ANNUAL NETWORK PLAN
2022

DIVISION OF NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT

AMBIENT AIR QUALITY MONITORING PROGRAM

CITY OF HUNTSVILLE, ALABAMA

HUNTSVILLE
The Star of Alabama

NATURAL RESOURCES AND ENVIRONMENTAL MANAGEMENT
Post Office 308
Huntsville, Alabama 35804-0308

May 2022

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Definitions and Acronyms

AAQM	Ambient Air Quality Monitoring
AAQMP	Ambient Air Quality Monitoring Plan
ARM	Approved Regional Method
AQI	Air Quality Index
AQS	Air Quality System
avg	average
CBSA	Core Based Statistical Area
CFR	*Code of Federal Regulations*
CO	Carbon Monoxide
CSA	Combined Statistical Area
EPA	Environmental Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method
DNREM	Division of Natural Resources and Environmental Management
hr	hour
hi-vol	high-volume PM10 sampler
low-vol	low-volume particulate sampler
m3	cubic meter
min	minute
ml	milliliter
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NCore	National Core multipollutant monitoring stations
O_3	ozone
PAMS	Photochemical Assessment Monitoring Stations
Pb	lead
PM	particulate matter
PM2.5	particulate matter ≤2.5 micrometers diameter
PM10	particulate matter ≤10 micrometer diameter
PM10-2.5	particulate matter ≤10 microns but > 2.5 microns
PSD	Prevention of Significant Deterioration
PWEI	Population Weighted Emissions Index
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
SLAMS	State and Local Air Monitoring Station
SO_2	Sulfur Dioxide
SPM	Special Purpose Monitor
TEOM	Tapered Element Oscillating Microbalance (Rupprecht and Patashnick Co.)
tpy	tons per year
TSP	Total Suspended Particulate
USEPA	United States Environmental Protection Agency
° C	degree Celsius
µg/m3	micrograms (of pollutant) per cubic meter (of air sampled)
≥	greater than or equal to
>	greater than
≤	less than or equal to
<	less than

Introduction

In October 2006, the United States Environmental Protection Agency (EPA) issued final Federal Regulations codified at 40 CFR Part 58 concerning state agency ambient air monitoring networks.

These regulations require states to submit an annual monitoring network review to EPA. This document provides the framework for establishment and maintenance of Huntsville's air quality surveillance system, lists changes that occurred during 2021, and changes proposed to take place to the current ambient air monitoring network during 2022/2023.

Public Review and Comment

The annual monitoring network review must be made available for public inspection for thirty (30) days prior to submission to EPA. For 2022, this document was placed on the City of Huntsville's website on May 31, 2022 to begin a 30-day public review period. This document can be accessed at the following link: https://www.huntsvilleal.gov/government/media-center/legal-notices/

Or by contacting:

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Huntsville Alabama Network Overview

The Huntsville Division of Natural Resources and Environment Management operates an air monitoring network consisting of State and Local Air Monitoring Stations (SLAMS) and Special Purpose Monitors (SPMs). The current network configuration consists of four monitoring stations that measure concentrations of criteria air pollutants. The type and number of monitoring stations required in Huntsville are determined by the network design criteria set forth in 40 CFR 58.

Regulations codified at 40 CFR Part 58, Appendices A (Quality Assurance Requirements for Monitors used in Evaluations of National Ambient Air Quality Standards), C (Ambient Air Quality Monitoring Methodology), D (Network Design Criteria for Ambient Air Quality Monitoring) and E (Probe and Monitoring Path Siting Criteria for Ambient Air Quality Monitoring) were reviewed to determine if modifications to the existing air monitoring network are required.

Population and Core Based Statistical Area/Metropolitan Statistical Area

Minimum monitoring requirements vary for each pollutant and can be based on a combination of factors such as population, the level of monitored pollutants, and Core Based Statistical Area (CBSA) / Metropolitan Statistical Area (MSA) boundaries as defined in the latest US Census Bureau estimates.

The 2021 population estimate for the CBSA/MSA of Huntsville is 502,728. The CBSA/MSA title is Huntsville, Alabama, which includes Madison and Limestone Counties.

National Core Multipollutant Monitoring Stations

Each State is required to operate one National Core Multipollutant Monitoring Stations (NCore) site. Huntsville was not selected for the NCore site.

Photochemical Assessment Monitoring Stations

Photochemical Assessment Monitoring Stations **(**PAMS) monitoring is required in areas classified as serious, severe, or extreme for the 8-hour ozone (O_3) standard. Huntsville is presently classified as an O_3 attainment area. Consequently, PAMS monitoring is not required.

State and Local Air Monitoring Stations

The minimum O_3 monitoring requirements are based on MSA populations and three-year design value concentrations. The Huntsville MSA population is 502,728 based on U.S. Census Bureau 2021 estimates. MSAs with populations of 350,000 to less than 4,000,000 having a design value $\geq$85% of the O_3 NAAQS are required to operate two O_3

sites. Huntsville's three-year design value concentration for 2019-2021 is 0.060 ppm which is approximately 86% of the O_3 NAAQS. Huntsville operates two O_3 monitoring sites, as required.

There is a two-tier minimum nitrogen dioxide (NO_2) SLAMS monitoring requirement. Near-road microscale monitoring is required in each CBSA with a population of 1,000,000 or more. Area-wide high concentration monitoring is required in each CBSA with a population of 1,000,000 or more. The estimated population for Huntsville, AL CBSA is 502,728. Huntsville is not required to operate a SLAMS NO_2 monitor.

The minimum SLAMS monitoring requirements for carbon monoxide (CO) require one monitor be collocated with a near-road NO_2 monitor in each CBSA with a population of 1,000,000 or more. Huntsville is not required to operate a SLAMS CO monitor.

The minimum sulfur dioxide (SO_2) monitoring requirements are based on a Population Weighted Emissions Index (PWEI), which is calculated by multiplying the population of the CBSA and the total SO_2 emissions (using the most recent published version of the National Emissions Inventory (NEI)) within the CBSA area. The resulting product is then divided by 1,000,000, representing million persons-tons per year. Areas having a PWEI greater than 1,000,000 are required to operate three monitors; areas having a PWEI equal to or greater than 100,000 but less than 1,000,000 are required to operate two monitors; areas having a PWEI greater than 5,000 but less than 100,000 are required to operate 1 monitor. The Huntsville PWEI is 81 (based on 2021 population estimates and 2017 NEI, total SO_2 emissions data for the Huntsville, AL CBSA). Huntsville is not required to operate a SLAMS SO_2 monitor.

A SLAMS Lead (Pb) monitor is required in areas where Pb levels have been shown or are expected to be of concern due to the proximity of Pb point source emissions. Generally, industrial sources emitting 0.5 ton or more of Pb per year and airports emitting 1.0 ton or more per year would be candidates for Pb ambient air monitoring. There are no significant point sources of Pb emissions in Huntsville. Based on past monitoring and emissions inventory data, a SLAMS Pb site is not required.

Huntsville's PM_{10} concentrations are less than 80 percent of the PM_{10} National Ambient Air Quality Standards (NAAQS). Based on Huntsville's MSA population being between 500,000-1,000,000 and low concentrations, Huntsville is required to operate one to two SLAMS sites. Huntsville operates three PM_{10} SLAM sites located in south, central, and north Huntsville. These monitors can be operated at very low cost and provide good spatial coverage within the city. Experience has shown that members of the public want ambient air monitoring to be performed in their part of the city, and the PM_{10} monitoring sites provide a monitoring presence at relatively low cost. Furthermore, the PM_{10} data provide an indirect indication of spatial variability of $PM_{2.5}$ at generally lower equipment costs than $PM_{2.5}$ sites.

The minimum $PM_{2.5}$ monitoring requirements are based on MSA populations and three-year design value concentrations. Huntsville's three-year design value concentration for 2019-2021 is 16.0 µg/m3 for the 24-hour standard and 7.3 $\mu g/m^3$ for the annual standard.

MSA's with populations of 500,000-1,000,000 having a design value < 85% of the $PM_{2.5}$ NAAQS are required to operate one $PM_{2.5}$ site on a one in three-day sampling frequency. Huntsville operates one $PM_{2.5}$ site on a one in three-day schedule based on the current design values being <85% of the NAAQS.

SLAMS sites were also evaluated to determine consistency of spatial scales with stated monitoring objectives. Reference the attached monitoring network description. In addition to the information listed below, the description also indicates site locations, monitoring methodologies, and operational schedules.

Site #	Site Name	Pollutant	Monitoring Objective	Current Spatial Scale based on ADT* for nearest streets	Scale Meets Objective
0002	Pulaski	PM_{10}	Population	Neighborhood	Yes
0004	South Parkway	PM_{10}	High Conc.	Middle	Yes
0014	Airport Road	PM_{10}	Population	Urban	Yes
0014	Airport Road	$PM_{2.5}$	Population	Urban	Yes
0014	Airport Road	O_3	Population	Neighborhood	Yes
0022	Capshaw	O_3	High Conc.	Urban	Yes

Notes:

Site 0002	Monitor 30.5 m from Pulaski Pike	ADT 12,975
Site 0004	Monitor 30.5 m from Mem. Pkwy.	ADT 45,543
Site 0014	Monitors 340 m from Airport Road	ADT 16,900
	Monitors 783 m from Mem. Pkwy	ADT 79,668**
Site 0022	Monitor 30 m from Capshaw Road	ADT 12,564

ADT = Average Daily Traffic
*Traffic count data as provided by Alabama Department of Transportation and the City of Huntsville Traffic Engineering Department represents 2020 and 2021 data.
**ADT counts on Memorial Parkway immediately north and south of Airport Road averaged.

Special Purpose Monitors

The PM_{10} SPM is operated Monday – Friday from 3:00 p.m. to 3:00 p.m. This data is used in reporting the daily Air Quality Index (AQI) to local media. DNREM anticipates continuing to operate this SPM for PM_{10} AQI reporting purposes during 2022.

Continuous $PM_{2.5}$ monitoring is required in relation to the minimum SLAMS monitoring requirement stated above; i.e., equal to at least one-half (round up) the minimum monitoring requirement. Huntsville is, therefore, required to operate one continuous $PM_{2.5}$ monitor. Currently, DNREM operates a R&P 1400a TEOM as a non-FRM/FEM/ARM used to support public reporting and forecasting of the Air Quality Index.

The non-FEM TEOM is in the process of being replaced with a more modern API T-640x monitor. DNREM is currently developing proficiency with the new API T-640x FEM continuous monitor during an evaluation period. After the evaluation period concludes, the T-640x will provide NAAQS comparable $PM_{2.5}$ and PM_{10} data pending satisfactory data comparison results. The API T640x is considered a SPM during the evaluation period.

Summary of Special Purpose Monitors					
Site #	Site Name	Pollutant	Monitoring Objective	Current Spatial Scale based on ADT* for nearest streets	Scale Meets Objective
0014	Old Airport	PM_{10}	Population	Urban	Yes
0014	Old Airport	$PM_{2.5}$ TEOM	Population	Urban	Yes
0014	Old Airport	PM_{10} $PM_{2.5}$ T-640x	Population	Urban	Yes

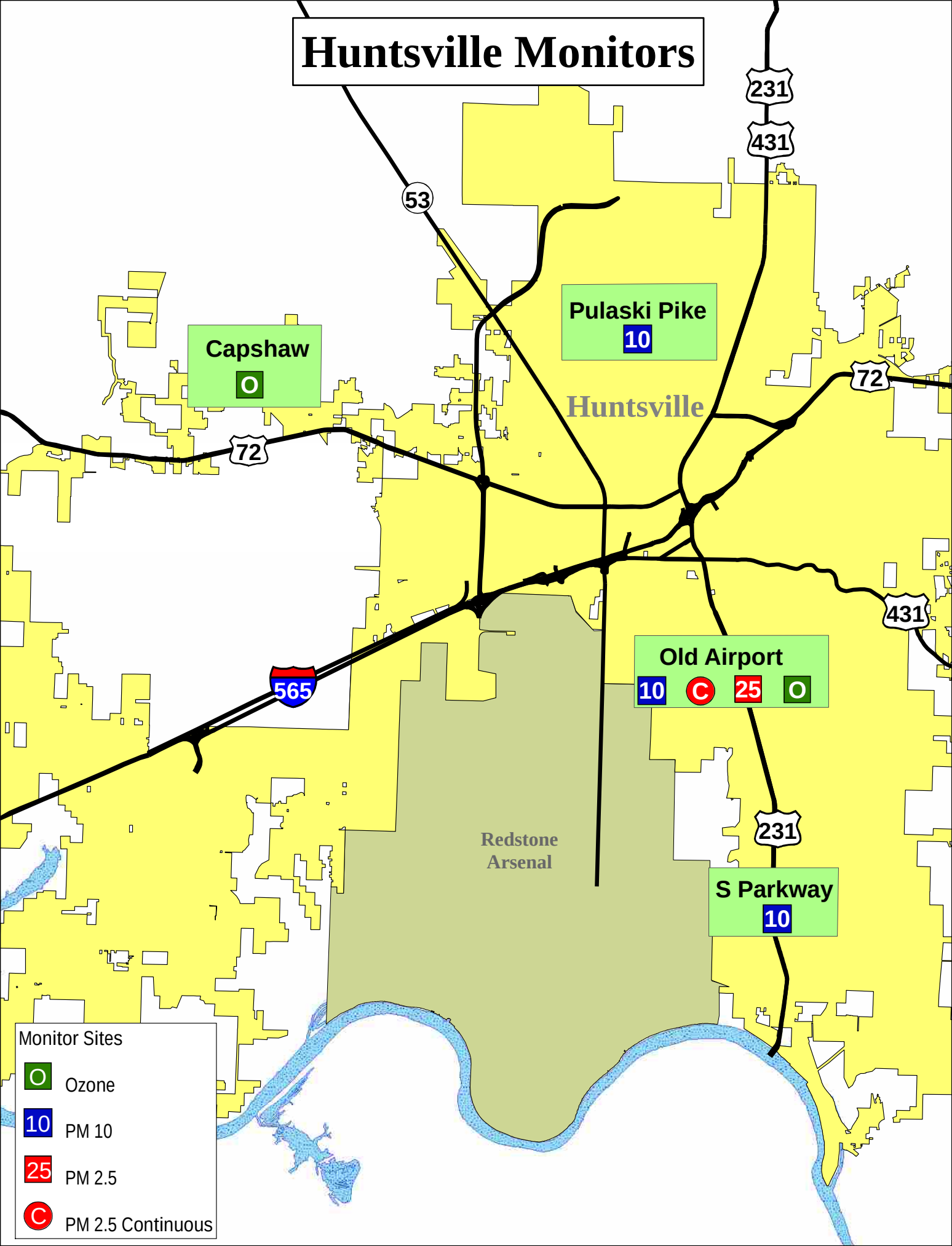
AIR MONITORING NETWORK DESCRIPTION

(As of May 2022)

Site ID	Pollutant(s) Monitored	Methodology	Operating Schedule	Monitoring Objective	Spatial Scale	CBSA/MSA Represented	Site/Monitor Type	Begin Sampling	End Sampling
01-089-0002 Pulaski Pike	PM10*	SSI Hi – Vol	6 – Day	Population	Neighborhood	Huntsville	SLAMS	01/01/91	Active
01-089-0004 South Parkway	PM10*	SSI Hi – Vol	6 – Day	High Conc.	Middle	Huntsville	SLAMS	06/28/90	Active
01-089-0014 Huntsville Old Airport Road/John Hunt Park	PM10*	SSI Hi – Vol	6 – Day	Population	Urban	Huntsville	SLAMS	07/01/88	Active
	PM10	SSI Hi – Vol	Weekday	Population	Urban	Huntsville	SPM	05/16/21	Active
	PM10 (T640X)	SSI Lo - Vol	Continuous	Population	Urban	Huntsville	SPM**	Evaluation Period	N/A
	PM2.5*	SSI Lo – Vol	3 -- Day	Population	Urban	Huntsville	SLAMS	01/01/99	Active
	PM2.5	SSI Lo – Vol	Continuous	Population	Urban	Huntsville	SPM	10/09/03	Active
	PM2.5 (T640X)	SSI Lo - Vol	Continuous	Population	Urban	Huntsville	SPM**	Evaluation Period	N/A
	Ozone*	UV Photometric	Continuous	Population	Neighborhood	Huntsville	SLAMS	01/01/75	Active
01-089-0022 Capshaw	Ozone*	UV Photometric	Continuous	High Conc.	Urban	Huntsville	SLAMS	07/01/11	Active

*Sites used for NAAQS comparison. ** T640X Continuous sampler is considered a SPM during evaluation period.

Site ID	Location	Geographical Coordinate	Three Closest Roads	Changes
01-089-0002 Pulaski Pike	5006 Pulaski Pike Huntsville, AL 35810	Latitude +34.788333 Longitude -86.616111	Pulaski Pike Stag Run Winchester Road	Site currently under evaluation for conversion to PM2.5 sampling site.
01-089-0004 South Parkway	11525 S. Memorial Pkwy Huntsville, AL 35803	Latitude +34.620278 Longitude -86.566389	South Memorial Parkway Redstone Road Hobbs Road	Site currently under evaluation for conversion to PM2.5 sampling site.
01-089-0014 Old Airport Road/John Hunt Park	3720 Russell Brown DR SW Huntsville, AL 35805 (Street and address renamed by City of Huntsville; previously 2165 Airport Rd SW)	Latitude 34.68547 Longitude -86.58816	Airport Road Memorial Parkway Leeman Ferry Road	SPMs providing PM2.5 and PM10 data for AQI purposes and PM10 SLAMs will be replaced by the T640X PM2.5/PM10 system upon successful completion of evaluation period.
01-089-0022 Capshaw	1130 Capshaw Road Huntsville, AL 35757	Latitude +34.772727 Longitude -86.756174	Capshaw Road Wall Triana Highway Balch Road	Site currently under evaluation for possible addition of PM2.5 monitor.


Huntsville Monitors
231
431
53
Pulaski Pike
10
Capshaw
O
Huntsville
72
72
431
565
Old Airport
10
C
25
O
Redstone
Arsenal
231
S Parkway
10
Monitor Sites
O
Ozone
10
PM 10
25
PM 2.5
C
PM 2.5 Continuous

AIR MONITORING EQUIPMENT

EQUIPMENT DESCRIPTION	MODEL	PURCHASED	S/N	COST	CONDITION	ESTIMATED USEFUL LIFE (YRS)	COMMENTS
AAA MODULAR TRAILER	TA-822	1996	41053	6,864.00	GOOD	(26 years old)	NO REPLACEMENT SCHEDULED
HVAC WINDOW HEATPUMP UNIT		1996					
ANDERSEN PM10 SAMPLER	1200	1990	3366		FAIR	(32 years old)	NO REPLACEMENT SCHEDULED
ANDERSEN PM10 SAMPLER	1200	1990	3365		FAIR	(32 years old)	NO REPLACEMENT SCHEDULED
ANDERSEN PM10 SAMPLER	1200	1990	3362		FAIR	(32 years old)	NO REPLACEMENT SCHEDULED
ANDERSEN PM10 SAMPLER	1200	1990	3363		FAIR	(32 years old)	NO REPLACEMENT SCHEDULED
ANDERSEN PM10 SAMPLER	1200	1990	1071		FAIR	(32 years old)	NO REPLACEMENT SCHEDULED
ANDERSEN PM10 SAMPLER	1200	1988	2802	2,750.00	FAIR	(34 years old)	NO REPLACEMENT SCHEDULED
ANDERSEN PM10 SAMPLER	1200	1988	2803	2,750.00	FAIR	(34 years old)	NO REPLACEMENT SCHEDULED
TELEDYNE API U.V. PHOTOMETER	T753U	2021	1135	15,450.00	NEW	10	
TELEDYNE API U.V. PHOTOMETER	T703	2011	90	9,458.50	GOOD	10 (11 years old)	
TELEDYNE API U.V. PHOTOMETER	T703	2010	53	8,280.80	GOOD	10 (12 years old)	
TELEDYNE API U.V. PHOTOMETER	401	2006	384-S	6,840.00	FAIR	10 (15 years old)	DESIGNATED AS BACKUP
TELEDYNE API ZERO AIR SYSTEM	701	2006	2107	2,660.00	FAIR	10 (15 years old)	
TELEDYNE API OZONE MONITOR	T400	2021	6670	9,211.60	NEW	10	
TELEDYNE API OZONE MONITOR	T400	2021	6671	9,211.60	NEW	10	
TELEDYNE API OZONE MONITOR	T400	2012	304	7,363.80	GOOD	10 (9 years old)	DESIGNATED AS BACKUP
TELEDYNE API OZONE MONITOR	T400	2010	62	6,375.20	GOOD	10 (12 years old)	DESIGNATED AS BACKUP
AGILAIRE DATA LOGGER	8872	2019	993	8.060.00	GOOD	10 (3 years old)	
AGILAIRE DATA LOGGER	8872	2017	739	8,760.00	GOOD	10 (4 years old)	
TELEDYNE API PM2.5/PM10 CONTINUOUS MONIT	T640x	2019	733	37,810.00	GOOD	10 (3 years old)	
THERMO R&P PM2.5 CONTINUOUS MONITOR	TEOM	2003	140AB245730304	22,305.00	GOOD	10 (19 years old)	REPLACEMENT PLANNED 2022/2023
THERMO R&P PM2.5 SEQUENTIAL AIR MONITOR	2025i	2016	2025IW2 1074 1606	17,969.00	GOOD	10 (6 years old)	
THERMO R&P PM2.5 SEQUENTIAL AIR MONITOR	2025	1998	2025A201869803	10,261.30	GOOD	10 (24 years old)	
THERMO R&P PM2.5 SEQUENTIAL AIR MONITOR	2025	2007	2025B221000712	13,467.14	GOOD	10 (15years old)	
R.M.YOUNG MET SYSTEM	6201	2007	WT15773	775.00	GOOD	10 (15 years old)	

BACK-UP EQUIPMENT DESCRIPTION	MODEL	PURCHASED	S/N	COST	CONDITION	ESTIMATED USEFUL LIFE (YRS)	COMMENTS
TELEDYNE API OZONE MONITOR	M400E	2002	641	6,226.70	FAIR	10 (19 years old)	REPLACED IN 2012
API OZONE MONITOR	400	1995	393	5,886.00	FAIR	10 (26 years old)	REPLACED IN 2002
ENVIRONICS CALIBRATOR	6103	2005	3570	9,044.09	FAIR	10 (17 years old)	
ENVIRONICS CALIBRATOR	6100	2014	6200	8,775.00	GOOD	10 (8 years old)	
ESC DATA LOGGER	8832	2010		7,700.00	GOOD	10 (12 years old)	REPLACED IN 2020
ESC DATA LOGGER	8816	2003	4915	5,505.97	FAIR	10 (19 years old)	REPLACED IN 2020
R&P PM2.5 SEQUENTIAL AIR MONITOR	2025	1998	2025A201849803	10,261.30	POOR	10 (23 years old)	REPLACED IN 2007
API MULTI-GAS CALIBRATOR	700	1997	255	11,368.75	FAIR	10 (24 years old)	REPLACED IN 2011

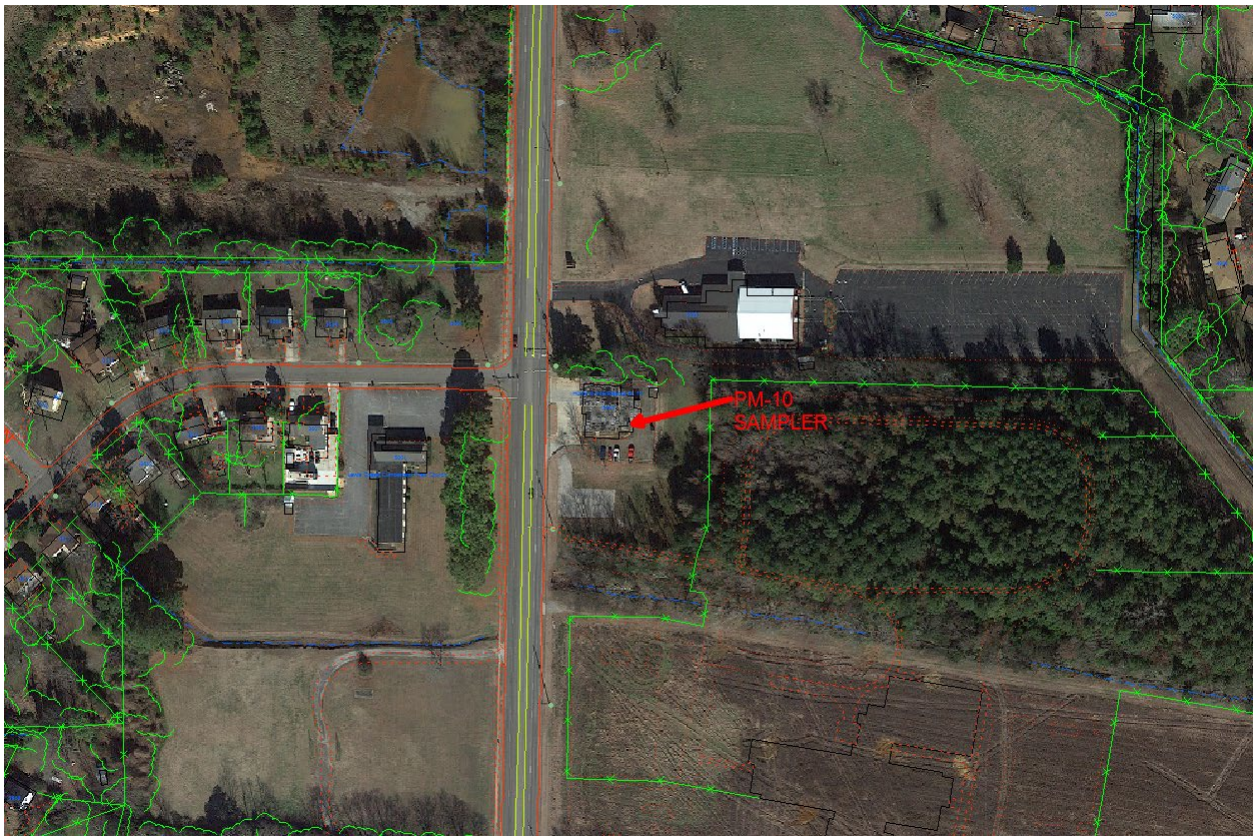
5/25/2022

Site #	Site Name	Pollutant	Monitoring Objective	Current Spatial Scale based on ADT* for nearest streets	Scale Meets Objective
0002	Pulaski	PM_{10}	Population	Neighborhood	Yes
0004	South Parkway	PM_{10}	High Conc.	Middle	Yes
0014	Airport Road	PM_{10}	Population	Urban	Yes
0014	Airport Road	$PM_{2.5}$	Population	Urban	Yes
0014	Airport Road	O_3	Population	Neighborhood	Yes
0022	Capshaw	O_3	High Conc.	Urban	Yes

Site #	Site Name	Pollutant	Monitoring Objective	Current Spatial Scale based on ADT* for nearest streets	Scale Meets Objective
0014	Airport Road (AQI Reporting)	PM_{10}	Population	Urban	Yes
0014	Airport Road (AQI Reporting)	$PM_{2.5}$	Population	Urban	Yes

Fire Station #10 Site
5006 Pulaski Pike
Huntsville, Alabama 35810
Madison County

AQS Site ID: 01-089-0002
Latitude: 34.788333
Longitude: -86.616111



AERIAL PHOTOGRAPH ¼ mile radius

Pollutant	Scale	Type	Monitoring Objective/CBSA	Method	Schedule	NAAQS	Date Began	Date Ended	Comment
PM_{10}	N	S	Population	H	6	Y	1/1/1991	Active	

NORTH

SOUTH

EAST

WEST

Pollutant	Distance between collocated inlets	Height of inlet	Distance of probe or inlet from trees	Distance of probe from nearest tree dripline	Distance of probe or monitor from nearest roadway	Type of ground cover around site	Probe material
PM_{10}	N/A	4.3m	24.4m	11.5m	30.5m	Asphalt Grass	Inlet

Fire Station #7 Site
11545 S. Memorial Parkway
Huntsville, Alabama 35803
Madison County

AQS Site ID: 01-089-0004
Latitude: 34.620278
Longitude: -86.566389

AERIAL PHOTOGRAPH ¼ mile radius

Pollutant	Scale	Type	Monitoring Objective/CBSA	Method	Schedule	NAAQS	Date Began	Date Ended	Comment
PM_{10}	M	S	High Concentration	H	6	Y	6/28/1990	Active	

NORTH

SOUTH

EAST

WEST

Monitor	Distance between collocated inlets	Height of inlet	Distance of probe or inlet from trees	Distance of probe from nearest tree dripline	Distance of probe from nearest roadway	Type of ground cover around site	Probe material
PM_{10}	N/A	4.3m	83.8m	77.7m	30.5m	Asphalt Grass	Inlet

Old Airport Site
John Hunt Park
3720 Russell Brown Drive SW
Huntsville, Alabama 35801
Madison County

AQS Site ID: 01-089-0014
Latitude: 34.68547
Longitude: -86.58816

AERIAL PHOTOGRAPH ¼ mile radius

Pollutant	Scale	Type	Monitoring Objective/CBSA	Method	Schedule	NAAQS	Date Began	Date Ended	Comment
PM_{10}	U	S	Population	H	6	Y	7/01/1988	Active	
PM_{10}	U	S	Population	H	6	Y	7/01/1988	Active	Collocated
PM_{10}	U	S	Population	L	C	Evaluation Period			
$PM_{2.5}$	U	S	Population	L	3	Y	1/01/1999	Active	
$PM_{2.5}$	U	S	Population	L	6	Y	1/01/1999	Active	Collocated
$PM_{2.5}$	U	S	Population	L	C	N	10/9/2003	Active	
$PM_{2.5}$	U	S	Population	L	C	Evaluation Period			
Ozone	N	S	Population	UV	C	Y	1/01/1975	Active	

NORTH

SOUTH

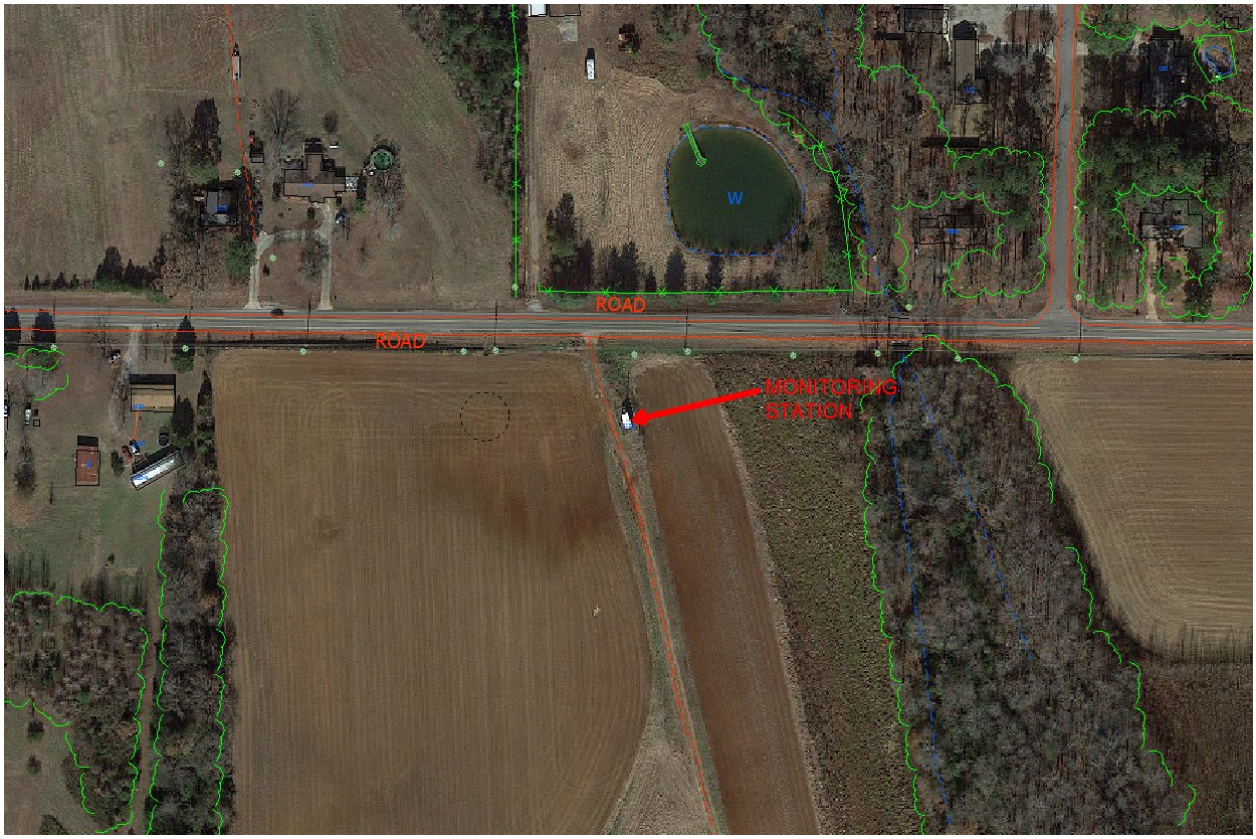
EAST

WEST

Monitor	Distance between collocated inlets	Height of inlet	Distance of probe or inlet from trees	Distance of probe from nearest tree dripline	Distance of probe from nearest roadway	Type of ground cover around site	Probe material
PM_{10}		5.9m	36.9m	32m	340m	Grass, Asphalt	Inlet
PM_{10}	2.03m	5.9m	36.9m	32m	340m	Grass, Asphalt	Inlet
$PM_{2.5}$ 2025		5.4m	36.9m	32m	340m	Grass, Asphalt	Inlet
$PM_{2.5}$ 2025	1.04m	5.4m	36.9m	32m	340m	Grass, Asphalt	Inlet
SPM PM_{10}	N/A	5.6m	36.9m	32m	340m	Grass, Asphalt	Inlet
SPM $PM_{2.5}$ TEOM	N/A	5.7m	36.9m	32m	340m	Grass, Asphalt	Inlet
SPM PM_{10}/$PM_{2.5}$ T-640x	N/A	5.7m	36.9m	32m	340m	Grass, Asphalt	Inlet
Ozone T400	N/A	5.6m	36.9m	32m	340m	Grass, Asphalt	PTFE

Capshaw Road Site
1130 Capshaw Road
Huntsville, Alabama 35757
Madison County

AQS Site ID: 01-089-0022
Latitude: 34.772727
Longitude: -86.756174



AERIAL PHOTOGRAPH ¼ mile radius

Pollutant	Scale	Type	Monitoring Objective/CBSA	Method	Schedule	NAAQS	Date Began	Date Ended	Comment
Ozone	U	S	Population Exposure	UV	C	Y	7/1/2011	Active	

NORTH

SOUTH

EAST

WEST

Monitor	Distance between collocated inlets	Height of inlet	Distance of probe from nearest tree	Distance of probe from nearest tree dripline	Distance of probe from nearest roadway	Type of ground cover around site	Probe material
Ozone T400	N/A	4.0m	48.8m	45.7m	30m	Grass, Ag Field	Teflon

Abbreviations used in Site Description Tables

Scale

N Neighborhood (0.5 – 4 Kilometers)
U Urban (overall citywide conditions, 4 – 50 kilometers)
R Regional (usually rural, with homogeneous geography, tens to hundreds of kilometers)
M Middle Scale

Type

S SLAMS
QA QA Collocated Monitor
SPM Special Purpose Monitor

Operating Schedule

C Continuous Monitor
D Daily 24-hour samples
3 1 24-hour sample every 3 days (on a national schedule)
6 1 24-hour sample every 6 days (on a national schedule)

Methods

H Hi-volume SSI sampler
L Low Volume SSI
T TEOM continuous sampler
U UV photometric ozone sampler
S Hi-Volume Total Suspended Particulate monitor

NAAQS[1]

Y,N Data suitable for comparison to NAAQS
[1] Collocated monitors must be operated in the same manner as the federal reference method but one monitor at the site is designated as the primary monitor for comparison to NAAQS

Network Plan Review Summary and Findings

The improvements and upgrades to DNREM's ambient air monitoring network initiated in 2020/2021 continue with the addition of an API T640x continuous $PM_{2.5}/PM_{10}$ monitor at Site 0014 (Old Airport/John Hunt Park). DNREM is currently operating the T640x as a SPM during a 12 to 24-month evaluation period. The T640x system is intended to operate as a FEM continuous monitor which will be capable of producing NAAQS comparable $PM_{2.5}$ and PM_{10} data after successful completion of the evaluation period. As part of DNREM's equipment replacement program, acquisition of two Teledyne T400 ozone analyzers and a Teledyne T753U ozone calibrator was completed during late 2021. The new analyzers and calibrator act as direct replacements for older units. Older equipment remaining in good operational condition are currently designated as backup monitors.

Additionally, to provide data with improved relevance for local ambient air quality, DNREM is in the initial phase of evaluating the option of transitioning some existing PM_{10} monitors to $PM_{2.5}$ monitors.

The existing network as summarized in the attached Air Monitoring Network Description complies with 40 CFR Part 58, Appendices A, C, D, and E requirements.