

Air Monitoring Network Plan 2013



NCUAQMD
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Definition of Terms

AAC: Atmospheric Analysis and Consulting
AQS: Air Quality System
BAAQMD: Bay Area Air Quality Management District
CARB: California Air Resources Board
E-BAM: Emergency Beta-Attenuation Monitor
FEM: Federal Equivalency Method
FRM: Federal Reference Method
MSA: Micropolitan Statistical Area
NAAQS: National Ambient Air Quality Standards
NOAA: National Oceanographic and Atmospheric Administration
NCUAQMD: North Coast Unified Air Quality Management District
POC: Parameter Occurrence Code
PQAO: Primary Quality Assurance Organization
SIP: State Implementation Plan
SLAMS: State and Local Air Monitoring Station
SPM: Special Purpose Monitor

Executive Summary

The North Coast Unified Air Quality Management District (NCUAQMD) maintains a network of air pollution monitoring equipment. This network has developed slowly, beginning in 1986 with a solitary PM10 monitoring station. Currently there are five stations in operation.

The NCUAQMD is located in the far northwestern portion of California. It is comprised of three counties: Humboldt, Del Norte, and Trinity, which together cover 7,753 square miles. It is bordered on the west by the Pacific Ocean and extends from the Oregon Border south approximately 140 miles to the Mendocino County line. Eureka, the county seat of Humboldt County, is 284 miles north of San Francisco, 466 miles south of Portland, Oregon and on the coast of the Pacific Ocean. The area is made up of varied terrain, from coastal wetlands to rugged mountains. Inversions and diurnal offshore wind patterns are common.

Major sources located in the Humboldt Bay region (Eureka, Arcata) include the Fairhaven Power Plant, and PG&E's Humboldt Bay Power Plant. The first source is located on the Samoa Peninsula just east of Eureka. The PG&E plant is located just south of Eureka.

In addition to these Title 5 sources, the NCUAQMD is impacted by mobile and large industrial sources. The District is also impacted by wood smoke in the winter and agricultural crop residue burning and wildfires in the summer.

Overview of Network Operation

Network Design.

The North Coast Unified Air Quality Management District operated 5 monitoring sites in 2012. The following maps show the locations of the monitoring sites. Tables 1 and 2 list the pollutants measured at each site.

Table 1. List of Special Purpose Monitoring Sites

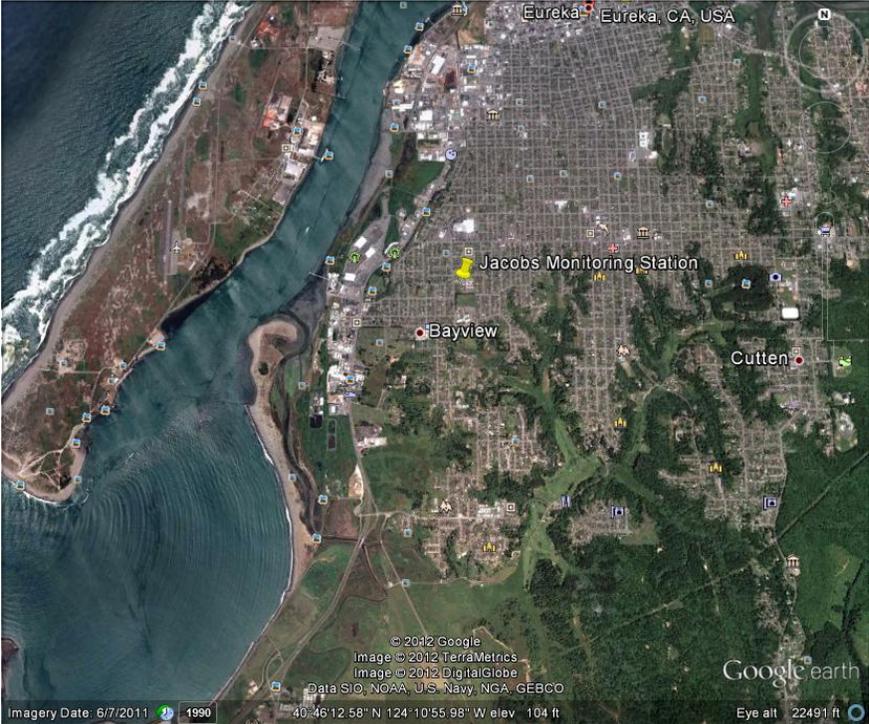
Site Name	AQS Site #	Pollutant Monitored
Jacobs	060231004	PM ₁₀ , PM _{2.5} , O ₃ , NO ₂ , CO, SO ₂
Humboldt Hill	060231005	PM ₁₀ , PM _{2.5} , O ₃ , NO ₂ , CO, SO ₂ , NH ₃
Weaverville	061050002	PM _{2.5}

Table 2. List of State and Local Air Monitoring Sites

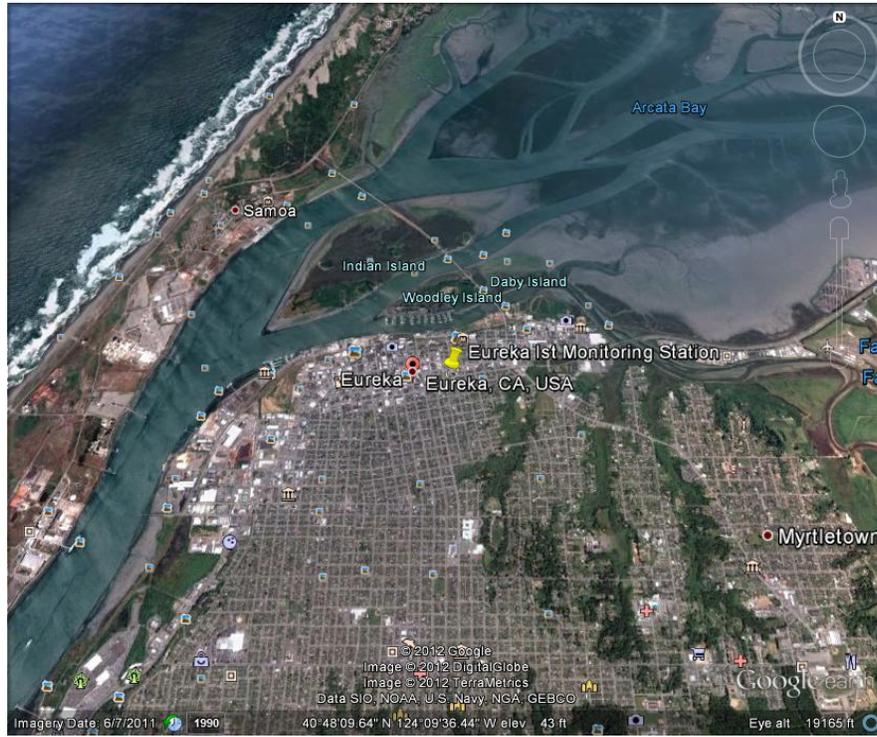
Site Name	AQS Site #	Pollutants Monitored
Eureka Ist	060231002	PM ₁₀ , PM _{2.5}
Weaverville	061050002	PM ₁₀
Crescent City	060150006	PM ₁₀

Monitoring Station Locations

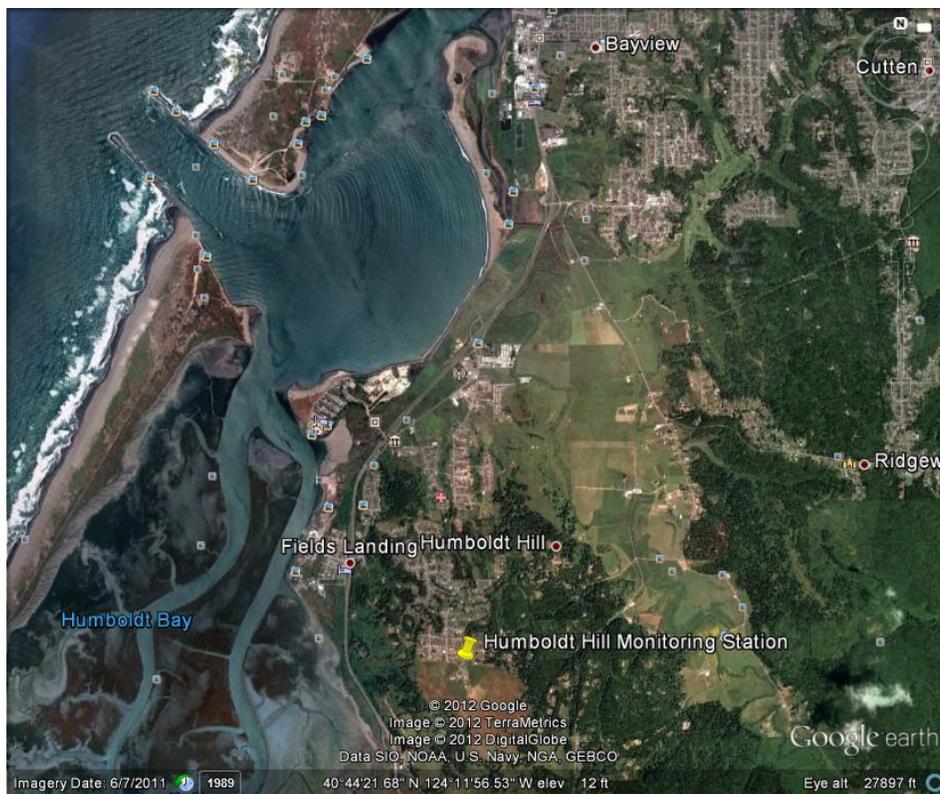
Jacobs Monitoring Station (717 South Ave, Eureka, Humboldt County)



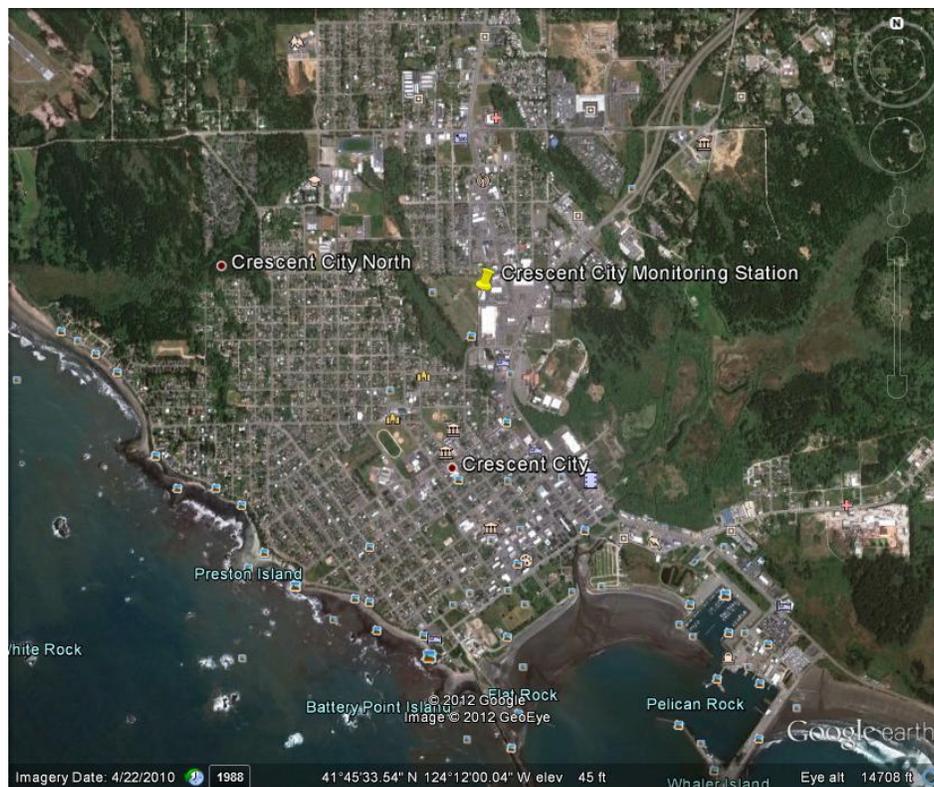
Eureka Ist Monitoring Station (529 I Street, Eureka, Humboldt County)



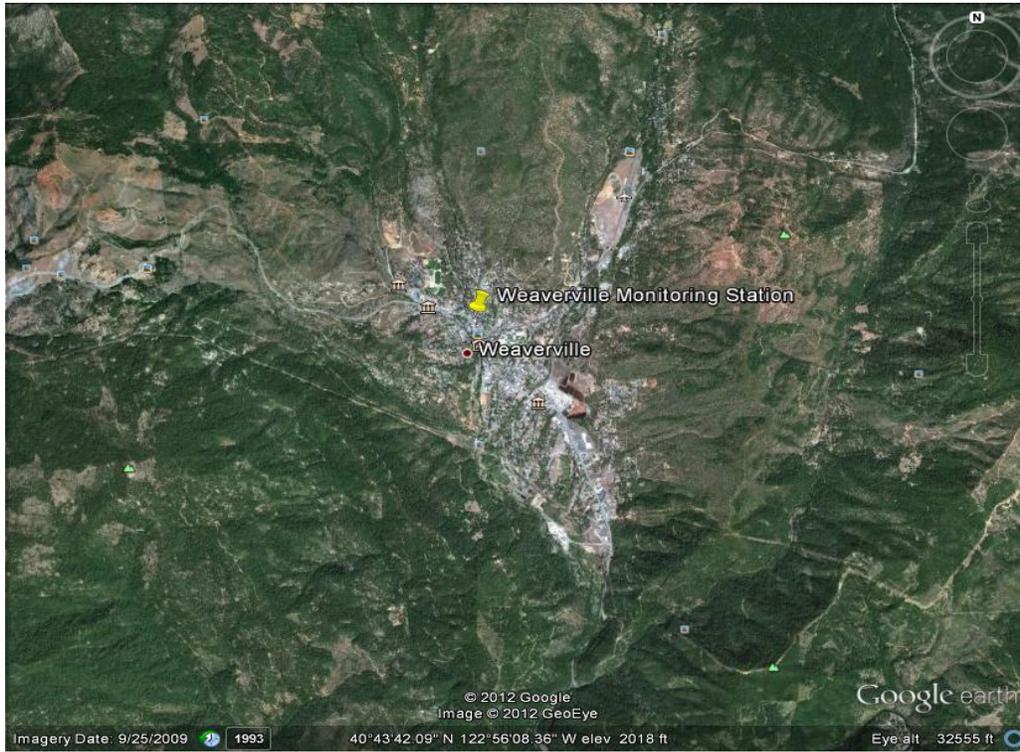
Humboldt Hill Monitoring Station (7333 Humboldt Hill Rd., Eureka, Humboldt County)



Crescent City Monitoring Station, (880 Northcrest Dr., 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 3-11).

Ozone

Table 3. Minimum Monitoring Requirements for Ozone.

Micropolitan Statistical Area	County	Pop. In Year 2010	4th highest 8-hour max. (ppm) (2010-2012)	3 year design value	SLAMS Monitors Required	Active SLAMS Monitors	Active SPM Monitors	Monitors Needed
Eureka-Arcata-Fortuna	Humboldt	134,623	Jacobs 0.047	Jacobs 0.045	0	0	2	0
			Humboldt Hill* 0.046	Humboldt Hill* 0.043				
Crescent City	Del Norte	28,610	-	-	0	0	0	0
none	Trinity	13,786	-	-	0	0	0	0

* Humboldt Hill data calculated using only 2011 and 2012

No monitors are required for either a SIP or Maintenance Plan. The NCUAQMD monitors Ozone as an examination of population exposure levels.

PM 2.5

Table 4. Minimum Monitoring Requirements for FRM PM_{2.5}.

Micropolitan Statistical Area	County	Pop. In Year 2010	Annual Design Value ($\mu\text{g}/\text{m}^3$) (2010-2012)	Daily Design Value ($\mu\text{g}/\text{m}^3$) (2010-2012)	FRM Monitors Required	SLAMS Monitors Active	SPM Monitors Active	Monitors Needed
Eureka, Arcata, Fortuna	Humboldt	134,623	I street 5.7	I street 16.7	0	1	1	0
			Jacobs 6.0	Jacobs 19.5				
Crescent City	Del Norte	28,610	-	-	0	0	0	0
none	Trinity	13,786	-	-	0	0	0	0

Table 5. Minimum Monitoring Requirements for Continuous PM_{2.5} monitors.

Micropolitan Statistical Area	County	Pop. In Year 2010	SLAMS FEM monitors required	SLAMS Monitors Active	SPM Monitors Active
Eureka, Arcata, Fortuna	Humboldt	134,623	0	0	1*
Crescent City	Del Norte	28,610	0	0	0
none	Trinity	13,786	0	0	1*

*Non-Regulatory instruments

Table 6. Collocation of continuous PM_{2.5} monitors

Method Code	# Primary Monitors	Required Collocated monitors	Active Collocated FRM monitors	Active Collocated FEM Monitors
195	0	0	0	0

No PM_{2.5} monitors are required for either a SIP or Maintenance Plan.

The NCUAQMD participates in the Federal Fine Particulates monitoring program by operating instruments at the Eureka Ist, Jacobs and Weaverville stations. The NCUAQMD monitors PM_{2.5} with FRM instruments at the Jacobs and Ist sites. Both of these instruments are suitable for national comparison. FEM PM_{2.5} monitors are located at the Weaverville and Humboldt Hill Stations. These instruments are non-regulatory and their data is not expected to meet the FRM similarity requirements which would enable them to be used for in national comparison. Collocation is not required as they are Special Purpose Monitors.

PM10

Table 7. Minimum Monitoring Requirements for PM₁₀.

Micropolitan Statistical Area	County	Population in Year 2010	Max Concentration (2010-2012) (ug/m ³)	SLAMS Monitors Required	SLAMS Monitors Active	SPM Monitors Active	Monitors Needed
Eureka, Arcata, Fortuna	Humboldt	134,623	I street 64	0	1	2	0
			Jacobs 49				
			Humboldt Hill* 28				
Crescent City	Del Norte	28,610	61	0	1	0	0
none	Trinity	13,786	41	0	1	0	0

* Humboldt Hill data calculated using only 2012 data

NCUAQMD is non-attainment for the State PM₁₀ standard in all three counties.

NO₂

Table 8. Minimum Monitoring Requirements for NO₂.

Micropolitan Statistical Area	County	Pop. in Year 2010	Annual Design Value (ppb) (2010-2012)	SLAMS Monitors Required	Active SLAMS Monitors	Active SPM Monitors	Monitors Needed
Eureka-Arcata, Fortuna	Humboldt	134,623	Jacobs 2.77	0	0	2	0
			Humboldt Hill 0.77				
Crescent City	Del Norte	28,610	-	0	0	0	0
none	Trinity	13,786	-	0	0	0	0

No monitors are required for SIP or Maintenance Plans. NCUAQMD monitors NO₂ in Humboldt County to examine population exposure. Based on population, no near-road NO₂ monitors are required within the NCUAQMD boundaries.

SO₂

Table 9. Minimum Monitoring Requirements for SO₂.

Micro-politian Statistical Area	County	Pop. in Year 2010	Annual Design Value (ppb) (2010-2012)	Max 24 hour (ppb) (2010-20012)	Max 1 hour (ppb) (2010-2012)	SLAMS Monitors Required	Active SLAMS Monitors	Active SPM Monitors	Monitors Needed
Eureka-Arcata, Fortuna	Humboldt	134,623	Jacobs 0	Jacobs 1.4	Jacobs 2.2	0	0	2	0
			Humboldt Hill* 0	Humboldt Hill* 0	Humboldt Hill* 0				
Crescent City	Del Norte	28,610	-	-	-	0	0	0	0
none	Trinity	13,786	-	-	-	0	0	0	0

*Humboldt Hill data calculated using only 2011 and 2012.

No monitors are required for SIP or Maintenance Plans. The NCUAQMD is not required to monitor SO₂. NCUAQMD monitors SO₂ in Humboldt County to examine population exposure.

CO

Table 10. Minimum Monitoring Requirements for CO.

Micro-politian Statistical Area	County	Pop. in Year 2010	8-hour Design Value (ppm) (2010-2012)		1 hour. Design Value (2010-2012) SLAMS Monitors Required		Col-located Monitors Required	Active SLAMS Monitors	Active SPM Monitors	Monitors Needed
			Jacobs	Humboldt Hill	Jacobs	Humboldt Hill				
Eureka-Arcata-Fortuna	Humboldt	134,623	Jacobs 0.7	Humboldt Hill 0.6	0	0	0	0	2	0
			Humboldt Hill 0.6	Jacobs 1.0						
Crescent City	Del Norte	28,610	-	-	0	0	0	0	0	0
none	Trinity	13,786	-	-	0	0	0	0	0	0

No monitors are required for SIP or Maintenance Plans. The NCUAQMD is not required to monitor CO. NCUAQMD monitors CO in Humboldt County to examine population exposure.

Pb

Table 11. Minimum Monitoring Requirements for Pb.

MSA	County	Pop. In Year 2010	Annual Design Value	Monitors Required	Active Monitors	Monitors Needed
Eureka, Arcata, Fortuna	Humboldt	134,623	-	0	0	0
Crescent City	Del Norte	28,610	-	0	0	0
none	Trinity	13,786	-	0	0	0

No monitors are required for SIP or Maintenance Plans. The NCUAQMD is not required to monitor Pb and does not do so.

Quality Control

All NCUAQMD ambient air monitoring meets stringent ARB Quality Control and Quality Assurance requirements. ARB audit records and site information for NCUAQMD can be found on the ARB website at <http://www.arb.ca.gov/aqmq/qmosqual/qmosqual.htm>, or obtained by contacting NCUAQMD at (707) 443-3093.

Collocation

The NCUAQMD is a member of the ARB PQAQO and relies on the ARB PQAQO network to satisfy collocation requirements. It is ARB's responsibility to show that this requirement is met. No collocation of SPM monitors is required

Recent or Proposed Modifications to Network

The District proposes to discontinue the Eureka I street monitoring station. The two largest reasons for this are: there is an exhaust vent in violation of siting criteria and access to the site is too limited to allow for the 1 in 3 sampling required by the 2012 NAAQS revision. The Jacobs station would be reclassified as a SLAMS for PM₁₀ and PM_{2.5}. EPA approval is pending.

The Special Purpose PM_{2.5} FRM sampler currently located at Jacobs station will be moved to Humboldt Hill station in 2013. This is to allow data comparison of the FRM instrument to the FEM Grimm 180. A continuous PM_{2.5} FEM BAM1020 or an R&P FRM 2000 will be installed at the Jacobs station.

A continuous PM₁₀ FEM BAM1020 monitor will be placed in Crescent City in 2013. It is not possible to collocate it with the current FRM PM₁₀. The FRM will be removed after the FEM is fully operational. EPA approval is pending.

As soon as funding can be secured, a continuous PM_{2.5} FEM BAM1020 is planned to be placed in Crescent City, collocated with the PM₁₀ discussed above to more fully understand the PM levels in Crescent City. Also, a continuous PM_{2.5} BAM1020 is planned to be placed in Trinity County at a location distant from the current station to more fully understand the PM levels in Trinity County.

Review of Changes to PM_{2.5} Monitoring Network

The NCUAQMD has not changed the location of any violating PM_{2.5} monitor. Any changes to the NCUAQMD's PM_{2.5} network are reviewed by EPA Region Nine. NCUAQMD has never removed a PM_{2.5} monitor, and has added three monitors since the inception of its 2.5 monitoring program. If a violating PM_{2.5} monitor ever needed to be moved, we would use the annual network plan inspection/comment process to provide for the review of this change.

In March of 2013 the District moved the Special Purpose FRM pm_{2.5} sampler located at Jacobs station to Humboldt Hill Station. This will allow comparison to the FEM Grimm 180 operating there. A continuous PM_{2.5} FEM BAM1020 or an R&P FRM 2000 will be installed at the Jacobs station.

The District proposes to discontinue the Eureka I street monitoring station. The two largest reasons for this are: there is an exhaust vent too close to the samplers, and access to the site is too limited to allow for the 1 in 3 sampling required by the 2012 NAAQS revision. The Jacobs station would be reclassified as a SLAMS for PM_{2.5}. EPA approval is pending.

Data Submission Requirements

Data and Precision/Accuracy reports are submitted to the California Air Resources Board (CARB) no later than 60 days after the quarter of record. The CARB uploads NCUAQMD data to the National Air Quality System (AQS) no later than 90 days after the quarter of record. In the past, the CARB has submitted the annual data certification no later than May each year. Beginning in 2013, NCUAQMD will take over this responsibility.

Data Availability

NCUAQMD air quality data is available on the AQS database. It can also be obtained directly from NCUAQMD, in the form of monthly reports. Please contact NCUAQMD at 707-443-3093 to request copies of these reports.

Detailed Site Information

Site Name: Jacobs

The Jacobs site was established in December of 2006 it is located on the South side of Eureka and is expected to represent neighborhood scale air quality.

Site Name	Jacobs					
AQS ID	060231004					
GIS coordinates	103.91015E 4514.83731N WGS84					
Location	Alice Birney Elementary School					
Address	717 South Ave, Eureka					
County	Humboldt					
Dist. to road (meters)	50					
Traffic count (AADT)	3100 (2007)					
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 15 sampling runs by NCUAQMD, Performed biannually by ARB					
PM _{2.5} Flow audits	Performed monthly by NCUAQMD, Performed biannually by ARB					
Gaseous audits	Performed annually by ARB					
Date of most recent ARB audit	December 5, 2012					
Gaseous One-point control checks	Performed a minimum of once every two weeks					
Representative Area	Humboldt County Micropolitan Statistical Area, Eureka-Arcata-Fortuna, suburban					
Pollutant	O3	NO2	CO	SO2	PM2.5	PM10
Parameter Code	44201	42602	42101	42401	88101	85101 & 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 oriented	Population oriented	Population oriented	Population oriented	Population oriented	Population oriented
Monitor Type	Special purpose	Special purpose	Special purpose	Special purpose	Special purpose	Special purpose
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-0498-117	High Volume RFPS-1287-063
Instrument manufacturer and model	Thermo 49i	Thermo 42i	Thermo 48i	Thermo 43i	R&P 2000	Thermo HVol

Site Name	Jacobs					
Pollutant	O3	NO2	CO	SO2	PM2.5	PM10
FRM/FEM/ARM	FEM	FRM	FRM	FEM	FRM	FRM
Collecting Agency	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD
Analytical Lab	N/A	N/A	N/A	N/A	BAAQMD	NCUAQMD
Reporting Agency	ARB	ARB	ARB	ARB	BAAQMD	ARB
Start date	Dec 15, 2006	Dec 15, 2006	Dec 15, 2006	Dec 15, 2006	Dec 25, 2006	Dec 15, 2006
Current Sampling Frequency	continuous	continuous	continuous	continuous	1:3 Oct-Mar 1:6 Apr-Sept	1:6
Sampling season	Year round	Year round				
Probe height (meters)	4.5	4.5	4.5	4.5	N/A	N/A
Distance from supporting structure (meters)	1.9	1.9	1.9	1.9	N/A	N/A
Distance from obstructions on roof	N/A	N/A	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	19	19	19	19	19	19
Distance from trees (meters)	15	15	15	15	15	17
Distance to furnace or incinerator flue	N/A	N/A	N/A	N/A	N/A	N/A
Distance between collocated monitors	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)	9.6	9.6	5.5	11.4	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No	Yes	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	Yes	N/A

Site Name: Eureka I Street

The 1st site was established in 1986. It is located in downtown Eureka near HWY 101 and is expected to represent middle scale air quality.

Site Name	Eureka Ist	
AQS ID	060231002	
GIS coordinates	103.92619E 4517.39332N WGS84	
Location	Humboldt County Health Department	
Address	529 Ist, Eureka	
County	Humboldt	
Dist. to road	9 meters to 6 th St, 30 meters to 5 th St.	
Traffic count	6 th street has ADT of 9,000 , 5 th street has ADT of 25,500	
Groundcover	Paved	
PEP audit?	Information maintained by EPA	
NPAP audit?	Information maintained by EPA	
PM10 Flow audit	Performed every 15 sampling runs by NCUAQMD, Performed bi-annually by ARB	
PM2.5 Flow Audit	Performed monthly by NCUAQMD, Performed bi-annually by ARB	
Date of most recent ARB audit	December 5, 2013	
Representative Area	Humboldt County Micropolitan Statistical Area, Eureka-Arcata-Fortuna, Urban	
Pollutant	PM2.5	PM10
Parameter code	88101	85101 & 81102
POC	1	1
Basic Monitoring Objective	NAAQS comparison	NAAQS comparison
Site Type	Highest Concentration	Highest Concentration
Monitor Type	SLAMS	SLAMS
Spatial scale	Middle Scale	Middle Scale
Sampling method	Low Volume RFPS-0498-117	High Volume RFPS-1287-063
Instrument manufacturer and model	R & P 2000	Thermo HVol
FRM/FEM/ARM	FRM	FRM
Collecting Agency	NCUAQMD	NCUAQMD
Analytical Lab	BAAQMD	NCUAQMD
Reporting Agency	BAAQMD	ARB
Start date	Jan 1999	Nov 1986
Current Sampling Frequency	1:3 Oct-Mar 1:6 Apr-Sept	1:6
Sampling season	Year round	Year round
Probe height (meters)	6	6
Distance from supporting structure (meters)	2	2
Distance from obstructions on roof (meters)	5	5.5
Distance from obstructions not on roof (meters)	25	25

Site Name	Eureka Ist	
Pollutant	PM2.5	PM10
Distance from trees below probe height (meters)	6.5	4.6
Distance to furnace or incinerator flue (meters)	5	5
Distance between collocated monitors	N/A	N/A
Unrestricted airflow	270 degrees	270 degrees
Probe material	N/A	N/A
Residence time	N/A	N/A
Will there be changes within the next 18 months?	Yes	No
Is it suitable for comparison against the annual PM2.5?	Yes	N/A

Site Name: Humboldt Hill

The Humboldt Hill site was established in June 2011. It is located in Humboldt Hill on the South side of Eureka and is expected to represent neighborhood scale air quality.

Site Name	Humboldt Hill							
AQS ID	060231005							
GIS coordinates	40.71528 (N) -124.20139 (W)							
Location	Humboldt Hill Summit							
Address	7333 Humboldt Hill Road, Eureka							
County	Humboldt							
Dist. to road	25							
Traffic count	Unknown, less than 50							
Groundcover	grass							
PEP audit?	Information maintained by EPA							
NPAP audit?	Information maintained by EPA							
PM₁₀ Flow audits	Performed every 15 sampling runs by NCUAQMD, Performed bi-annually by ARB							
Gaseous audits	Performed annually by ARB							
Date of most recent ARB audit	Dec 5, 2012							
Gaseous One-point control checks	Performed a minimum of once per two weeks							
Representative Area	Humboldt County Micropolitan Statistical Area, Eureka-Arcata-Fortuna, suburban							
Pollutant	O3	NO2	CO	SO2	NH3	PM_{2.5}	PM₁₀	Toxics
Parameter code	44201	42602	42101	42401	42604	88101	85101 & 81102	
POC	1	1	1	1	1	1	1	
Basic Monitoring Objective	NAAQS comparison	NAAQS comparison	NAAQS comparison	NAAQS comparison	Air pollution data	Air pollution Data	NAAQS comparison	Air pollution data
Site Type	Population oriented	Population oriented	Population oriented	Population oriented	Population oriented	Population oriented	Population oriented	Population oriented
Monitor Type	Special purpose	Special purpose	Special purpose	Special purpose	Special purpose	Special purpose	Special purpose	Special purpose
Spatial scale	Neighborhood	Neighborhood	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	Chemiluminescence	Light scatter EQPM-0311-195	High Volume RFPS-1287-063	Summa canister
Instrument manufacturer and model	Thermo 49i	Thermo 42i	Thermo 48i	Thermo 43i	Thermo 17i	Grimm 180	Thermo HVol	ATEC 2200

Site Name	Humboldt Hill							
Pollutant	O3	NO2	CO	SO2	NH3	PM2.5	PM10	Toxics
FRM/FEM/ ARM	FEM	FRM	FRM	FEM	N/A	FEM	FRM	N/A
Collecting Agency	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD	NCUAQMD
Analytical Lab	N/A	N/A	N/A	N/A	N/A	N/A	NCUAQMD	AAC
Reporting Agency	ARB	ARB	ARB	ARB	N/A	ARB	ARB	N/A
Start date	June 20, 2011	June 20, 2011	June 20, 2011	June 20, 2011	Dec 13,2012	June 20, 2011	Dec 15, 2011	Dec 15, 2011
Current Sampling Frequency	continuous	continuous	continuous	continuous	continuous	continuous	1:6	monthly
Sampling season	Year round	Year round	Year round	Year round	Year round	Year round	Year round	Year round
Probe height (meters)	4.5	4.5	4.5	4.5	4.5	5.3	N/A	4.5
Distance from supporting structure (meters)	1.9	1.9	1.9	1.9	1.9	1.2	N/A	1.9
Distance from obstructions on roof	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Distance from obstructions not on roof (meters)	15	15	15	15	15	15	15	15
Distance from trees (meters)	93	93	93	93	93	93	93	93
Distance to furnace or incinerator flue	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Distance between collocated monitors	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Unrestricted airflow (degrees)	360	360	360	360	360	360	360	360
Probe material	Teflon	Teflon	Teflon	Teflon	Teflon	Stainless steel	N/A	Teflon
Residence time (seconds)	10.7	10.8	10.4	13.7	14.8	N/A	N/A	N/A
Will there be changes within the next 18 months?	No	No	No	No	No	No	No	No
Is it suitable for comparison against the annual PM2.5?	N/A	N/A	N/A	N/A	N/A	No	N/A	N/A

Site Name: Weaverville

The Weaverville site was established in 1995. It is located downtown Weaverville near HWY 299 and is expected to represent middle scale air quality.

Site Name	Weaverville	
AQS ID	061050002	
GIS coordinates	104.95617E 4509.31330N WGS84	
Location	Trinity County Courthouse	
Address	11 Court Street, Weaverville	
County	Trinity	
Dist. to road	7 meters to side road, 21 meters to highway 299	
Traffic count	1408 AADT for Garden Gulch; 5,100 AADT for HWY 299	
Groundcover	Paved	
PEP audit	Information maintained by EPA	
NPAP audit	Information maintained by EPA	
PM10 Flow audit	Performed every 15 sampling runs by NCUAQMD Performed biannually by ARB	
Date of most recent ARB audit	October 2, 2012	
Representative Area	Rural, no MSA in Trinity County	
Pollutant	PM2.5	PM10
Parameter Code	88101	85101 & 81102
POC	1	1
Basic monitor objective	Air Pollution Data	NAAQS comparison
Site Type	Population oriented	Population oriented
Monitor Type	SPM	SLAMS
Spatial scale	Middle Scale	Middle Scale
Sampling method	GRIMM 180 FEM	High Volume RFPS-1287-063
Instrument manufacturer and model	Grimm 180	Thermo HVol
FRM/FEM/ARM	FEM	FRM
Collecting Agency	NCUAQMD	NCUAQMD
Analytical Lab	N/A	NCUAQMD
Reporting Agency	ARB	ARB
Start date	Aug 2011	Jan 1995
Current Sampling Frequency	Continuous	1:6
Sampling season	Year round	Year round
Probe height (meters)	9.4	7
Distance from supporting structure (meters)	3	1.5
Distance from obstructions on roof (meters)	10	7
Distance from obstructions not on roof (meters)	20	20

Site Name	Weaverville	
Pollutant	PM2.5	PM10
Distance from trees (meters)	15	15
Distance to furnace or incinerator flue	N/A	N/A
Distance between collocated monitors	N/A	N/A
Unrestricted airflow (degrees)	270	270
Probe material	N/A	N/A
Residence time	N/A	N/A
Will there be changes within the next 18 months?	No	No
Is it suitable for comparison against the annual PM2.5?	No	N/A

Site Name: Crescent City

The Crescent City site was established in 1998. It is located at the Del Norte County Health Department near HWY 101 and is expected to represent neighborhood scale air quality.

Site Name	Crescent City
AQS ID	060150006
GIS coordinates	103.90908E 4624.31858N WGS84
Location	Del Norte County Health Department
Address	880 Northcrest Dr
County	Del Norte
Dist. to road	600 meters to HWY 101 200 meters to Northcrest
Traffic count	38,500 ADT HWY101 8,222 ADT Northcrest
Groundcover	Paved/grass
PEP audit	Information maintained by EPA
NPAP audit	Information maintained by EPA
Flow audit	Performed every 15 sampling runs by NCUAQMD, Performed annually by EPA, Performed annually by ARB
Date of most recent ARB audit	December 4, 2012
Representative Area	Del Norte County, Micropolitan Statistical Area, Crescent City Urban
Pollutant	PM10
Parameter Code	85101 & 81102
POC	1
Basic Monitoring Objectives	NAAQS comparison
Site Type	Population oriented
Monitor Type	SLAMS
Spatial scale	Neighborhood
Sampling method	High Volume RFPS-1287-063
Instrument manufacturer and model	Thermo HVol
FRM/FEM/ARM	FRM
Collecting Agency	NCUAQMD
Analytical Lab	NCUAQMD
Reporting Agency	ARB
Start date	Mar-1998
Current Sampling Frequency	1:6
Sampling season	Year round
Probe height	5.5 meters
Distance from supporting structure	1.5 meters
Distance from obstructions on roof	N/A

Site Name	Crescent City
Pollutant	PM10
Distance from obstructions not on roof	N/A
Distance from trees	90 meters
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
Will there be changes within the next 18 months?	Yes
Is it suitable for comparison against the annual PM2.5?	N/A

Signature

The Executive Office of the North Coast Unified Air Quality Management District hereby verifies this plan has gone through a 30 day public comment period, and approves the "Air Monitoring Network Plan for 2013". Staff is directed to begin implementation effective immediately.

Mr. Richard L. Martin Jr.

date