North Coast Unified
Air Quality Management District
707 L Street, Eureka, CA 95501
(707) 443-3093
www.ncuaqmd.org

PUBLIC NOTICE IS HEREBY GIVEN, pursuant to CFR 40 section 58.10 that the North Coast Unified Air Quality Management District (AQMD) has made the 2023 Annual Network Plan for Ambient Air Monitoring available for public inspection and comment.

Copies of the proposed Air Monitoring Network Plan are available to the public beginning June 1, 2023. The plan can be found on the District website: www.ncuaqmd.org. If you are unable to access the website, please call (707) 443-3093 and someone will assist you.

Written comments should be addressed to NCUAQMD, Brian Wilson, APCO Attn: Network Plan, 707 L Street, Eureka, CA 95501, or emailed to support@ncuaqmd.org.

2023
Annual Network Plan
For Ambient Air Monitoring

July 1, 2023

North Coast Unified
Air Quality Management District
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Definition of Terms

AAQS	Ambient Air Quality Standard
AQI	Air Quality Index
AQS	Air Quality System
BAAQMD	Bay Area Air Quality Management District
CARB	California Air Resources Board
E-BAM	Environment (proof) Beta-Attenuation Monitor
FEM	Federal Equivalency Method
FRM	Federal Reference Method
MSA	Micropolitian Statistical Area
NAAQS	National Ambient Air Quality Standards
NOAA	National Oceanographic and Atmospheric Administration
NCUAQMD	North Coast Unified Air Quality Management District
NSN	National Sovereign Nation
POC	Parameter Occurrence Code
PQAO	Primary Quality Assurance Organization
QAQC	Quality Assurance and Quality Control
SIP	State Implementation Plan
SLAMS	State and Local Air Monitoring Instrument
SOP	Standard Operating Procedure
SPM	Special Purpose Monitor
TRS	Total Reduced Sulfur
TSA	Technical Services Audit

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Executive Summary

Annual review of governmental air monitoring networks is required by Title 40 Code of Federal Regulations Part 58.10 (40 CFR 58.10). The North Coast Unified Air Quality Management District's (NCUAQMD) *2023 Annual Network Plan for Ambient Air Monitoring* is an examination of the NCUAQMD's network of ambient air pollution monitoring stations. This report meets the requirements for an annual network plan as listed in 40 CFR 58.10, Appendix A.

One of the keys to managing successful emissions reduction strategies is having a reliable monitoring network to inform decisions. The NCUAQMD continually works to optimize its monitoring network to best monitor air quality in its jurisdiction to inform planning strategy decisions.

The NCUAQMD is located within the North Coast Air Basin in California. Responsibility for air monitoring in the North Coast Air Basin is divided among three air districts: Mendocino County Air Quality Management District, Northern Sonoma County Air Pollution Control District, and North Coast Unified Air Quality Management District. All three of these air districts belong to the California Air Resources Board (CARB) Primary Quality Assurance Agency (PQAO). Further information about all the other Districts in the air basin can be found in the CARB Annual Network Plan.

NCUAQMD is located in the northwestern portion of the North Coast Air Basin, covering a territory of 7,753 square miles. It has jurisdiction over three counties: Humboldt, Del Norte, and Trinity. The NCUAQMD is bordered on the west by the Pacific Ocean and extends from the Oregon border south approximately 140 miles to the Mendocino County line. This area includes widely varied terrain, from coastal wetlands to rugged mountains. Diurnal offshore wind patterns are common. During summer months, north to northwest winds dominate, whereas in the winter more winds tend to come from the south. Inversions are common because of the complex topography of the area coupled with its coastal location. These inversions occur year-round, but most frequently during the cooler months from late fall to early spring. The NCUAQMD office is located in Eureka, the county seat of Humboldt County. Eureka is 284 miles north of San Francisco and 466 miles south of Portland, Oregon.

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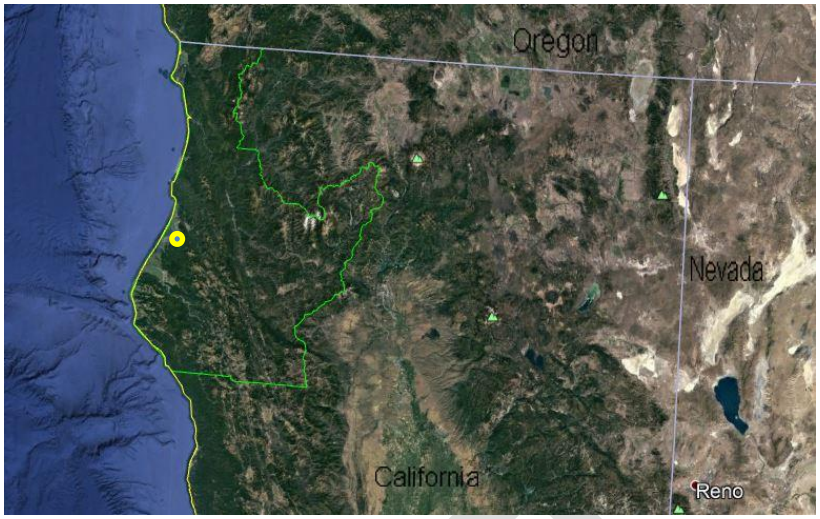

The pollutant of greatest concern for the jurisdiction is Particulate Matter (PM). Del Norte and Trinity Counties are classified as Attainment for PM_{10} for the California State 24-hour PM_{10} standard under the Ambient Air Quality Standard (AAQS). Humboldt County is classified as Non-Attainment for PM_{10} by the California AAQS. Between 2014 and 2019, the California PM_{10} standard was only exceeded 12 times, where 9 of those exceedances were due to documented wildfire events and 3 were suspected to likely be from woodstove burning. PM_{10} data indicates generally higher levels of PM_{10} in the greater Eureka area during the fall and winter, indicating possible seasonal use of wood heating devices. Aside from wildfire impacts, in the last five years, there has been little change in $PM_{2.5}$ levels in Del Norte (Crescent City) or Trinity County (Weaverville).

Based on studies and emission inventories, PM emissions appear to be primarily from transportation (road dust, mobile sources), woodstoves, open burning, permitted sources, and wildfire events. There are three major (Title V) stationary sources of emissions in the jurisdiction, which are all located in Humboldt County near Eureka: Humboldt Sawmill Company (Scotia), PG&E Humboldt Bay Generating Station (Eureka), and DG Fairhaven (Samoa).

The NCUAQMD continues to strive toward reaching the California AAQS for PM_{10} utilizing a variety of control strategies (permits, grant programs, etc.). With the recent state Woodsmoke Grants, the NCUAQMD has been able to implement a more aggressive program to focus on reducing emissions from wood heating devices. The recent successful implementation of these tools and the continued reduction of PM_{10} emissions in the county as a result of other control strategies will bring Humboldt County closer to reaching attainment with the state PM_{10} standard.

The NCUAQMD operates three stationary air monitoring stations, one in each of the counties within the jurisdiction. In addition, NCUAQMD operates six portable particulate matter monitors (E-BAM), owning four, and using two more that are on loan from the Air Resources Board prescribed fire monitoring cache. These portable monitors are deployed for special projects, prescribed fires, wildland fires, and/or compliance issues.

The 2023 Annual Network Plan was available for a 30-day public comment period. All comments received will be forwarded to the United States Environmental Protection

Agency (EPA) concurrent with submittal of the plan. Changes suggested in the comments will be addressed in subsequent plan updates. This report may be viewed on the NCUAQMD's website (www.ncuaqmd.org), and hard copies are available for review at the NCUAQMD office. Written comments were submitted to the North Coast Unified Air Quality Management District, Attn: Comments on Annual Network Monitoring Plan, 707 L Street, Eureka, California, 95501.

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Network Design

The NCUAQMD operated three stationary monitoring sites in 2022. The maps on the following pages show the locations of the monitoring sites. Tables One, Two and Three list the pollutants measured.

Table 1. List of State and Local Air Monitoring Stations (Instruments)

Site Name	AQS Site #	Pollutants Monitored
Jacobs	060231004	PM_{10}, $PM_{2.5}$

Table 2. List of Special Purpose Monitoring Stations (Instruments)

Site Name	AQS Site #	Pollutants Monitored
Jacobs	060231004	O3, NO_2, CO, SO_2

Table 3. List of Other Monitors

Site Name	AQS Site #	Pollutants Monitored
Crescent City	060150007	$PM_{2.5}$
Weaverville	061050002	$PM_{2.5}$

In all of NCUAQMD's previous Annual Network Plans, the Crescent City and Weaverville non-FEM $PM_{2.5}$ monitors were designated as "SPM". Upon review of the NCUAQMD's 2022 Annual Network Plan, the EPA recommended the designation be changed to "Other". Therefore, this Annual Network Plan updates those designations as indicated above.

In the NCUAQMD's 2015 (5-year Assessment) Network Plan, the Jacobs Station's gaseous instruments were mistakenly classified as SLAMS rather than SPM which they had been previously classified since the instruments began operation in 2006. This change in classification was in error and the NCUAQMD continued to report the data collected by those instruments as SPM in the Federal Air Quality Database (AQS). The NCUAQMD does not intend to petition the EPA to change the designations from SPM to SLAMs as the regulations require. This error was perpetuated in the following Annual Network Plans until discovered during the NCUAQMD's Technical Services Audit (TSA) in 2022. Upon review, the NCUAQMD staff corrected the error immediately, and in time for the publication of the 2022 Annual Network Plan. The correct designation for those instruments is being reviewed and will be addressed in the 2022 TSA findings.

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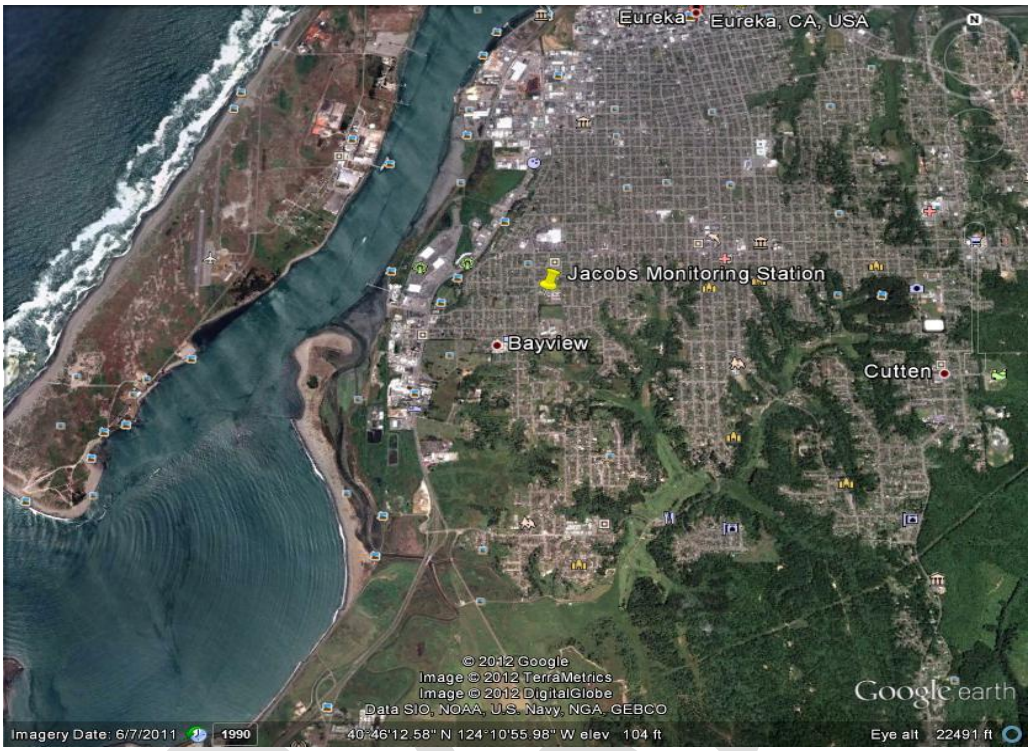
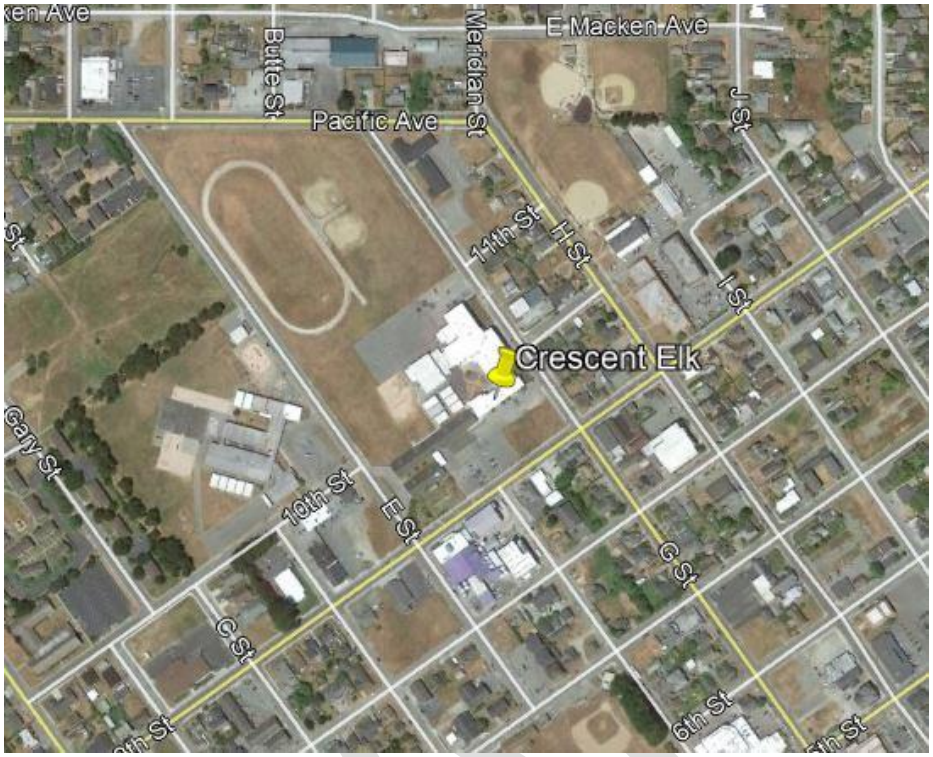
Monitoring Station Locations

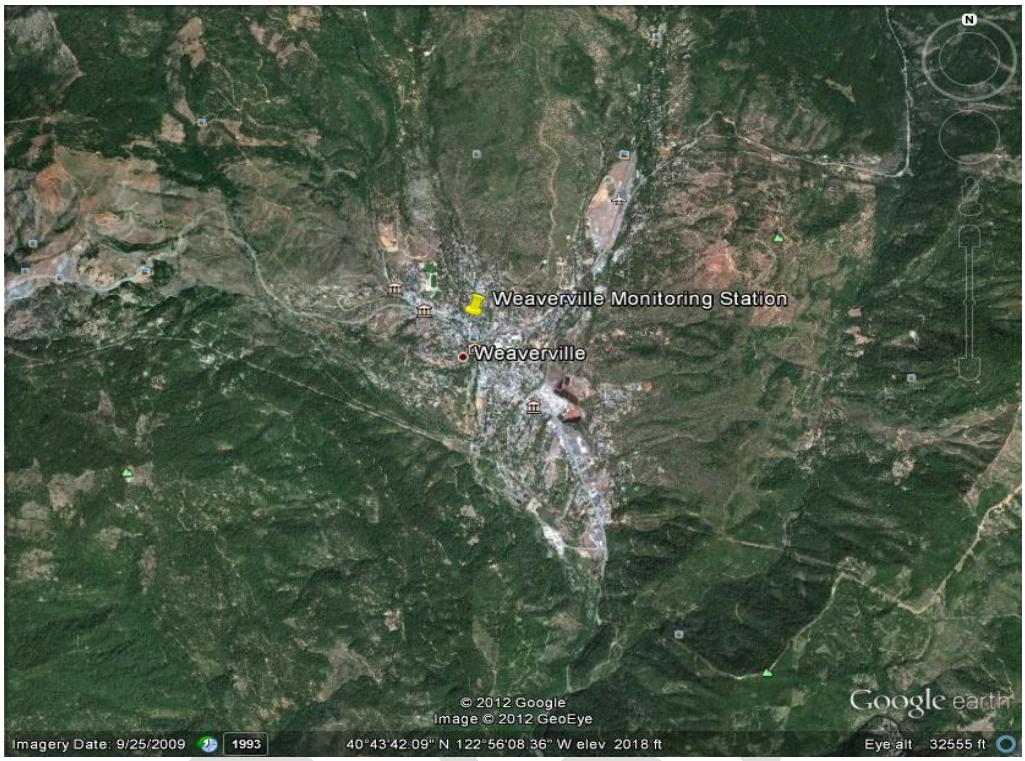
Jacobs Monitoring Station (717 South Ave, Eureka, Humboldt County)



Crescent City Monitoring Station (994 G Street, Crescent City, Del Norte County)



Weaverville Monitoring Station (11 Court Street, Weaverville, Trinity County)



Minimum Monitoring Requirements

This network meets the minimum monitoring requirements for all criteria pollutants (Tables 3-9).

Ozone

Table 4. Minimum Monitoring Requirements for Ozone Sites.

Micropolitan Statistical Area (MSA)	County	Pop. In Year 2020	4th highest 8-hour max. (ppb) (2020-2022)	2022 3-year design value (ppb)	SLAMS Ozone Sites Required	Active SLAMS Ozone Sites	Active Ozone SPMs	Sites Needed
Eureka, Arcata, Fortuna	Humboldt	136,463	Jacobs 0.041	Jacobs 0.038	0	1	0	0
Crescent City	Del Norte	27,743	-	-	0	0	0	0
none	Trinity	16,112	-	-	0	0	0	0

The NCUAQMD is not required to have Ozone monitors by either a State Implementation Plan (SIP) or Criteria Pollutant Maintenance Plan. The NCUAQMD monitors Ozone as an estimation of population exposure levels. The NCUAQMD has never had an exceedance of Ozone and has been below the standard since operation of the monitor. The Weaverville station also hosts an Ozone instrument owned by the National Oceanographic and Atmospheric Administration (NOAA) and used for transport studies. This Ozone data meets the Department of Commerce Quality Assurance and Quality Control (QAQC) requirements, but does not meet the QAQC checks required by the National Air Quality System (AQS) or the Primary Quality Assurance Organization (PQAO), thus it is not part of the AQS record.

$PM_{2.5}$

Table 5. Minimum Monitoring Requirements for SLAMS $PM_{2.5}$. Sites.

Micropolitan Statistical Area	County	Pop. In Year 2020	Annual Design Value (ug/m^3) (2020 - 2022)	Daily Design Value (ug/m^3) (2020-2022)	FRM Sites Required	SLAMS Sites Active	Other Sites Active	Sites Needed
Eureka, Arcata, Fortuna	Humboldt	136,463	Jacobs 7.4	Jacobs 21	0	1	0	0
Crescent City	Del Norte	27,743	-	-	0	0	1	0
none	Trinity	16,112	-	-	0	0	1	0

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Table 6. Minimum Monitoring Requirements for Continuous $PM_{2.5}$ Sites.

Micropolitan Statistical Area	County	Pop. In Year 2020	SLAMS FEM Sites required	SLAMS Sites Active	Other Sites Active
Eureka, Arcata, Fortuna	Humboldt	136,463	0	0	0
Crescent City	Del Norte	27,743	0	0	1
none	Trinity	16,112	0	0	1

Table 7. Collocation of continuous $PM_{2.5}$ monitors

Method Code	# Primary Monitors	POC designations	Required NCUAQMD operated collocated monitors	Active NCUAQMD operated collocated FRM monitors	Active Collocated FEM Monitors
-	0	-	0	0	0

The NCUAQMD has no required FRM $PM_{2.5}$ sites, so it is not necessary to identify the maximum concentration $PM_{2.5}$ site. Collocation is the responsibility of the Primary Quality Assurance Organization (PQAO). The NCUAQMD is not required to have $PM_{2.5}$ monitors as they are not required by either by a State Implementation Plan (SIP) or Criteria Pollutant Maintenance Plan. Because Humboldt County is out of attainment for PM_{10}, the NCUAQMD also monitors the smaller particles of $PM_{2.5}$ in Humboldt County to estimate population exposure throughout the year and during wildfire events and in order to provide good quality information AQI information during wildfire events for the EPA AirNow website (i.e. the EPA AirNow Fire & Smoke Map).

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PM_{10}

Table 8. Minimum Monitoring Requirements for PM_{10} Sites.

Micropolitan Statistical Area	County	Population in Year 2020	Max Concentration (2020-2022) (ug/m^3)	SLAMS Sites Required	SLAMS Sites Active	SPM Sites Active	Sites Needed
Eureka, Arcata, Fortuna	Humboldt	136,463	Jacobs 171	1	1	0	0
Crescent City	Del Norte	27,743	-	0	0	0	0
none	Trinity	16,112	-	0	0	0	0

The Jacobs Station is the only, and thus the maximum, PM_{10} site in the NCUAQMD. The NCUAQMD rarely has exceedances of PM_{10}. The NCUAQMD is not required to have additional PM_{10} monitors as they are not required by either a SIP or a Maintenance Plan.

NO_2

Table 9. Minimum Monitoring Requirements for NO_2 Monitors.

Micropolitan Statistical Area	County	Population . in Year 2020	Annual Design Value (ppb) (2020-2022)	SLAMS Monitors Required	Active SLAMS Monitors	Active SPM Monitors	Monitors Needed
Eureka, Arcata, Fortuna	Humboldt	136,463	Jacobs 1.95	0	1	0	0
Crescent City	Del Norte	27,743	-	0	0	0	0
none	Trinity	16,112	-	0	0	0	0

The NCUAQMD is not required to have NO_2 monitors as they are not required by either SIP or Maintenance Plan. The NCUAQMD has never had an exceedance of NO_2 and has been well below the standard since operation of the monitor. The NCUAQMD monitors NO_2 in Humboldt County to estimate population exposure. Based on population, near-road NO_2 monitors are not required within NCUAQMD boundaries.

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SO_2

Table 10. Minimum Monitoring Requirements for SO_2 Monitors.

Micro-politan Statistical Area	County	Pop. in Year 2020	Annual Design Value (ppb) (2020-2022)	Max 24 hour (ppb) (2020-2022)	Max 1 hour (ppb) (2020-2022)	SLAMS Monitors Required	Active SLAMS Monitors	Active SPM Monitors	Monitors Needed
Eureka, Arcata, Fortuna	Humboldt	136,463	0.38	1.0	1.2	0	1	0	0
Crescent City	Del Norte	27,743	-	-	-	0	0	0	0
none	Trinity	16,112	-	-	-	0	0	0	0

The NCUAQMD is not required to have SO_2 monitors as they are not required by either a SIP or Maintenance Plan. The NCUAQMD has never had an exceedance of SO_2 and has been well below the standard since operation of the monitor. The NCUAQMD monitors SO_2 in Humboldt County to estimate population exposure.

CO

Table 11. Minimum Monitoring Requirements for CO Monitors.

Micro-politan Statistical Area	County	Pop. in Year 2020	8-hour Design Value (ppm) (2020-2022)	1 hour. Design Value (ppm) (2020-2022)	SLAMS Monitors Required	Col-located Monitors Required	Active SLAMS Monitors	Active SPM Monitors	Monitors Needed
Eureka, Arcata, Fortuna	Humboldt	136,463	Jacobs 1.4	Jacobs 1.9	0	0	1	0	0
Crescent City	Del Norte	27,743	-	-	0	0	0	0	0
none	Trinity	16,112	-	-	0	0	0	0	0

The NCUAQMD is not required to have CO monitors as they are not required by either a SIP or Maintenance Plan. The NCUAQMD has never had an exceedance of CO and has been well below the standard since operation of the monitor. The NCUAQMD monitors CO in Humboldt County to examine population exposure.

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Lead (Pb)

Table 12. Minimum Monitoring Requirements for Pb.

Micropolitan Statistical Area	County	Pop. In Year 2020	Annual Design Value	Monitors Required	Active Monitors	Monitors Needed
Eureka, Arcata, Fortuna	Humboldt	136,463	-	0	0	0
Crescent City	Del Norte	27,743	-	0	0	0
none	Trinity	16,112	-	0	0	0

The NCUAQMD is not required to monitor Lead (Pb). Lead monitors are not required by either a SIP or Maintenance Plan.

Quality Control

The NCUAQMD is a member of the CARB Primary Quality Assurance Organization (PQAO). All ambient air monitoring meet CARB Quality Control and Quality Assurance requirements. CARB audit records and site information for the NCUAQMD can be found on the CARB website or obtained by contacting the NCUAQMD.

The NCUAQMD's $PM_{2.5}$ FRM filters are analyzed by the Bay Area Air Quality Management District (BAAQMD). The BAAQMD Laboratory meets Federal Requirements for Quality Control and Quality Assurance. Information regarding the laboratory can be found on the BAAQMD website.

Collocation

The NCUAQMD is a member of the CARB Primary Quality Assurance Organization (PQAO) and relies on the PQAO network to satisfy all collocation requirements (CFR 58 App A 3.2.5).

Recent or Proposed Modifications to Network

In 2023, the NCUAQMD received EPA approval to continue running a $PM_{2.5}$ FRM instrument in Eureka, Humboldt County. Currently there is no collocation of an FRM instrument within the District's PQAO, so the NCUAQMD will also begin to run a collocation for this instrument. The collocation is expected to begin during the third quarter of 2023.

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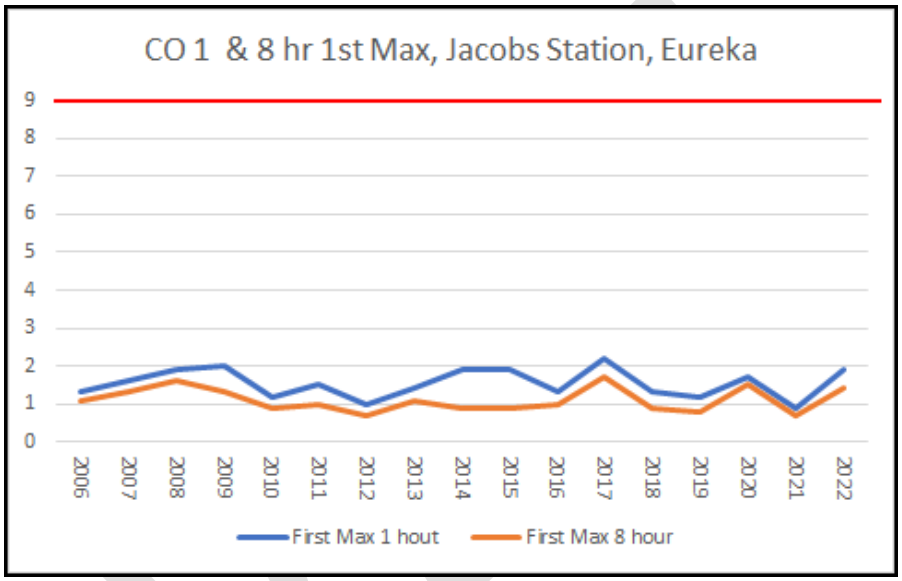
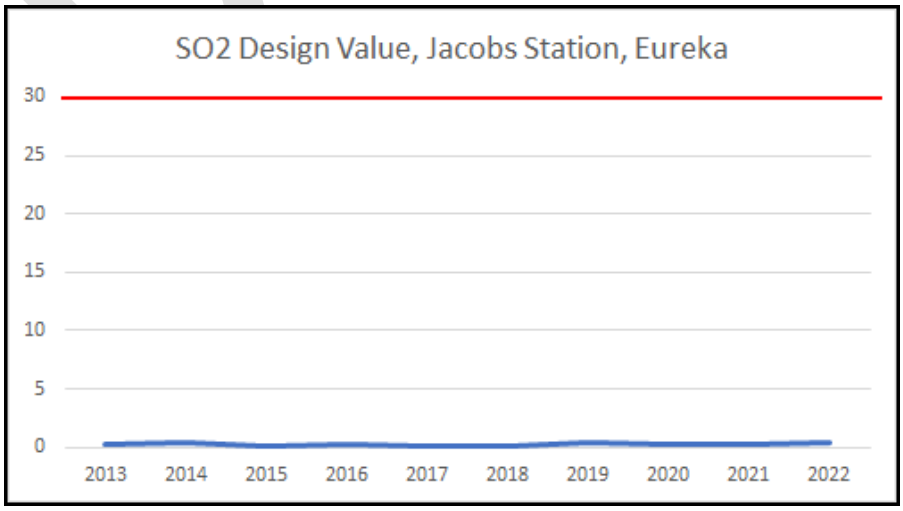
The EPA Assessment Mapping Tool indicates a lack of monitoring in Southern Humboldt. $PM_{2.5}$ is likely to affect the region because of the prevalent use of woodstoves, prescribed fire activity, and frequent wildfire events. The NCUAQMD continues to seek funding for a particulate-only monitoring station for this area.

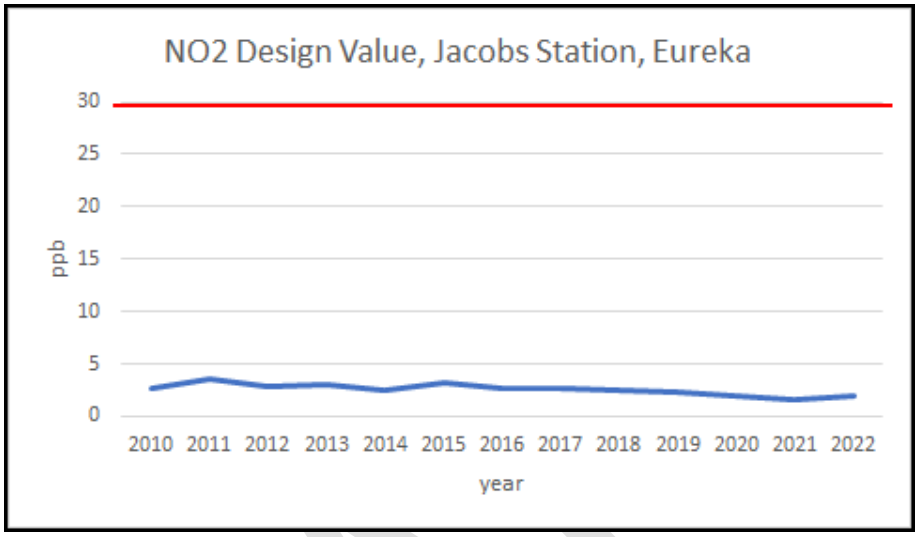
The Carbon Monoxide instrument located at the Jacobs Station in Humboldt County failed in April 2023. The NCUAQMD has never had an exceedance of CO at this location and has been well below the NAAQS since the monitor began operation in 2006. Because of the combination of low CO levels, and the cost of instrument replacement and staff oversight, the NCUAQMD plans to shut down CO monitoring at the Jacobs Station.



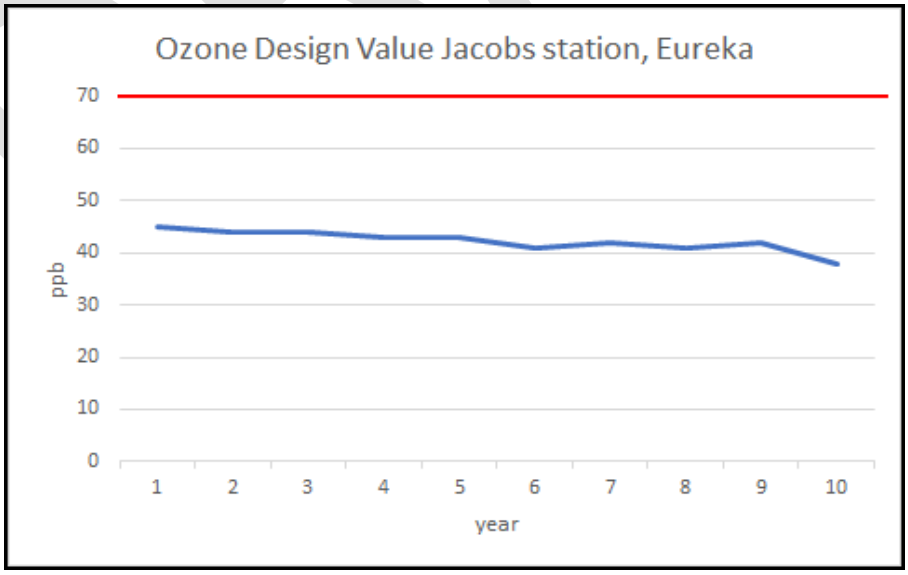
The Sulfur Dioxide instrument at the Jacobs Station has been well below the NAAQS since the monitor began operation in 2006. This instrument is also nearing the end of its useful life. Because of the combination of low SO_2 levels and the cost of instrument replacement and staff oversight, the NCUAQMD plans to shut down SO_2 monitoring at the Jacobs Station on December 31, 2023.



The Nitrogen Dioxide instrument at the Jacobs Station has been below the NAAQS since the monitor began operation in 2006. This instrument is also nearing the end of its useful life. Because of the combination of low NO_2 levels and the cost of instrument replacement and staff oversight, the NCUAQMD plans to shut down NO_2 monitoring at the Jacobs Station on December 31, 2023.



The Ozone instrument at Jacobs station has been below the NAAQS since the monitor began operation in 2006. This instrument is also nearing the end of its useful life. Given low Ozone levels and the cost of instrument replacement and staff oversight, the NCUAQMD is currently accessing shutting down the monitor by the end of the year.



Review of Changes to $PM_{2.5}$ Monitoring Network

Any change to the NCUAQMD's $PM_{2.5}$ network is reviewed by EPA Region 9. The NCUAQMD has not changed the location of any $PM_{2.5}$ monitor with exceedances. Should a $PM_{2.5}$ monitor with exceedance need to be moved, the annual network plan inspection/comment process would be used to for the review process of that change.

Data Submission Requirements

Data and Precision/Accuracy reports should be submitted to CARB no later than 60 days after the quarter of record. The CARB should upload NCUAQMD data to the National Air Quality System (AQS) no later than 90 days after the quarter of record. CARB typically submits the annual data certification no later than May 1st of each year.

Data Availability

NCUAQMD's air quality data is available in the AQS database and the Air Quality and Meteorological Information System (AQMIS) database. It can also be obtained directly from the NCUAQMD. The NCUAQMD should be contacted directly to request data if access through the public databases is problematic.

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Detailed Site Information

Site Name: Jacobs

The Jacobs site was established in December of 2006 and is located on the west side of the City of Eureka.

Jacobs	
AQS ID	060231004
Latitude /Longitude (degrees)	40.776608 N 124.179494 W
Location	Alice Birney Elementary School
Address	717 South Ave, Eureka
County	Humboldt
Dist. to road (meters)	50
Traffic count (AADT)	1,104 (May 2018)
Representative statistical area name	Eureka, Arcata, Fortuna
Groundcover	grass
PEP audit?	Information maintained by EPA
NPAP audit?	Information maintained by EPA
PM_{10} Flow audits	Performed every 2 weeks by NCUAQMD, Performed biannually by CARB
$PM_{2.5}$ Flow audits	Performed monthly by NCUAQMD, Performed biannually by CARB
Gaseous audits	Following the requirement in QA Volume II, performance audits are performed annually by CARB
Date of 2022 annual performance evaluation for ozone instruments (CARB audit)	May 24, 2022
Dates of two semi-annual PM_{10} flow audits conducted by CARB, occurring in 2022	May 24, 2022 November 15, 2022
Dates of two semi-annual $PM_{2.5}$ flow audits, conducted by CARB, occurring in 2022	May 24, 2022 November 15, 2022

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Gaseous One-point control checks	Performed a minimum of once 14 days					
Gaseous instrument calibrations	Performed bi-annually					
Representative Area	Humboldt County Micropolitan Statistical Area, Eureka-Arcata-Fortuna, suburban					
Pollutant	**O_3**	**NO_2**	**CO**	**SO_2**	**$PM_{2.5}$**	**PM_{10}**
Primary/QA Collocated/Other	N/A	Primary	N/A	N/A	Primary	Primary
Parameter Code	44201	42602	42101	42401	88101	81102
POC	1	1	1	1	1	1
Basic Monitoring Objective	NAAQS comparison	NAAQS comparison	NAAQS comparison	NAAQS comparison	NAAQS comparison	NAAQS comparison
Site Type	Population exposure	Population exposure	Population exposure	Population exposure	Population exposure	Population exposure
Monitor Type	SPM	SPM	SPM	SPM	SLAMS	SLAMS
Spatial scale	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Neighborhood	Neighborhood
Sampling method	Photometric EQOA-0880-047	Chemiluminescence RFNA-1289-074	Gas Filter correlation RFCA-0981-054	Pulsed Florescence EQSA-0486-060	Low Volume RFPS-0498-143	EQPM-0798-122
Instrument manufacturer and model	Thermo 49i	Thermo 42i	Thermo 48i	Thermo 43i	Thermo 2000i	Met One BAM-1020
FRM/FEM/ARM	FEM	FRM	FRM	FEM	FRM	FEM
Collecting Agency	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD
Analytical Lab	N/A	N/A	N/A	N/A	BAAQMD	N/A
Reporting Agency	CARB	CARB	CARB	CARB	CARB	CARB
Start date	Dec 15, 2006	Dec 15, 2006	Dec 15, 2006	Dec 15, 2006	Dec 25, 2006	Jan 1, 2014
Current Sampling Frequency	continuous	continuous	continuous	continuous	1:3	continuous
Sampling season	Year round	Year round	Year round	Year round	Year round	Year round
Probe height (meters)	4.5	4.5	4.5	4.5	4.3	5
Distance of low-volume PM instrument from other PM instruments are >1 meter?	N/A	N/A	N/A	N/A	yes	N/A
Distance from supporting structure (meters)	2	2	2	2	1.8	2.4

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Pollutant	O_3	NO_2	CO	SO_2	$PM_{2.5}$	PM_{10}
Distance from obstructions on roof (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Height of obstructions not on roof (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance from trees (meters)	29	29	29	29	28	31
Distance to furnace or incinerator flue (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Distance between collocated monitors (meters)	N/A	N/A	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360	360	360	360
Probe material	Teflon	Teflon	Teflon	Teflon	N/A	N/A
Residence time (seconds)	10.5	12.2	8.5	14.7	N/A	N/A
Operation meets requirements of appendices B, C, D and E where applicable	yes	yes	yes	yes	yes	yes
Will there be changes within the next 18 months?	yes	yes	yes	yes	no	no
With regard only to CFR 58.30. is data suitable for comparison against the annual $PM_{2.5}$ NAAQS?	N/A	N/A	N/A	N/A	yes	N/A
Does instrument meet EPA Minimum Data Assessment Requirements for $PM_{2.5}$ instruments (CFR 40, part 58, Appendix A) or an approved alternative?	N/A	N/A	N/A	N/A	yes	N/A

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Site Name: Weaverville

The Weaverville site was established in 1995 and is located in downtown Weaverville near HWY 299.

Weaverville	
AQS ID	061050002
Latitude/Longitude (degrees)	40.734767 N 122.941172 W
Location	Trinity County Courthouse
Address	11 Court Street, Weaverville
County	Trinity
Dist. to road	28 meters to highway 299
Traffic count	9,600 AADT for HWY 299 at Washington Street (2020)
Groundcover	Paved
PEP audit	Information maintained by EPA
NPAP audit	Information maintained by EPA
$PM_{2.5}$ Flow audits	Performed biweekly by NCUAQMD, Performed biannually by CARB
Date of annual performance evaluation (2022 CARB flow audit)	May 23, 2022
2022 semi-annual $PM_{2.5}$ flow audits by CARB	May 23, 2022 November 14, 2022
Representative Area	Rural, no MSA in Trinity County
Pollutant	**$PM_{2.5}$**
Primary/QA Collocated/ Other	Primary
Parameter Code	88502
POC	1
Basic monitor objective	Air Pollution Data
Site Type	Population exposure
Monitor Type	Other
Spatial scale	Neighborhood
Sampling method	EQPM-0798-122
Instrument manufacturer and model	Met One BAM-1020
FRM/FEM/ARM	Non-FEM
Collecting Agency	NCUAQMD
Analytical Lab	N/A
Reporting Agency	CARB
Start date	March 2015

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Pollutant	$PM_{2.5}$
Current Sampling Frequency	continuous
Sampling season	Year round
Probe height (meters)	8
Distance from supporting structure (meters)	2.4
Distance from obstructions on roof (meters)	N/A
Distance from obstructions not on roof	N/A
Distance from trees (meters)	15
Distance to furnace or incinerator flue	N/A
Distance between collocated monitors	N/A
Unrestricted airflow (degrees)	360
Probe material	N/A
Residence time	N/A
Operation meets requirements of appendices B, C, D, and E, where applicable	yes
Will there be changes within the next 18 months?	no
I With regard only to CFR 58.30. is data suitable for comparison against the annual $PM_{2.5}$ NAAQS?	no
Does instrument meet EPA Minimum Data Assessment Requirements for $PM_{2.5}$ instruments (CFR 40, part 58, Appendix A) or an approved alternative?	yes

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Site Name: Crescent City

A Crescent City site was established in 1998 and is currently located at the Crescent Elk Middle School.

Crescent City	
AQS ID	060150007
Latitude/ Longitude (degrees)	41.755925 N 124.203614 W
Location	Crescent Elk Middle School
Address	994 G Street
County	Del Norte
Dist. to road	64 meters to 9th Street
Traffic count	7,500 AADT ON L STREET AT 9TH STREET (2020)
Groundcover	Paved/grass
PEP audit	Information maintained by EPA
NPAP audit	Information maintained by EPA
Flow audit	bimonthly by NCUAQMD
Date of 2022 annual performance evaluation (CARB audit)	November 15, 2022
Date of semi-annual flow audit occurring in 2022	November 15, 2022
Representative Area	Del Norte County, Micropolitan Statistical Area, Crescent City Urban
Pollutant	**$PM_{2.5}$**
Primary/QA Collocated/Other	Other
Parameter Code	88502
POC	1
Basic Monitoring Objectives	NAAQS comparison
Site Type	Population exposure
Monitor Type	Other
Spatial scale	Neighborhood
Sampling method	EQPM-0798-122
Instrument manufacturer and model	Met One BAM-1020
FRM/FEM/ARM	Non-FEM
Collecting Agency	NCUAQMD
Analytical Lab	N/A
Reporting Agency	CARB
Start date	May 2019
Current Sampling Frequency	Continuous
Sampling season	Year round

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Pollutant	$PM_{2.5}$
Probe height	7
Distance from supporting structure	2
Distance from obstructions on roof	N/A
Distance from obstructions not on roof	N/A
Height of obstruction not on roof (meters)	N/A
Distance from trees	93 meters
Distance to furnace or incinerator flue	49 meters
Height of stack	4 meters
Fuel burned	Diesel, intermittent, as determined by building needs
Distance between collocated monitors	N/A
Unrestricted airflow(degrees)	360
Probe material	N/A
Residence time	N/A
Operation meets requirements of appendices B, C, D, and E, where applicable	yes
Will there be changes within the next 18 months?	no
With regard only to CFR 58.30. is data suitable for comparison against the annual $PM_{2.5}$ NAAQS?	no
Does instrument meet EPA Minimum Data Assessment Requirements for $PM_{2.5}$ instruments (CFR 40, part 58, Appendix A) or an approved alternative?	yes

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