 35 ppm during this period, and
   b. The monitor has not exceeded nor violated the current 8-hour NAAQS of 9 ppm during this period.
2. The monitor has a probability of less than 10 percent of exceeding 80 percent of the current 1-hour and 8-hour NAAQS.

		5 Year Maximums (2018-2022)												
		Year 1	Year 2	Year 3	Year 4	Year 5	Ave Max							
Parameter	Averaging Times	2018	2019	2020	2021	2022	2018-2022	Std. Dev. (*s*)	Student's *t* value (90% confidence)	Number of Data Values (*n*)	90% Upper CI	NAAQS	80% NAAQS	Test
CO (ppm)	1-hr	2.3	2.1	2.5	2.2	2.7	2.36	0.24	2.13	5	2.6	35	28.0	PASS
CO (ppm)	8-hr	1.6	1.6	2.1	2.1	2.3	1.94	0.32	2.13	5	2.2	9	7.2	PASS

3. The monitor is not required in the second ten-year CO maintenance plan effective October 31, 2016 (81 FR 59490, August 30, 2016).
4. The monitor is located in the Truckee Meadows CO maintenance area. CO monitoring will continue in the maintenance area at the Reno4 NCore (32-031-0031) SLAMS.
5. The requirements of 40 CFR 58, Appendix D will continue to be met.

REGION 9
SAN FRANCISCO, CA 94105

December 21, 2023

Francisco Vega
Director, Air Quality Management Division
Northern Nevada Public Health
1001 East Ninth Street, Building B-171
Reno, Nevada 89512

Dear Director Vega:

This letter provides the U.S. Environmental Protection Agency's (EPA) review and approval for the Northern Nevada Public Health (NNPH) discontinuation of the CO State/Local Air Monitoring Station (SLAMS) monitor at the Sparks (Air Quality System (AQS) Site ID: 32-031-1005) monitoring site. A letter requesting EPA approval of this network change was submitted to EPA on October 17, 2023. Per 40 CFR 58.14, monitoring agencies are required to obtain EPA approval for the discontinuation of SLAMS monitors. EPA has reviewed NNPH's discontinuation request and data associated with this monitor and concluded that the criteria contained in 40 CFR 58.14(c)(1) are met for the Sparks site; EPA therefore approves discontinuation of the CO SLAMS monitor at the Sparks site.

Discontinuation of the Sparks CO SLAMS monitor was reviewed by EPA against criteria contained in 40 CFR 58.14(c)(1). According to certified data submitted to EPA's AQS, the Sparks CO monitor was in attainment of the 1971 1-hour CO and 8-hour CO National Ambient Air Quality Standards (NAAQS) based on the five most recent design values (design values 2018-2022, encompassing data years 2018-2022). EPA has determined that, based on design values from 2018-2022, there is a less than 10 percent probability of exceeding 80 percent of the NAAQS during the next three years at this site. Preliminary 2023 data are consistent with the historical trend and continue to show low concentrations. Although this monitor is located in the Reno, NV CO maintenance area, CO monitoring will continue in this maintenance area at the Reno4 NCore SLAMS site (AQS ID: 32-031-0031) and this monitor is not specifically required by the maintenance plan. Therefore, the closure of this monitoring site does not compromise data collection needed for implementation of the CO NAAQS.

This monitor is not needed to fulfill 40 CFR 58 Appendix D requirements for near-road CO monitoring and is not required by the EPA Regional Administrator. Therefore, the closure of this monitoring site will not prevent NNPH from meeting 40 CFR 58 Appendix D requirements.

Based on these analyses, EPA approves NNPH's discontinuation of the Sparks CO SLAMS monitor. Please include this enclosure and the relevant monitor and site information in next year's annual monitoring network plan.

If you have any questions, please feel free to contact me at (415) 972-3134 or Randy Chang at (415) 947-4180.

Sincerely,

Dena Vallano
Manager, Monitoring and Analysis Section
Planning and Analysis Branch
Air and Radiation Division

cc (via email): Craig Petersen, NNPH
Daniel Timmons, NNPH
Brendan Schnieder, NNPH
Ben McMullen, NNPH