NORTHERN NEVADA

Public Health

Air Quality

Exceptional Event Demonstration for September 10-17, 2022 $PM_{2.5}$ Impact due to Mosquito Fire

Transmitted to Nevada Division of Environmental Protection on December 23, 2024

NORTHERN NEVADA

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Acronyms and Abbreviations

AGL	Above Ground Level
AQI	Air Quality Index
AQMD	Northern Nevada Public Health - Air Quality Management Division
AQS	Air Quality System
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EE	Exceptional Event
EER	Exceptional Events Rule
EPA	U.S. Environmental Protection Agency
°F	Degrees Fahrenheit
FCCS	Fuel Characteristic Classification System
HA 87	Hydrographic Area 87
HMS	Hazardous Mapping System
HYSPLIT	Hybrid Single-Particle Lagrangian Integrated Trajectory
Lbs	Pounds
$\mu g/m^3$	Micrograms per cubic meter
MPH	Miles Per Hour
NAAQS	National Ambient Air Quality Standards
NAM	North American Mesoscale
NSPS	New Source Performance Standards
NOAA	National Oceanic and Atmospheric Administration
NO	Nitric Oxide
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NOy	Reactive Nitrogen Compounds
NWS	National Weather Service
O_3	Ozone
PM	Particulate Matter
$PM_{2.5}$	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
PST	Pacific Standard Time
SLAMS	State and Local Air Monitoring Station
SO_2	Sulfur Dioxide
TSP	Total Suspended Particles

1.0 Introduction

1.1 Purpose

The analysis in this report demonstrates that the elevated 24-hour $PM_{2.5}$ concentrations recorded September 10 through 17 of 2022 at the Sparks air monitoring site were caused by the Mosquito Fire. These elevated $PM_{2.5}$ concentrations recorded between September 10 and 17, 2022 contributed to a violating 2021-2023 $PM_{2.5}$ Annual Design Value of the 2024 Annual $PM_{2.5}$ NAAQS. Pursuant to the Exceptional Event (EE) requirements under the Clean Air Act (CAA), the data may be excluded from regulatory decisions for the $PM_{2.5}$ NAAQS. Northern Nevada Public Health, Air Quality Management Division (AQMD) is requesting to exclude all $PM_{2.5}$ data from the Sparks (AQS ID: 32-031-1005-88101-1) $PM_{2.5}$ primary monitor on the previously mentioned days. Exclusion of the data caused by this exceptional event will have a regulatory impact on the 2024 Annual $PM_{2.5}$ NAAQS designation, resulting in all areas of Washoe County to be designated as Attainment/Unclassifiable for the 2024 Annual $PM_{2.5}$ NAAQS.

1.2 Exceptional Events Rule Procedure

On October 3, 2016, the Environmental Protection Agency (EPA) finalized revisions to the "Treatment of Data Influenced by Exceptional Events", regulations that govern the exclusion of event-influenced air quality data from certain regulatory decisions under the CAA Section 319(b). This rule is known as the Exceptional Events Rule (EER). The EER contains definitions, procedural requirements, requirements for air agency demonstrations, and criteria for EPA approval for the exclusion of air quality data from regulatory decisions. The EER states that the EPA has the authority to exclude air quality monitoring data from regulatory determinations related to exceedances or violations of the NAAQS and avoid designating an area as nonattainment, redesignating an area as nonattainment, or reclassifying an existing nonattainment area to a higher classification if a State adequately demonstrates that an exceptional event has caused an exceedance or violation of a NAAQS. The CAA includes four requirements that, collectively, define an exceptional event:

1. The event affected air quality,
2. The event was not reasonably controllable or preventable,
3. The event was caused by human activity that is unlikely to recur at a particular location or was a natural event,
4. There exists a clear causal relationship between the specific event and the monitored exceedance.

EPA regulations in the Code of Federal Regulations (CFR) - 40 CFR 50.14(c)(3)(iv) states that exceptional events demonstrations must address and include the following elements:

1. A narrative conceptual model; (See **Section 2** of this document)
2. A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance; (See **Section 4** of this document)
3. Analyses comparing the claimed event influenced concentrations at the monitoring site; (See **Section 4** of this document)
4. A demonstration that the event was both not reasonably controllable and not reasonably preventable; (See **Section 3** of this document)
5. A demonstration that the event was a human activity unlikely to recur at a particular location or was a natural event. (See **Section 5** of this document)

On February 7, 2024, EPA finalized the 2024 $PM_{2.5}$ NAAQS revision. With the completion of the $PM_{2.5}$ NAAQS revision, EPA also finalized the "$PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document." This document was finalized on April 30, 2024. This document outlines Tier 1, 2, and 3 $PM_{2.5}$ exceptional events for wildland fires where:

1. Tier 1 events are values greater than 1.5 times the tiering threshold
2. Tier 2 events are values greater than or equal to the tiering threshold and less than 1.5 times the tiering threshold
3. Tier 3 events are values less than the tiering threshold

These tiering thresholds provide requirements for the clear causal relationship portion of an exceptional events demonstration. With EPA guidance and tools, this exceptional event demonstration is classified as a Tier 1 wildland fire event. Evidence proving that the event should be classified as a Tier 1 wildland fire event can be found in the clear causal portion of this demonstration. This demonstration will reflect the requirements of a Tier 1 wildland fire event. Further evidence of this is outlined in Section 4.

1.3 Public Comment Process

This demonstration was available for public comment from November 20 to December 20, 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 Comment Plan.

1.4 Agency Contacts

For information or questions regarding this Exceptional Events Demonstration, please contact the following individuals of the AQMD.

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2.0 Conceptual Model

2.1 Regional Description

Washoe County is located in the northwest portion of Nevada. It is bounded by California, Oregon, and the Nevada counties of Humboldt, Pershing, Storey, Churchill, Lyon, and Carson City (Figure 2-1). The Truckee Meadows is approximately 200 square miles in size and situated in the southern portion of Washoe County. It is geographically identified as Hydrographic Area 87 (HA 87) as defined by the State of Nevada, Division of Water Resources. Most of Washoe County's population lives in and around the Truckee Meadows.

The Truckee Meadows sits at an elevation of 4,400 feet above sea level and is surrounded by mountain ranges. To the west, the Sierra Nevada rises to elevations of 9,000 to 11,000 feet. Hills to the east reach 6,000 to 8,000 feet. The Truckee River, flowing from the Sierra Nevada eastward, drains into Pyramid Lake to the northeast of the Truckee Meadows.

Figure 2-1
Washoe County, Nevada

Climate

Average annual wind speed measured at the Reno-Tahoe International Airport is 6.4 miles per hour (mph). January is the calmest month (4.5 mph) with April being the windiest (8.3 mph). Wintertime (November-January) averages 4.9 mph and summertime (June-August) averages 7.2 mph.

Most of Reno's precipitation falls from November through March in the form of rain and snow. Reno receives an average of 7.35 inches of precipitation per calendar year (1991-2020 climate normals). Table 2-1 lists temperature and precipitation normals as measured at the Reno-Tahoe International Airport.

Table 2-1: Monthly Normal Temperature and Rainfall (1991-2020)

	Temperature (°F)			Precipitation (inches)
Month	Maximum	Minimum	Mean	Mean
January	47.7	26.1	36.9	1.25
February	52.1	29.0	40.6	1.03
March	59.2	34.0	46.6	0.80
April	64.7	38.5	51.6	0.44
May	74.1	46.6	60.3	0.55
June	84.6	53.8	69.2	0.41
July	93.9	60.4	77.2	0.20
August	92.1	58.1	75.1	0.24
September	83.8	50.3	67.0	0.21
October	70.4	39.7	55.1	0.50
November	56.7	31.0	43.8	0.62
December	46.7	25.7	36.2	1.1

Maximum temperatures of 90 °F or above normally occur between July 3 and August 21. Maximum temperatures typically peak at 94 °F between July 22 and July 29.

Demographics

The 2020 population of Washoe County was 486,492 according to the 2020 US Census. Approximately two-thirds of Washoe County's residents live in the Truckee Meadows, which includes the cities of Reno and Sparks. Anthropogenic activities such as transportation, manufacturing, freight distribution, and residential wood use are also concentrated in the Truckee Meadows.

Seasons

Washoe County experiences two distinct air pollution seasons - wintertime particulate matter (PM) and summertime ozone (O_3). Wildfire smoke throughout the year, especially during the summer months, can dramatically increase summertime PM and O_3.

Wintertime temperature inversions combined with light winds can contribute to elevated levels of Particulate Matter less than or equal to 2.5 microns in aerodynamic diameter ($PM_{2.5}$), Particulate Matter less than or equal to 10 microns in aerodynamic diameter (PM_{10}), Nitrogen Dioxide (NO_2), and Carbon Monoxide (CO). Inversions are common in mountain valleys such as the Truckee Meadows. Air pollution episodes persist until stronger winds scour the cold air out of the valley and break the temperature inversion.

Northern Nevada receives an abundant amount of sunshine and solar radiation during the summer months. Mobile sources (i.e., cars and trucks) emit O_3 precursors and their activity increases during the summer. Ozone concentrations are typically highest between May and September, especially during the months of June, July, and August.

Strong winds can occur at any time of year. Two-minute gusts over 40 mph are not uncommon. These winds lower the gaseous pollutant (O_3, CO, NO_2, and SO_2) concentrations but typically increase PM levels, especially PM_{10}. Hourly PM_{10} levels can reach more than 500 micrograms per cubic meter ($\mu g/m^3$) for several hours.

Attainment Status

All areas of Washoe County currently attain or are unclassifiable for all National Ambient Air Quality Standards (NAAQS). However, portions of Washoe County had previously been designated nonattainment for the following NAAQS: 1) 1971 Total Suspended Particles (TSP) (24-hour and Annual); 2) CO (8-hour); 3) 1979 O_3 (1-hour); and 4) 1987 PM_{10} (24-hour and Annual). Some pollutants and standards, such as 1-hour O_3 and TSP, have been revoked and no longer apply. For the other pollutants, CO and PM_{10}, the HA 87 planning area was redesignated to attainment by EPA in 2016.

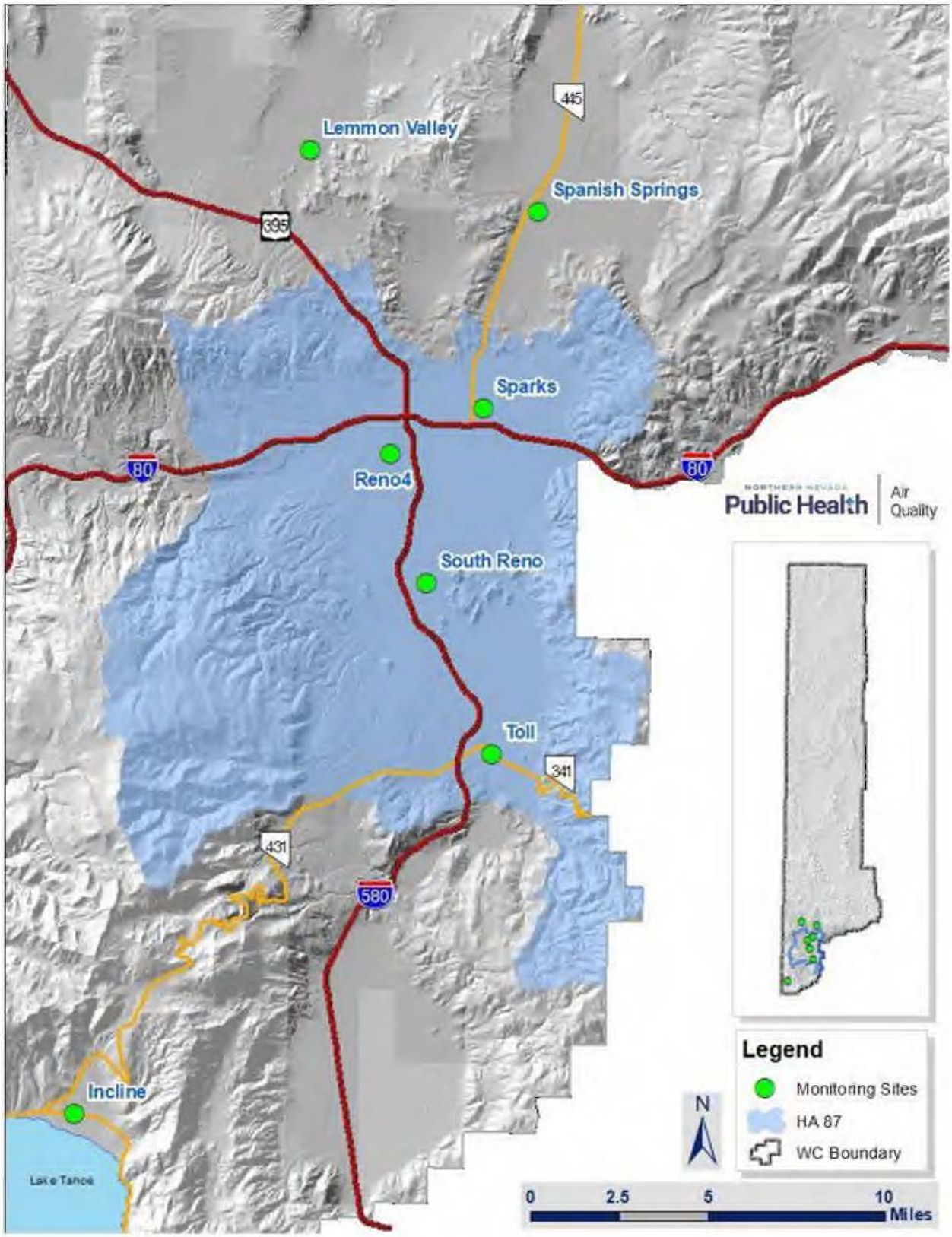
2.2 Overview of Monitoring Network

In 2022, AQMD operated seven ambient air monitoring sites in Washoe County (Figure 2-2). The blue boundary delineates HA 87 as defined by the State of Nevada, Division of Water Resources. Table 2-2 lists the parameters monitored in 2022, sorted by site.

Table 2-2: List of Monitoring Sites and Pollutants Monitored in 2022

Site	O_3	CO	Trace CO	Trace NO	NO_2	NO_x	Trace 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	✓									✓		✓		✓		✓
Reno4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Figure 2-2: Northern Nevada Public Health - AQMD Ambient Air Monitoring Sites

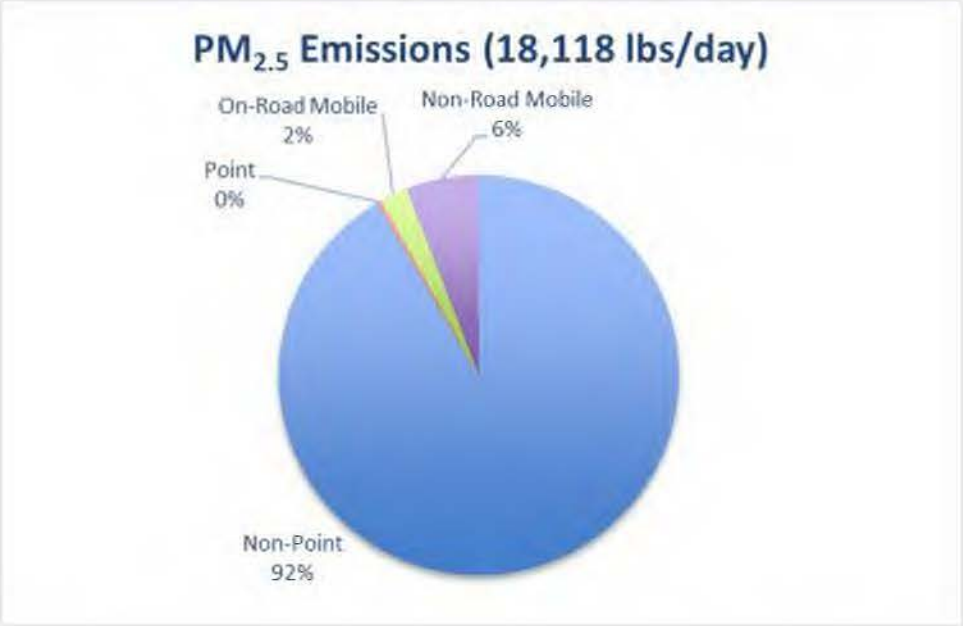


AQMD's ambient air monitoring network meets the minimum monitoring requirements for all criteria pollutants pursuant to Title 40, Part 58 of the Code of Federal Regulations (CFR), Appendix D. Washoe County's monitoring network is reviewed annually pursuant to 40 CFR 58.10 to ensure the network meets the monitoring objectives defined in 40 CFR 58, Appendix D. Data was collected and quality assured in accordance with 40 CFR 58 and submitted to the Air Quality System (AQS). Additionally, 2022 data was certified on April 13, 2023. (See Appendix C).

2.3 Characteristics of Non-event $PM_{2.5}$ Concentrations

Without exceptional events, ambient $PM_{2.5}$ concentrations within Washoe County are under the limit of the 2024 $PM_{2.5}$ NAAQS standard. This is because the $PM_{2.5}$ emissions that Washoe County produces have been regulated through different policy instruments such as a dust control program, New Source Performance Standards (NSPS) for wood-burning devices, and federal motor vehicle emission standards. Figure 2-3 shows that Washoe County produces approximately 18,118 lbs/day of $PM_{2.5}$ emissions as per the 2020 Periodic Emissions Inventory. This includes emissions from wildfires within the Washoe County limits.

Figure 2-3: $PM_{2.5}$ Emissions by Source Category



Based on historic, non-event $PM_{2.5}$ monitoring data for the previous six years, below are the characteristics of $PM_{2.5}$ levels throughout the year in the Truckee Meadows.

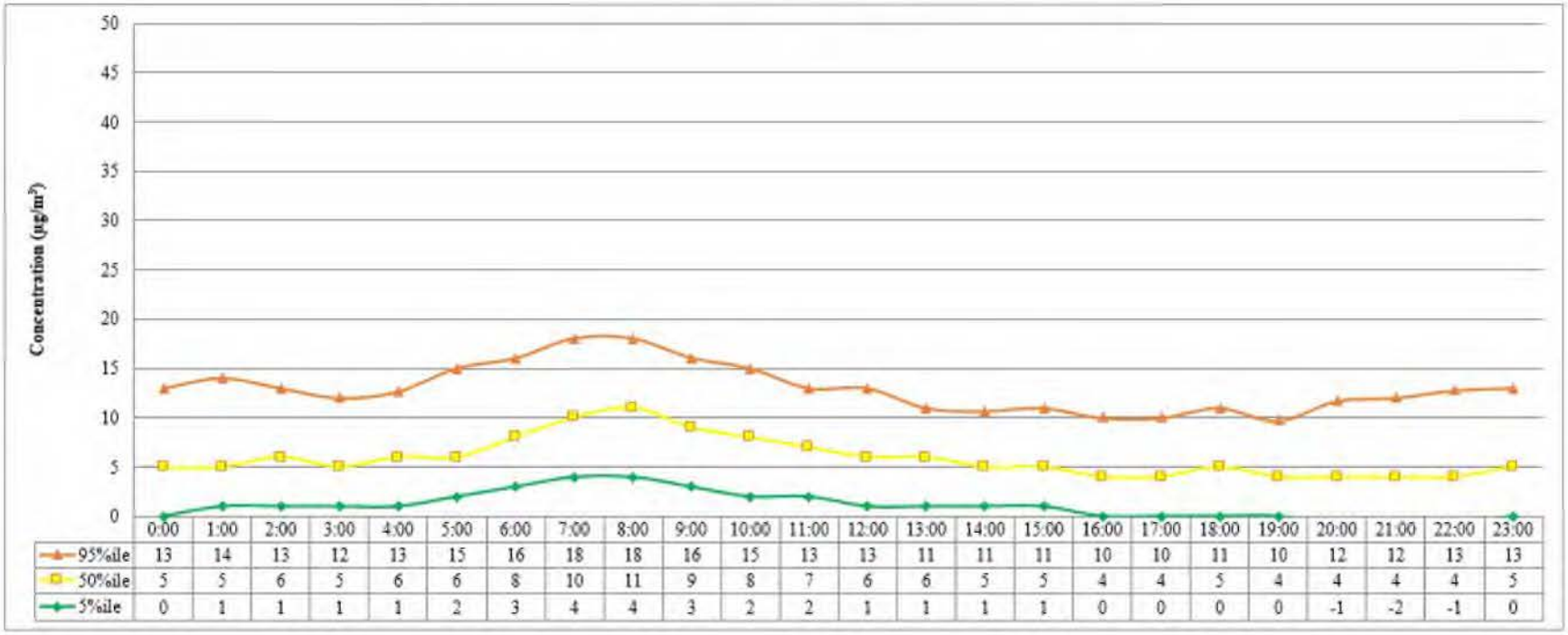
1. October through March: Ambient $PM_{2.5}$ concentrations are at their maximum during the colder months because some Washoe County residents utilize wood-burning devices for heat. The Truckee Meadows region also struggles with inversion layers in which cold air gets trapped at ground level, causing poor atmospheric mixing. This inhibits PM emissions from leaving the air basin and can cause higher concentrations of $PM_{2.5}$. Despite this, the region rarely experiences 24-hour $PM_{2.5}$ averages greater than 25 $\mu g/m^3$ during these times.
2. April through June: Ambient $PM_{2.5}$ concentrations during this period are usually the lowest of the year. With higher temperatures, there is less residential wood-burning. Additionally, soil and fuels for wildland fire haven't been dried by high temperatures such as what could be seen at the

end of summertime. Wind speeds are higher in the spring which helps with air mixing and vacating any $PM_{2.5}$ buildup from the region.

3. July through September: Ambient $PM_{2.5}$ concentrations can be high during this time period. This coincides with the wildfire season in the western United States. Although wildfire season is sometimes described as June-August, changes in climate in the western United States have caused more wildfire smoke impacts in September rather than June. The Washoe County area has been impacted by wildfire events during these months for nine out of the last ten years. Wildfire events during these months have caused the top 10 highest $PM_{2.5}$ 24-hour concentrations on record.

The wildfire events that have caused exceedances occur in the July through September period. For the purpose of this demonstration, it is worthwhile to evaluate the diurnal pattern of $PM_{2.5}$ concentrations during this time period. Figure 2-4 below shows the 2016-2020 $PM_{2.5}$ diurnal pattern for non-event days in wildfire months at the Sparks monitor with the 5^{th}, 50^{th}, and 95^{th} percentile included. For the diurnal pattern shown in Figure 2-4, informationally flagged days are removed from the comparison. Throughout the day, $PM_{2.5}$ concentrations generally rise and peak between the hours of 5:00 PST and 10:00 PST. This is due to limited mixing in the mornings along with emissions associated with the morning traffic commute.

Figure 2-4: 2016-2020 Wildfire Season $PM_{2.5}$ Diurnal Pattern at Sparks



	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0

2.4 Description of Fire that Contributed to 2024 Annual $PM_{2.5}$ NAAQS Violation

Mosquito Fire

The Mosquito Fire started on September 6, 2022, in the Tahoe National Forest in Placer County, California, approximately 60 miles southwest of the Truckee Meadows region. The cause of the fire is still under investigation although allegations have been made that the fire was caused by power transmission infrastructure. The fire grew quickly with over 35,000 acres burned in the first five days of the fire. Fire crews fought the fire until it was announced as fully contained on October 22, 2022. In total, the Mosquito Fire burned 76,788 acres with a perimeter illustrated in Figure 2-5.

An important factor in the start of the fire was dry wildfire fuels. The fire took place in an area that was considered to be either Severe or Extreme Drought based on the U.S. Drought Monitor. Figure 2-6 shows what the U.S. Drought Monitor was on September 13, 2022, and illustrates how dry the wildfire fuels were at that time.

Figure 2-5: The Mosquito Fire in Relation to Washoe County

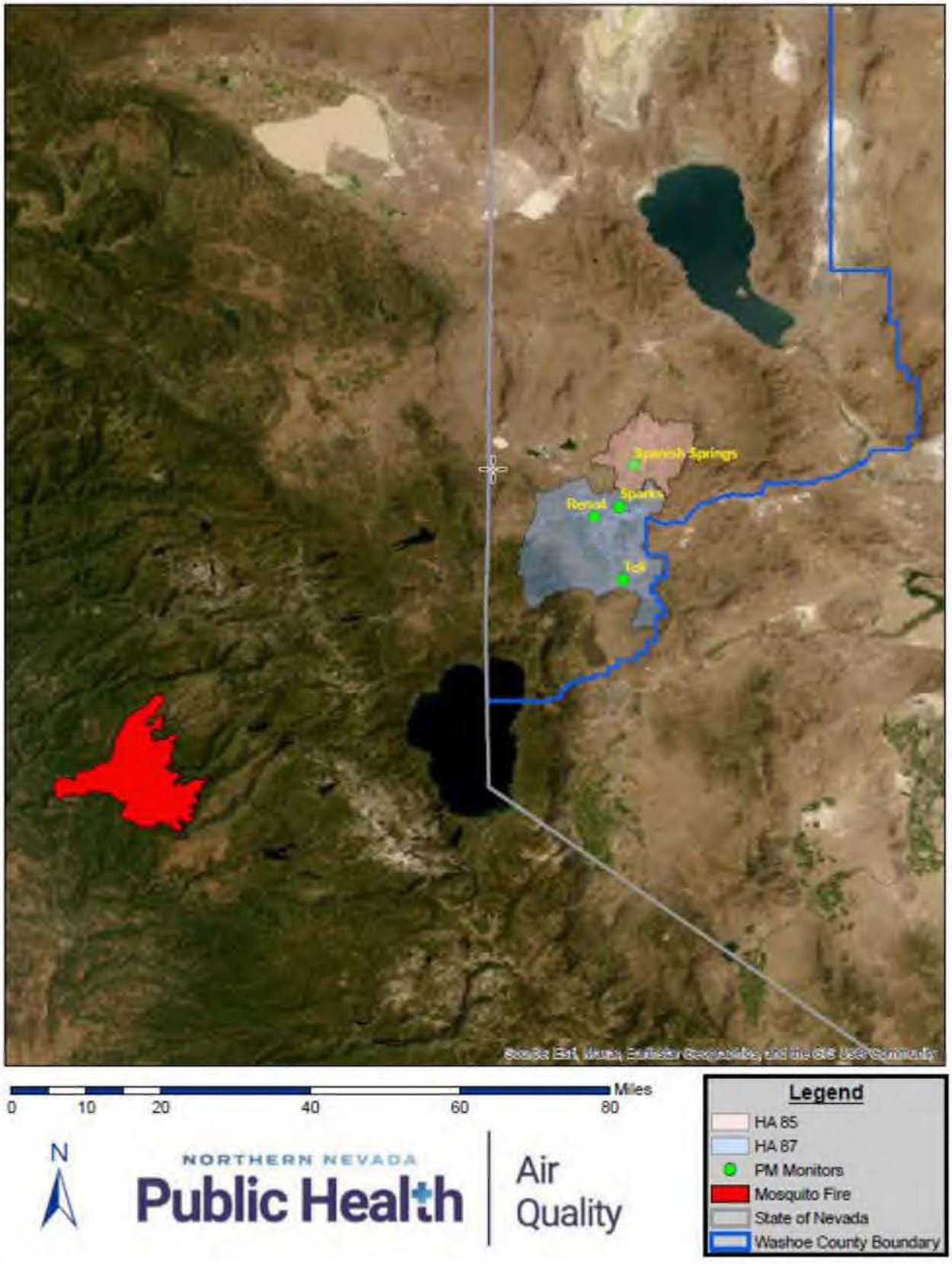
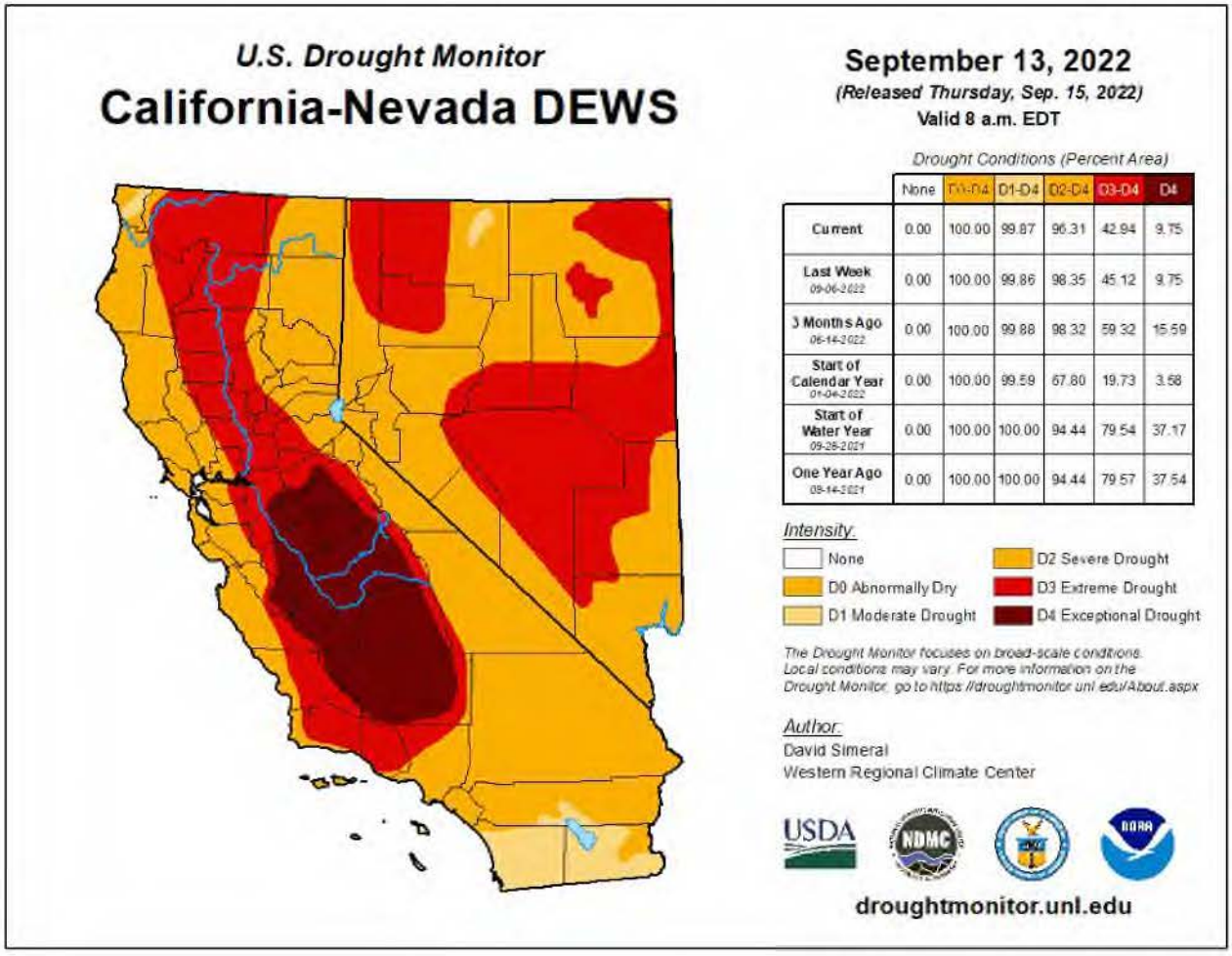


Figure 2-6: The Drought Conditions Near the Time of the Mosquito Fire



2.5 $PM_{2.5}$ Air Quality Impacts from the Mosquito Fire

2.5.1 Data Requested to be Excluded

As was mentioned in Section 1.1 of this document, the purpose of this demonstration is to request exclusion of air quality data that contributed to the violation of the 2024 Annual $PM_{2.5}$ NAAQS due to exceptional events. Table 2-3 below shows the data that is requested to be excluded as part of this exceptional events demonstration and the corresponding 24-hour $PM_{2.5}$ NAAQS averages. AQMD is requesting exclusion of all hourly $PM_{2.5}$ data points on the days of the wildfire impact from 0000 PST through 2300 PST. For a complete list of each data point to be excluded, see Appendix D of this document.

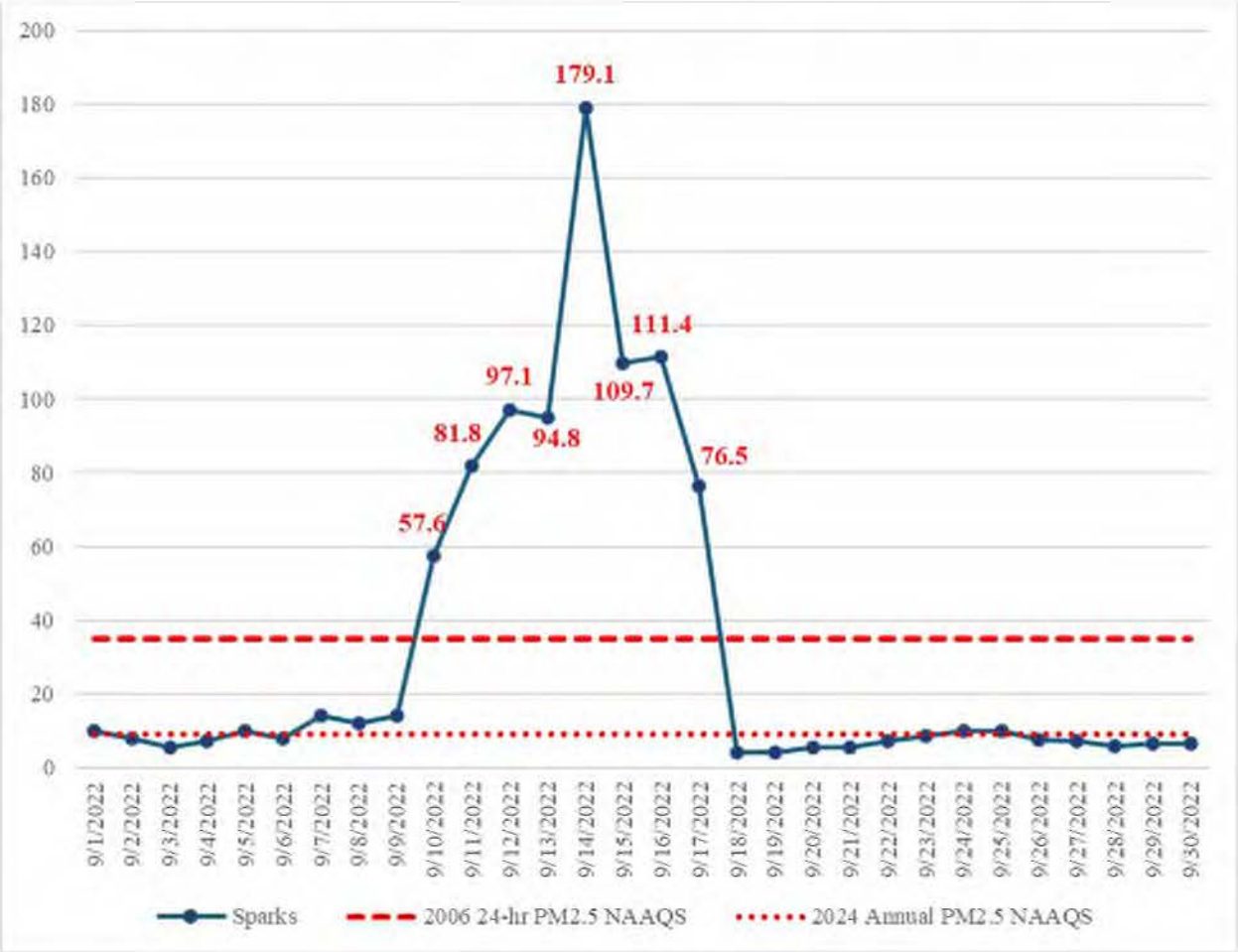
Table 2-3: $PM_{2.5}$ Data Requested to be Excluded

Mosquito Fire Data Sparks SLAMS (32-031-1005-81102-4)	
Date	**Concentration ($\mu g/m^3$)**
9/10/2022	57.6 $\mu g/m^3$
9/11/2022	81.8 $\mu g/m^3$
9/12/2022	97.1 $\mu g/m^3$
9/13/2022	94.8 $\mu g/m^3$
9/14/2022	179.1 $\mu g/m^3$
9/15/2022	109.7 $\mu g/m^3$
9/16/2022	111.4 $\mu g/m^3$
9/17/2022	76.5 $\mu g/m^3$

2.5.2 Narrative of Air Quality Impacts

In September of 2022, wildfire smoke was transported into the Truckee Meadows from the Mosquito Fire which eventually led to various elevated 24-hour $PM_{2.5}$ concentrations at the Sparks air monitoring station. On September 6, before wildfire smoke was present in the area, the 24-hour $PM_{2.5}$ concentration at Sparks was 8.0 $\mu g/m^3$. Concentrations steadily rose until an exceedance of the 24-hour $PM_{2.5}$ NAAQS at Sparks on September 10. Twenty-four hour $PM_{2.5}$ concentrations between September 10 and September 17 were well above both the 24-hour and annual $PM_{2.5}$ NAAQS. An overview of 24-hour average concentrations for $PM_{2.5}$ for the month of September 2022 is shown in Figure 2-7. The data requested to be excluded due to exceptional events are denoted by the red data callouts between September 10 and September 17, 2022.

Figure 2-7: 24-hour $PM_{2.5}$ Concentrations ($\mu g/m^3$) in September 2022



Satellite imagery also confirms the sequence of events. As can be seen in Figure 2-8 below, smoke from the Mosquito fire had not entered HA 87 as of September 8, 2022. As wind patterns shifted, smoke from the fire moved into HA 87 causing elevated 24-hour $PM_{2.5}$ concentrations between September 10-17, 2022. This is seen in Figures 2-9 through 2-16 below. The wind then shifted with a more southerly component, causing most of the smoke to vacate HA 87 on September 17, 2022. This is illustrated in Figure 2-16.

Figure 2-8: Satellite Imagery from September 8, 2022

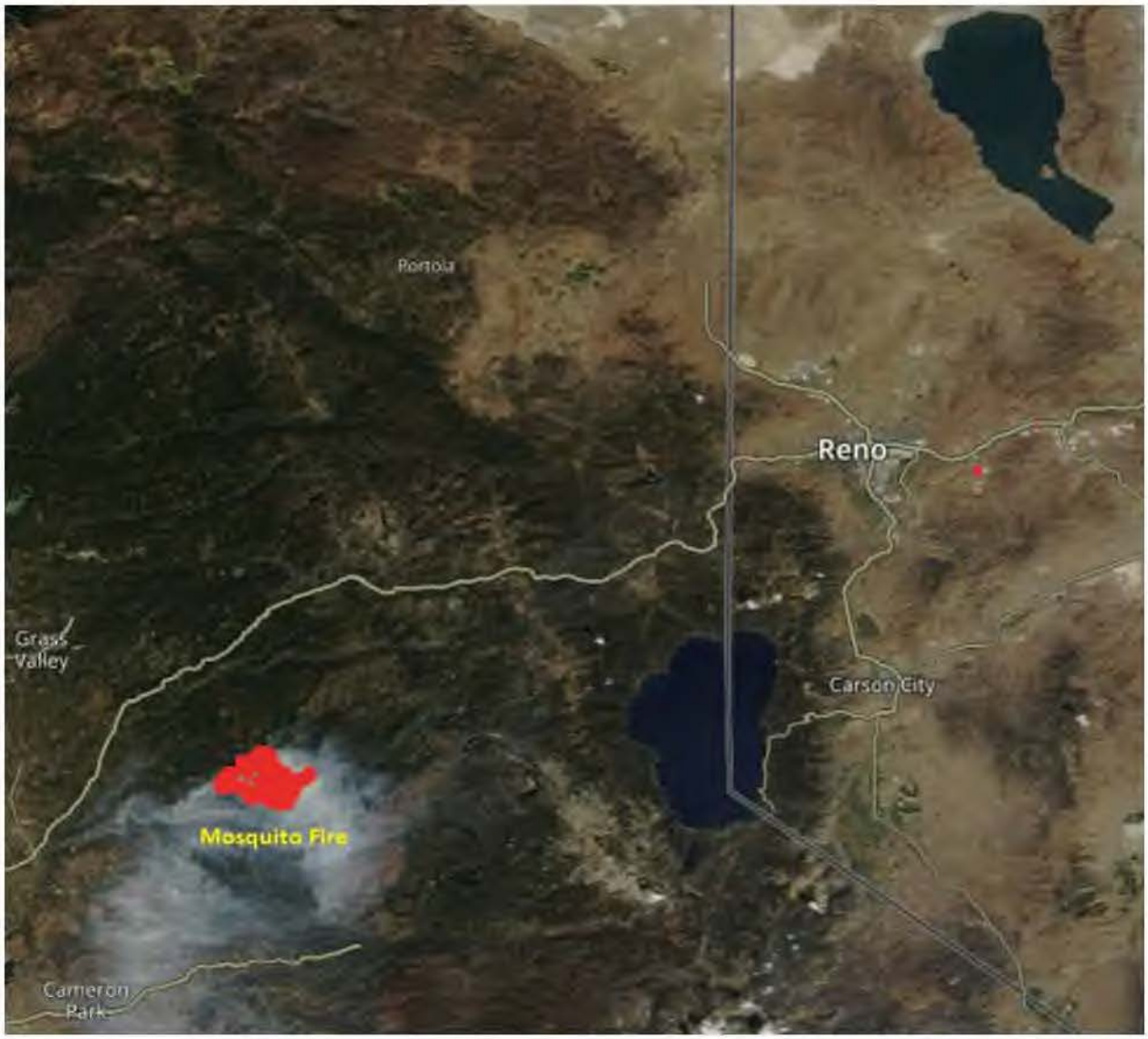


Figure 2-9: Satellite Imagery from September 10, 2022

Figure 2-10: Satellite Imagery from September 11, 2022

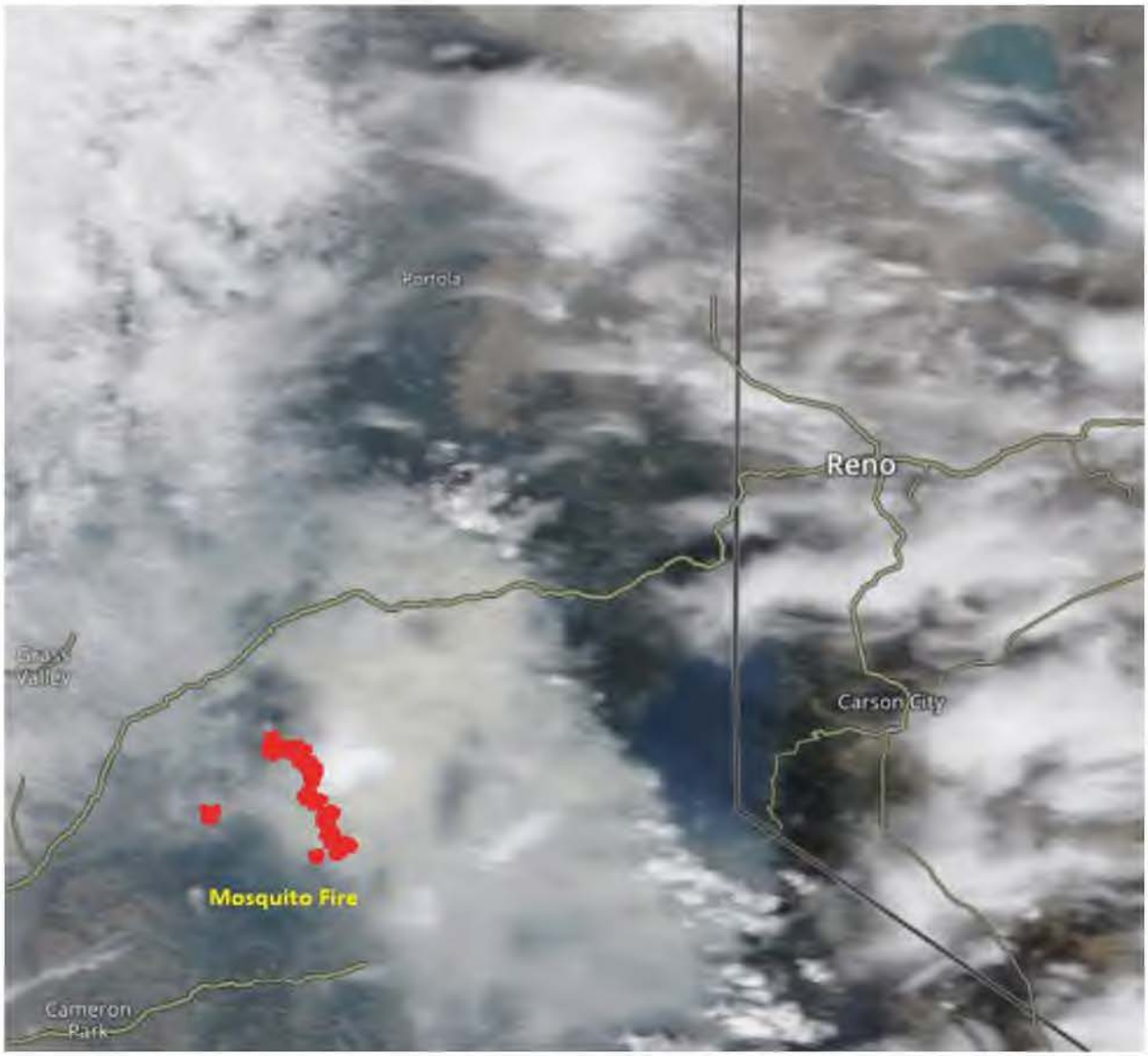


Figure 2-11: Satellite Imagery from September 12, 2022

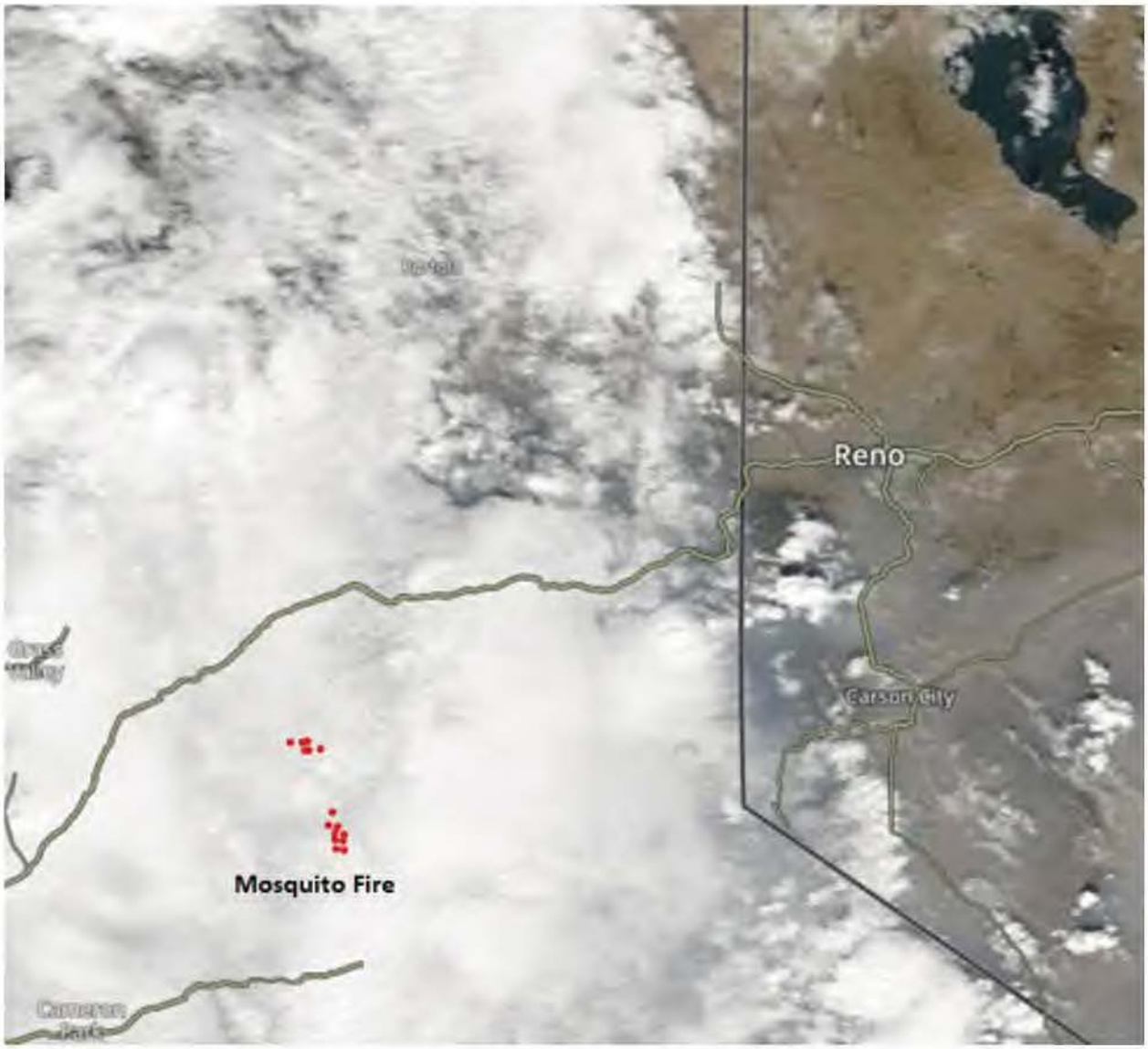


Figure 2-12: Satellite Imagery from September 13, 2022

Figure 2-13: Satellite Imagery from September 14, 2022

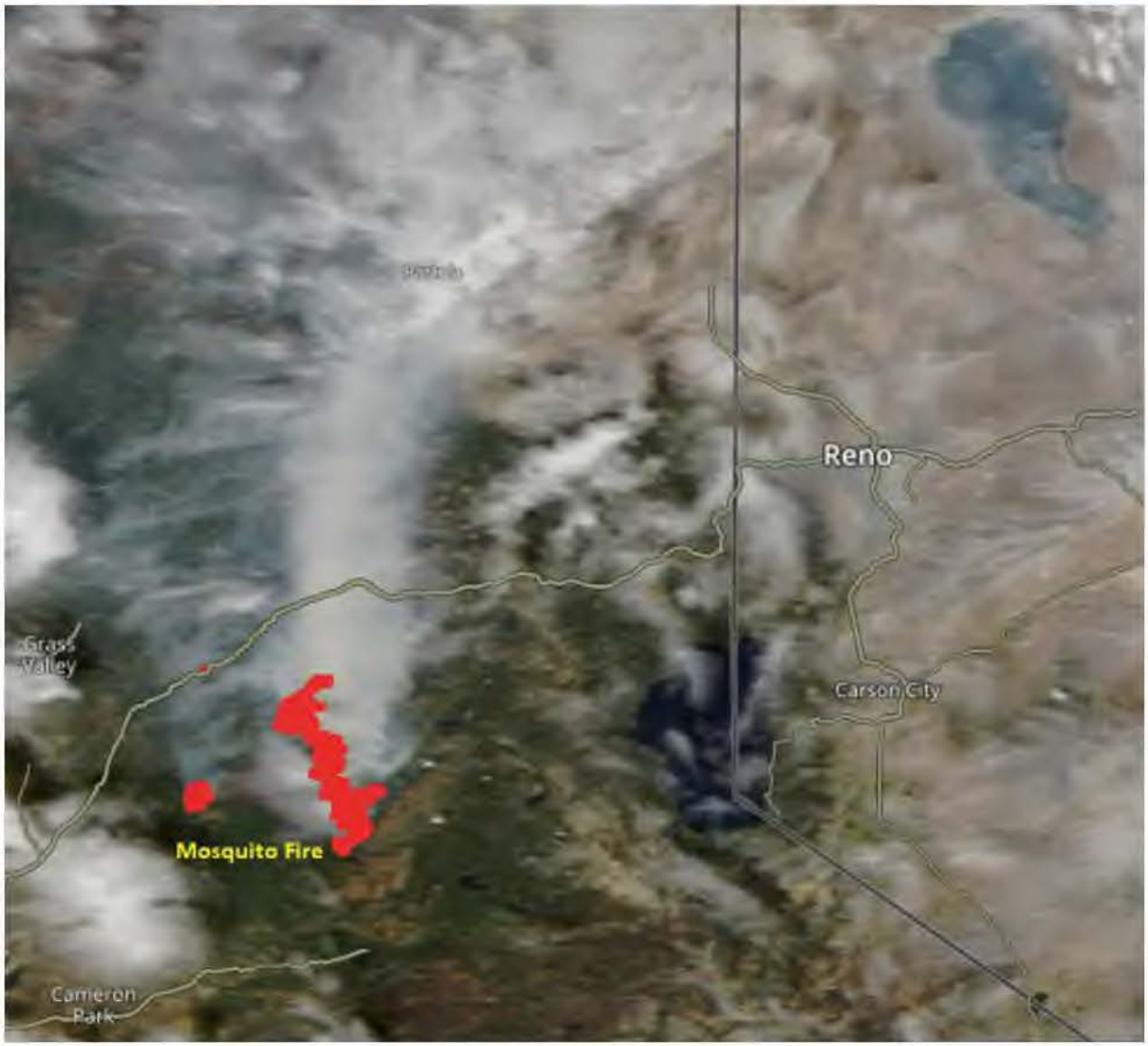


Figure 2-14: Satellite Imagery from September 15, 2022

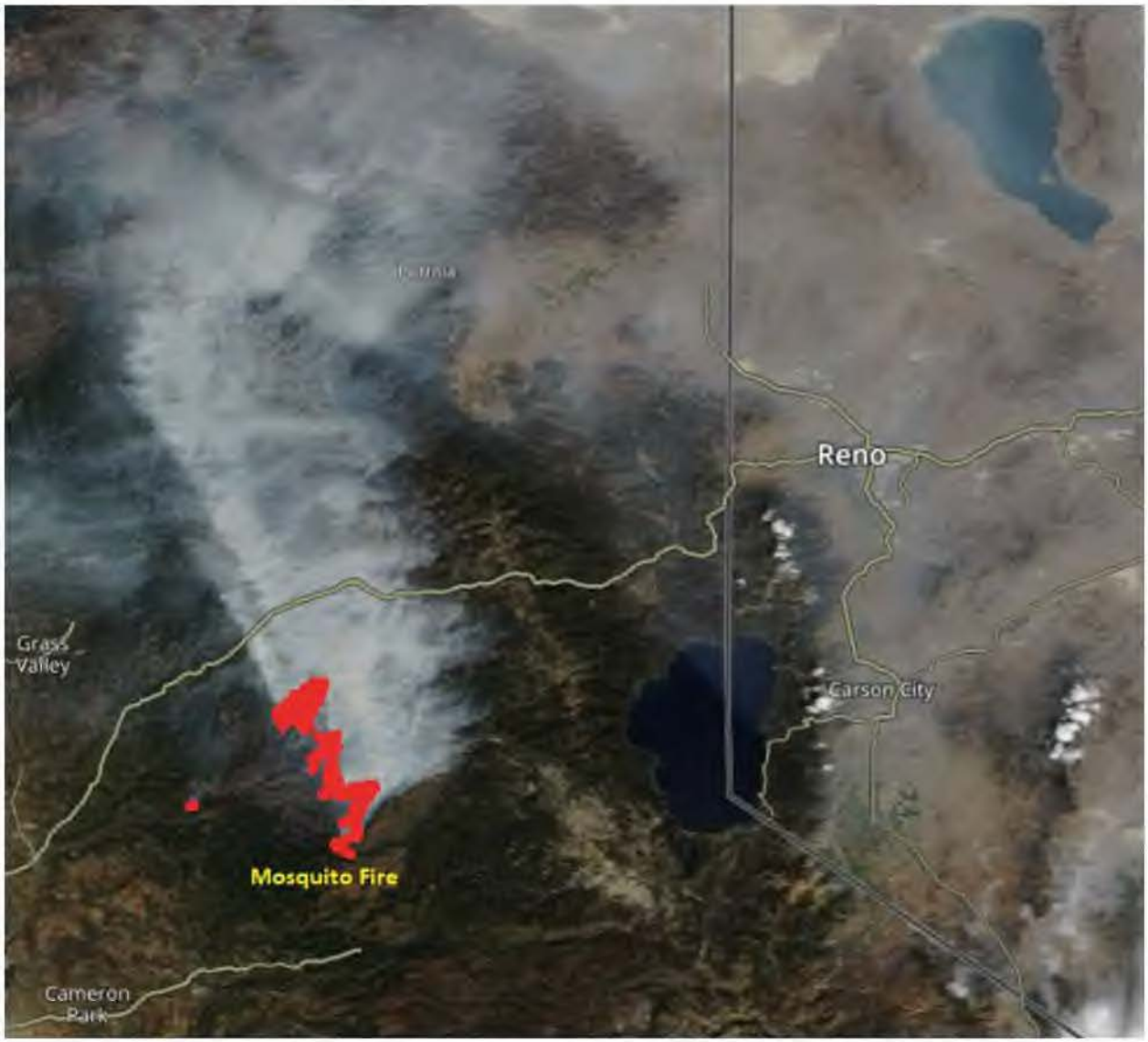


Figure 2-15: Satellite Imagery from September 16, 2022

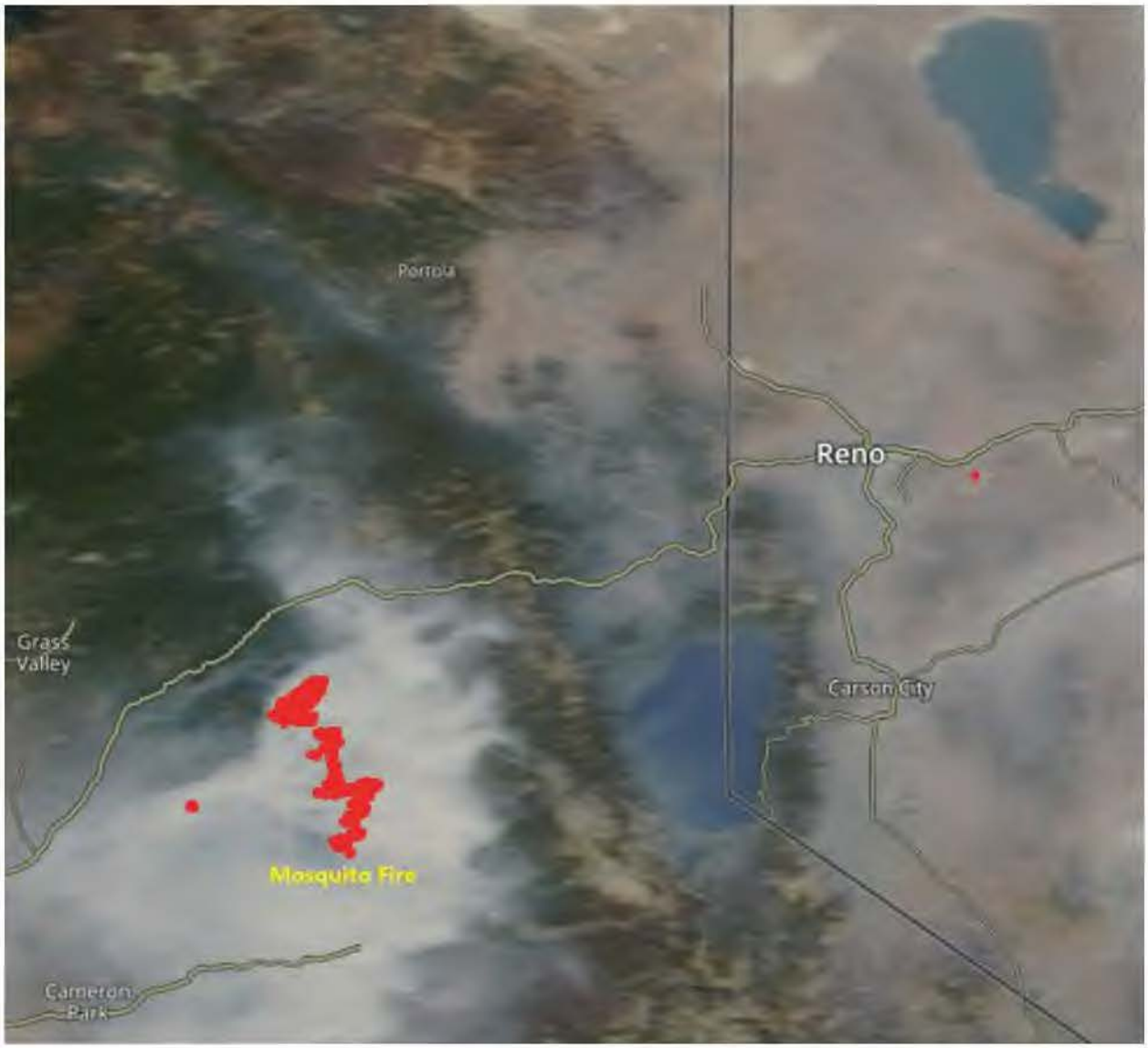


Figure 2-16: Satellite Imagery from September 17, 2022

3.0 Not Reasonably Controllable or Preventable

Section 40 CFR 50.14 (c)(3)(iv)(D) requires a demonstration that the event was both not reasonably controllable and not reasonably preventable. Wildfires on wildland satisfy both requirements unless there is evidence to the contrary. This is explained in 40 CFR 50.14(b)(4) which states:

> *The Administrator shall exclude data from use in determinations of exceedances and violations where a State demonstrates to the Administrator's satisfaction that emissions from wildfires caused a specific air pollution concentration in excess of one or more national ambient air quality standard at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Provided the Administrator determines that there is no compelling evidence to the contrary in the record, the Administrator will determine every wildfire occurring predominantly on wildland to have met the requirements identified in paragraph (c)(3)(iv)(D) of this section regarding the not reasonably controllable or preventable criterion.*

As was shown in Figure 2-5, the Mosquito Fire, was started in the State of California on US Forest Service land. According to the definition of wildland provided in 40 CFR Part 50, §50.1(o), the Mosquito Fire occurred on wildland because it started in an area in which human activity and development are non-existent.

> *40 CFR 50.1(o): Wildland means an area in which human activity and development are essentially non-existent, except for roads, railroads, power lines, and similar transportation facilities. Structures, if any, are widely scattered.*

In addition, since the wildfire was not within the jurisdiction of Washoe County and the pollution impacts were due to interstate transport, there is no reasonable control method that AQMD could have taken to prevent the $PM_{2.5}$ impacts from happening. The elevated concentrations of $PM_{2.5}$ were caused by the excessive $PM_{2.5}$ emissions from the Mosquito fire, not from anthropogenic sources within Washoe County. This is demonstrated in Section 4 of this document, Clear Causal Relationship.

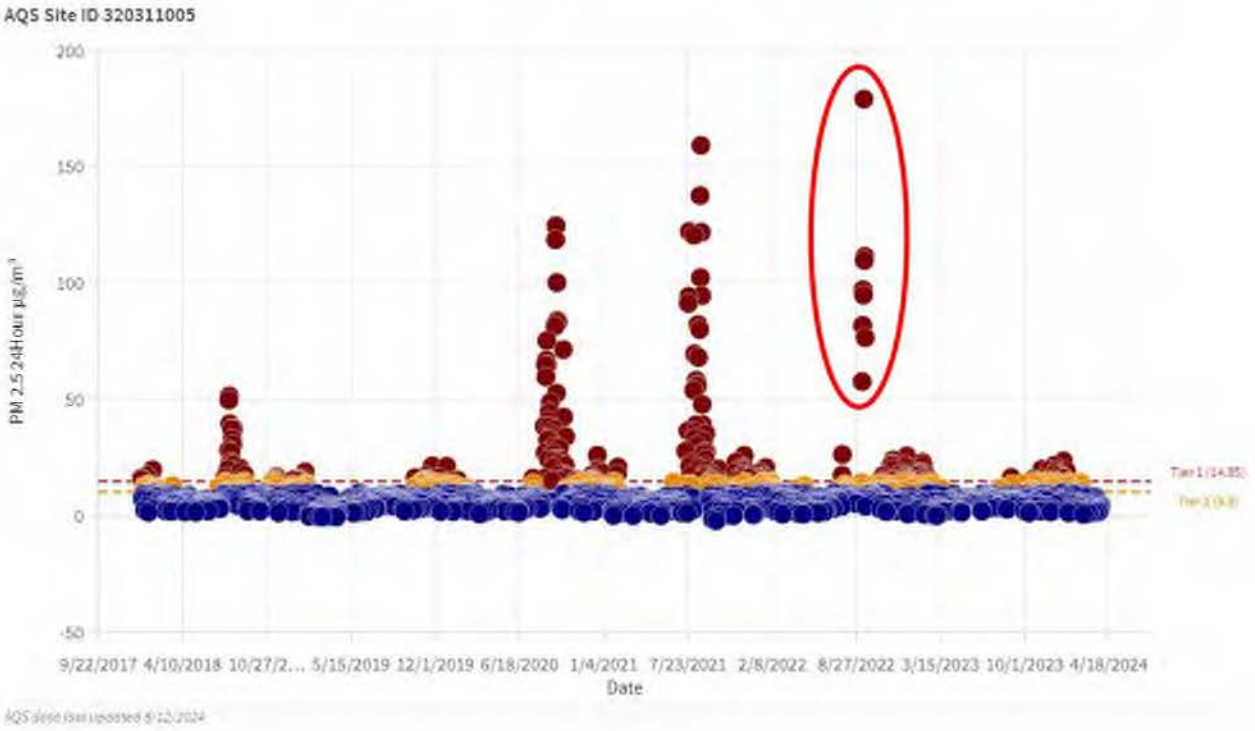
4.0 Clear Causal Relationship

4.1 Evidence Proving Event is Classified as Tier 1

Evidence proving the event is classified as a Tier 1 event as defined in EPA's $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document can be found in Figure 4-1. In figure 4-1, the Mosquito Fire event is circled in red.

Utilizing EPA's "$PM_{2.5}$ Tiering Tool - for Exceptional Events Analysis," it is shown that the most recent 5-year month-specific 98th percentile for 24-hour $PM_{2.5}$ data in September is 9.9 $\mu g/m^3$ at the Sparks SLAMS. A tier 1 event must be greater than 1.5 times the 98th percentile value, 14.85 $\mu g/m^3$. The threshold for a tier 1 event is also denoted by a dotted red line in Figure 4-25. Table 2-3 on page 19 also shows that all data requested to be excluded in this demonstration is much higher than 14.85 $\mu g/m^3$.

Figure 4-1: Data as Shown in EPA's $PM_{2.5}$ Tiering Tool - for Exceptional Events Analysis



4.2 Fire Emissions Analysis

As can be seen in Figure 2-9, smoke from the Mosquito fire impacted the Sparks $PM_{2.5}$ monitor starting on September 10, 2022. Between September 10 and September 17, 2022, the wildfire grew quickly and burned through large amounts of fuel, sending thousands of tons of emissions into the air, some of which was transported to the Truckee Meadows region, causing elevated 24-hour $PM_{2.5}$ concentrations. $PM_{2.5}$ emissions from the fire during this time frame were estimated by AQMD using the U.S Forest Service BlueSky Playground tool, Version 3.5. The inputs to the BlueSky Playground modeling tool include 1) Latitude and Longitude of fire origination, 2) Emissions Type, 3) Fuel Moisture Condition, 4) FCCS Fuelbed type and 5) acreage burned. For the fire, the latitude and longitude were (39.006, -120.745), the emissions type was "Wildfire", the Fuel Moisture Condition was "Dry", and the FCCS Fuelbed type was "Fuel bed code 16 – Jeffrey pine-ponderosa pine-Douglas Fir-California black oak forest." The Fuel Moisture Condition was determined to be "Dry" as a conservative estimate based on the U.S. Drought Monitor from September 13, 2022 shown in Figure 2-8. Fire acreage growth for the fire was determined by changes in acreage burned between daily Fire Updates issued by the United States Forest Service and CalFire. Updates were written daily, or more frequently, by the Incident Command Team in charge of the incident. By finding the difference in fire size listed on consecutive daily updates, daily fire growth can be calculated.

As can be seen in Table 4-1, the total $PM_{2.5}$ emissions that resulted from the Mosquito Fire between September 7 and September 17 was approximately 32,479.99 tons. As was mentioned in Section 2.3, and as per the 2020 Emissions Inventory, Washoe County produces approximately 18,118 lbs/day of $PM_{2.5}$. That is approximately 9.9 times Washoe County's annual $PM_{2.5}$ emissions over the course of 11 days of wildfire impact in the Truckee Meadows.

Table 4-1: $PM_{2.5}$ Emissions Calculations for the Mosquito Fire During the Event

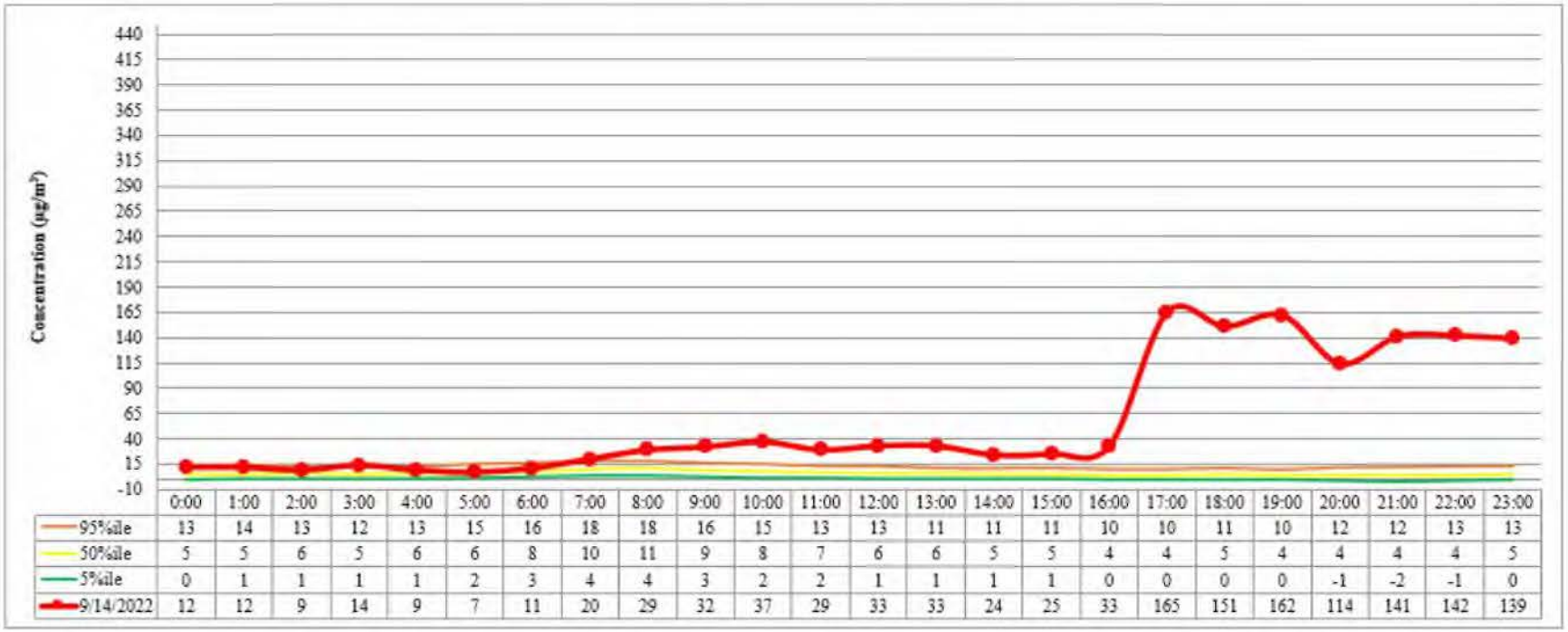
Date	Mosquito Fire Growth (Daily Acres)	Mosquito Fire $PM_{2.5}$ Emissions (Daily Tons)
September 7, 2022	5,705	2549.65
September 8, 2022	8,000	3575.32
September 9, 2022	15,880	7097.01
September 10, 2022	7,741	3459.57
September 11, 2022	9,261	4138.88
September 12, 2022	2,113	944.33
September 13, 2022	1,630	728.47
September 14, 2022	13,446	6009.22
September 15, 2022	3,893	1739.84
September 16, 2022	3,623	1619.17
September 17, 2022	1,384	618.53
Total	**72,676**	**32,479.99**

4.3 Comparison of Event $PM_{2.5}$ Concentrations to Historical Concentrations

In order to prove that the days requesting to be excluded had abnormally high $PM_{2.5}$ concentrations, AQMD compared the hourly data to what would be expected on a non-event day in wildfire season. AQMD completed a diurnal pattern analysis to do this. Each hour on the requested days were compared to the 5th percentile, 50th percentile, and 95th percentile of historical hourly concentrations. All data flagged with qualifier codes related to wildfires, windblown dust, etc. were removed from comparison. The historical concentrations were from the five-year period from 2016-2020 in the wildfire season of July-September.

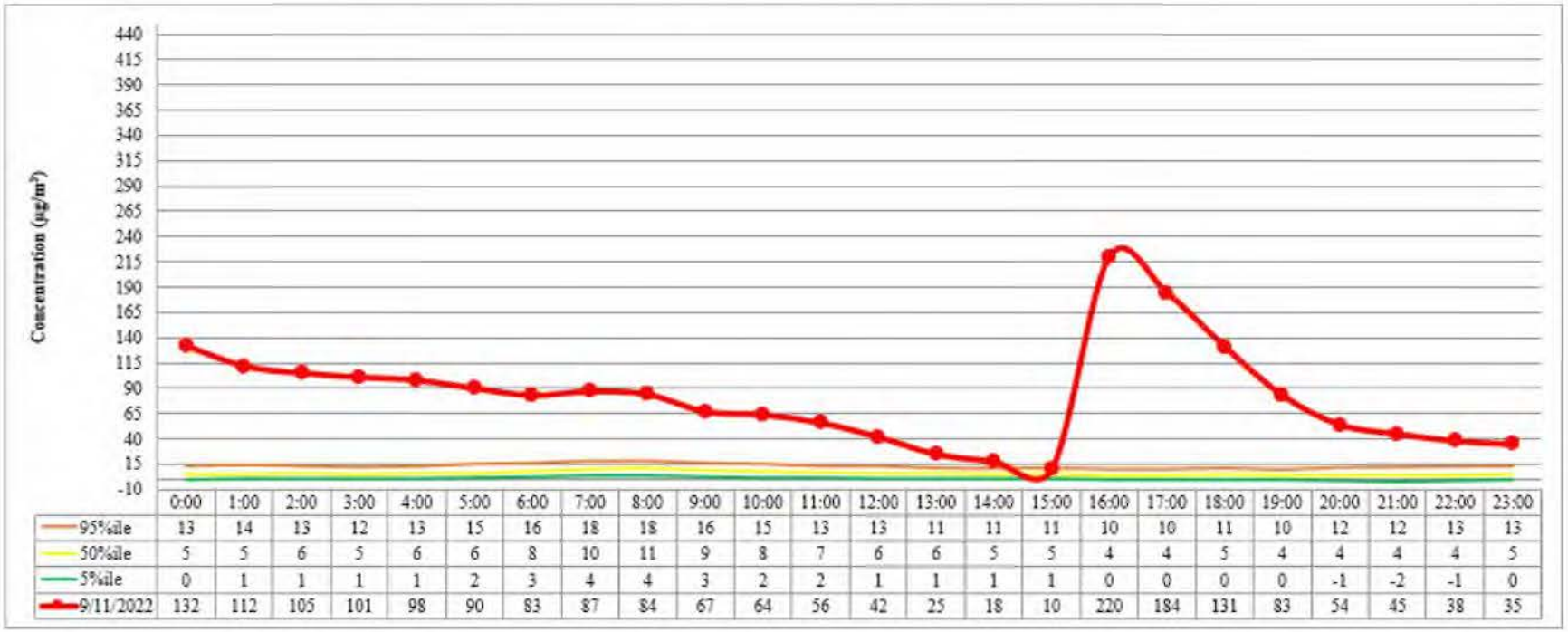
As can be seen in Figure 4-2 through 4-9 below, the hourly $PM_{2.5}$ concentrations at Sparks on the days of the wildfire impact were much higher than what would be expected based on historical concentrations. Most hourly concentrations were orders of magnitude higher than what would be expected (50th percentile). Additionally, most hourly concentrations were much higher than the 95th percentile of the data set.

Figure 4-2: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks on 9/10/22



	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/14/2022	12	12	9	14	9	7	11	20	29	32	37	29	33	33	24	25	33	165	151	162	114	141	142	139

Figure 4-3: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks 9/11/22



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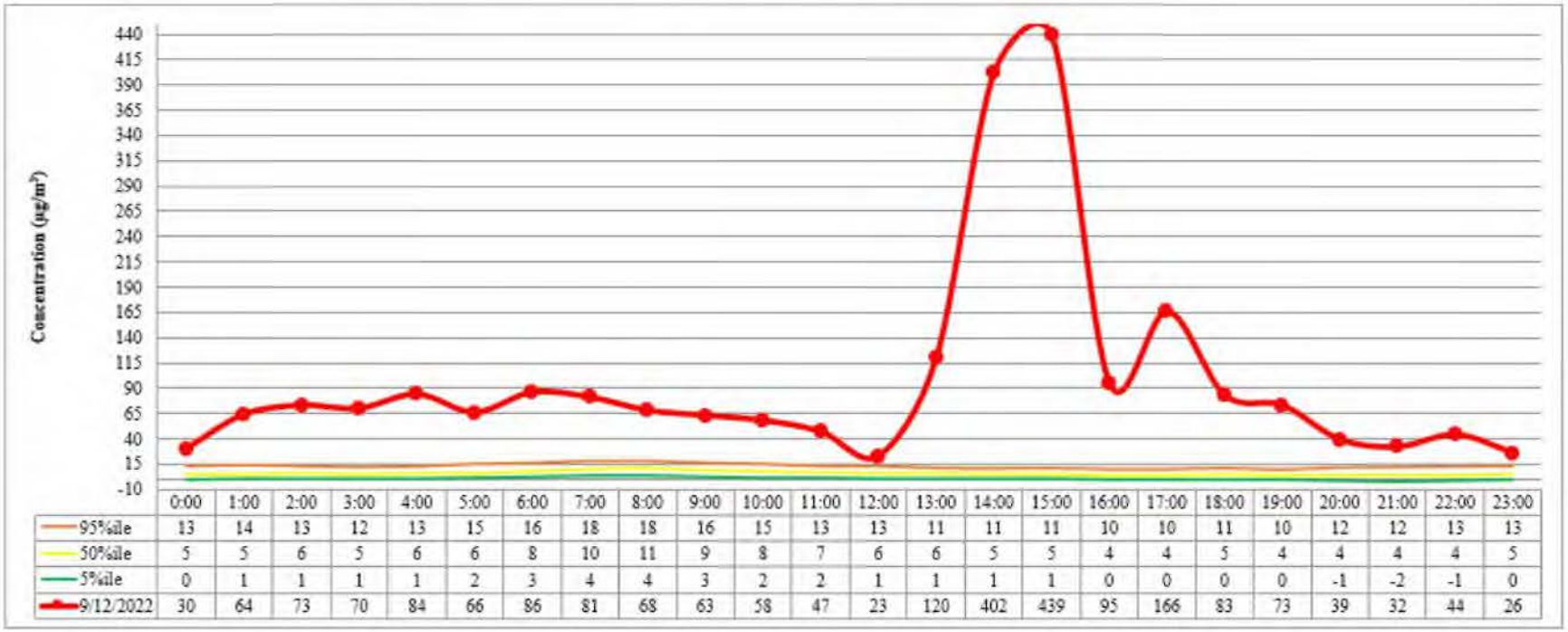
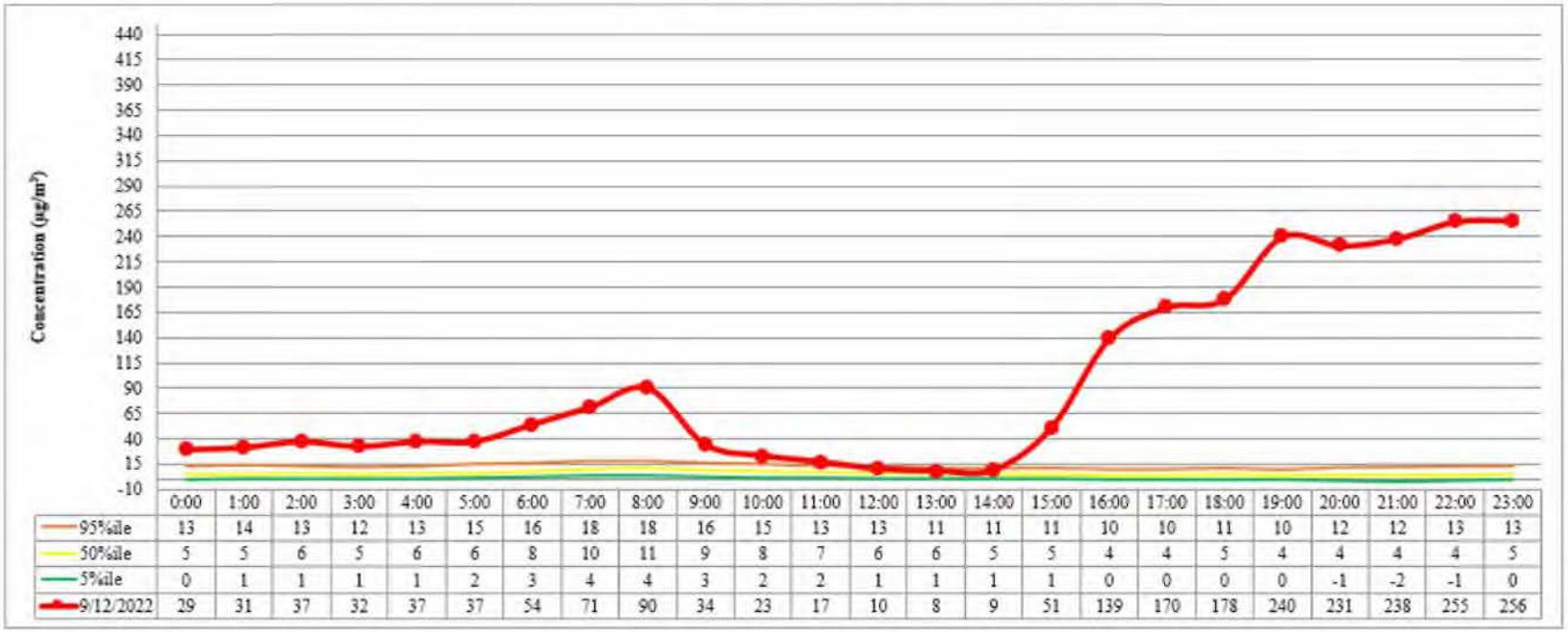
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/11/2022	132	112	105	101	98	90	83	87	84	67	64	56	42	25	18	10	220	184	131	83	54	45	38	35

Figure 4-4: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks 9/12/22



	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/12/2022	30	64	73	70	84	66	86	81	68	63	58	47	23	120	402	439	95	166	83	73	39	32	44	26

Figure 4-5: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks 9/13/22



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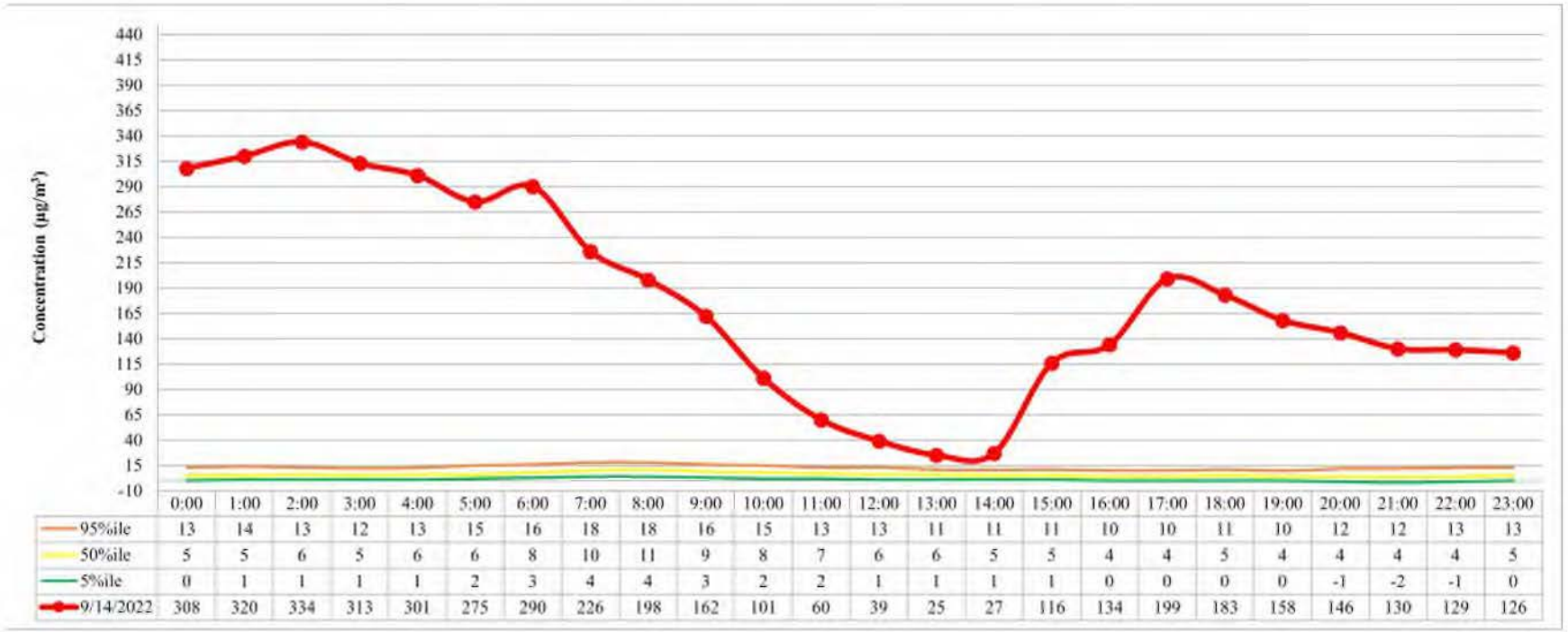
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/12/2022	29	31	37	32	37	37	54	71	90	34	23	17	10	8	9	51	139	170	178	240	231	238	255	256

Figure 4-6: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks on 09/14/22



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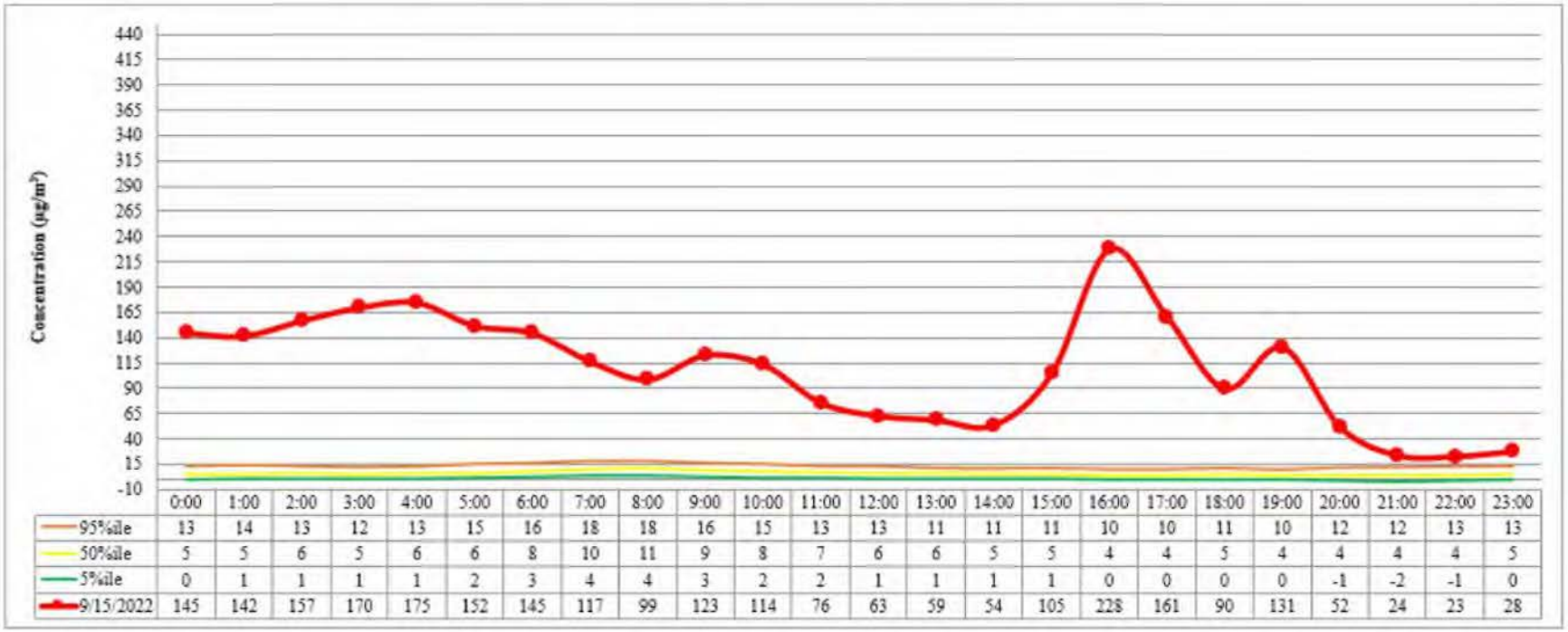
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/14/2022	308	320	334	313	301	275	290	226	198	162	101	60	39	25	27	116	134	199	183	158	146	130	129	126

Figure 4-7: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks on 9/15/22



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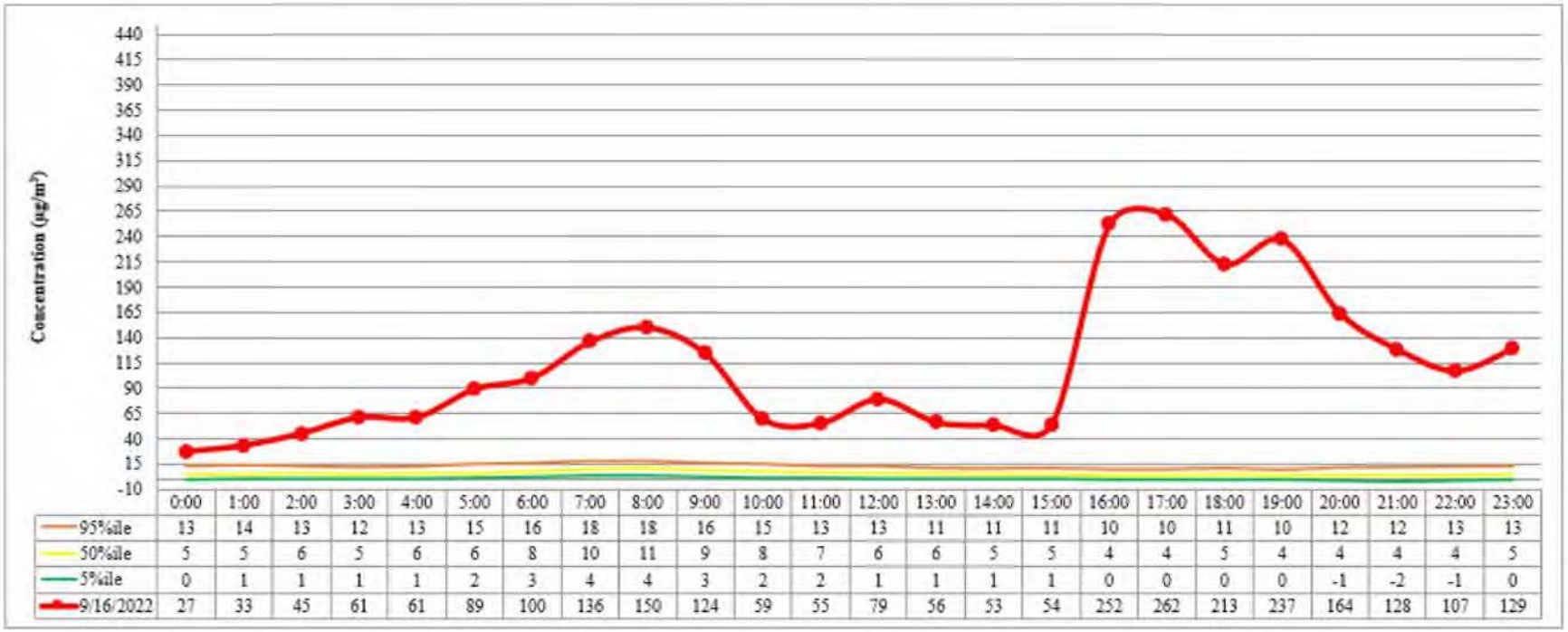
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/15/2022	145	142	157	170	175	152	145	117	99	123	114	76	63	59	54	105	228	161	90	131	52	24	23	28

Figure 4-8: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks on 9/16/22



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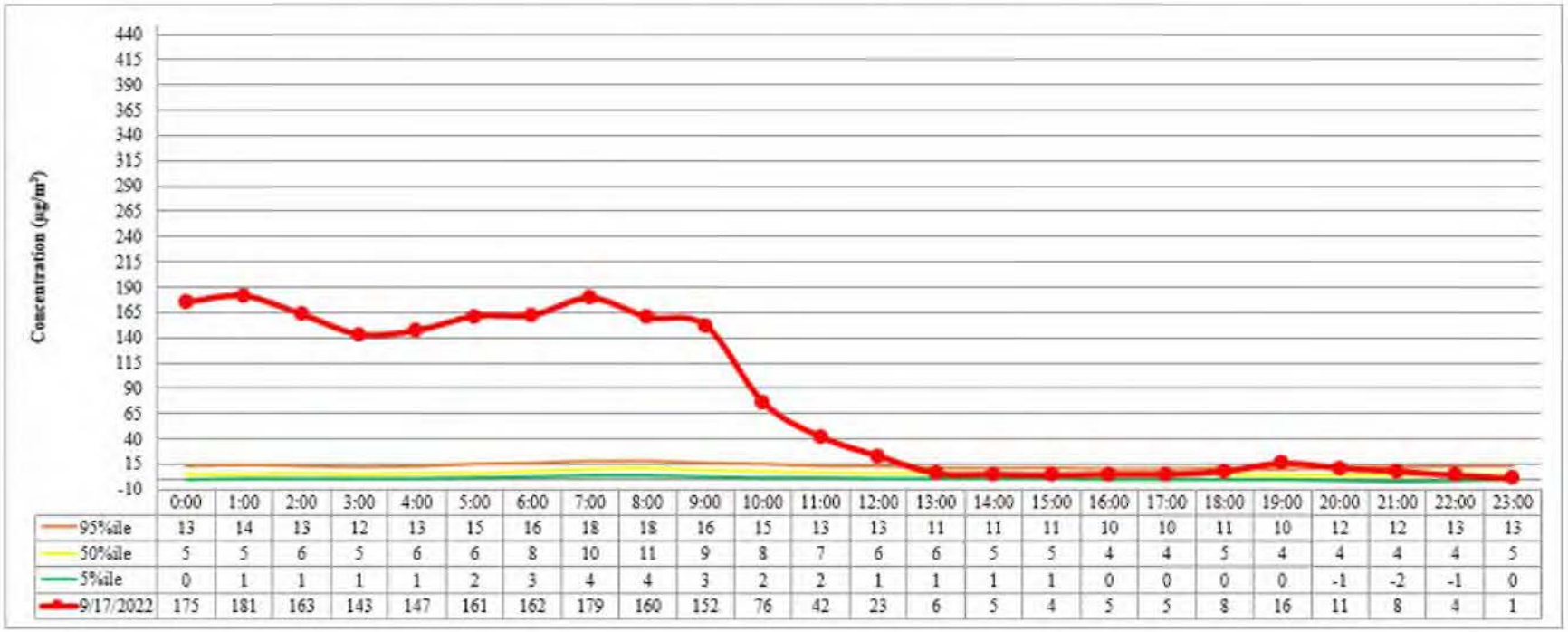
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/16/2022	27	33	45	61	61	89	100	136	150	124	59	55	79	56	53	54	252	262	213	237	164	128	107	129

Figure 4-9: 2016-2020 $PM_{2.5}$ Diurnal Pattern Comparison for Sparks on 9/17/22



	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00
95%ile	13	14	13	12	13	15	16	18	18	16	15	13	13	11	11	11	10	10	11	10	12	12	13	13
50%ile	5	5	6	5	6	6	8	10	11	9	8	7	6	6	5	5	4	4	5	4	4	4	4	5
5%ile	0	1	1	1	1	2	3	4	4	3	2	2	1	1	1	1	0	0	0	0	-1	-2	-1	0
9/17/2022	175	181	163	143	147	161	162	179	160	152	76	42	23	6	5	4	5	5	8	16	11	8	4	1

4.4 Trajectory Analysis

A trajectory analysis was completed for the event using the Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT) model to compute simple air parcel trajectories and determine where the smoke originated from. The HYSPLIT model's calculation method is a hybrid between the Lagrangian approach, which uses a moving frame of reference as the air parcels move from their initial location, and the Eulerian approach, which uses a fixed three-dimensional grid as a frame of reference. The trajectory models in this section were created with the EPA AirNow-Tech Navigator page and the HYSPLIT model was provided by NOAA's Air Resources Laboratory. The model used the North American Mesoscale Model (NAM) 12-kilometer domain. Each HYSPLIT was completed at 50, 1000, and 2500 meters above ground level (agl). These values were chosen to best illustrate the dynamics of the air mass that affected the Washoe County region before and during the days of the event. According to National Weather Service-Reno, 50 meters agl is a representative proxy for the boundary layer height in the region. The HYSPLIT figures below include the "HMS Fire" layer which shows the location of each fire, the "HMS Smoke" layer which shows where smoke is at the time, and the 24-hour, midnight to midnight average $PM_{2.5}$ concentration in $\mu g/m^3$ for each air monitoring site in the region.

4.4.1 Monitoring Site Analysis – Backward Trajectory

In order to accurately understand where the affected airmass originated from, AQMD completed 24-hour backward trajectory HYSPLIT models from the affected $PM_{2.5}$ monitor at Sparks. In the figures below, the green line denotes 50 meters agl, the blue line denotes 1000 meters agl, and the red line denotes 2500 meters agl. The points on each line denote 6-hour increments. Because this section is for backward trajectory HYSPLIT models, the first point on the line would denote 6-hours before the start time of the model.

Figure 4-10: Backward Trajectory from Sparks starting September 10, 2022 at 0000 PST

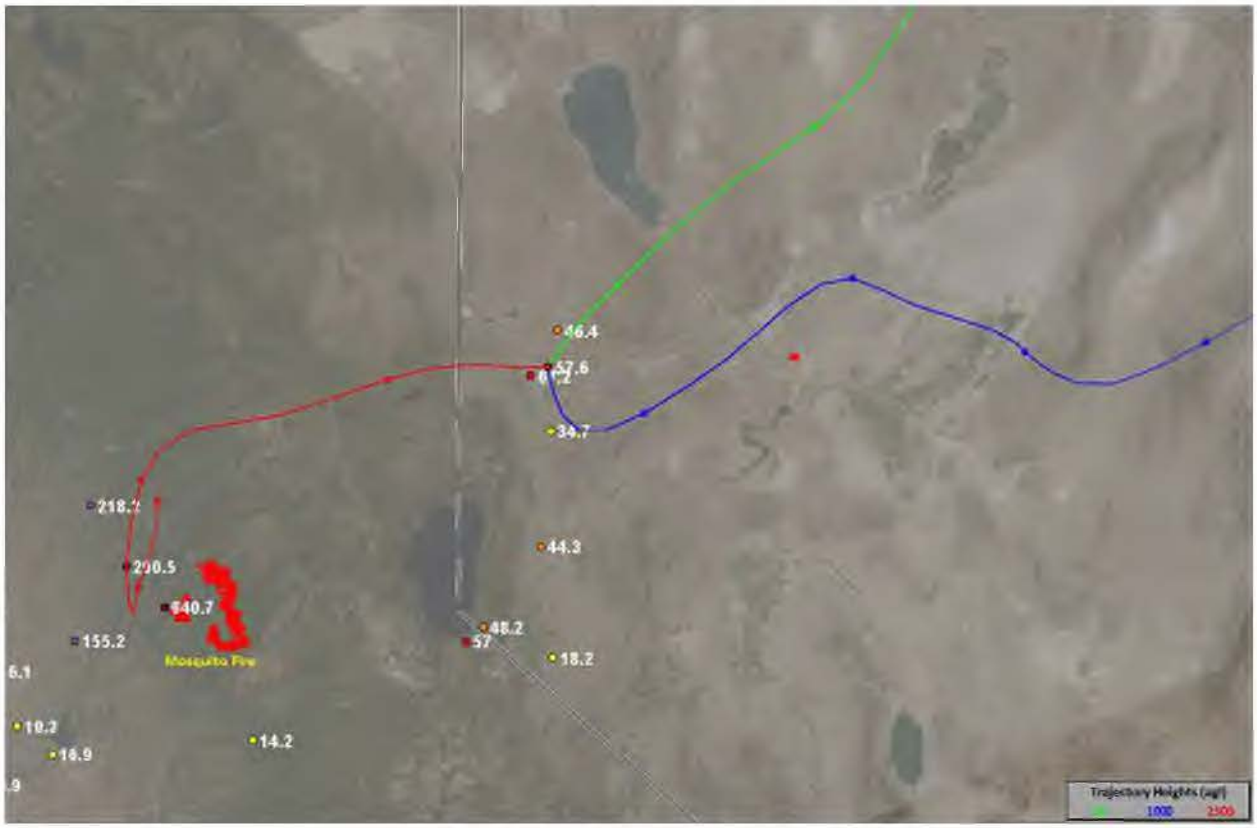


Figure 4-11: Backward Trajectory from Sparks starting September 11, 2022 at 0000 PST

Figure 4-12: Backward Trajectory from Sparks starting September 12, 2022 at 0000 PST

Figure 4-13: Backward Trajectory from Sparks starting September 13, 2022 at 0000 PST

Figure 4-14: Backward Trajectory from Sparks starting September 14, 2022 at 0000 PST

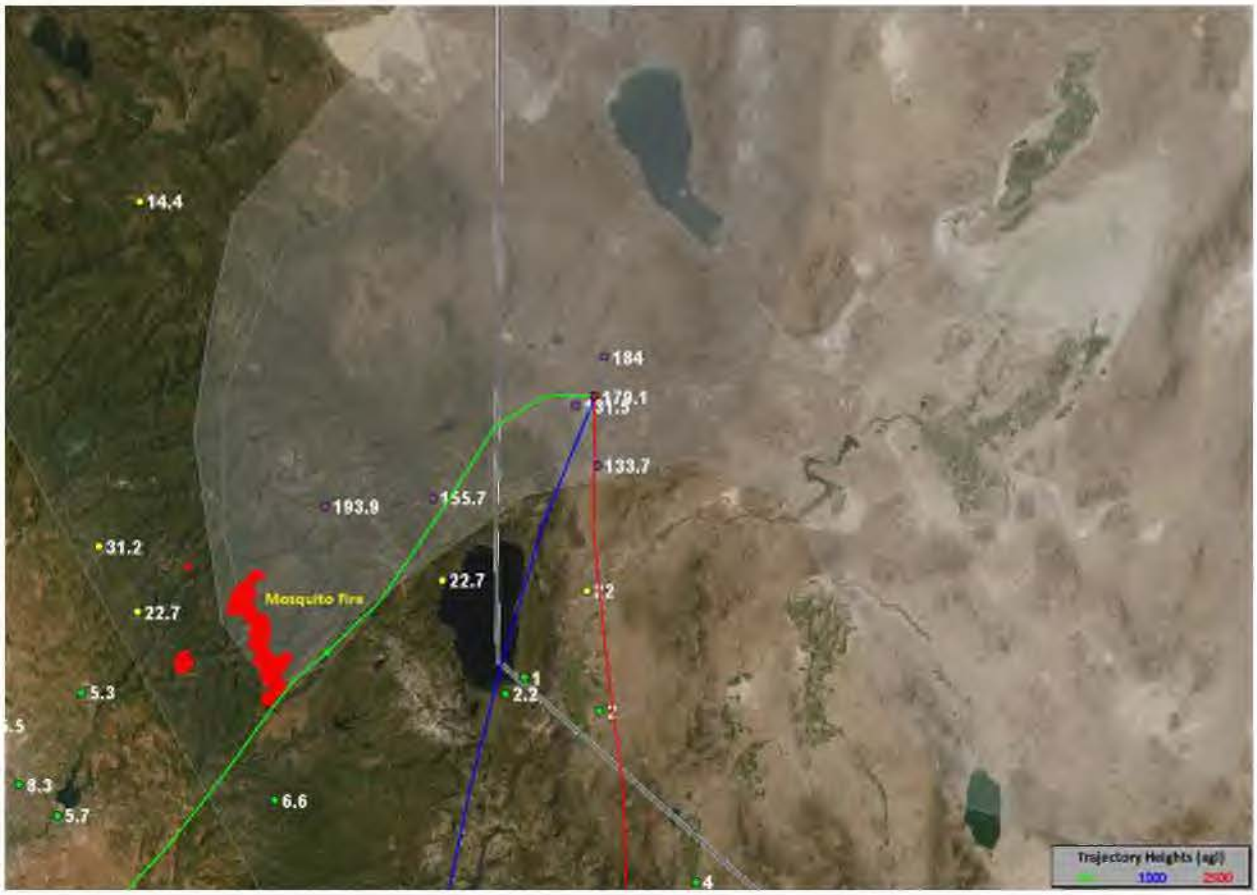


Figure 4-15: Backward Trajectory from Sparks starting September 15, 2022 at 0000 PST

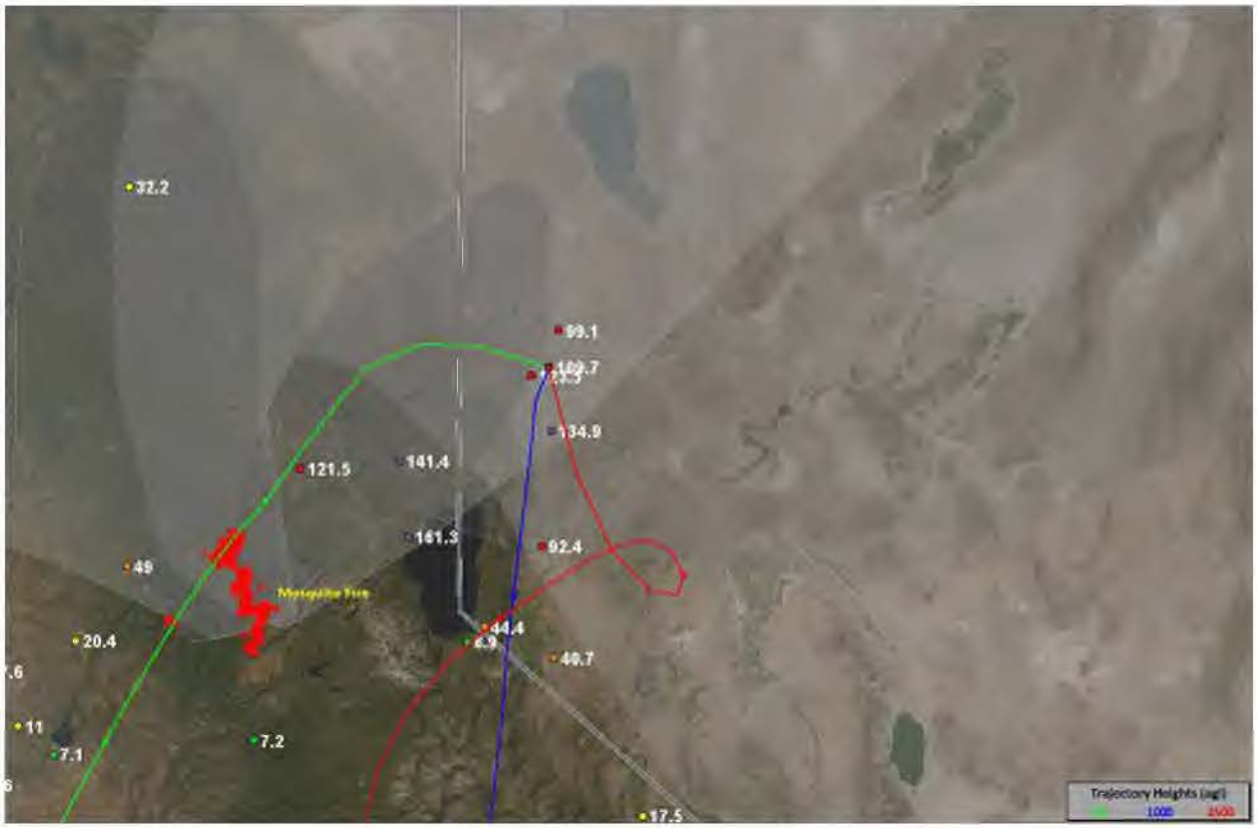
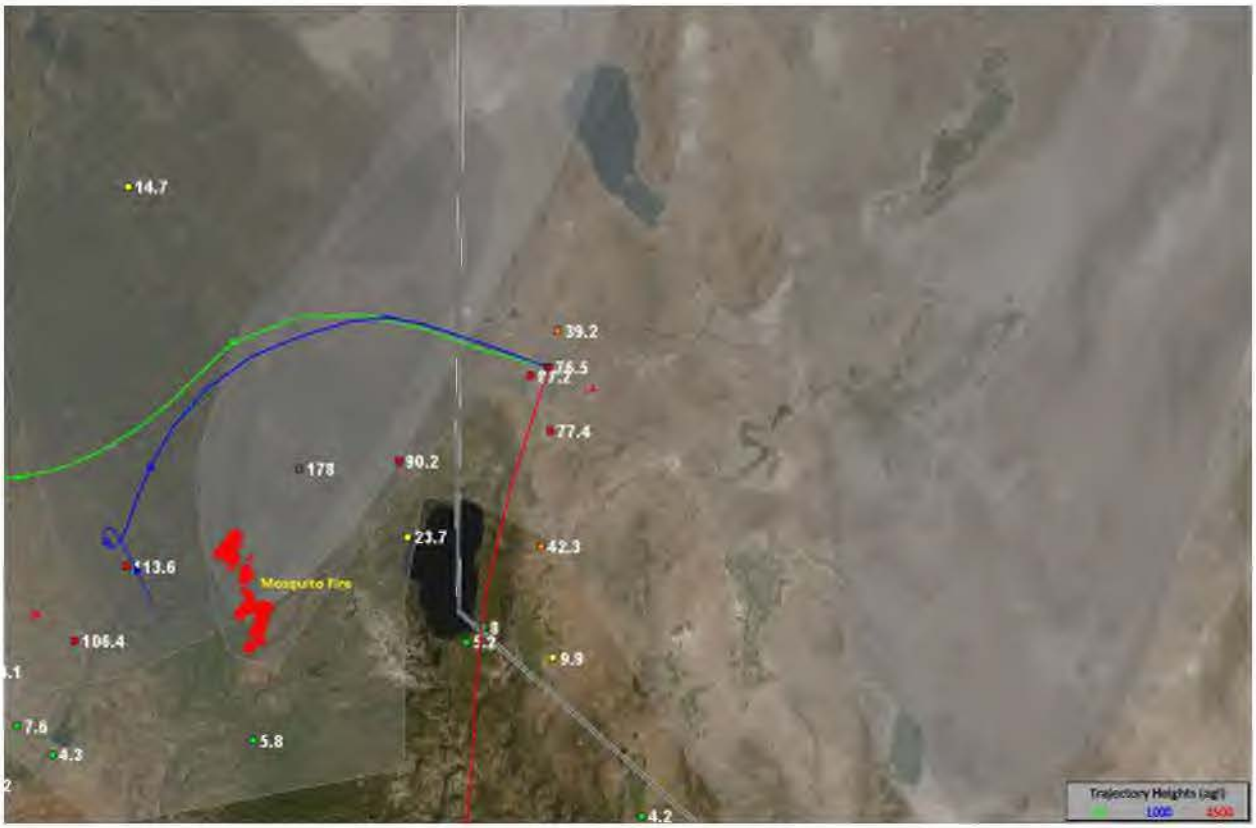


Figure 4-16: Backward Trajectory from Sparks starting September 16, 2022 at 0000 PST

Figure 4-17: Backward Trajectory from Sparks starting September 17, 2022 at 0000 PST



4.4.2 Source Analysis – Forward Trajectory

In order to fully understand where smoke emissions from the Mosquito Fire moved prior to and on the days of the event, an emissions source analysis was done which included 24-hour forward trajectory HYSPLIT models from the Mosquito Fire. In the figures below, the green line denotes 50 meters agl, the blue line denotes 1000 meters agl, and the red line denotes 2500 meters agl. The points on each line denote 6-hour increments. Because this section is for forward trajectory HYSPLIT models, the first point on the line would denote 6-hours after the start time of the model.

Figure 4-18: Forward Trajectory from Mosquito Fire starting September 9, 2022 at 0000 PST

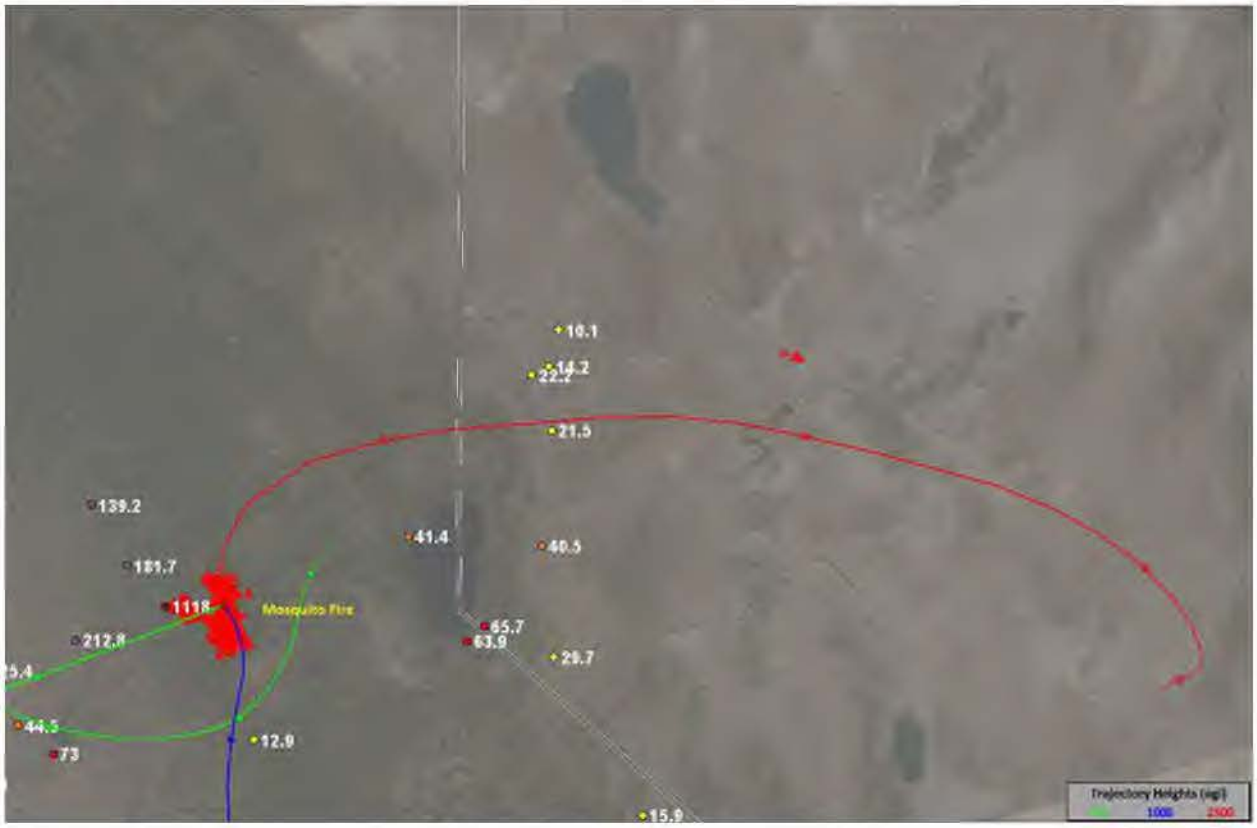


Figure 4-19: Forward Trajectory from Mosquito Fire starting September 10, 2022 at 0000 PST

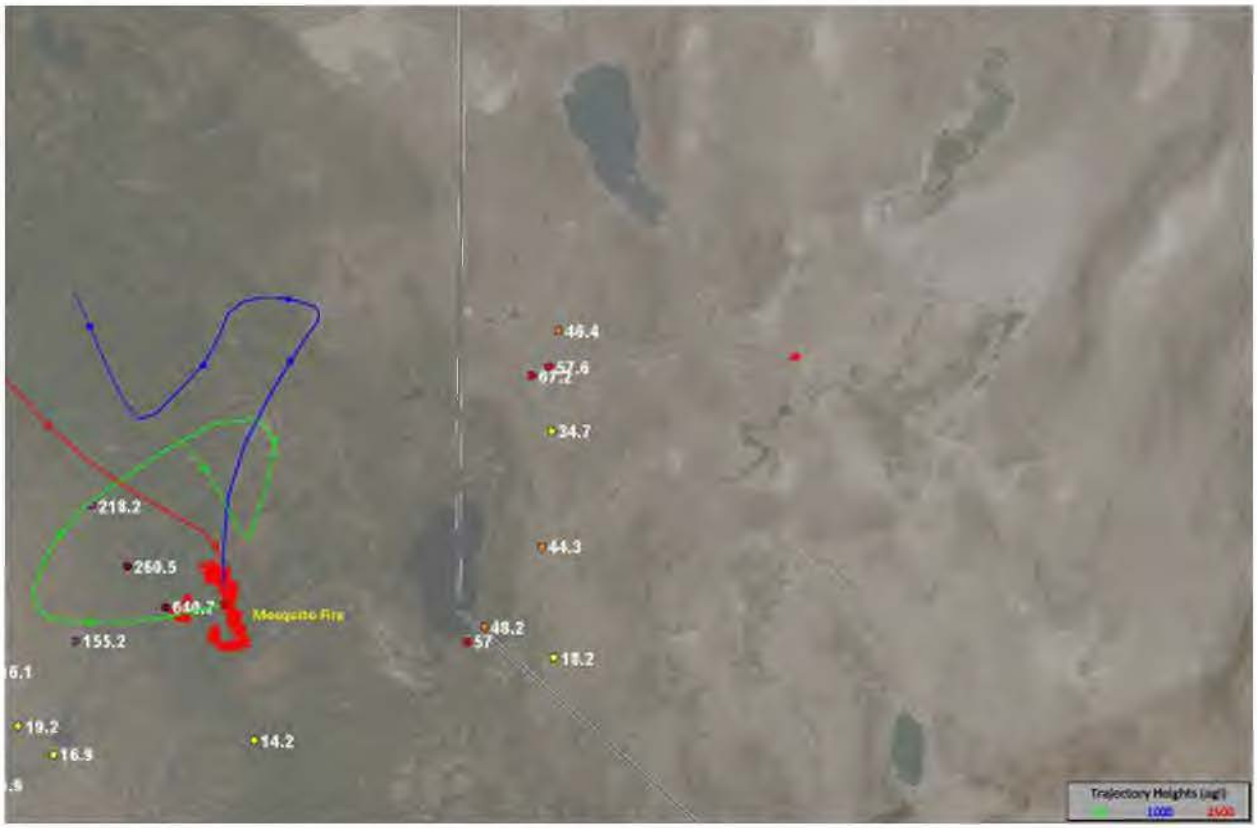


Figure 4-20: Forward Trajectory from Mosquito Fire starting September 11, 2022 at 0000 PST

Figure 4-21: Forward Trajectory from Mosquito Fire starting September 12, 2022 at 0000 PST

Figure 4-22: Forward Trajectory from Mosquito Fire starting September 13, 2022 at 0000 PST

Figure 4-23: Forward Trajectory from Mosquito Fire starting September 14, 2022 at 0000 PST

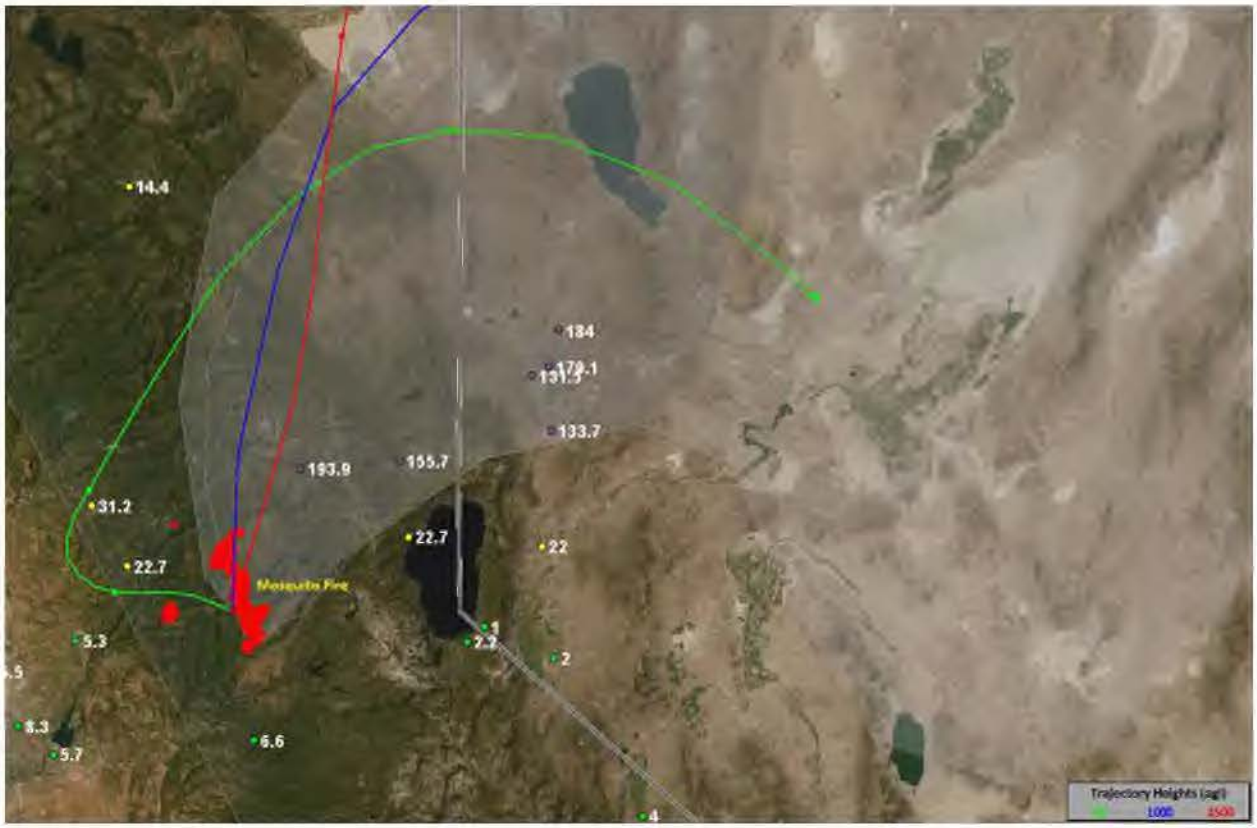


Figure 4-24: Forward Trajectory from Mosquito Fire starting September 15, 2022 at 0000 PST

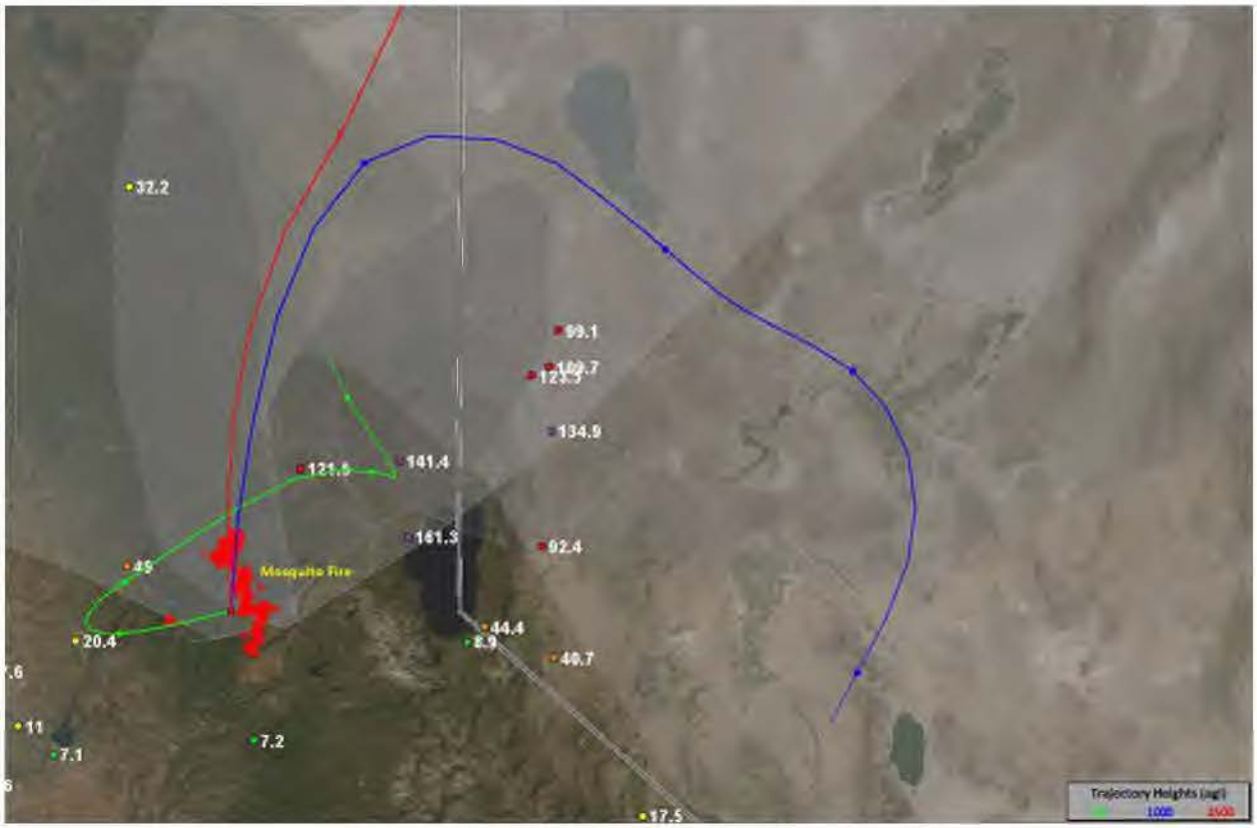


Figure 4-25: Forward Trajectory from Mosquito Fire starting September 16, 2022 at 0000 PST

4.4.3 Trajectory Analysis Explanation

The methodology behind this section is to bracket the event days with forward and backward HYSPLITs. A 24-hour forward trajectory was completed for September 9-16 of 2022 to accurately depict the characteristics of the wildfire smoke that would have affected HA 87 on the event days. A 24-hour backward trajectory was completed for September 10-17 of 2022 to characterize where the airmass on the event days came from.

As can be seen in the backward trajectory section, the airmasses that affected HA 87 on the days of the event originated at or near the Mosquito Fire on all trajectories besides the September 11, 2022 trajectory at 0000 PST. The difference in the trajectories on September 11, 2022 (Figure 4-10) and September 12, 2022 (Figure 4-11) show how wind patterns changed between the beginning and end of September 11, 2022, thus transporting Mosquito Fire smoke into HA 87. As can be seen in the forward trajectory section, the smoke from the Mosquito fire was transported into HA 87 on the days of the event. Similar to the backward trajectory section, the differences in Figure 4-18 and Figure 4-19 show how wind patterns shifted to push smoke into the region between September 10 and September 11 of 2022. All forward trajectories after September 13, 2022 show a direct impact by the Mosquito Fire on HA 87.

4.5 Conclusion Showing a Clear Causal Relationship

Section 4.0 of this document demonstrates that the elevated $PM_{2.5}$ concentrations that led to the exceedances of the primary and secondary 24-hour $PM_{2.5}$ NAAQS were caused by the Mosquito Fire. The emissions analysis, historical concentration comparison analysis, $PM_{2.5}$ analysis, and trajectory analysis all support this premise. Section 4.0 of this document also shows that this Tier 1 Exceptional Events Demonstration conforms with all requirements of the $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document.

The comparisons and statistical analyses provided in this section of the document supports AQMD's demonstration that the Mosquito Fire event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored $PM_{2.5}$ exceedances between September 10 and September 17, 2022. Section 4.0 thus satisfies the clear causal relationship criterion as required by the EER, 40 CFR 50.14(c)(3)(iv), and the $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document.

5.0 Natural Event or Human Activity Unlikely to Recur

Section 40 CFR 50.14(c)(3)(iv)(E) requires that an exceptional event be unlikely to recur at a particular location or be a natural event. The Mosquito Fire qualifies as a natural event because human activity played no direct causal role in the start of the fire. A natural event as per 40 CFR 50.1(k) is defined as:

> *40 CFR 50.1(k): Natural event means an event and its resulting emissions, which may recur at the same location, in which human activity plays little or no direct causal role. For purposes of the definition of a natural event, anthropogenic sources that are reasonably controlled shall be considered to not play a direct role in causing emissions.*

As was mentioned in Section 2.4 of this document, the Mosquito Fire was likely started by power transmission infrastructure. AQMD sees no direct causal role by human activity for the Mosquito Fire, thus qualifying it as a natural event.

6.0 Conclusions and Recommendations

The Mosquito Fire started on September 6, 2022 in Tahoe National Forest in Placer County, California, approximately 60 miles southwest of the Truckee Meadows Region. The Mosquito Fire cause is still under investigation but was most likely caused by power transmission infrastructure. The fire emitted large quantities of $PM_{2.5}$ emissions between September 10 and September 17, 2022 which eventually led to a violating 2021-2023 design value for the 2024 annual $PM_{2.5}$ NAAQS at the Sparks $PM_{2.5}$ monitor. The Mosquito Fire EE Demonstration supports the criteria for an exceptional event detailed in the 2016 Exceptional Events Rule and the $PM_{2.5}$ Wildland Fire Exceptional Events Tiering Document. Specifically, the documentation used the following evidence to demonstrate the exceptional event:

- ambient air monitoring data
- statistical analyses of the monitoring data compared to historical concentrations
- analyses of wildfire smoke emissions
- satellite imagery (visible and detected smoke)
- HYSPLIT trajectory analyses

This EE Demonstration demonstrates justification for exclusion of the requested data between September 10 and September 17, 2022, due to an exceptional event under 40 CFR 50.14(c)(3)(iv). The 2022 Mosquito Fire EE Demonstration has provided evidence that:

1. Emissions from a wildfire event contributed to a violating annual $PM_{2.5}$ design value for 2021-2023 at the Sparks monitor (32-031-1005-88101-4);
2. The event affected air quality in such a way that there exists a clear causal relationship between the event and the elevated $PM_{2.5}$ concentrations between September 10-17, 2022;
3. Event-influenced concentrations were unusual and above normal historical concentrations, specifically greater than 1.5 times the latest 5 year monthly 98^{th} percentile;
4. The event was related to a wildfire that was a natural event predominately occurring on wildland;
5. The event was not reasonably controllable or preventable.

The AQMD recommends that EPA Region 9 concur with the 2022 Mosquito Fire EE Demonstration and exclude the data defined in Table 2-3, from comparison to the NAAQS.

NORTHERN NEVADA
Public Health

Air Quality

Please contact Ben McMullen for
questions or comments at
bmcmullen@nnph.org

Appendix A

Public Comment Plan

Public Comment Plan

This Exceptional Event Demonstration was available for public inspection from November 20 to December 20, 2024 at the AQMD website (OurCleanAir.com). AQMD issued a press release (included below) on November 20, 2024 to inform the public of the comment period. The press release provides a web link to the draft demonstration and explains how to submit written comments during the comment period. A hardcopy of the plan was also available at the AQMD office.

One comment was received during the public comment period. The document was not revised in response to the comment since the comment was a general comment in support. The comment, along with AQMD's response are included below.

NNPH.ORG

English | Español

NORTHERN NEVADA
Public Health
NEWSROOM

NORTHERN NEVADA PUBLIC HEALTH SEEKS COMMENT ON EXCEPTIONAL EVENTS DEMONSTRATION

Nov 20, 2024

Nov. 20, 2024. Reno/Sparks, Nev. – Northern Nevada Public Health (NNPH) – Air Quality Management Division (AQMD) is requesting written public comment on the 2022 Mosquito Fire PM2.5 Exceptional Event Demonstration, a technical report demonstrating that the Mosquito Fire caused PM2.5 exceedances in 2022. The document requests that the United States Environmental Protection Agency (EPA) exclude the PM2.5 data from regulatory consideration. PM2.5 is defined as particulate matter that is sized 2.5 microns in diameter or less. The document can be found here on our website.

On February 7, 2024, the EPA strengthened the annual PM2.5 National Ambient Air Quality Standard (NAAQS) from 12.0 µg/m3 to 9.0 µg/m3. Currently, the Sparks air monitoring station's PM2.5 monitor has a design value of 9.7 µg/m3. Without exclusion of Mosquito Fire affected data, the Truckee Meadows Hydrographic Area (HA 87) would be designated nonattainment by EPA for the 2024 annual PM2.5 NAAQS which would potentially require new or strengthened regulations on

residents, businesses, and industry and discourage future economic development. With exclusion of Mosquito Fire affected data, HA 87 would be designated as attainment, with an annual design value of 9.0 µg/m3. This designation by EPA would not require new or strengthened regulations.

Comments will be accepted until midnight on December 20, 2024, and may be submitted via e-mail to Health-AQ-Planning@nnph.org. All correspondence must include first and last name and a complete mailing address.

For more information, visit the AQMD's website at OurCleanAir.com.

###

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 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. The District 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.

From: Schnieder, Brendan
To: Gayle Wilson
Cc: Health - AQ-Planning
Subject: RE: Exceptional Events Mosquito Fire Exclusion Request
Date: Thursday, November 21, 2024 10:10:00 AM
Attachments: image001.png
image002.png
image003.png
image004.png
image005.png
image006.png

Good morning Gayle,

Thank you for your comment regarding the 2022 Mosquito Fire Exceptional Event Demonstration. Your comment will be included in the submittal to EPA.

Regards,

NORTHERN NEVADA Public Health

Brendan Schnieder
Senior Air Quality Specialist
Air Quality Management Division

O: 775-784-7207
1001 E Ninth St. Bldg. B Reno, NV 89512
OurCleanAir.com

NNPH.org |

From: Gayle Wilson <gaylesrenohomes@gmail.com>
Sent: Wednesday, November 20, 2024 9:37 PM
To: Health - AQ-Planning <Health-AQ-Planning@nnph.org>
Subject: Exceptional Events Mosquito Fire Exclusion Request

Hello,
I'm a completely non-technical average citizen, but I did look through the document and it makes sense to me to exclude the Mosquito Fire from the EPA's consideration, since it was a one-time event that pushed us over the limit. We residents of Reno-Sparks realize we have to endure wildfire smoke at times. It's bad when it's happening, but it is temporary.

NORTHERN NEVADA

Public Health

Click here to take our customer satisfaction survey

Gayle H. Wilson
(775) 742-6424
gaylesRenoHomes@gmail.com

Appendix B

Exceptional Event Initial Notification

NORTHERN NEVADA Public Health | Air Quality

June 14, 2024

Dena Vallano
Manager, Air Quality Analysis Office
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street, AIR2-3
San Francisco, CA 94105

Subject: Exceptional Event Initial Notification for Calendar Year 2022

Dear Ms. Vallano:

See Attachment A: Initial Notification of Potential Exceptional Event Information Summary for $PM_{2.5}$. Please review this notification and determine if a comprehensive EE demonstration should be submitted because of the potential impact on the 2024 PM2.5 Annual National Ambient Air Quality Standard (NAAQS) attainment determination. Feel free to contact Mr. Craig Petersen at 775-784-7233 if you have any questions or comments.

Sincerely,

Francisco Vega

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

cc (via email): Michael Dorantes, EPA Region 9
Laura Barry, EPA Region 9
Craig Petersen, AQMD
Brendan Schnieder, AQMD
Matt McCarthy, AQMD
Ben McMullen, AQMD

Appendix A

Initial Notification of Potential Exceptional Event Information Summary for $PM_{2.5}$

Initial Notification of Potential Exceptional Event Information Summary for $PM_{2.5}$

Submitting Agency: Northern Nevada Public Health, Air Quality Management Division
Agency Contact: Craig Petersen, Supervisor, Monitoring and Planning
Date Submitted: June 14, 2024
Applicable NAAQS: 2024 PM2.5 Annual
Affected Regulatory Decision[1]: Attainment Determination
Area Name/Designation Status: Washoe County / Attainment
Design Value Period: 2021-2023

Narrative: Wildfire smoke from the Mosquito Fire in California impacted ambient air quality in Washoe County from September 10 through September 17, 2022. The smoke impacts contributed to eight exceedances of the National Ambient Air Quality Standards (NAAQS) for Particulate Matter less than or equal to 2.5 microns in aerodynamic diameter ($PM_{2.5}$) at the Sparks SLAMS in the Northern Nevada Public Health Air Quality Management Division's (AQMD) monitoring network. The AQMD requests that the Regional Administrator for Region 9 of the U.S. Environmental Protection Agency (EPA) accept this Initial Notification so Exceptional Event Demonstration document can be prepared to petition for the exclusion of the air quality monitoring data affected by this fire from the planning and regulatory requirements including the 2024 $PM_{2.5}$ Annual NAAQS Initial Designation under the Clean Air Act (CAA) in accordance with the Exceptional Events Rule (EER).

Table A: Information specific to each flagged site day that may be submitted to EPA in support of the affected regulatory decision listed above.

Date(s) of Event	NAAQS	Type of Event (high wind, volcano, wildfires/prescribed burns, other[2])	AQS Flag	Site AQS ID	POC	Site Name	Monitor Concentration (24-hour avg; µg/m³)
09/10/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	57.6
09/11/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	81.8
09/12/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	97.1
09/13/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	94.8
09/14/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	179.1
09/15/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	109.7
09/16/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	111.4
09/17/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	76.5

Table B: Violating Sites Information for **Annual $PM_{2.5}$** (listing of all violating sites[3] in the planning area, regardless of operating agency, and regardless of whether or not they are affected by EEs)

Site (AQS ID)	Design Value (without EPA concurrence on all events listed in Table A)	Design Value (with EPA concurrence on all events listed in Table A)
Sparks (32-031-1005)	9.7 µg/m³	9.0 µg/m³

Table C: Summary of Maximum Design Value (DV) Site Information for **Annual $PM_{2.5}$** (Effect of EPA Concurrence on Maximum Design Value Site Determination)

	Design Value	Design Value Monitor(s)	Comment(s)
Maximum DV site (AQS ID) **without EPA concurrence** on any of the events listed in Table A	9.7 µ/m³	32-031-1005-1	---
Maximum DV site (AQS ID) **with EPA concurrence** on all events listed in Table A	9.0 µ/m³	32-031-1005-1	---

Table D: Site(s) with Invalid $PM_{2.5}$ Design Values

Site Name (AQS ID)	Parameter(s)	Reason for Invalid Design Value(s)	Comments
n/a	n/a	n/a	---

[1] Designation, classification, attainment determination, attainment date extension, or finding of SIP inadequacy leading to SIP call
[2] Provide additional information for types of event described as "other"
[3] Note if violating monitor is a near-road monitor

REGION 9
SAN FRANCISCO, CA 94105

August 8, 2024

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 a response to the Northern Nevada Public Health (NNPH) Air Quality Management Division (AQMD) exceptional event (EE) Initial Notification of Intent (INI) submittal on June 14, 2024, regarding exclusion of particulate matter 2.5 microns or less ($PM_{2.5}$) data affected by EEs. The INI submittal stated that emissions from wildfires on September 10-17, 2022, caused exceedances of the 2024 annual $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS) at the Sparks monitoring site (Air Quality System (AQS) ID: 32-031-1005), located in the Reno-Sparks Metropolitan Statistical Area (MSA).

Based on discussions with NNPH/AQMD, the EPA determined that data identified in the INI submittal may affect regulatory actions for the 2024 annual $PM_{2.5}$ NAAQS and could be considered under the Exceptional Events Rule. Specifically, the EPA understands that Nevada anticipates recommending the Reno-Sparks MSA to be designated as in attainment of the 2024 annual $PM_{2.5}$ NAAQS by February 7, 2025, and the attainment recommendation will be based on the 2023 design value. The INI indicated that the 2023 design value in the Reno-Sparks MSA would change from violating to attaining based on exclusion of the EE-affected data. This response to your INI is based on the calendar years 2021-2023 certified data currently available in AQS and the information provided in your INI submittal. The EPA requests formal submittal of the demonstration(s) necessary to achieve an attaining 2023 design value for the area no later than February 7, 2025, so that the relevant regulatory actions can take these EEs into consideration.

The EPA is committed to providing timely guidance and input to NNPH/AQMD should any questions arise as you work toward submitting the demonstrations by the above deadline. We appreciate the coordination to date and look forward to continued communication throughout the development and submittal of these demonstrations. If you have any questions regarding this letter, please feel free to contact me at (415) 317-3744, or our staff lead Laura Barry at (415) 972-3874. We appreciate your partnership in working through implementation of the Exceptional Events Rule.

Sincerely,

Matthew Lakin
Director, Air and Radiation Division

cc (via email): Craig Petersen, NNPH/AQMD
Brendan Schnieder, NNPH/AQMD
Matthew McCarthy, NNPH/AQMD
Ben McMullen, NNPH/AQMD

Appendix C

2022 Data Certification Letter

WASHOE COUNTY
HEALTH DISTRICT
ENHANCING QUALITY OF LIFE

April 13, 2023

Dena Vallano
Manager, Air Quality Analysis Office
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street, AIR-4-2
San Francisco, CA 94105

Re: CY2022 Ambient Air Monitoring Data Certification

Dear Ms. Vallano:

Attached please find a copy of the Washoe County Health District, Air Quality Management Division's (AQMD) AQS AMP600 Data Certification Report and AMP450NC Quick Look summary report for ambient air monitoring data for all State and Local Air Monitoring Stations (SLAMS) which meet criteria in 40 CFR 58 Appendix A operated from January 1 to December 31, 2022. Included is data from Federal Reference Method (FRM) and Federal Equivalent Method (FEM) monitors for CO, NO_2, ozone, PM_{10}, $PM_{10-2.5}$, $PM_{2.5}$, and SO_2 (hourly and 5-minute average data).

This letter certifies that the ambient concentration data and the quality assurance data are completely submitted to AQS, and the ambient data are accurate to the best of my knowledge taking into consideration the quality assurance findings.

Please contact Mr. Daniel Timmons or me at (775) 784-7200 with any questions or concerns.

Sincerely,

Francisco Vega

Francisco Vega, P.E., MBA
Director, Air Quality Management Division
Washoe County Health District

Attachments:

AMP600 Data Certification Report 2022
AMP450NC Quick Look All Parameters Report 2022

cc: Fletcher Clover, Air Quality Analysis Office, U.S. EPA, Region 9

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: BMCMULLEN

CERTIFICATION EVALUATION AND CONCURRENCE

Report Request ID: 2095169

Report Code: AMP600

Apr. 11, 2023

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	32	031									

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA			

AGENCY SELECTIONS

Washoe County District Health Department

SELECTED OPTIONS

Option Type	Option Value
MERGE PDF FILES	YES
AGENCY ROLE	CERTIFYING

DATE CRITERIA

Start Date	End Date
2022	2022

Data Evaluation and Concurrence Report Summary

Certification Year: 2022
Certifying Agency (CA): Washoe County District Health Department (1138)

Pollutants in Report:

Parameter Name	Code	Monitors Evaluated	Monitors Recommended for Concurrence by AQS	Monitors NOT Recommended for Concurrence by AQS
Carbon monoxide	42101	2	2	0
Nitrogen dioxide (NO2)	42602	1	1	0
Ozone	44201	7	7	0
PM10 Total 0-10um STP	81102	4	4	0
PM2.5 - Local Conditions	88101	5	5	0
Sulfur dioxide	42401	1	1	0

PQAOs in Report:

PQAO Name	PQAO Code	TSA Date
Washoe County District Health Department	1138	08/15/19

Summary of 'N' flags for all pollutants:

PQAO	Parameter Code	AQS Site-ID	POC	AQS Recommended Flag	Cert. Agency Recommended Flag	Reason for AQS Recommendation

Signature of Monitoring Organization Representative: Octavio Vega

Data Evaluation and Concurrence Report for Gaseous Pollutants

Certifying Year 2022
Certifying Agency Code Washoe County District Health Department (1138)
Parameter Carbon monoxide (42101) (ppm)

PQAO Name Washoe County District Health Department (1138)
QAPP Approval Date 12/12/2019

NPAP Audit Summary:

Number of Passed Audits	NPAP Bias	Criteria Met
1	3.20599	Y

AQS Site ID	POC	Monitor Type	Routine Data						One Point Quality Check			Annual PE		NPAP		QAPP Appr.	Concur. Flag		
			Mean	Min	Max	Exceed. Count	Outlier Count	Perc. Comp.	Precision	Bias	Complete	Bias	Complete	Bias	PQAO Level Criteria		Aqs Rec Flag	CA Rec Flag	Epa Concur
32-031-0031	1	SLAMS	0.238	- 0.001	3.256	0	0	98	2.20	+2.13	100	0.35	100		Y	Y	Y	Y	S
32-031-1005	1	SLAMS	0.372	0.000	2.700	0	0	99	1.35	+/-1.62	100	1.65	100	3.21	Y	Y	Y	Y	S

Data Evaluation and Concurrence Report for Gaseous Pollutants

Certifying Year 2022
Certifying Agency Code Washoe County District Health Department (1138)
Parameter Nitrogen dioxide (NO2) (42602) (ppb)
PQAO Name Washoe County District Health Department (1138)
QAPP Approval Date 12/12/2019

NPAP Audit Summary:

Number of Passed Audits	NPAP Bias	Criteria Met
		Y

AQS Site ID	POC	Monitor Type	Routine Data						One Point Quality Check			Annual PE		NPAP		QAPP Appr.	Concur. Flag		
			Mean	Min	Max	Exceed. Count	Outlier Count	Perc. Comp.	Precision	Bias	Complete	Bias	Complete	Bias	PQAO Level Criteria		Aqs Rec Flag	CA Rec Flag	Epa Concur
32-031-0031	1	SLAMS	11.8	0.0	51.4		0	97	4.55	-5.18	100	- 5.53	100		Y	Y	Y	Y	S

Data Evaluation and Concurrence Report for Gaseous Pollutants

Certifying Year 2022
Certifying Agency Code Washoe County District Health Department (1138)
Parameter Ozone (44201) (ppm)
PQAO Name Washoe County District Health Department (1138)
QAPP Approval Date 12/12/2019

NPAP Audit Summary:

Number of Passed Audits	NPAP Bias	Criteria Met
		Y

AQS Site ID	POC	Monitor Type	Routine Data Mean	Min	Max	Exceed. Count	Outlier Count	Perc. Comp.	One Point Quality Check Precision	Bias	Complete	Annual PE Bias	Complete	NPAP Bias	PQAO Level Criteria	QAPP Appr.	Concur. Flag Aqs Rec Flag	CA Rec Flag	Epa Concur
32-031-0020	1	SLAMS	0.049	0.017	0.082	0	0	99	2.05	+/-1.49	100	- 0.81	100		Y	Y	Y	Y	S
32-031-0025	1	SLAMS	0.047	0.021	0.076	0	0	99	1.84	+/-1.50	100	- 0.19	100		Y	Y	Y	Y	S
32-031-0031	1	SLAMS	0.048	0.015	0.080	0	0	98	1.54	+/-1.13	100	- 0.86	100		Y	Y	Y	Y	S
32-031-1005	1	SLAMS	0.046	0.011	0.077	0	0	98	2.86	+/-2.37	100	0.59	100		Y	Y	Y	Y	S
32-031-1007	1	SLAMS	0.048	0.020	0.079	0	0	99	0.96	+/-0.89	100	0.48	100		Y	Y	Y	Y	S
32-031-2002	1	SLAMS	0.051	0.033	0.080	0	0	99	2.55	+/-1.96	100	5.81	100		Y	Y	Y	Y	S
32-031-2009	1	SLAMS	0.048	0.022	0.071	0	0	99	3.30	+/-2.55	100	1.53	100		Y	Y	Y	Y	S

Data Evaluation and Concurrence Report for Gaseous Pollutants

Certifying Year 2022
Certifying Agency Code Washoe County District Health Department (1138)
Parameter Sulfur dioxide (42401) (ppb)

PQAO Name Washoe County District Health Department (1138)
QAPP Approval Date 12/12/2019

NPAP Audit Summary:

Number of Passed Audits	NPAP Bias	Criteria Met
		Y

			Routine Data						One Point Quality Check			Annual PE		NPAP			Concur. Flag		
AQS Site ID	POC	Monitor Type	Mean	Min	Max	Exceed. Count	Outlier Count	Perc. Comp.	Precision	Bias	Complete	Bias	Complete	Bias	PQAO Level Criteria	QAPP Appr.	Aqs Rec Flag	CA Rec Flag	Epa Concur
32-031-0031	1	SLAMS	0.4	- 0.5	4.0		0	98	5.10	+/-4.16	100	- 2.37	100		Y	Y	Y	Y	S

Data Evaluation and Concurrence Report for Particulate Matter

Certifying Year: 2022
Certifying Agency: Washoe County District Health Department (1138)

Parameter: PM10 Total 0-10um STP (81102) CONTINUOUS
PQAO Name: Washoe County District Health Department (1138)
Quality Assurance Project Plan Approval Date: 12/12/2019

Monitors Summaries

			Routine Data (ug/m3)						Flow Rate Verification		Flow Rate Audit			Collocation Concurrence Flag		
AQS Site ID	POC	Monitor Type	Mean	Min	Max	Exceed. Count	Outlier Count	% Complete	Bias	% Complete	Bias	% Complete	QAPP Appr.	AQS Rec Flag	CA Rec Flag	EPA Concur
32-031-0025	2	SLAMS	21.67	-3.0	985.0		0	98	+0.66	100	+0.44	100	Y	Y	Y	S
32-031-0031	2	SLAMS	21.91	-5.0	558.0		0	98	+/-0.81	100	-0.49	100	Y	Y	Y	S
32-031-1005	4	SLAMS	26.32	-5.0	587.0		0	98	+/-0.76	100	-0.41	100	Y	Y	Y	S
32-031-1007	1	SLAMS	19.97	-3.0	820.0		0	95	+/-0.87	100	-0.59	100	Y	Y	Y	S

Parameter: PM2.5 - Local Conditions (88101)
PQAO Name: Washoe County District Health Department (1138)
Quality Assurance Project Plan Approval Date: 12/12/2019

Collocation Summary

Method	# Sites	# Sites Req	# Sites Collocated	% Collocated	CV Est	CV UB	Criteria Met?
170	4	1	1	100	11.49	12.73	Y

PEP Summary

# Methods	# Audited Methods	# PEP Required	# PEP Submitted	% Complete	Bias	Criteria Met?
1	1	5	3	60	+13.06	Y

Monitors Summaries

				Routine Data (ug/m3)						Flow Rate Audit		Collocation			PEP PQAO		Concurrence Flag		
AQS Site ID	POC	Method	Monitor Type	Mean	Min	Max	Exceed. Count	Outlier Count	% Complete	Bias	% Complete	CV	% Complete	PQAO Crit. Met	Crit. Met	QAPP Appr.	AQS Rec Flag	CA Rec Flag	EPA Concur
32-031-0025	1	170	SLAMS	6.72	-6.0	432.0		0	99	-0.55	100			Y	Y	Y	Y	Y	S
32-031-0031	1	545	SLAMS	7.76	.8	129.7		0	100	-0.04	100			Y	Y	Y	Y	Y	S
32-031-0031	2	170	SLAMS	8.16	-9.0	435.0		0	94	-0.73	100	12.73	100	Y	Y	Y	Y	Y	S
32-031-1005	1	170	SLAMS	10.15	-8.0	439.0		0	99	+0.00	100			Y	Y	Y	Y	Y	S
32-031-1007	1	170	SLAMS	7.79	-5.0	391.0		0	98	+0.12	100			Y	Y	Y	Y	Y	S

Data Concurrence and Evaluation Report for Lead

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: BMCMULLEN

QUICKLOOK ALL PARAMETERS

Report Request ID: 2093798

Report Code: AMP450NC

Apr. 6, 2023

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
ALL	86101		
ALL	42401		H

AGENCY SELECTIONS

Washoe County District Health Department

SELECTED OPTIONS

Option Type	Option Value
EVENTS PROCESSING	EXCLUDE REGIONALLY CONCURRED EVENTS
MERGE PDF FILES	YES
AGENCY ROLE	PQAO

SORT ORDER

Order	Column
1	STATE_CODE
2	COUNTY_CODE
3	SITE_ID
4	PARAMETER_CODE
5	POC
6	DATES
7	EDT_ID

SCR GROUP SELECTIONS

Washoe Co,NV

DATE CRITERIA

Start Date	End Date
2022	2022

APPLICABLE STANDARDS

Standard Description

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AIR QUALITY SYSTEM

QUICKLOOK ALL PARAMETERS

Apr. 6, 2023

EXCEPTIONAL DATA TYPES

EDT	DESCRIPTION
0	NO EVENTS
1	EVENTS EXCLUDED
2	EVENTS INCLUDED
5	EVENTS WITH CONCURRENCE EXCLUDED

QUICKLOOK ALL PARAMETERS

Apr. 6, 2023

Parameter		Unit	POC	PQAO	Year	Meth	# Obs	1st Max Value	2nd Max Value	3rd Max Value	4th Max Value	Arith. Mean	Duration	Cert& Eval	EDT
Site ID: 32-031-0025	City: Reno	County: Washoe							Address: 684A STATE ROUTE 341, RENO NV 89521						
86101	PM10-2.5 - Local Conditions	Micrograms/cubic meter (LC)	1	1138	2022	185	8612	817.0	492.0	407.0	379.0	12.36	1 HOUR		0
Site ID: 32-031-0031	City: Reno	County: Washoe							Address: 1260-A Stewart St.						
42401	Sulfur dioxide	Parts per billion	2	1138	2022	600	98911	5.8	4.6	4.6	4.4	.44	5 MINUTE		0
86101	PM10-2.5 - Local Conditions	Micrograms/cubic meter (LC)	1	1138	2022	247	118	31.1	24.3	23.8	21.5	10.59	24 HOUR		0
86101	PM10-2.5 - Local Conditions	Micrograms/cubic meter (LC)	2	1138	2022	185	8209	305.0	210.0	204.0	125.0	11.59	1 HOUR		0
Site ID: 32-031-1005	City: Sparks	County: Washoe							Address: 750 4TH ST, SPARKS, NV 89431						
86101	PM10-2.5 - Local Conditions	Micrograms/cubic meter (LC)	1	1138	2022	185	8600	503.0	440.0	396.0	262.0	13.21	1 HOUR		0
Site ID: 32-031-1007	City: Sparks	County: Washoe							Address: 7200 Pyramid Hwy, Sparks, NV, 89441						
86101	PM10-2.5 - Local Conditions	Micrograms/cubic meter (LC)	1	1138	2022	185	8376	623.0	452.0	326.0	265.0	9.94	1 HOUR		0

Note: The * indicates that the mean does not satisfy summary criteria.

QUICKLOOK ALL PARAMETERS

Apr. 6, 2023

METHODS USED IN THIS REPORT

PARAMETER	METHOD CODE	COLLECTION METHOD	ANALYSIS METHOD
42401	600	Instrumental	Ultraviolet Fluorescence API 100 EU
86101	185	Met One BAM-1020 System	Paired Beta Difference
86101	247	Met One E-SEQ-FRM PM10-2.5 sampler pair	Paired Gravimetric

Note: The * indicates that the mean does not satisfy summary criteria.

PQAOS USED IN THIS REPORT

PQAO	AGENCY DESCRIPTION
1138	Washoe County District Health Department

Note: The * indicates that the mean does not satisfy summary criteria.

CERTIFICATION EVALUATION AND CONCURRENCE FLAG MEANINGS

FLAG	MEANING
M	The monitoring organization has revised data from this monitor since the most recent certification letter received from the state.
N	The certifying agency has submitted the certification letter and required summary reports, but the certifying agency and/or EPA has determined that issues regarding the quality of the ambient concentration data cannot be resolved due to data completeness, the lack of performed quality assurance checks or the results of uncertainty statistics shown in the AMP255 report or the certification and quality assurance report.
S	The certifying agency has submitted the certification letter and required summary reports. A value of "S" conveys no Regional assessment regarding data quality per se. This flag will remain until the Region provides an "N" or "Y" concurrence flag.
U	Uncertified. The certifying agency did not submit a required certification letter and summary reports for this monitor even though the due date has passed, or the state's certification letter specifically did not apply the certification to this monitor.
X	Certification is not required by 40 CFR 58.15 and no conditions apply to be the basis for assigning another flag value
Y	The certifying agency has submitted a certification letter, and EPA has no unresolved reservations about data quality (after reviewing the letter, the attached summary reports, the amount of quality assurance data submitted to AQS, the quality statistics, and the highest reported concentrations).

Note: The * indicates that the mean does not satisfy summary criteria.

Appendix D

AQS Report Showing RT Flags Applied

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

User ID: BMCMULLEN

RAW DATA QUALIFIER REPORT

Report Request ID: 2238559

Report Code: AMP360

Nov. 12, 2024

GEOGRAPHIC SELECTIONS

Tribal Code	State	County	Site	Parameter	POC	City	AQCR	UAR	CBSA	CSA	EPA Region
	32	031	1005								

PROTOCOL SELECTIONS

Parameter Classification	Parameter	Method	Duration
CRITERIA	88101		

AGENCY SELECTIONS

Washoe County District Health Department

SELECTED OPTIONS

Option Type	Option Value
MERGE PDF FILES	YES
AGENCY ROLE	PQAO
CONCURRENCE STATUS	All Data (Concurred and Non-concurred)
QUALIFIER TYPES	REQUEST EXCLUSION (EVENT) QUALIFIERS ONLY
QUALIFIER CODE	RT - Wildfire-U. S. (REQEXC)
QUALIFIER COUNTS BY MONITOR	YES

DATE CRITERIA

Start Date	End Date
2022 01 01	2022 12 31

United States Environmental Protection Agency

Air Quality System

Raw Data Qualifier Report (v 1.1)

Report Date: Nov. 12, 2024

Parameter: PM2.5 - Local Conditions (88101)

Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Value	Sample Qualifier Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-10 00:00	12	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 01:00	12	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 02:00	9	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 03:00	14	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 04:00	9	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 05:00	7	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 06:00	11	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 07:00	20	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 08:00	29	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 09:00	32	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								
32-031-1005-88101-1	2022-09-10 10:00	37	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV	**Event:**			Mosquito Wildfire	2024-06-11			
89431								

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-10 11:00	29	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 12:00	33	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 13:00	33	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 14:00	24	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 15:00	25	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 16:00	33	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 17:00	165	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 18:00	151	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 19:00	162	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 20:00	114	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 21:00	141	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-10 22:00	142	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-10 23:00	139	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 00:00	132	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 01:00	112	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 02:00	105	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 03:00	101	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 04:00	98	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 05:00	90	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 06:00	83	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 07:00	87	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 08:00	84	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-11 09:00	67	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 10:00	64	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 11:00	56	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 12:00	42	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 13:00	25	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 14:00	18	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 15:00	10	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 16:00	220	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 17:00	184	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 18:00	131	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 19:00	83	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-11 20:00	54	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 21:00	45	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 22:00	38	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-11 23:00	35	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 00:00	30	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 01:00	64	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 02:00	73	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 03:00	70	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 04:00	84	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 05:00	66	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 06:00	86	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-12 07:00	81	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 08:00	68	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 09:00	63	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 10:00	58	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 11:00	47	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 12:00	23	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 13:00	120	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 14:00	402	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 15:00	439	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 16:00	95	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 17:00	166	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-12 18:00	83	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 19:00	73	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 20:00	39	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 21:00	32	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 22:00	44	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-12 23:00	26	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 00:00	29	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 01:00	31	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 02:00	37	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 03:00	32	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 04:00	37	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-13 05:00	37	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 06:00	54	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 07:00	71	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 08:00	90	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 09:00	34	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 10:00	23	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 11:00	17	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 12:00	10	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 13:00	8	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 14:00	9	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 15:00	51	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-13 16:00	139	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 17:00	170	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 18:00	178	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 19:00	240	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 20:00	231	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 21:00	238	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 22:00	255	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-13 23:00	256	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 00:00	308	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 01:00	320	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 02:00	334	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-14 03:00	313	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 04:00	301	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 05:00	275	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 06:00	290	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 07:00	226	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 08:00	198	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 09:00	162	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 10:00	101	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 11:00	60	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 12:00	39	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 13:00	25	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-14 14:00	27	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 15:00	116	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 16:00	134	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 17:00	199	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 18:00	183	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 19:00	158	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 20:00	146	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 21:00	130	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 22:00	129	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-14 23:00	126	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 00:00	145	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-15 01:00	142	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 02:00	157	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 03:00	170	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 04:00	175	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 05:00	152	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 06:00	145	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 07:00	117	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 08:00	99	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 09:00	123	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 10:00	114	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 11:00	76	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-15 12:00	63	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 13:00	59	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 14:00	54	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 15:00	105	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 16:00	228	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 17:00	161	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 18:00	90	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 19:00	131	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 20:00	52	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 21:00	24	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-15 22:00	23	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-15 23:00	28	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 00:00	27	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 01:00	33	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 02:00	45	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 03:00	61	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 04:00	61	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 05:00	89	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 06:00	100	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 07:00	136	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 08:00	150	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 09:00	124	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-16 10:00	59	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 11:00	55	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 12:00	79	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 13:00	56	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 14:00	53	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 15:00	54	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 16:00	252	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 17:00	262	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 18:00	213	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 19:00	237	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 20:00	164	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-16 21:00	128	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 22:00	107	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-16 23:00	129	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 00:00	175	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 01:00	181	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 02:00	163	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 03:00	143	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 04:00	147	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 05:00	161	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 06:00	162	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 07:00	179	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-17 08:00	160	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 09:00	152	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 10:00	76	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 11:00	42	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 12:00	23	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 13:00	6	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 14:00	5	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 15:00	4	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 16:00	5	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 17:00	5	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 18:00	8	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Parameter: PM2.5 - Local Conditions (88101)
Standard Units: Micrograms/cubic meter (LC) (105)

Monitor Key / Site Address	Sample Date-Time	Sample Value	Code	Description	Action Date	NAAQS Standard	Concurrence Ind	Concurrence Date
32-031-1005-88101-1	2022-09-17 19:00	16	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 20:00	11	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 21:00	8	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 22:00	4	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			
32-031-1005-88101-1	2022-09-17 23:00	1	RT	Wildfire-U. S.	2022-12-14			
750 4TH ST, SPARKS, NV 89431	**Event:**			Mosquito Wildfire	2024-06-11			

Monitor Qualifier Counts: RT Wildfire-U. S. **Count: 192**

All Qualifiers Utilized:

Qualifier Code:	Qualifier Description:	Qualifier Count:
RT	Wildfire-U. S.	192

DES
DEPARTMENT OF ENVIRONMENT AND SUSTAINABILITY

4701 W. Russell Road 2nd Floor
Las Vegas, NV 89118-2231
Phone: (702) 455-5942 • Fax: (702) 383-9994
Marci Henson, Director

October 1, 2024

Jennifer Carr, Administrator
Nevada Division of Environmental Protection
901 S. Stewart Street, Suite 4001
Carson City, NV 89701

Email: jcarr@ndep.nv.gov

Re: Clark County's Recommended Designation for the $PM_{2.5}$ National Ambient Air Quality Standards

Dear Ms. Carr:

As required by Section 107(d)(1) of the Clean Air Act (CAA) and the recently promulgated $PM_{2.5}$ rule (89 FR 16202, March 6, 2024), please include the following information regarding Clark County, Nevada, in the governor's initial designation recommendation for particulate matter less than or equal to 2.5 microns ($PM_{2.5}$).

The Department of Environment and Sustainability, Division of Air Quality (DAQ) operates two federal reference method (FRM) samplers and 15 federal equivalent method (FEM) monitors in Clark County. Complete, quality-assured, certified air quality data for the most recent three-year period (2021–2023) shows attainment of both the annual and 24-hour primary $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS). Additional $PM_{2.5}$ monitors with less than three years of complete data do not show design values exceeding either the annual or 24-hour $PM_{2.5}$ NAAQS. Attachment 1 shows the annual and 24-hour $PM_{2.5}$ design values for the years 2021–2023.

Clark County through DAQ is recommending a designation of "attainment" for Hydrographic Areas 212, 222, and 164A and a designation of "unclassifiable" for the remaining portions of Clark County. Hydrographic Area 212 is represented by the Sunrise Acres monitoring site with an annual $PM_{2.5}$ design value of 8.7 $\mu g/m^3$ and a 24-hour design value of 29 $\mu g/m^3$. Hydrographic Area 222 is represented by the Virgin Valley High School monitoring site with an annual $PM_{2.5}$ design value of 4.0 $\mu g/m^3$ and a 24-hour design value of 11 $\mu g/m^3$. Hydrographic Area 164A is represented by the Jean monitoring site, with an annual $PM_{2.5}$ design value of 3.7 $\mu g/m^3$ and a 24-hour design value of 12 $\mu g/m^3$. Hydrographic Area 167 is covered by the Garrett Junior High School monitoring site; however, this site did not begin operating until April 1, 2021, so it does not meet the data completeness requirements of 40 CFR 50, Appendix N, and cannot provide a valid design value for 2021–2023. DAQ therefore requests that EPA designate Hydrographic Area 167 "unclassifiable."

If you have any questions or require further information, please contact Ted Lendis, Planning Manager, at (702) 455-1653.

Sincerely,

Marci Henson

Marci Henson
Director

Attachment:
$PM_{2.5}$ Monitoring Data for Clark County

cc:
Andrew Tucker, NDEP
Ken McIntyre, NDEP
Patricia Bobo, NDEP
Francisco Vega, NNPH
Craig Petersen, NNPH
Ted Lendis, DES
Dawn Leaper, DES
Araceli Pruett, DES

Attachment 1: Clark County, NV 2021-2023 $PM_{2.5}$ Design Values

Table 1. Clark County Annual $PM_{2.5}$ Design Values for 2021–2023

Annual Standard = 9.0 µg/m³						
Site Name	**Site Code**	**Hydrographic Area**	**2021**	**2022**	**2023**	**2021-2023 Design Value**
Garrett Junior High School	32-003-0602	167	5.0*	3.8	3.5	4.1*
Green Valley	32-003-0298	212	5.3	5.0	4.4	4.9
Jean	32-003-1019	164A	4.1	3.6	3.4	3.7
Jerome Mack**	32-003-0540	212	8.5	8.6	8.0	8.4
Joe Neal	32-003-0075	212	6.3	5.0	4.6	5.3
Liberty High School	32-003-0299	212	5.5*	4.9	4.1	4.8*
Mountains Edge Park	32-003-0044	212	4.6	3.9	3.7	4.1
Palo Verde	32-003-0073	212	4.8	4.1	3.6	4.2
Paul Meyer	32-003-0043	212	5.5	5.1	4.7	5.1
Rancho & Teddy	32-003-1501	212	8.0	6.5	6.6	7.0
Sunrise Acres**	32-003-0561	212	8.8	9.3	8.0	8.7
Virgin Valley High School	32-003-0024	222	4.9	3.6	3.3	4.0
Walnut Community Center	32-003-2003	212	7.9*	6.7	6.3	7.0*
Walter Johnson	32-003-0071	212	4.4	5.0	5.6	5.0

Source: EPA Air Quality System, Design Value Report AMP480, accessed 5/30/2024 (available at: https://www.epa.gov/aqs).
*Data does not meet completeness criteria, therefore the design value is invalid.
**FEM and FRM sampling site.

Table 2. Clark County 24-hour $PM_{2.5}$ Design Values for 2021–2023

24-hour Standard = 35 µg/m³						
Site Name	**Site Code**	**Hydrographic Area**	**2021**	**2022**	**2023**	**2021–2023 Design Value**
Garrett Junior High School	32-003-0602	167	15.8*	12.6	9.3	13*
Green Valley	32-003-0298	212	13.1	16.6	8.6	13
Jean	32-003-1019	164A	13.8	12.8	8.3	12
Jerome Mack**	32-003-0540	212	23.3	26.8	26.1	25
Joe Neal	32-003-0075	212	19.0	13.7	9.9	14
Liberty High School	32-003-0299	212	18.9*	17.0	8.8	15*
Mountains Edge Park	32-003-0044	212	17.0	12.2	8.0	12
Palo Verde	32-003-0073	212	15.2	13.5	7.9	12
Paul Meyer	32-003-0043	212	17.7	16.3	9.9	15
Rancho & Teddy	32-003-1501	212	20.7	17.9	13.2	17
Sunrise Acres**	32-003-0561	212	31.0	29.5	27.2	29
Virgin Valley High School	32-003-0024	222	16.5	9.8	6.3	11
Walnut Community Center	32-003-2003	212	19.7*	18.5	14.2	17*
Walter Johnson	32-003-0071	212	17.2	13.7	9.2	13

Source: EPA Air Quality System, Design Value Report AMP480, accessed 5/30/2024 (available at: https://www.epa.gov/aqs).
*Data does not meet completeness criteria, therefore the design value is invalid.
**FEM and FRM sampling site.

NEVADA DIVISION OF
ENVIRONMENTAL
PROTECTION

STATE OF NEVADA
Department of Conservation & Natural Resources
Joe Lombardo, *Governor*
James A. Settelmeyer, *Director*
Jennifer L. Carr, *Administrator*

February 2, 2025

Mr. Matthew Lakin
Director, Air & Radiation Division
ORA-1, USEPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

RE: Recommended Designations for the Primary Annual $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) (89 Federal Register 16202, February 7, 2024)

Dear Mr. Lakin,

On February 7, 2024, the U.S Environmental Protection Agency (EPA) announced a final rule to strengthen the nation's National Ambient Air Quality Standards (NAAQS) for fine particulate pollution less than or equal to 2.5 microns, also known as $PM_{2.5}$. EPA finalized the primary (health-based) annual $PM_{2.5}$ standard at 9.0 micrograms per cubic meter ($\mu g/m^3$) to reflect new science on harm to public health caused by fine particle pollution. The Nevada Division of Environmental Protection (NDEP) acknowledges that the 24-hour Primary Standard had no change and remains at 35 $\mu g/m^3$.

On behalf of Governor Lombardo, as his appointed designee, pursuant to Section 107(d)(1) of the 1990 Clean Air Act, NDEP is submitting this letter requesting that the State of Nevada be designated "attainment" or "unclassifiable" for the Annual $PM_{2.5}$ NAAQS, as follows:

- Hydrographic Area 104 (Carson City), Attainment
- Hydrographic Area 105 (Douglas County), Attainment
- Hydrographic Areas 85 and 87 (Washoe County), Attainment
- Hydrographic Areas 212, 222 and 164A (Clark County), Attainment
- All other hydrographic areas in the State of Nevada, Unclassifiable

The Northern Nevada Public Health Air Quality Management Division (AQMD) has reviewed 2021-2023 data and determined that Hydrographic Areas 85 and 87 in Washoe County is in attainment of the revised annual $PM_{2.5}$ standard. All other Hydrographic Areas within Washoe County are to be designated as unclassifiable. A copy of AQMD's letter with supporting data is enclosed. Attached is also an Exception Events Demonstration that is being submitted concurrently with AQMD's Initial Designation Recommendation letter.

Similarly, the Clark County Department of Environment and Sustainability, Division of Air Quality (DAQ) has reviewed 2021-2023 data and determined that Hydrographic Areas 212, 222 and 164A in Clark County are in attainment of the revised annual $PM_{2.5}$ standard. Additionally, DAQ is

recommending a designation of "unclassifiable" for the remaining portions of Clark County. A copy of DAQ's letter with supporting data is enclosed.

The Nevada Division of Environmental Protection has two $PM_{2.5}$ monitors that operate in Carson City and Douglas County with three recent years of complete and certified data indicate attainment for the annual NAAQS for $PM_{2.5}$ in the years 2021, 2022 and 2023. Hydrographic Area 104 is represented by the Carson City Armory monitoring site with an annual $PM_{2.5}$ design value of 7.5 $\mu g/m^3$. Hydrographic area 105 is represented by the Ranchos Aspen Park monitoring site in Douglas County, with an annual $PM_{2.5}$ design value of 8.4 $\mu g/m^3$, which are represented in Table 1. There are no other $PM_{2.5}$. monitoring sites within NDEPs jurisdiction. The NDEP therefore requests that all other hydrographic areas under NDEPs jurisdiction be designated as unclassifiable.

Table 1. Annual PM2.5 Design Values for 2021–2023

Annual Standard = 9.0 $\mu g/m^3$						
Site Name	**Site Code**	**Hydrographic Area**	**2021**	**2022**	**2023**	**2021–2023 Design Value**
Carson City Armory	32-510-0020	104	12.0	5.7	4.8	7.5 $\mu g/m^3$
Ranchos Aspen Park	32-005-0007	215	13.2	6.1	6.1	8.4 µg/m3

***Source: EPA Air Quality System**

Please contact Andrew Tucker, Chief, at (775)-687-9340, if you have any questions or require additional clarification.

Sincerely,

Jennifer Carr (Jan 30, 2025 18:28 PST)

Jennifer L. Carr, PE, CPM, CEM
Administrator

ec :
Anita Lee, USEPA Region 9, Air & Radiation Division
Ben Leers, USEPA Region 9, Air & Radiation Division
Karina Oconner, USEPA Region 9, Air & Radiation Division
Chase McNamara, Office of the Governor
James A. Settelmeyer, Director, DCNR
Jeffrey Kinder, Deputy Administrator, NDEP
Danilo Dragoni, Deputy Administrator, NDEP
Andrew Tucker, Chief, Bureau of Air Quality Planning, NDEP
Ken McIntyre, Supervisor, NDEP
Francisco Vega, Director, NNPH
Craig Petersen, Supervisor, NNPH
Marci Henson, Director, DAQ
Ted Lendis, Planning Manager, DAQ

NEVADA DIVISION OF
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February 2, 2025

Mr. Matthew Lakin
Director, Air & Radiation Division
ORA-1, USEPA Region 9
75 Hawthorne Street
San Francisco, CA 94105

RE: Recommended Designations for the Primary Annual $PM_{2.5}$ National Ambient Air Quality Standards (NAAQS) (89 Federal Register 16202, February 7, 2024)

Dear Mr. Lakin,

On February 7, 2024, the U.S Environmental Protection Agency (EPA) announced a final rule to strengthen the nation's National Ambient Air Quality Standards (NAAQS) for fine particulate pollution less than or equal to 2.5 microns, also known as $PM_{2.5}$. EPA finalized the primary (health-based) annual $PM_{2.5}$ standard at 9.0 micrograms per cubic meter ($\mu g/m^3$) to reflect new science on harm to public health caused by fine particle pollution. The Nevada Division of Environmental Protection (NDEP) acknowledges that the 24-hour Primary Standard had no change and remains at 35 $\mu g/m^3$.

On behalf of Governor Lombardo, as his appointed designee, pursuant to Section 107(d)(1) of the 1990 Clean Air Act, NDEP is submitting this letter requesting that the State of Nevada be designated "attainment" or "unclassifiable" for the Annual $PM_{2.5}$ NAAQS, as follows:

- Hydrographic Area 104 (Carson City), Attainment
- Hydrographic Area 105 (Douglas County), Attainment
- Hydrographic Areas 85 and 87 (Washoe County), Attainment
- Hydrographic Areas 212, 222 and 164A (Clark County), Attainment
- All other hydrographic areas in the State of Nevada, Unclassifiable

The Northern Nevada Public Health Air Quality Management Division (AQMD) has reviewed 2021-2023 data and determined that Hydrographic Areas 85 and 87 in Washoe County is in attainment of the revised annual $PM_{2.5}$ standard. All other Hydrographic Areas within Washoe County are to be designated as unclassifiable. A copy of AQMD's letter with supporting data is enclosed. Attached is also an Exception Events Demonstration that is being submitted concurrently with AQMD's Initial Designation Recommendation letter.

Similarly, the Clark County Department of Environment and Sustainability, Division of Air Quality (DAQ) has reviewed 2021-2023 data and determined that Hydrographic Areas 212, 222 and 164A in Clark County are in attainment of the revised annual $PM_{2.5}$ standard. Additionally, DAQ is

recommending a designation of "unclassifiable" for the remaining portions of Clark County. A copy of DAQ's letter with supporting data is enclosed.

The Nevada Division of Environmental Protection has two $PM_{2.5}$ monitors that operate in Carson City and Douglas County with three recent years of complete and certified data indicate attainment for the annual NAAQS for $PM_{2.5}$ in the years 2021, 2022 and 2023. Hydrographic Area 104 is represented by the Carson City Armory monitoring site with an annual $PM_{2.5}$ design value of 7.5 $\mu g/m^3$. Hydrographic area 105 is represented by the Ranchos Aspen Park monitoring site in Douglas County, with an annual $PM_{2.5}$ design value of 8.4 $\mu g/m^3$, which are represented in Table 1. There are no other $PM_{2.5}$. monitoring sites within NDEPs jurisdiction. The NDEP therefore requests that all other hydrographic areas under NDEPs jurisdiction be designated as unclassifiable.

Table 1. Annual PM2.5 Design Values for 2021–2023

Annual Standard = 9.0 $\mu g/m^3$						
Site Name	**Site Code**	**Hydrographic Area**	**2021**	**2022**	**2023**	**2021–2023 Design Value**
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Ranchos Aspen Park	32-005-0007	215	13.2	6.1	6.1	8.4 µg/m3

***Source: EPA Air Quality System**

Please contact Andrew Tucker, Chief, at (775)-687-9340, if you have any questions or require additional clarification.

Sincerely,

Jennifer Carr (Jan 30, 2025 18:28 PST)

Jennifer L. Carr, PE, CPM, CEM
Administrator

ec :
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James A. Settelmeyer, Director, DCNR
Jeffrey Kinder, Deputy Administrator, NDEP
Danilo Dragoni, Deputy Administrator, NDEP
Andrew Tucker, Chief, Bureau of Air Quality Planning, NDEP
Ken McIntyre, Supervisor, NDEP
Francisco Vega, Director, NNPH
Craig Petersen, Supervisor, NNPH
Marci Henson, Director, DAQ
Ted Lendis, Planning Manager, DAQ

NORTHERN NEVADA Public Health | Air Quality

December 23, 2024

Jennifer Carr, Administrator
Department of Conservation and Natural Resources
Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, Nevada 89701-5249

Subject: Initial Area Designation Recommendations for the 2024 Revised Primary Annual Fine Particulate Matter National Ambient Air Quality Standard

Dear Ms. Carr:

On February 7, 2024, the U.S. Environmental Protection Agency (EPA) promulgated a revised primary annual National Ambient Air Quality Standard (NAAQS) for fine particulate matter ($PM_{2.5}$). Pursuant to Section 107(d) of the Clean Air Act, the governor of each state is to recommend area designations to the EPA whenever a NAAQS is established or revised. Northern Nevada Public Health Air Quality Management Division (AQMD) has reviewed historical ambient air monitoring data and recommends that:

1. Hydrographic Areas 85 and 87 (See Attachment 1) within Washoe County be designated as attainment; and
2. All other Hydrographic Areas within Washoe County be designated as unclassifiable for the revised 2024 annual $PM_{2.5}$ NAAQS.

The recommendation is based on certified $PM_{2.5}$ data in AQS for 2021-2023, and EPA's potential concurrence with the Exceptional Events Demonstration for exclusion of Sparks (SPK) $PM_{2.5}$ (32-031-1005-88101-1) data for the Mosquito Fire affected days of September 10-17, 2022. See Tables 1 and 2 for $PM_{2.5}$ monitors within HA 87 (Reno4 (REN): 32-031-0031-1005-88101-2, SPK: 32-031-1005-88101-1, and Toll (TOL): 32-031-0025-88101-1) with and without Mosquito Fire affected data for the 2021-2023 HA 87 design values, respectively. See Table 3 for the 2021-2023 HA 85 design value for $PM_{2.5}$ monitor (Spanish Springs (SPS): 32-031-1007-88101-1). Note: An Exceptional Events Initial Notification was submitted to EPA Region 9 on June 14, 2024 (Attachment 2). On August 8, 2024, EPA Region 9 determined that $PM_{2.5}$ data affected by the Mosquito Fire "may affect regulatory actions for the 2024 annual $PM_{2.5}$ NAAQS and could be considered under the Exceptional Events Rule" (Attachment 3). The AQMD has prepared an Exceptional Events Demonstration that is being submitted concurrently with this Initial Designation Recommendation letter.

Table 1. Annual $PM_{2.5}$ Means (2021-2023) and Design Values ($\mu g/m^3$) in HA 87

Year	REN (0031)	SPK (1005)	TOL (0025)
2021	12.4	11.9	10.9
2022	7.9	10.0	6.6
2023	3.8	7.2	4.2
Design Value	**8.0**	**9.7**	**7.3**

Table 2.
Annual $PM_{2.5}$ Means (2021-2023) and Design Values ($\mu g/m^3$) in HA 87 with Mosquito Fire EE Demo Concurrence

Year	REN (0031)	SPK (1005)	TOL (0025)
2021	12.4	11.9	10.9
2022	7.9	8.0	6.6
2023	3.8	7.2	4.2
Design Value	**8.0**	**9.0**	**7.3**

Table 3.
Annual $PM_{2.5}$ Means (2021-2023) and Design Value ($\mu g/m^3$) in HA 85

Year	SPS (1007)
2021	11.4
2022	7.7
2023	5.9
Design Value	**8.4**

Feel free to contact Craig Petersen or Brendan Schnieder at (775) 784-7200 if we can be of further assistance.

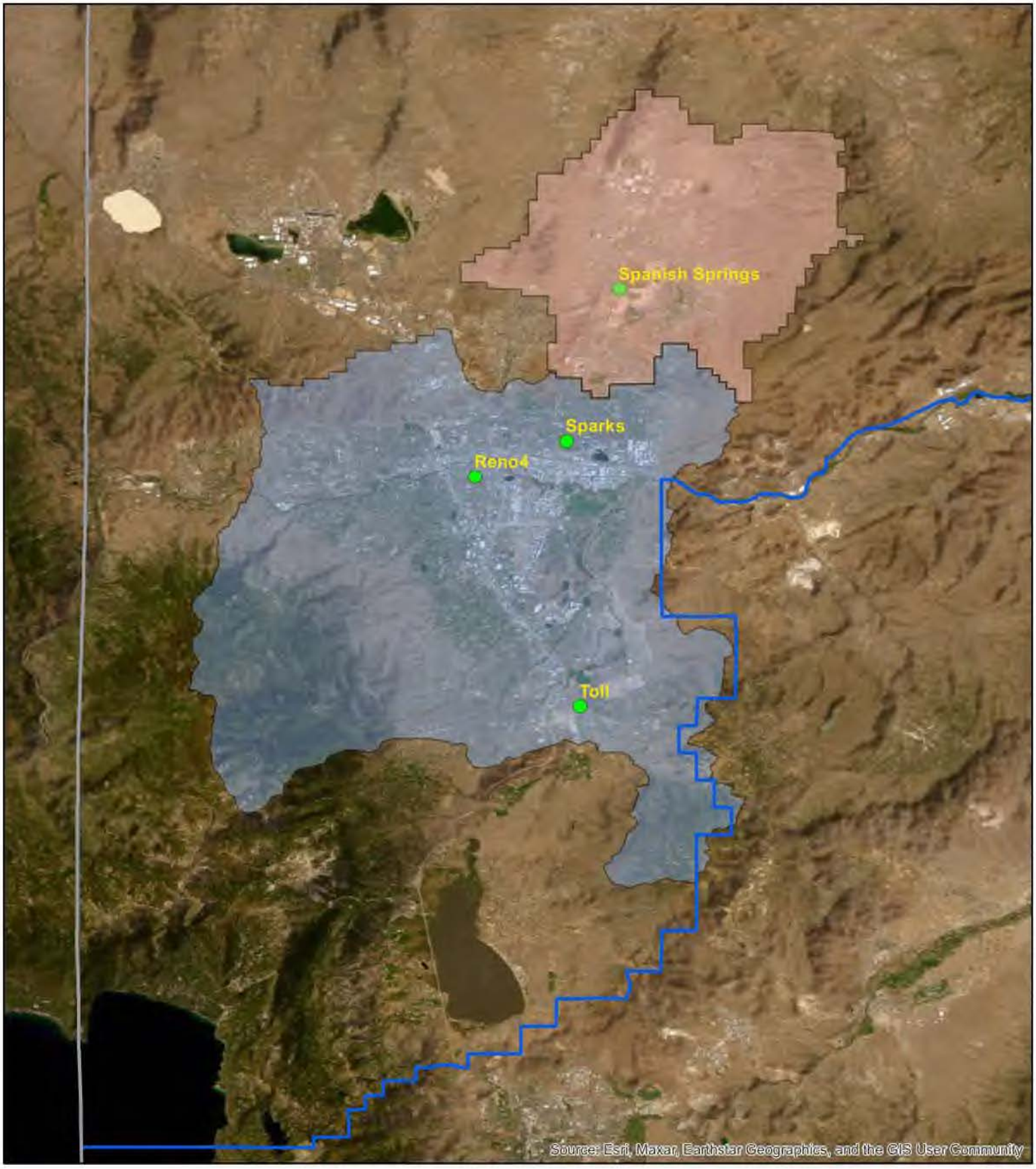
Sincerely,

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

Cc: Craig Petersen, AQMD
Brendan Schnieder, AQMD
Benjamin McMullen, AQMD
Michael Dorantes, EPA
Laura Barry, EPA
Andrew Tucker, NDEP
Danilo Dragoni, NDEP
Ken McIntyre, NDEP

Attachment 1

Map of $PM_{2.5}$ Monitors within the State of Nevada Hydrographic Areas 85 and 87



0 3 6 12 18 24 Miles

N

NORTHERN NEVADA Public Health | Air Quality

Legend

- HA 85
- HA 87
- PM2.5 Monitors
- State of Nevada
- Washoe County Boundary

Attachment 2

Exceptional Event Initial Notification for Calendar Year 2022

NORTHERN NEVADA Public Health | Air Quality

June 14, 2024

Dena Vallano
Manager, Air Quality Analysis Office
U.S. Environmental Protection Agency, Region 9
75 Hawthorne Street, AIR2-3
San Francisco, CA 94105

Subject: Exceptional Event Initial Notification for Calendar Year 2022

Dear Ms. Vallano:

See Attachment A: Initial Notification of Potential Exceptional Event Information Summary for $PM_{2.5}$. Please review this notification and determine if a comprehensive EE demonstration should be submitted because of the potential impact on the 2024 PM2.5 Annual National Ambient Air Quality Standard (NAAQS) attainment determination. Feel free to contact Mr. Craig Petersen at 775-784-7233 if you have any questions or comments.

Sincerely,

Francisco Vega

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

cc (via email): Michael Dorantes, EPA Region 9
Laura Barry, EPA Region 9
Craig Petersen, AQMD
Brendan Schnieder, AQMD
Matt McCarthy, AQMD
Ben McMullen, AQMD

Appendix A

Initial Notification of Potential Exceptional Event Information Summary for $PM_{2.5}$

Initial Notification of Potential Exceptional Event Information Summary for $PM_{2.5}$

Submitting Agency: Northern Nevada Public Health, Air Quality Management Division
Agency Contact: Craig Petersen, Supervisor, Monitoring and Planning
Date Submitted: June 14, 2024
Applicable NAAQS: 2024 PM2.5 Annual
Affected Regulatory Decision[1]: Attainment Determination
Area Name/Designation Status: Washoe County / Attainment
Design Value Period: 2021-2023

Narrative: Wildfire smoke from the Mosquito Fire in California impacted ambient air quality in Washoe County from September 10 through September 17, 2022. The smoke impacts contributed to eight exceedances of the National Ambient Air Quality Standards (NAAQS) for Particulate Matter less than or equal to 2.5 microns in aerodynamic diameter ($PM_{2.5}$) at the Sparks SLAMS in the Northern Nevada Public Health Air Quality Management Division's (AQMD) monitoring network. The AQMD requests that the Regional Administrator for Region 9 of the U.S. Environmental Protection Agency (EPA) accept this Initial Notification so Exceptional Event Demonstration document can be prepared to petition for the exclusion of the air quality monitoring data affected by this fire from the planning and regulatory requirements including the 2024 $PM_{2.5}$ Annual NAAQS Initial Designation under the Clean Air Act (CAA) in accordance with the Exceptional Events Rule (EER).

Table A: Information specific to each flagged site day that may be submitted to EPA in support of the affected regulatory decision listed above.

Date(s) of Event	NAAQS	Type of Event (high wind, volcano, wildfires/prescribed burns, other[2])	AQS Flag	Site AQS ID	POC	Site Name	Monitor Concentration (24-hour avg; µg/m³)
09/10/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	57.6
09/11/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	81.8
09/12/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	97.1
09/13/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	94.8
09/14/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	179.1
09/15/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	109.7
09/16/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	111.4
09/17/2022	PM2.5	Wildfires	RT	32-031-1005	1	Sparks	76.5

Table B: Violating Sites Information for **Annual $PM_{2.5}$** (listing of all violating sites[3] in the planning area, regardless of operating agency, and regardless of whether or not they are affected by EEs)

Site (AQS ID)	Design Value (without EPA concurrence on all events listed in Table A)	Design Value (with EPA concurrence on all events listed in Table A)
Sparks (32-031-1005)	9.7 µg/m³	9.0 µg/m³

Table C: Summary of Maximum Design Value (DV) Site Information for **Annual $PM_{2.5}$** (Effect of EPA Concurrence on Maximum Design Value Site Determination)

	Design Value	Design Value Monitor(s)	Comment(s)
Maximum DV site (AQS ID) **without EPA concurrence** on any of the events listed in Table A	9.7 µ/m³	32-031-1005-1	---
Maximum DV site (AQS ID) **with EPA concurrence** on all events listed in Table A	9.0 µ/m³	32-031-1005-1	---

Table D: Site(s) with Invalid $PM_{2.5}$ Design Values

Site Name (AQS ID)	Parameter(s)	Reason for Invalid Design Value(s)	Comments
n/a	n/a	n/a	---

[1] Designation, classification, attainment determination, attainment date extension, or finding of SIP inadequacy leading to SIP call
[2] Provide additional information for types of event described as "other"
[3] Note if violating monitor is a near-road monitor

Attachment 3

EPA Response to the Exceptional Event Initial Notification for Calendar Year 2022

REGION 9
SAN FRANCISCO, CA 94105

August 8, 2024

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 a response to the Northern Nevada Public Health (NNPH) Air Quality Management Division (AQMD) exceptional event (EE) Initial Notification of Intent (INI) submittal on June 14, 2024, regarding exclusion of particulate matter 2.5 microns or less ($PM_{2.5}$) data affected by EEs. The INI submittal stated that emissions from wildfires on September 10-17, 2022, caused exceedances of the 2024 annual $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS) at the Sparks monitoring site (Air Quality System (AQS) ID: 32-031-1005), located in the Reno-Sparks Metropolitan Statistical Area (MSA).

Based on discussions with NNPH/AQMD, the EPA determined that data identified in the INI submittal may affect regulatory actions for the 2024 annual $PM_{2.5}$ NAAQS and could be considered under the Exceptional Events Rule. Specifically, the EPA understands that Nevada anticipates recommending the Reno-Sparks MSA to be designated as in attainment of the 2024 annual $PM_{2.5}$ NAAQS by February 7, 2025, and the attainment recommendation will be based on the 2023 design value. The INI indicated that the 2023 design value in the Reno-Sparks MSA would change from violating to attaining based on exclusion of the EE-affected data. This response to your INI is based on the calendar years 2021-2023 certified data currently available in AQS and the information provided in your INI submittal. The EPA requests formal submittal of the demonstration(s) necessary to achieve an attaining 2023 design value for the area no later than February 7, 2025, so that the relevant regulatory actions can take these EEs into consideration.

The EPA is committed to providing timely guidance and input to NNPH/AQMD should any questions arise as you work toward submitting the demonstrations by the above deadline. We appreciate the coordination to date and look forward to continued communication throughout the development and submittal of these demonstrations. If you have any questions regarding this letter, please feel free to contact me at (415) 317-3744, or our staff lead Laura Barry at (415) 972-3874. We appreciate your partnership in working through implementation of the Exceptional Events Rule.

Sincerely,

Matthew Lakin
Director, Air and Radiation Division

cc (via email): Craig Petersen, NNPH/AQMD
Brendan Schnieder, NNPH/AQMD
Matthew McCarthy, NNPH/AQMD
Ben McMullen, NNPH/AQMD

PHILIP B. SCOTT
GOVERNOR

State of Vermont
OFFICE OF THE GOVERNOR

May 28, 2025

Mark Sanborn, Regional Administrator
EPA Region 1, New England
5 Post Office Square - Suite 100
Boston, MA 02109-3912

Re: Vermont Designation for the 2024 Revised Annual Particulate Matter National Ambient Air Quality Standard

Dear Mr. Sanborn:

In accordance with requirements of the Clean Air Act pertaining to area designations for the 2024 revised primary annual Particulate Matter ($PM_{2.5}$) National Ambient Air Quality Standards (NAAQS) promulgated on February 7, 2024, we are pleased to recommend that the State of Vermont be designated as attainment/unclassifiable.

The State of Vermont has sufficient measurement data from approved federal reference method monitors to calculate 2021-2023 annual $PM_{2.5}$ design values for three of the State's largest population centers (Burlington, Rutland, and Bennington) as well as from a rural background site in Underhill. These data, summarized in Table 1 below, indicate that all Vermont monitors had three-year 2021-2023 design values below the revised 2024 annual $PM_{2.5}$ NAAQS of 9.0 micrograms per cubic meter ($\mu g/m^3$) at any Vermont site in any of the past 10 years.

Concentrations at all sites generally declined through 2018. From 2018 to present, $PM_{2.5}$ design values changed little for Rutland and Bennington but increased in Burlington and Underhill. The largest increase occurred in Burlington where the design value rose from 5.2 to 6.4 $\mu g/m^3$ in the 2018-2023 period. Canadian wildfire smoke in 2023 impacted southern and northern sites such as Bennington, Burlington, and Underhill more than centrally located Rutland. Vermont has not submitted exceptional event demonstrations to request those data be excluded from design value calculations due to the lack of regulatory significance (i.e., an effect on NAAQS designations). As a result, relatively high 2023 annual averages will continue to be reflected in design values until 2026. Nevertheless, design values are in attainment of the 2024 $PM_{2.5}$ NAAQS.

Recently, in 2023 and 2024, ambient air quality monitoring has been a challenge in Vermont's most populous region in and around Burlington. The Cherry Street location was discontinued in

June 2023 following planned resource-saving measures and the South Winooski Avenue site was forced to relocate when construction began on its site in February 2024. Locating a new site was difficult, but monitoring is expected to resume in Burlington by summer.2025. The last year Cherry Street had a valid design value year was 2014 and the site was not running a PM monitor in the 2019-2021 period, but measurements that were collected all indicate the site is in attainment of the 2024 $PM_{2.5}$ NAAQS. The South Winooski Avenue site was not in operation for most of 2024, but all three previous design value years are complete and valid and in attainment of the 2024 $PM_{2.5}$ NAAQS.

Based on these measurements and trends, Vermont recommends that all sections of the State be designated as attainment/unclassifiable, as indicated in Table 2 below. This fulfills our obligations under the Clean Air Act Section 107(d), to identify any areas in Vermont that have concentrations above the 2024 primary annual $PM_{2.5}$ NAAQS. If you have any questions, please don't hesitate to contact Heidi Hales at 802-828-1288.

Sincerely,

Philip B. Scott
Governor

PBS/kp
cc: Lynn Hamjian (Air & Radiation Division Director, EPA Region 1)
Eric Wortman (Air Quality Branch Manager, EPA Region 1)

Table 1: $PM_{2.5}$ design values at Vermont monitoring sites, 2014-2024. Units are micrograms per cubic meter (µg/m3). Note that data for 2024 are preliminary and subject to change during validation.

Year	Bennington	Burlington	Rutland	Underhill
2024	5.3	6.6	6.7	4.4
2023	5.4	6.4	6.7	4.4
2022	4.9	5.9	6.5	3.9
2021	4.8	5.8	6.5	3.8
2020	4.8	5.6	6.5	3.7
2019	4.8	5.3	6.5	3.7
2018	4.9	5.2	6.4	3.3
2017	5.4	5.5	7.3	3.2
2016	5.8	6	8.1	3.3
2015	6.2	6.3	8.7	4
2014	6.3	6.3	8.6	4.4

Table 2: State of Vermont area designations under Clean Air Act Section 107(d) primary annual fine particulate matter ($PM_{2.5}$) National Ambient Air Quality Standard.

		----------DESIGNATIONS----------	
POLLUTANT	DESIGNATED AREA (COUNTY)	NON-ATTAINMENT	ATTAINMENT/ UNCLASSIFIABLE
Annual $PM_{2.5}$	State of Vermont		X
Annual $PM_{2.5}$	*Addison*		*X*
Annual $PM_{2.5}$	*Bennington*		*X*
Annual $PM_{2.5}$	*Caledonia*		*X*
Annual $PM_{2.5}$	*Chittenden*		*X*
Annual $PM_{2.5}$	*Essex*		*X*
Annual $PM_{2.5}$	*Frankin*		*X*
Annual $PM_{2.5}$	*Grand Isle*		*X*
Annual $PM_{2.5}$	*Lamoille*		*X*
Annual $PM_{2.5}$	*Orange*		*X*
Annual $PM_{2.5}$	*Orleans*		*X*
Annual $PM_{2.5}$	*Rutland*		*X*
Annual $PM_{2.5}$	*Washington*		*X*
Annual $PM_{2.5}$	*Windham*		*X*
Annual $PM_{2.5}$	*Windsor*		*X*