GEORGIA
DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

2026 Ambient Air Monitoring Plan

Air Protection Branch
Ambient Monitoring Program

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Acronyms and Glossary

AADT	Annual Average Daily Traffic
Aerosols	A gaseous suspension of fine solid or liquid particles
AM	Annual Mean
Anthropogenic	Resulting from human activity
APB	Air Protection Branch
AQS	Air Quality System
ARITH MEAN	Arithmetic Mean
ARM	Approved Regional Method
CAA	Clean Air Act
CBSA	Core Based Statistical Area
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CSA	Combined Statistical Area
CV	Coefficient of Variation
DNPH	Dinitrophenylhydrazine
EPA	United States Environmental Protection Agency
FEM	Federal Equivalent Method
FRM	Federal Reference Method- the official measurement technique for a given pollutant
GA AAMP	Georgia Ambient Air Monitoring Program
GA EPD	Georgia Environmental Protection Division
GEO MEAN	Geometric Mean
HAP	Hazardous Air Pollutant
HPLC	High Performance Liquid Chromatography
LOD	Limit of Detection
$\mu g/m^3$	Micrograms per cubic meter
m/s	Meter per second
MSA	Metropolitan Statistical Area, as defined by the U.S. Census Bureau
NAAQS	National Ambient Air Quality Standard
NATTS	National Air Toxics Trends Station
NCore	National Core Multipollutant Monitoring Network
NDV	Normalized Design Value
NMHC	Non-Methane Hydrocarbons
NO_2	Nitrogen Dioxide
NO_x	Oxides of Nitrogen
NO_y	Reactive oxides of Nitrogen
NWS	National Weather Service
O_3	Ozone
PAH	Polycyclic Aromatic Hydrocarbons
PAMS	Photochemical Assessment Monitoring Station
Pb	Lead
$PM_{2.5}$	Particles with an aerodynamic diameter of 2.5 microns or less
PM_{10}	Particles with an aerodynamic diameter of 10 microns or less
$PM_{10-2.5}$	Particles with an aerodynamic diameter between 2.5 and 10 microns
ppb	Parts per Billion

ppm	Parts per Million
Precursor	A substance from which another substance is formed
PUF	Polyurethane Foam
QTR	Calendar Quarter
Rawinsonde	A source of meteorological data for the upper atmosphere
SLAMS	State and Local Air Monitoring Stations
SO_2	Sulfur Dioxide
SPMS	Special Purpose Monitoring Stations
STN	Speciation Trends Network
TBD	To Be Determined
TEOM	Tapered Element Oscillating Microbalance
TNMOC	Total Non-Methane Organic Compounds
TRS	Total Reduced Sulfur
UV	Ultraviolet
VOC	Volatile Organic Compound
W/m^2	Watts per square meter
ZPS	Zero/Precision/Span

Agency Contacts

Access to More Information about the Ambient Air Monitoring Network

While this report includes a great deal of information about the Ambient Air Monitoring Network, much more information is readily available, including summaries of the pollutant data from the monitors around the state.

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1.0 Executive Summary

The Georgia Ambient Air Monitoring Program (GA AAMP) of the Georgia Environmental Protection Division (GA EPD) is submitting this *2026 Ambient Air Monitoring Plan* to the United States Environmental Protection Agency (EPA) Region 4 office as required by federal regulations under 40CFR58.10 (a)(1). The plan provides documentation of the establishment and maintenance of an air quality surveillance system in Georgia that meets all federal requirements found in Appendix A through E of 40CFR58, where applicable. In developing this plan, the GA AAMP assessed monitoring types and objectives, site appropriateness for air quality characterization, representative spatial scale to match objectives at each monitor, and appropriate new technologies. The plan describes the established sites across the State of Georgia, as well as the proposal to maintain or discontinue sites in the state's ambient air quality surveillance system. The plan confirms that the network continues to meet the State and Local Air Monitoring Stations (SLAMS) criteria established by federal regulations, and that the information in the state and federal monitoring records properly classifies each monitoring station. The plan also serves as a directory of existing SLAMS, Photochemical Assessment Monitoring Stations (PAMS), Speciation Trends Network (STN) and Supplemental Speciation sites, National Air Toxics Trends Stations (NATTS), National Core Multipollutant Monitoring Station (NCore), Near-road Monitoring Network, and the meteorological parameters performed at each location.

Prior to the Clean Air Act of 1970, the state health department conducted air monitoring in Georgia. In the early 1970's, the GA AAMP took over the responsibility of ambient air monitoring to better identify and control air pollutants in Georgia. The GA AAMP currently relies on a sampling network of 32 stations (including the EPA CASTNET site) to:

- determine whether air quality standards are being met
- track air quality improvements
- measure the impact of industrial expansions
- provide air pollution information to the public
- assist in enforcement actions

Since the publication of the *2025 Ambient Air Monitoring Plan*, there have been some changes to the state's ambient air monitoring network that should be noted.

Changes to Monitoring:

GA AAMP has updated the monitoring objective to include 'highest concentration' for the ozone monitors at the Fort Mountain (13-213-0003), Athens (13-059-0002), Macon-Forestry (13-021-0012), Columbus-Airport (13-215-0008), Savannah-E. President (13-051-0021), and Augusta (13-245-0091) sites.

GA AAMP has updated the monitoring objective to include 'highest concentration' for the $PM_{2.5}$ monitors at the Rome (13-115-0003), Brunswick (13-127-0006), Valdosta (13-185-0003), Warner Robins (13-153-0001), Albany (13-095-0007), Gainesville (13-139-0003), United Ave. (13-121-0055), Rossville-Williams St. (13-295-0004), Athens (13-059-0002), Macon-Allied (13-021-0007), Columbus-Baker (13-215-0012), Savannah L&A (13-051-1002), and Augusta (13-245-0091) sites.

At the request of Teledyne, to test the data alignment feature's relative humidity setting, the GA AAMP started collecting experimental (non-regulatory) data on January 3, 2025, changing the RH value to 5% on the continuous $PM_{2.5}$ Teledyne T640 at the Macon-Allied site (13-021-0007). On July 29, 2025, the RH setpoint was changed to 20%.

Per Teledyne's recommendation, GA AAMP adjusted the relative humidity on the $PM_{2.5}$ Teledyne T640s that are collocated with $PM_{2.5}$ federal reference method (FRM) samplers to evaluate the comparison to the $PM_{2.5}$ FRM. These $PM_{2.5}$ Teledyne T640s have the parameter code 88502 and are labeled SLAMS in the federal database, Air Quality System (AQS). They are not federal equivalent method (non-FEM) monitors. The list of $PM_{2.5}$ Teledyne T640 monitors with an adjusted RH setpoint and non-regulatory data include:

- Albany (13-095-0007) RH setpoint changed to 20% on 8/15/25
- Columbus-Baker (13-215-0012) RH setpoint changed to 20% on 8/15/25
- Gainesville (13-139-0003) RH setpoint changed to 10% on 8/15/25
- Macon-Allied Experiment (13-021-0007) RH setpoint changed to 5% on 1/28/25, and RH setpoint changed to 20% on 7/29/25; setpoint will be changed back to 35% once GA AAMP evaluates the issues identified in December 2025
- Rossville (13-295-0004) RH setpoint changed to 20% on 7/29/25
- Gwinnett Tech (13-135-0002) RH setpoint changed to 20% on 8/15/25
- Sandersville (13-303-0001) RH setpoint changed to 20% 8/15/25
- General Coffee Experiment (13-069-0002) RH setpoint changed to 10% on 7/29/2025

GA AAMP added an experimental $PM_{2.5}$ T640 monitor at the Macon-Allied (13-021-0007) site on January 3, 2025. The data collected with this monitor is not comparable to the NAAQS.

On July 29, 2025, GA AAMP changed the method collection for one of the T640s at the General Coffee site (13-069-0002) and began collecting $PM_{2.5}$ data that is not comparable to the NAAQS.

GA AAMP is requesting an extension for two more years (until at least August 2028) to evaluate the data alignment feature, during which these Teledyne T640 monitors will continue to be excluded from the $PM_{2.5}$ NAAQS comparison [40CFR 58.11(e)] at the following sites. These $PM_{2.5}$ Teledyne T640s have the parameter 88101, are labeled special purpose monitor (SPM), and have a NAAQS exclusion in AQS:

- Augusta (13-245-0091)
- Macon-Allied (13-021-0007)
- Valdosta (13-185-0003)

With the data alignment feature enabled on the Teledyne T640 $PM_{2.5}$ samplers, these sites continue to have data outside the additive vs. multiplicative bias polygon and bias higher than 5% when compared to the $PM_{2.5}$ FRM data, according to EPA's $PM_{2.5}$ Comparability Tool (https://www.epa.gov/outdoor-air-quality-data/pm25-continuous-monitor-comparability-assessments). See Appendix F for more details regarding the bias calculated with the tool at these sites.

GA EPD is currently evaluating the siting location of the sulfur dioxide (SO_2) monitor at the Augusta site (13-245-0091) and nearby area. Modeling is being conducted by the Planning and Support Program to determine the best location for the monitor. GA AAMP is in the process of testing equipment and collecting samples to help determine the most suitable location.

GA AAMP is planning to replace the shelter at the Augusta site (13-245-0091).

Due to increased traffic counts, GA AAMP requested and received a waiver from EPA on January 26, 2026 to continue monitoring ozone at the Gwinnett Tech site (13-135-0002). GA AAMP requests to continue this waiver. See Section 1.4 for more details.

GA AAMP is renewing the waiver for the PAMS meteorology sensors at the Conyers site (13-247-0001) that was addressed in previous Ambient Air Monitoring Plans.

GA AAMP is requesting to renew the siting waiver for the location of the monitors at the Empire Blvd site (13-121-0057). GA AAMP has collocated lead monitors at this site. Due to logistics of the microscale site, the monitors are less than 15 meters from the nearest road (Empire Blvd) and located near trees. See Section 1.4 for more details.

GA AAMP is requesting a siting waiver to continue monitoring at the General Coffee site (13-069-0002) despite trees obstructing the requirement of a 270° unrestricted airflow standard. See Section 1.4 for more details.

GA AAMP is requesting a siting waiver to continue monitoring at the NR-Georgia Tech site (13-121-0056) despite trees obstructing the requirement of a 270° unrestricted airflow standard and dripline issue. See Section 1.4 for more details.

GA AAMP is requesting a siting waiver to continue monitoring at the Macon-Forestry site (13-021-0012) despite trees obstructing the requirement of a 270° unrestricted airflow standard and dripline issue. See Section 1.4 for more details.

The $PM_{2.5}$ FRM sampling frequency at the Gainesville (13-139-0003), Gwinnett Tech (13-135-0002), and Rossville-Williams St. (13-295-0004) sites was changed from a daily schedule to a 1 in 3 day schedule on January 1, 2026.

The $PM_{2.5}$ FRM sampling frequency at the Columbus-Baker (13-215-0012) and Sandersville (13-303-0001) sites was changed from a daily schedule to a 1 in 3 day schedule on April 1, 2026.

The collocated $PM_{2.5}$ FRM sampling frequency at the Albany (13-059-0007) site was changed from a 1 in 3 day schedule to a 1 in 12 day schedule on April 1, 2026.

On March 9, 2026, EPA approved the reclassification of the $PM_{2.5}$ FRM monitor at NR-GA Tech site (13-121-0056) to a non-regulatory, non-NAAQS monitor for the purpose of comparison to the annual $PM_{2.5}$ NAAQS. Refer to the *Addendum to 2024 Ambient Air Monitoring Plan* for more information on GA AAMP's request.

GA AAMP began monitoring for seventeen VOC parameters at Savannah E. President St. site (13-051-0021) on June 23, 2025, as part of a community study in Rincon, GA to characterize the air for specific compounds.

The owner of the land at the Rossville-Williams St. site (13-295-0004) is planning to change the use of the land and has asked that the site be relocated. GA AAMP is in the process of trying to

find another location for the site. The site will be temporarily shut down in May 2026 until GA AAMP relocates the site.

1.1 Mandate

This document is produced in response to duties mandated to ambient air monitoring agencies in 40CFR58.10:

> ***40 CFR PART 58.10: Annual monitoring network plan and periodic network assessment.***
>
> *(a)(1) Beginning July 1, 2007, the state, or where applicable local, agency shall submit to the Regional Administrator an annual monitoring network plan which shall provide for the documentation of the establishment and maintenance of an air quality surveillance system that consists of a network of SLAMS monitoring stations that can include FRM, FEM, and ARM monitors that are part of SLAMS, NCore, CSN, PAMS, and SPM stations. The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, B, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement. The annual monitoring network plan must be made available for public inspection and comment for at least 30 days prior to submission to the EPA and the submitted plan shall include and address, as appropriate, any received comments.*
> *(2) Any annual monitoring network plan that proposes network modifications (including new or discontinued monitoring sites, new determinations that data are not of sufficient quality to be compared to the NAAQS, and changes in identification of monitors as suitable or not suitable for comparison against the annual $PM_{2.5}$ NAAQS) to SLAMS networks is subject to the approval of the EPA Regional Administrator, who shall approve or disapprove the plan within 120 days of submission of a complete plan to the EPA.*
> *(3) The plan for establishing required NCore multipollutant stations shall be submitted to the Administrator not later than July 1, 2009. The plan shall provide for all required stations to be operational by January 1, 2011.*
> *(4) A plan for establishing source-oriented Pb monitoring sites in accordance with the requirements of appendix D to this part for Pb sources emitting 1.0 tpy or greater shall be submitted to the EPA Regional Administrator no later than July 1, 2009, as part of the annual network plan required in paragraph (a)(1) of this section. The plan shall provide for the required source-oriented Pb monitoring sites for Pb sources emitting 1.0 tpy or greater to be operational by January 1, 2010. A plan for establishing source-oriented Pb monitoring sites in accordance with the requirements of appendix D to this part for Pb sources emitting equal to or greater than 0.50 tpy but less than 1.0 tpy shall be submitted to the EPA Regional Administrator no later than July 1, 2011. The plan shall provide for the required source-oriented Pb monitoring sites for Pb sources emitting equal to or greater than 0.50 tpy but less than 1.0 tpy to be operational by December 27, 2011.*
> *(5)(i) A plan for establishing or identifying an area-wide NO_2 monitor, in accordance with the requirements of Appendix D, section 4.3.3 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2012. The plan shall provide for these required monitors to be operational by January 1, 2013.*

(ii) A plan for establishing or identifying any NO_2 monitor intended to characterize vulnerable and susceptible populations, as required in Appendix D, section 4.3.4 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2012. The plan shall provide for these required monitors to be operational by January 1, 2013.

(iii)A plan for establishing a single near-road NO_2 monitor in CBSAs having 1,000,000 or more persons, in accordance with the requirements of Appendix D, section 4.3.2 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2013. The plan shall provide for these required monitors to be operational by January 1, 2014.

(iv)A plan for establishing a second near-road NO_2 monitor in any CBSA with a population of 2,500,000 persons or more, or a second monitor in any CBSA with a population of 1,000,000 or more persons that has one or more roadway segments with 250,000 or greater AADT counts, in accordance with the requirements of appendix D, section 4.3.2 to this part, shall be submitted as part of the Annual Monitoring Network Plan to the EPA Regional Administrator by July 1, 2014. The plan shall provide for these required monitors to be operational by January 1, 2015.

(6) A plan for establishing SO_2 monitoring sites in accordance with the requirements of appendix D to this part shall be submitted to the EPA Regional Administrator by July 1, 2011 as part of the annual network plan required in paragraph (a) (1). The plan shall provide for all required SO_2 monitoring sites to be operational by January 1, 2013.

(7)A plan for establishing CO monitoring sites in accordance with the requirements of appendix D to this part shall be submitted to the EPA Regional Administrator. Plans for required CO monitors shall be submitted at least six months prior to the date such monitors must be established as required by section 58.13.

(8)(i) A plan for establishing near-road $PM_{2.5}$ monitoring sites in CBSAs having 2.5 million or more persons, in accordance with the requirements of appendix D to this part, shall be submitted as part of the annual monitoring network plan to the EPA Regional Administrator by July 1, 2014. The plan shall provide for these required monitoring stations to be operational by January 1, 2015.

(ii) A plan for establishing near-road $PM_{2.5}$ monitoring sites in CBSAs having 1 million or more persons, but less than 2.5 million persons, in accordance with the requirements of appendix D to this part, shall be submitted as part of the annual monitoring network plan to the EPA Regional Administrator by July 1, 2016. The plan shall provide for these required monitoring stations to be operational by January 1, 2017. (EPA has retracted this requirement.)

(9) The annual monitoring network plan shall provide for the required O_3 sites to be operating on the first day of the applicable required O_3 monitoring season in effect on January 1, 2017 as listed in Table D-3 of appendix D of this part.

(10)A plan for making Photochemical Assessment Monitoring Stations (PAMS) measurements, if applicable, in accordance with the requirements of appendix D paragraph 5(a) of this part shall be submitted to the EPA Regional Administrator no later than July 1, 2018. The plan shall provide for the required PAMS measurements to begin by June 1, 2019 (On January 8, 2020 (85 FR 834, page 834), EPA delayed the start of the revised PAMS monitoring network to June 1, 2021.)

(11)An Enhanced Monitoring Plan for O_3, if applicable, in accordance with the requirements of appendix D paragraph 5(h) of this part shall be submitted to the EPA Regional Administrator no later than October 1, 2019 or two years following the effective

date of a designation to a classification of Moderate or above O_3 nonattainment, whichever is later.

(12)A detailed description of the PAMS network being operated in accordance with the requirements of appendix D to this part shall be submitted as part of the annual monitoring network plan for review by the EPA Administrator. The PAMS Network Description described in section 5 of appendix D may be used to meet this requirement.

(b) The annual monitoring network plan must contain the following information for each existing and proposed site:

(1) The AQS site identification number.

(2) The location, including street address and geographical coordinates.

(3) The sampling and analysis method(s) for each measured parameter.

(4) The operating schedules for each monitor.

Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal.

(5) The monitoring objective and spatial scale of representativeness for each monitor as defined in appendix D to this part.

(6) The identification of any sites that are suitable and sites that are not suitable for comparison against the annual $PM_{2.5}$ NAAQS as described in §58.30.

(7) The MSA, CBSA, CSA or other area represented by the monitor.

(8)The designation of any Pb monitors as either source-oriented or non-source-oriented according to Appendix D to 40 CFR part 58.

(9)Any source-oriented monitors for which a waiver has been requested or granted by the EPA Regional Administrator as allowed for under paragraph 4.5(a)(ii) of Appendix D to 40 CFR part 58.

(10)Any source-oriented or non-source-oriented site for which a waiver has been requested or granted by the EPA Regional Administrator for the use of Pb-PM_{10} monitoring in lieu of Pb-TSP monitoring as allowed for under paragraph 2.10 of Appendix C to 40 CFR part 58.

(11)The identification of required NO_2 monitors as near-road, area-wide, or vulnerable and susceptible population monitors in accordance with Appendix D, section 4.3 of this part.

(12)The identification of any $PM_{2.5}$ FEMs and/or ARMs used in the monitoring agency's network where the data are not of sufficient quality such that data are not to be compared to the NAAQS. For required SLAMS where the agency identifies that the $PM_{2.5}$ Class III FEM or ARM does not produce data of sufficient quality for comparison to the NAAQS, the monitoring agency must ensure that an operating FRM or filter-based FEM meeting the sample frequency requirements described in §58.12 or other Class III $PM_{2.5}$ FEM or ARM with data of sufficient quality is operating and reporting data to meet the network design criteria described in appendix D to this part.

(c)The annual monitoring network plan must document how state and local agencies provide for the review of changes to a $PM_{2.5}$ monitoring network that impact the location of a violating $PM_{2.5}$ monitor. The affected state or local agency must document the process for obtaining public comment and include any comments received through the public notification process within their submitted plan.

(d)The state, or where applicable local, agency shall perform and submit to the EPA Regional Administrator an assessment of the air quality surveillance system every 5 years to determine, at a minimum, if the network meets the monitoring objectives defined in appendix D to this part, whether new sites are needed, whether existing sites are no longer needed and can be terminated, and whether new technologies are appropriate for

incorporation into the ambient air monitoring network. The network assessment must consider the ability of existing and proposed sites to support air quality characterization for areas with relatively high populations of susceptible individuals (e.g., children with asthma), and, for any sites that are being proposed for discontinuance, the effect on data users other than the agency itself, such as nearby states and tribes or health effects studies. The state, or where applicable local, agency must submit a copy of this 5-year assessment, along with a revised annual network plan, to the Regional Administrator. The assessments are due every five years beginning July 1, 2010.

(e) All proposed additions and discontinuations of SLAMS monitors in annual monitoring network plans and periodic network assessments are subject to approval according to §58.14.

Within this document, the GA AAMP has included the metropolitan statistical area (MSA) represented by each site, which was derived from the following map (Figure 1), as requested above in paragraph 40CFR58.10(a)(3)(b)(8). The U.S. Census Bureau defines an MSA as a geographic entity containing a core urban area of 50,000 or more population and consists of one or more counties containing the core urban area, as well as adjacent counties that have a high degree of social and economic integration with the urban core (http://www.census.gov).

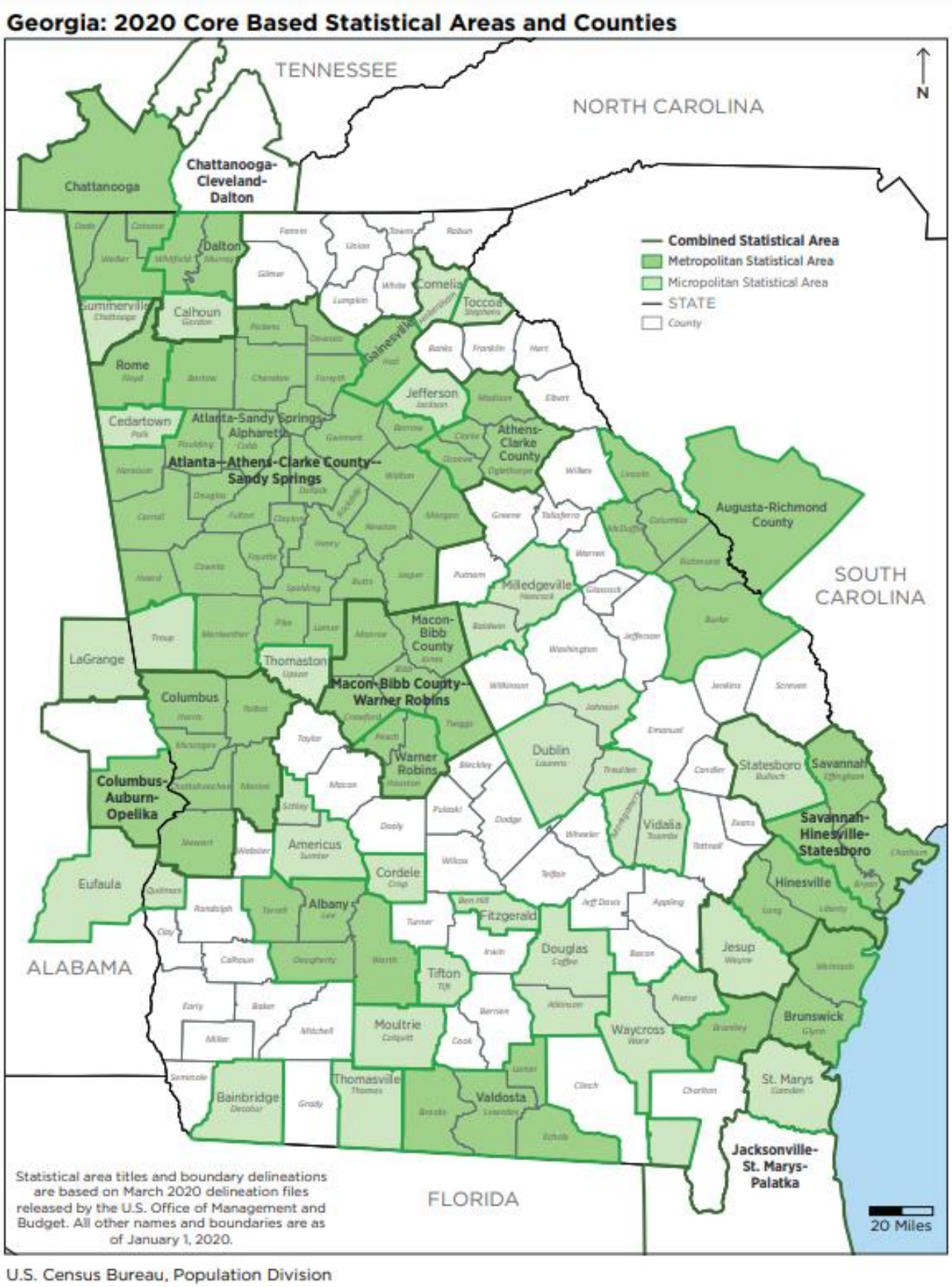


Figure 1: Map of Statistical Areas in Georgia

1.2 Procedures for Making Changes to the Monitoring Network

In some circumstances, monitors must be shut down or moved. While the Ambient Monitoring Program of GA AAMP makes every effort to maintain continued operation of all required monitors, it operates as a guest or leaseholder at all monitoring sites. The GA AAMP does not hold ownership rights to the land at any of its ambient air monitoring sites. If the GA AAMP loses its lease or is otherwise forced to leave a given site, the monitors at that site may be moved to a nearby location [40CFR58.14(c)(6)].

1.3 Memorandum of Agreement

The GA AAMP has memorandum of agreements with the Chattanooga-Hamilton County Air Pollution Control Bureau and the South Carolina Department of Environmental Services (formerly known as South Carolina Department of Health and Environmental Control) for air monitoring activities in MSAs that cross state lines.

As stated in the Memorandum of Agreement dated January 2027, "The purpose of the Memorandum of Agreement (MOA) is to establish the Chattanooga-Hamilton County-Walker County Metropolitan Statistical Area (MSA) Criteria Pollutant Air Quality Monitoring Agreement between CHCAPCB [Chattanooga-Hamilton County Air Pollution Control Bureau] and GAEPDAPB [Georgia Environmental Protection Division Air Protection Branch] (collectively referred to as the "affected agencies") to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less (PM10), particles of an aerodynamic diameter of 2.5 micrometers and less ($PM_{2.5}$), and ozone; as well as other criteria pollutant air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will establish the terms and conditions of this collective agreement to provide adequate criteria pollutant monitoring for the Chattanooga–Hamilton County-Walker Co, GA MSA as required by 40CFR58 Appendix D, Section 2, (e)." For full MOA documentation, see Appendix E of this document.

The Memorandum of Agreement dated January 2027 states, "The purpose of the Memorandum of Agreement (MOA) is to renew the Augusta-Richmond County Metropolitan Statistical Area (MSA) Criteria Pollutant Air Quality Monitoring Agreement between SCDHEC [South Carolina Department of Health and Environmental Control] and GA EPD (collectively referred to as the "affected agencies") to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less (PM10), particles of an aerodynamic diameter of 2.5 micrometers and less ($PM_{2.5}$), and ozone; as well as other criteria pollutant air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will establish the terms and conditions of this collective agreement to provide adequate criteria pollutant monitoring for the Augusta–Richmond County MSA as required by 40CFR58 Appendix D, Section 2, (e)." For full MOA documentation, see Appendix E of this document.

For the Columbus, GA-AL MSA, both the Alabama Department of Environmental Management and the GA AAMP have agreed to fully cover EPA's regulations for monitoring their respective state.

1.4 Request for Waiver

Albany Site Waiver Request:
Per 40 CFR Part 58, Appendix E, Section 10, GA AAMP is requesting a waiver for the new location of the monitors at the Albany site. Due to logistics, the monitors are less than 15 meters from the nearest road (School Street). After much consideration and discussion with EPA, GA AAMP and EPA are in agreement that the road has minimal impact on the air monitors and they are representative of the neighborhood scale. School Street has less than 4,430 annual average daily traffic count. In addition, as explained in the *Addendum to 2023 Ambient Air Monitoring Plan*, after much examination of the Turner Elementary School property, the monitors cannot reasonably be located in another area on the school property due to the gravel road possibly impacting sampling, difficult access to power, impinging on school field activities, or being too close to the playground. The current Albany site is important to maintain for the continuity of data collection. GA AAMP has collected data at the Albany site since 1991, and with long term data collection, the data can be used for trends and longevity analyses. In addition, the Albany site has consistently had some higher readings due to the agricultural burns in the area and beneficial to reflect concentrations in the Albany MSA. Please refer to the Addendum to *2023 Ambient Air Monitoring Plan* for more details.

Renewal of Solar and TUVR Radiation at Conyers Site:
The GA AAMP is requesting a waiver to continue monitoring the solar radiation and total ultraviolet radiation at the Conyers site (13-247-0001) for the South DeKalb (13-089-0002) PAMS site. The South DeKalb monitoring site does not fit the necessary guidelines for measurement of solar radiation, due to the topography of the site location. Solar radiation measurements from the total global solar radiation sensor must be made from a location that is free from any obstruction which may cause a shadowing effect. In addition, the pyranometer must be located away from highly reflective surfaces, which may cause enhanced optical scattering and overestimate the incoming total solar radiation. The required total ultraviolet radiation and solar radiation measurements are collected at the Conyers monitoring site, which meets necessary criteria.

Lead Monitoring Waiver Request:
Per 40 CFR Part 58, Appendix E, Section 10, GA AAMP is requesting a waiver for the location of the monitors at the Empire Blvd site (13-121-0057). GA AAMP has collocated lead monitors at this site. Due to logistics of the microscale site, the monitors are less than 15 meters from the nearest road (Empire Blvd) and located near trees. GA AAMP and EPA are in agreement that the road has minimal impact on the air monitors and they are representative of the microscale. Empire Blvd has less than approximately 2,780 annual average daily traffic count. In addition, the monitors cannot reasonably be located in another area to minimize safety concerns and have the least amount of unobstructed wind flow in the vicinity.

Gwinnett Tech Site Waiver Request:
On January 26, 2026, GA AAMP received EPA's approval for a site waiver at the Gwinnett Tech site (13-135-0002). GA AAMP will continue to monitor at this location until a suitable site is determined. GA AAMP has attempted to find a location with proper distance from roads, and open fetch for ambient air data collection. GA AAMP has researched several areas near the existing site, including several schools suggested by EPA. At each location, the open spaces seem to be used for playgrounds and sporting events. Any of the areas that are not in open spaces are either too close to busy highways and roads, buildings, trees and do not allow for at least 270 degrees of continuous air flow. GA AAMP cannot locate the site on top of the school for safety reasons for the site

operators/field auditors, as well as the ambient air monitoring includes the use of a site shelter. Thus far, GA AAMP has been unable to locate a suitable location to establish an ambient air monitoring site that will accommodate the footprint needed with the site shelter. Therefore, GA AAMP is requesting to continue this waiver.

General Coffee Site Waiver Request:
Per 40 CFR Part 58, Appendix E, Section 10, GA AAMP is requesting a waiver to continue monitoring at the General Coffee site (13-069-0002) location. On July 7, 2025, a site survey was conducted at the General Coffee site, and the Field Auditor found that trees were obstructing the monitor and violating the requirement of a 270° unrestricted airflow standard. This site is located in General Coffee State Park, therefore GA AAMP is unable to cut down the trees.

NR-GA Tech Site Waiver Request:
On August 11, 2025, a site survey was conducted at the NR-GA Tech site and the Field Auditor found that an oak tree to the south and a magnolia tree to the north were obstructing the monitors for the requirement of a 270° unrestricted airflow standard for particulate matter, carbon monoxide (CO), and nitrogen dioxide (NO_2). Per 40 CFR Part 58, Appendix E, Section 10, GA AAMP is requesting a waiver to continue monitoring at the NR-GA Tech site (13-121-0056) location. The monitoring station is meeting an unrestricted air flow for a continuous 180° and a cumulative unobstructed arc of 300°. Therefore, the site meets the grandfathered 270° cumulative standard. However, some of the monitors at the site are not meeting the ≥10 meters from the dripline. GA AAMP has cut the trees down as much as possible; however, the remaining cuts are under the Georgia Department of Transportation's purview. GA AAMP is working with GA DOT to cut the trees.

Macon-Forestry Site Waiver Request:
Per 40 CFR Part 58, Appendix E, Section 10, GA AAMP is requesting a waiver to continue monitoring at the Macon-Forestry site (13-021-0012) location. On December 29, 2025, a site survey was conducted at the Macon-Forestry site, and the Field Auditor found that trees were obstructing the monitors for the requirement of a 270° unrestricted airflow standard. The monitoring station is meeting an unrestricted air flow for a continuous 225° and a cumulative unobstructed arc of 295°. Therefore, the site meets the grandfathered 270° cumulative standard. However, some of the monitors at the site are not meeting the ≥10 meters from the dripline.

1.5 Air Quality Index (AQI)

The Air Quality Index (AQI) is a method of reporting daily air quality that converts concentration levels of pollution to a simple color-coded number scale of 0-500. Colored categories on the AQI scale are related to potential health effects from exposure to measured concentrations of a major pollutant. Certain monitoring stations in the GA AAMP's SLAMS network provide data used in daily AQI reporting. Figure 2 shows how the monitored concentrations correspond to the AQI values, descriptors, and health advisories. AQI reporting is required for all urban areas with a population exceeding 350,000, which in Georgia include the Atlanta-Sandy Springs-Alpharetta MSA; the Augusta- Richmond County, GA-SC MSA; the Savannah MSA; and the Chattanooga TN-GA MSA. The GA AAMP provides daily AQI reporting to the general public in Georgia through the Ambient Monitoring Program website (https://airgeorgia.org/). The Chattanooga, Tennessee-Georgia MSA AQI reporting is covered by the GA AAMP and the Chattanooga-Hamilton County Air Pollution Control Bureau per the MOA, as discussed above. The Augusta-

Richmond County, GA-SC MSA AQI is covered by the GA AAMP and the South Carolina Department of Environmental Services per the MOA.

Maximum Pollutant Concentration									
$PM_{2.5}$ (24hr) $\mu g/m^3$	PM_{10} (24hr) $\mu g/m^3$	SO_2 (1hr)* ppb	O_3 (8hr)^ ppm	O_3 (1hr) ppm	CO (8hr) ppm	NO_2 (1hr) ppb	AQI Value	Descriptor	EPA Health Advisory
0.0–9.0	0– 54	0– 35	0.000–0.054	None	0.0–4.4	0– 53	0 to 50	**Good (green)**	Air quality is considered satisfactory, and air pollution poses little or no risk.
9.1–35.4	55–154	36–75	0.055–0.070	None	4.5–9.4	54-100	51 to 100	**Moderate (yellow)**	Air quality is acceptable; however, for some pollutants there may be a moderate health concern for a very small number of people. For example, people who are unusually sensitive to the condition of the air may experience respiratory symptoms.
35.5–55.4	155 – 254	76 – 185	0.071 – 0.085	0.125 – 0.164	9.5–12.4	101-360	101 to 150	**Unhealthy for Sensitive Groups**	Members of sensitive groups (people with lung or heart disease) are at greater risk from exposure to particle pollution. Those with lung disease are at risk from exposure to ozone. The general public is not likely to be affected in this range.
55.5–125.4	255–354	186–304*	0.086–0.105	0.165–0.204	12.5–15.4	361-649	151 to 200	**Unhealthy (red)**	Everyone may begin to experience health effects in this range. Members of sensitive groups may experience more serious health effects.
125.5–225.4	355–424	305–604*	0.106–0.200	0.205–0.404	15.5–30.4	650-1249	201 to 300	**Very Unhealthy (purple)**	AQI values in this range trigger a health alert. Everyone may experience more serious health effects. When the AQI is in this range because of ozone, most people should restrict their outdoor exertion to morning or late evening hours to avoid high ozone exposures.
225.5+	425–504	605–804*	0.201-(^)	0.405 – 0.504	30.5–40.4	1250-1649	301 to 400	**Hazardous (maroon)**	AQI values over 300 trigger health warnings of emergency conditions. The entire population is more likely to be affected.
	505–604	805–1004*	None^	0.505–0.604	40.5–50.4	1650-2049	401 to 500		

*Values of 200 or greater are calculated with 24-hr SO_2 concentrations; ^Values of 301 or greater are calculated with 1-hr O_3 concentrations

Figure 2: Detailed AQI Values by Pollutant

1.6 QAPP and QMP

As part of the requirements for EPA (40CFR58 Appendix A), the GA AAMP has submitted the appropriate Quality Assurance Project Plans (QAPP) and Quality Monitoring Plans (QMP). The following table shows the current status of submittals and approvals of these documents.

Table 1: List of Georgia AAMP's QAPPs

QAPP Title	Submittal	Approval
Quality Assurance Project Plan of the Georgia Ambient Air Quality Monitoring Project for $PM_{2.5}$	5/2026 (Annual)	4/7/2023 (5-year approval)
Quality Assurance Project Plan of the Georgia Ambient Air Quality Monitoring Project for the Criteria Air Pollutants and National Core Multi-Pollutant Station	5/2026 (Annual)	5/19/2023 (5-year approval)
Quality Assurance Project Plan of the Georgia Ambient Air Quality Monitoring Project for the Photochemical Assessment Monitoring Stations State of Georgia	6/30/2025 (Annual)	12/4/2023 (5-year approval)
Quality Assurance Project Plan of the Georgia Ambient Air Quality Monitoring Project for the Near Road Monitoring Network	3/4/2026 (Annual)	1/25/2023 (5-year approval)
Quality Assurance Project Plan for the Georgia National Air Toxics Trends Project	5/14/2024 (Annual)	11/22/2022 (5-year approval)
Quality Assurance Project Plan for the Georgia Ambient Air Monitoring Program for Lead	12/9/2025	6/14/2024 (5-year approval)
Quality Assurance Project Plan for the Georgia Ambient Air Monitoring Program for Special Projects	3/27/2024	
Quality Assurance Project Plan for the Georgia Ambient Air Monitoring Program to Assess VOCs in the Savannah Area	1/20/2026	1/27/2026
Georgia Environmental Protection Division Quality Management Plan	6/2025	Awaiting approval

1.7 Public Notice and Comment Procedures

Future changes to the monitoring network are subject to a required public notice and comment process before EPA approval is sought for the changes. Any public comments submitted in response to this document's notice and comment process will be submitted to EPA along with the final document. Persons wishing to comment on proposed changes and documentation are required to submit their comments, in writing, to the GA AAMP at the following address:

Air Protection Branch
Attn: Annual Air Monitoring Plan Comments
4244 International Parkway, Suite 120
Atlanta, Georgia 30354

In addition, public comments can be submitted in writing to Jaime Gore, Program Manager of the Ambient Monitoring Program, at Jaime.Gore@dnr.ga.gov or to Air-General.Comments@dnr.ga.gov. The deadline for submitting comments to the GA AAMP is no later than 30 days after the date on which the document is published on https://airgeorgia.org/. Should the comment period end on a weekend or holiday, comments will be accepted up until the next working day. The GA AAMP, in soliciting comments for the final draft before submittal to EPA as required by 40CFR58.10(a)(1), will address, as appropriate, any comments received before the deadline.

The GA AAMP's responses to comments and any other relevant information will be included in the final document published on https://airgeorgia.org/.

1.8 Use of Data

The ambient air monitoring data is used to determine whether [the] National Ambient Air Quality Standards as defined by EPA are being met, and if the state of Georgia has areas of attainment, nonattainment, or maintenance according to these standards. GA AAMP collects ambient air monitoring data covering both criteria and non-criteria pollutants. This data is used by several different groups and has many uses from public health studies to making regulatory decisions. The data is used to provide air pollution information to the public, including the Air Quality Index (discussed above in Section 1.5), the GA Ambient Air Monitoring Program website (https://airgeorgia.org/) with hourly readings of continuous data, and finally producing a forecast of the air quality which is reported in AirNow and various news reports to the public. The data is used to assist in enforcement actions with permitting and compliance, and to determine the extent of allowable industrial expansion. State modelers as well as private consultants use air monitoring data to help make these determinations. The ambient air monitoring data has been used by non-governmental planning groups, such as the Georgia Commute Options, and intergovernmental groups, such as Atlanta Regional Commission, to make recommended improvements for cities across the state.

GA AAMP routinely has requests of ambient air monitoring data from other states, various universities, research institutes, and federal agencies such as Centers for Disease Control. The data is used to determine the improvement or declination of air quality, and how the air quality is related to human and environmental health. In addition, the data has been used in international studies to compare with major cities around the world.

Annually, the GA AAMP provides an Ambient Air Surveillance report that summarizes and analyzes the previous year's ambient air data, including a risk assessment, for the general public. In addition, GA AAMP produces an Ambient Air Monitoring Plan on an annual basis. The Ambient Air Monitoring Plan details the location and site-specific data for each monitor in GA AAMP's ambient monitoring network, as well as GA AAMP's plans for changes to the network. This document is made available for public review and comment regarding placement of ambient air monitors and collection of ambient air data. Both the Ambient Air Surveillance Report and Ambient Air Monitoring Plan are also found on the website listed above.

1.9 New Technologies

At a few sites across the state, GA AAMP is planning to add new monitoring equipment in which new technologies will be put to use. The GA AAMP has begun installing and using the Thermo

49iQ ozone analyzers, and plans to install Thermo 43iQ SO_2 analyzers, and Thermo 48iQTL CO analyzers. GA AAMP is installing the new 2025i model for integrated $PM_{2.5}$ monitoring. In addition, the TEOM 1405 replaced the TEOM 1400AB model at the Near-road-GA Tech site on November 19, 2025. The Georgia Tech School of Civil and Environmental Engineering chose their Capstone Design Project to be the design of a Mobile Air Monitoring Laboratory for the GA AAMP. The final design was presented in May of 2024, and the GA AAMP is currently working on installing and implementing the monitors. For more information about technology used in the GA AAMP network, refer to Appendix C.

1.10 Georgia AAMP Budget

GA AAMP's budget is made up of a combination of three sources: state funds, federal funds, and fee funds. In recent years, GA AAMP has had budget and personnel constraints, and since the last *Ambient Air Monitoring Plan* there has been some fluctuation in the number of ambient air monitoring samplers across the state. A complete list of the monitors that have been shut down since the last publication of the *Ambient Air Monitoring Plan* can be found in Appendix D of this document.

1.11 Inventory of Ambient Monitoring Equipment

As part of the requirements for the *Ambient Air Monitoring Plan*, the GA AAMP has included a list of the current ambient monitoring equipment. See attached Appendix B of this document for the inventory listing.

1.12 List of Sites

The following table gives a complete list of the current air monitoring network and the parameters that are sampled at each site.

Table 2: 2026 Georgia Ambient Air Monitoring Network

SITE ID	SITE NAME	COUNTY	O_3	CO	$PM_{2.5}$ FRM	$PM_{2.5}$ Cont.	$PM_{2.5}$ Spec.	PM Coarse	Pb	NO/ NOx	NO_2	NOy	SO_2	PM_{10}	PM_{10} Cont.	PAMS VOC	VOC	SVOC	Carb-onyls	Meteo-rology	Black Carbon	Metals
Rome MSA																						
131150003	Rome	Floyd				S	X															
Brunswick MSA																						
131270006	Brunswick	Glynn	S		S	S														NR		
Valdosta MSA																						
131850003	Valdosta	Lowndes			S	S																
Warner Robins MSA																						
131530001	Warner Robins	Houston			S	S																
Dalton MSA																						
132130003	Fort Mountain	Murray	S																	NR		
Albany MSA																						
130950007	Albany	Dougherty			S	S																
Gainesville MSA																						
131390003	Gainesville	Hall			S	S																
Athens-Clarke County MSA																						
130590002	Athens	Clarke	S			S																
Macon-Bibb County, MSA																						
130210007	Macon-Allied	Bibb			S	S	X															
130210012	Macon-Forestry	Bibb	S		S								S							NR		
Columbus Georgia- Alabama MSA																						
132150008	Columbus-Airport	Muscogee	S		S																	
132150012	Columbus-Baker	Muscogee			S	S	X															
Savannah MSA																						
130510021	Savannah-E. President	Chatham	S										S							NR		
130511002	Savannah- L&A	Chatham			S	S							S							NR		
Augusta-Richmond County, Georgia-South Carolina MSA																						
132450091	Augusta	Richmond	S		S	S	X						S		S					NR		

Table 2: 2026 Georgia Ambient Air Monitoring Network (continued)

SITE ID	SITE NAME	COUNTY	O_3	CO	$PM_{2.5}$ FRM	$PM_{2.5}$ Cont.	$PM_{2.5}$ Spec.	PM Coarse	Pb	NO/ NOx	NO_2	NOy	SO_2	PM_{10}	PM_{10} Cont.	PAMS VOC	VOC	SVOC	Carb-onyls	Meteo-rology	Black Carbon	Metals
Atlanta-Sandy Springs-Alpharetta MSA																						
130630091	Forest Park	Clayton			S																	
130670003	Kennesaw	Cobb	S																			
130850001	Dawsonville	Dawson	S																	NR		
130890002	South DeKalb	DeKalb	S/P/C	S/P/C	S/C	S/C	T/C	S		S/P	S/P	S/P/ C	C		C	P	N	N	P/N	P/C		N
130890003	NR-285	DeKalb								R	R						R				R	
130970004	Douglasville	Douglas	S																	NR		
131210039	Fire Station #8	Fulton			S									S								
131210055	United Ave.	Fulton	S			S							S							NR		
131210056	NR-GA Tech	Fulton		R	R	R					R									R	R	
131210057	Empire Blvd	Fulton							S													
131350002	Gwinnett Tech	Gwinnett	S		S	S																
131510002	McDonough	Henry	S			S																
132319991	EPA CASTNET	Pike	A																			
132470001	Conyers	Rockdale	S																	NR/P		
Chattanooga Tennessee-Georgia MSA																						
132950004	Rossville-Williams St.	Walker			S	S	X															
Not in an MSA																						
130690002	General Coffee	Coffee			S	S	X															
133030001	Sandersville	Washington			S	S																

Monitoring Types: S=SLAMS; P=PAMS; C=NCore; X=Supplemental Speciation; T=STN; N=NATTS; R=Near-road; NR=Non-Regulatory; G=General Information; A=CASTNET

2.0 Standards

Measuring pollutant concentrations in ambient air and comparing the measured concentrations to corresponding standards determine the ambient air quality status for the six criteria pollutants. The six criteria pollutants are sulfur dioxide (SO_2), particulate matter ($PM_{2.5}$ and PM_{10}), carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), and lead (Pb). The EPA defines ambient air as that portion of the atmosphere, external to buildings, to which the general public has access.

The National Ambient Air Quality Standards (NAAQS) are divided into primary and secondary standards[1]. Primary standards are those established to protect public health. Secondary standards are those established to protect the public welfare from adverse pollution effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, climate, property, transportation, economy, personal comfort and well-being. The scientific criteria upon which the standards are based are reviewed periodically by EPA, which may reestablish or change the standards according to its findings. Note that there are hundreds of compounds that are generally considered pollutants when found in ambient air, but whose health and welfare effects are not well enough understood for ambient standards to be defined.

A pollutant measurement that is greater than the ambient air quality standard for a specific averaging time is called an exceedance. An exceedance does not always imply that a violation of the standard took place. For each pollutant, there are specific rules for a given time period before a pattern of exceedances is considered a violation of the NAAQS. If a violation occurs, it may result in regulatory actions to further clean up the air in the area where the violation occurred. This distinction is made to allow for certain limited exceedances of the standard that may occur, for example, during an unusual weather pattern, reserving regulatory action for cases where the exceedances are too large or too frequent.

3.0 Monitoring Objectives and Spatial Scale

Federal regulations indicate that a minimum of four monitoring objectives should be met in establishing an ambient air monitoring network. The network is to have stations that monitor: (1) the highest pollutant concentrations; (2) the representative concentrations in areas of high population density; (3) the impact of major pollution emissions sources; and (4) the general background concentration levels. The physical siting of the air monitoring station must achieve a spatial scale of representativeness that is consistent with the monitoring objective. The spatial scale results from the physical location of the site with respect to the pollutant sources and categories. It estimates the size of the area surrounding the monitoring site that experiences uniform pollutant concentrations.

The categories of spatial scale are:

Micro Scale: An area of uniform pollutant concentrations ranging from several meters up to 100 meters.

Middle Scale: Uniform pollutant concentrations in an area of about 100 meters to 0.5 kilometers.

Neighborhood Scale: An area with dimensions in the 0.5 to 4.0 kilometers range.

Urban Scale: Citywide pollutant conditions with dimensions ranging from 4 to 50 kilometers.

Regional Scale: An entire rural area of the same general geography (this area ranges from tens to hundreds of kilometers).

[1] For a list of the most current standards, please refer to EPA's website https://www.epa.gov/criteria-air-pollutants/naaqs-table.

Monitoring objectives and associated spatial scales are taken from Appendix D of 40CFR58, Table D-1, and summarized in Table 3 below.

Table 3: Monitoring Objective and Spatial Scale

Monitoring Objective	Appropriate Spatial Scale
Highest concentration or source impact	Micro, Middle, Neighborhood, or (less frequently) Urban
Population oriented	Neighborhood or Urban
General/background, regional transport, welfare related impacts	Urban or Regional

4.0 Description of Networks

4.1 NCore

The State of Georgia is required to have one National Core (NCore) Multipollutant Monitoring station, and the GA AAMP complies with this requirement at the South DeKalb site (13-089-0002) in DeKalb County. The NCore site monitoring equipment includes: $PM_{2.5}$ FRM, $PM_{2.5}$ continuous, $PM_{2.5}$ speciation, ozone (collecting data year-round), trace level carbon monoxide (CO), trace level sulfur dioxide (SO_2), trace level nitrogen oxide (NO), total reactive nitrogen (NOy), wind direction, wind speed, temperature, and relative humidity. The site has operated since January 1, 2011, and site establishment and details were included in the GA AAMP's *2011 Ambient Air Monitoring Plan, Appendix C, Ambient Air Monitoring Plan for National Core (NCore) Multipollutant Monitoring Station*. NCore monitoring network sites have the following monitoring objectives:

- timely reporting of data to the public through AIRNow, air quality forecasting, and other public reporting mechanisms
- support development of emission strategies through air quality model evaluation and other observational methods
- accountability of emission strategy progress through tracking long-term trends of criteria and non-criteria pollutants and their precursors
- support long-term health assessments that contribute to ongoing reviews of the National Ambient Air Quality Standards (NAAQS)
- compliance through establishing nonattainment/attainment areas by comparison with the NAAQS
- support multiple disciplines of scientific research, including public health, atmospheric and ecological

4.2 Sulfur Dioxide

EPA lowered the sulfur dioxide (SO_2) NAAQS standard to a 1-hour primary standard of 75 ppb, and added new SO_2 ambient monitoring requirements in 2010 (75FR119, 06/22/10) and retained in 2019 (84FR9866, 3/18/19). The rule combines air quality modeling and monitoring. The rule requires refined dispersion modeling to determine if areas with sources that have the potential to cause or contribute to a violation of the new SO_2 standard can comply with the standard.

The monitoring regulations require monitors to be placed in Core Based Statistical Areas (CBSAs), based on a population weighted emissions index (PWEI) for the area. The rule requires three monitors in CBSAs with index values of 1,000,000 or more; two monitors in CBSAs with index values less than 1,000,000 but greater than 100,000; and one monitor in CBSAs with index values greater than 5,000. Based on these requirements, the GA AAMP is required to have one monitor in the Atlanta-Sandy Springs-Alpharetta MSA. Currently, GA AAMP monitors SO_2 at the United Avenue (13-121-0055) and South DeKalb (13-089-0002) sites in the Atlanta-Sandy Springs-Alpharetta MSA, the Augusta (13-245-0091) site in the Augusta-Richmond County, GA- SC MSA, the Savannah-L&A (13-051-1002) and Savannah-E. President Street (13-051-0021) sites in the Savannah MSA, and the Macon-Forestry (13-021-0012) site in the Macon-Bibb County, MSA.

As an NCore site, the South DeKalb site (13-089-0002) also began monitoring trace level sulfur dioxide as of October 1, 2010. The GA AAMP collects and reports 5-minute maximum data with all the SO_2 monitors in the state.

GA EPD is currently evaluating the siting location of the SO_2 monitor at the Augusta site (13-245-0091) and nearby area. Modeling is being conducted by the Planning and Support Program to determine the best location for the monitor. GA AAMP is in the process of collecting data to help with this determination.

4.3 Nitrogen Dioxide

On May 18, 2018, EPA retained the 2010 nitrogen dioxide (NO_2) National Ambient Air Quality Standard (NAAQS) (Federal Register, Vol. 83, No. 75, 04/18/18). EPA's last revision of the NAAQS was January 22, 2010. Near-road NO_2 monitors were to be set up in CBSAs with 500,000 or more population (additional monitor with CBSA population above 2,500,000), average traffic counts of 250,000 vehicles or greater, and represent a microscale (no more than 50 meters from the edge of the nearest traffic lane) (Federal Register, Vol. 75, No. 26, 02/09/10). The GA AAMP meets this requirement with two monitors in the Atlanta-Sandy Springs-Alpharetta MSA. The first near-road NO_2 monitor was set up at the near-road site on the Georgia Institute of Technology campus (NR-GA Tech, 13-121-0056) on June 15, 2014. NO_2/NO/NOx, CO, $PM_{2.5}$, black carbon, wind speed and wind direction are monitored at this site, as well as non-regulatory continuous $PM_{2.5}$. For details regarding the establishment of the first near-road site in the Atlanta-Sandy Springs-Alpharetta MSA, refer to Appendix E of the *2014 Ambient Air Monitoring Plan* at https://airgeorgia.org/networkplans.html. The second near-road monitoring site was set up in the Atlanta-Sandy Springs-Alpharetta MSA on January 1, 2015 at the established monitoring site near interstate 285 (NR-285, 13-089-0003). At the NR-285 site, NO_2/NO/NOx, volatile organic compounds, non-regulatory continuous $PM_{2.5}$, and black carbon are monitored for the near-road network. For details regarding the establishment of the second near-road site, refer to the GA AAMP's Addendum to the *2015 Ambient Air Monitoring Plan* at https://airgeorgia.org/networkplans.html.

In addition to the near-road NO_2 requirements, the GA AAMP is required to operate at least one area-wide NO_2 monitor in the Atlanta-Sandy Springs-Alpharetta MSA. These monitors should be placed in CBSAs with a population of 1,000,000 or more, and are expected to have the highest concentrations representing a neighborhood or larger spatial scale (40CFR58, Appendix D, Section 4.3.3). The South DeKalb site (13-089-0002) is the GA AAMP's PAMS site (discussed below), and collects area-wide NO_2 data for the Atlanta-Sandy Springs-Alpharetta MSA. The South DeKalb site has historically collected the highest concentrations representing urban spatial scale,

is located within an urban area, and operates year round. Therefore, the South DeKalb NO_2 monitor satisfies the area-wide requirement.

4.4 Carbon Monoxide

EPA's last revision to the monitoring requirements for the carbon monoxide (CO) monitoring network was in 2011. EPA requires that a CO monitor be collocated with an NO_2 near-road monitor in urban areas with populations of one million or more. EPA specified that in areas with 2.5 million or more, the CO monitors should be operational by January 1, 2015 (Federal Register: Vol. 76, No. 169, Page 54293, 08/31/11). For this monitoring requirement, the State of Georgia is required to have one CO monitor located in the Atlanta-Sandy Springs-Alpharetta MSA, collocated with an NO_2 near-road monitor. The GA AAMP meets this monitoring requirement with a CO monitor that began monitoring at the NR-GA Tech site (13-121-0056) on June 15, 2014. In addition, the South DeKalb site (13-089-0002) is the GA AAMP's NCore site and collects CO data as part of that network (discussed above).

4.5 $PM_{2.5}$ Speciation Trends Network (STN)

The Speciation Trends Network (STN) (40CFR58, Appendix D, Section 4.7.4) characterizes the make-up of the $PM_{2.5}$ samples collected. With this speciation information, air quality modeling can be improved to help implement the NAAQS standards; health studies can be interpreted by knowing the constituents of the $PM_{2.5}$ sample, and the understanding of the constituents in regional haze is also improved. There are 52 Speciation Trends sites across the United States. The GA AAMP meets this requirement with the South DeKalb site (13-089-0002). The South DeKalb Speciation Trends site began monitoring on October 1, 2000, and samples are collected every three days. Additionally, there are six more $PM_{2.5}$ speciation monitors that the GA AAMP has chosen to operate. These sites are located in Rome (13-115-0003) (started 3/1/02), Macon-Allied (13-021-0007) (started 3/1/02), Columbus-Baker (13-215-0012) (started 5/1/02), Augusta (13-245-0091) (started 3/2/02), Rossville-Williams St. (13-295-0004) (started 3/23/05), and General Coffee (13-069-0002) (started 3/1/02). These are in place to provide supplemental speciation data in the overall chemical speciation network, and take samples every 6 days.

4.6 Photochemical Assessment Monitoring Stations (PAMS)

On October 26, 2015, EPA made revisions to the ozone standard, and with those changes, also revised the regulations for the supporting PAMS stations (Federal Register, Vol.80, No. 206, page 65467). EPA requires PAMS measurements be collected at NCore sites only. The GA AAMP meets this requirement with the South DeKalb (13-089-0002) site, which is the GA AAMP's NCore site. Therefore, for the PAMS requirements, the GA AAMP will continue hourly collection of speciated volatile organic compounds in June, July, and August; three 8- hour samples of carbonyls collected every third day during June, July and August; hourly ozone, NO, NO_2, NO_Y, temperature, wind direction, wind speed, barometric pressure, relative humidity, precipitation, and sigma theta at the South DeKalb site. As discussed in Section 1.4, solar radiation and ultraviolet radiation are monitored at the Conyers (13-247-0001) site due to siting conditions.

The South DeKalb site is located in DeKalb County to provide neighborhood scale measurements in the area that the chemicals that form ozone have the greatest impact. The data measurements generated at the South DeKalb site are used principally for development and evaluation of

imminent and future control strategies, corroboration of NOx and VOCs emission inventories, verification of photochemical grid model performance, characterization of ozone and toxics air pollutant exposures, development of pollutant trends (particularly toxic air pollutants and annual ambient speciated VOCs trends to compare with trends in annual VOC emission estimates), and determination of attainment with NAAQS for O_3, $PM_{2.5}$, PM_{10}, CO, SO_2, and NO_2. On January 8, 2020 (85 FR 834, page 834) EPA delayed the start of the revised PAMS monitoring network to June 1, 2021. GA AAMP fully implemented the program by June 1, 2021, and began sampling the hourly VOCs from June through August, the 8-hour carbonyls three times a day every third day from June through August, and hourly direct NO_2.

4.7 National Air Toxics Trends Station (NATTS)

The National Air Toxics Trends Stations (NATTS) program is a nationwide monitoring project for the assessment of national trends and variations of several selected air toxics pollutants. The NATTS network was established to produce data that is consistent and of standardized quality to be able to perform comparisons of air toxics data nationwide. There are 27 NATTS locations nationwide, with both urban sites to address the range of population exposure in urban areas, and rural sites to characterize population exposure in non-urban areas, establish background concentrations, and better assess environmental impacts of emissions of air toxic pollutants (https://www3.epa.gov/ttnamti1/natts.html). The GA AAMP meets the requirement with the location of the NATTS station at the South DeKalb site (13-089-0002). As part of the NATTS network, the GA AAMP samples metals with a PM_{10} sampler, semi-volatile organic compounds, volatile organic compounds, and carbonyls. Samples are collected from midnight to midnight for a 24-hour sample, every 6 days. Also at the South DeKalb site, GA AAMP began sampling ethylene oxide as of January 2020.

4.8 Ozone

Ozone monitoring has been in place in the Atlanta area since the 1970's. Currently the Atlanta-Sandy Springs-Alpharetta MSA ozone network includes nine monitors located in nine counties. Across Georgia, there are 16 ozone monitors in the network, which exceeds the EPA requirement (40CR58, Appendix D, Section 4.1). The standard is an 8-hour averaging time, fourth maximum value, averaged over three years. On October 1, 2015, EPA lowered the ozone standard to 0.070 ppm. For this 2015 standard, with the 2019-2021 data, the Atlanta area is meeting the ozone standard. On September 15, 2022, the Atlanta area was designated as in attainment of the 2015 ozone NAAQS (Federal Register, Vol. 87, No. 194, page 60897, dated October 7, 2022).

As part of the Clean Air Status and Trends Network (CASTNET), EPA established a monitoring site in Pike County, Georgia in 1988. The CASTNET site is part of a national air quality monitoring network put in place to assess long-term trends in atmospheric deposition and ecological effects of air pollutants. The CASTNET site is one of 87 regional sites across rural areas of the United States and Canada measuring nitrogen, sulfur, and ozone concentrations, and deposition of sulfur and nitrogen. Like the South DeKalb ozone monitor, the CASTNET ozone monitor also collects data year-round (https://www.epa.gov/castnet). With the exception of the South DeKalb and CASTNET sites, ozone in Georgia, unlike other pollutants previously discussed, is monitored March through October, complying with federal monitoring regulations (in 40CFR Part 58).

4.9 Particulate Matter

Particulate pollution may be categorized by size since there are different health impacts associated with the different sizes of particulate matter. GA AAMP currently monitors for three sizes of particles: PM_{10} (up to 10 microns in diameter), $PM_{2.5}$ (up to 2.5 microns in diameter) and PM_{coarse} (PM_{10} minus $PM_{2.5}$). To give size relation, approximately ten PM_{10} particles can fit on a cross section of a human hair, and approximately thirty $PM_{2.5}$ particles would fit on a cross section of a hair. These particles and droplets are invisible to the naked eye, and composition and sources can vary greatly by region. There are three monitoring stations with PM_{10} monitors, one station with a PM_{coarse} monitor, and 23 stations with continuous and/or integrated $PM_{2.5}$ monitors, which exceeds the number of samplers required according to 40CFR58, Appendix D, Section 4.7.

For an area to be in attainment of the annual ambient air $PM_{2.5}$ standard, the three-year average of the annual average concentrations has to be less than or equal to 9.0 $\mu g/m^3$. In addition, the 24-hour primary and secondary standard requires that the three-year average of the 98th percentile of the 24-hour concentrations be less than or equal to 35 $\mu g/m^3$. Currently all areas of Georgia are designated unclassifiable/attainment for the 2012 annual $PM_{2.5}$ standard with both 24-hour and Annual NAAQS being met. In addition, GA EPD has recommended that all areas of the state are in attainment for the 2024 $PM_{2.5}$ NAAQS. The NR-GA Tech (13-121-0056) $PM_{2.5}$ monitor is not comparable to the Annual NAAQS. For PM_{10}, the 24-hour data is compared to 150 $\mu g/m^3$. The standard allows one exceedance per year, averaged over a 3-year period, and all three samplers collected data well below the standard. Currently, there is no standard for PM_{coarse}.

4.10 Lead (Pb)

GA AAMP has monitored lead in different areas of Georgia and at different times throughout the years since the inception of GA EPD in 1972. EPA's last revision to the requirements for measuring lead in the ambient air was in 2010. The emission threshold for placing lead monitors near industrial facilities was lowered from 1.0 tons per year (tpy) to 0.5 tpy (Federal Register: Vol. 75, No. 247, Page 81126, 12/27/10). With the EPA Toxic Release Inventory in 2024, Georgia had no sources of lead that were emitting 0.5 tpy. In addition, as of December 2020, all areas of Georgia are meeting the lead NAAQS, which is a rolling three-month average for three years, not to exceed 0.15 $\mu g/m^3$ (Federal Register: Vol. 73, No. 219, Page 66964, 11/12/08). Therefore, GA AAMP shut down the lead samplers as of March 31, 2021.

In the past two years, EPA conducted preliminary monitoring near a potential lead source in Fulton County within the Atlanta-Sandy Springs-Alpharetta MSA. EPA then requested GA AAMP to monitor near this potential source. GA AAMP identified a location to monitor near the source and submitted the required site information and documentation to EPA for approval. EPA approved the location, and GA AAMP began sampling at the site on May 30, 2025. The site is called Empire Blvd with an AQS site code 13-121-0057. The initial documentation for setting up the site can be found in the GA AAMP's *Second Addendum to 2023 Ambient Air Monitoring Plan*.

5.0 Site Evaluations

The GA AAMP performs site evaluations throughout the year on an annual basis for each site. The following table details when the most recent site evaluations were performed and a summary of the comments that the evaluator made about each site.

Table 4: Site Evaluations

SITE ID	COMMON NAME	COUNTY	SITE EVALUATION DATE	COMMENTS	ACTION TAKEN
Rome MSA					
131150003	Rome	Floyd	11/20/2025	Samplers meet siting criteria.	No action required.
Brunswick MSA					
131270006	Brunswick	Glynn	12/8/2025	Samplers meet siting criteria for criteria pollutants.*	No action required.
Valdosta MS					
131850003	Valdosta	Lowndes	12/22/2025	Samplers meet siting criteria.	No action required.
Warner Robins MSA					
131530001	Warner Robins	Houston	1/22/2026	Samplers meet siting criteria.	No action required.
Dalton MSA					
132130003	Fort Mountain	Murray	12/11/2025	Samplers meet siting criteria.	No action required.
Albany MSA					
130950007	Albany	Dougherty	5/29/2025	Samplers meet siting criteria.	No action required.
Gainesville MSA					
131390003	Gainesville	Hall	5/13/2025	Samplers meet siting criteria. During site survey conducted 5/13/25, found small tree close to dripline.	Qualify with “SX” code from 5/13/2025-6/5/2025. On 6/6/25, the Operations Unit cut the small tree to the west close to dripline.
Athens-Clark County MSA					
130590002	Athens	Clarke	6/10/2025	Samplers meet siting criteria.	Qualify with “SX” code from 2/28/2025-5/5/2025. On 5/6/2025 GA AAMP cut trees next to shelter. No action required.
Macon-Bibb County, MSA					
130210007	Macon-Allied	Bibb	9/18/2025	Samplers meet siting criteria.	No action required.
130210012	Macon-Forestry	Bibb	12/29/2025	Samplers do not meet siting criteria. Siting deviation for the tree drip line distance and the unrestricted air flow of less than 270 degrees.	GA AAMP requesting a waiver. GA AAMP plans to cut back trees after obtaining permission.

SITE ID	COMMON NAME	COUNTY	SITE EVALUATION DATE	COMMENTS	ACTION TAKEN
Columbus MSA					
132150008	Columbus-Airport	Muscogee	8/18/2025	Samplers meet siting criteria.	No action required.
132150012	Columbus-Baker	Muscogee	2/5/2025	Samplers meet siting criteria.	No action required.
Savannah MSA					
130510021	Savannah - E. President	Chatham	6/17/2025	Samplers meet siting criteria for criteria pollutants.*	No action required.
130511002	Savannah – L&A	Chatham	6/11/2025	Samplers did not meet siting criteria. Trees too close to site.	Tree has been cut several times, but still not meeting criteria. Qualify data with “SX” code from 4/10/2024 until resolve. Trees were cut significantly on 4/13/26. A new site evaluation will be conducted soon.
Augusta MSA					
132450091	Augusta	Richmond	9/17/2025	Samplers meet siting criteria.	No action required.
Atlanta-Sandy Springs-Alpharetta MSA					
130630091	Forest Park	Clayton	2/18/2025	Samplers meet siting criteria.	No action required.
130670003	Kennesaw	Cobb	6/18/2025	Samplers meet siting criteria.	No action required.
130850001	Dawsonville	Dawson	10/23/2025	Samplers meet siting criteria for criteria pollutants.*	No action required.
130890002	South DeKalb	DeKalb	12/10/2025	Samplers meet siting criteria for criteria pollutants.*	No action required.
130890003	NR-285	DeKalb	6/12/2025	Samplers meet siting criteria.	No action required.
130970004	Douglasville	Douglas	8/5/2025	Samplers meet siting criteria for criteria pollutants.*	No action required.
131210039	Fire Station #8	Fulton	6/25/2025	Samplers meet siting criteria.	No action required.

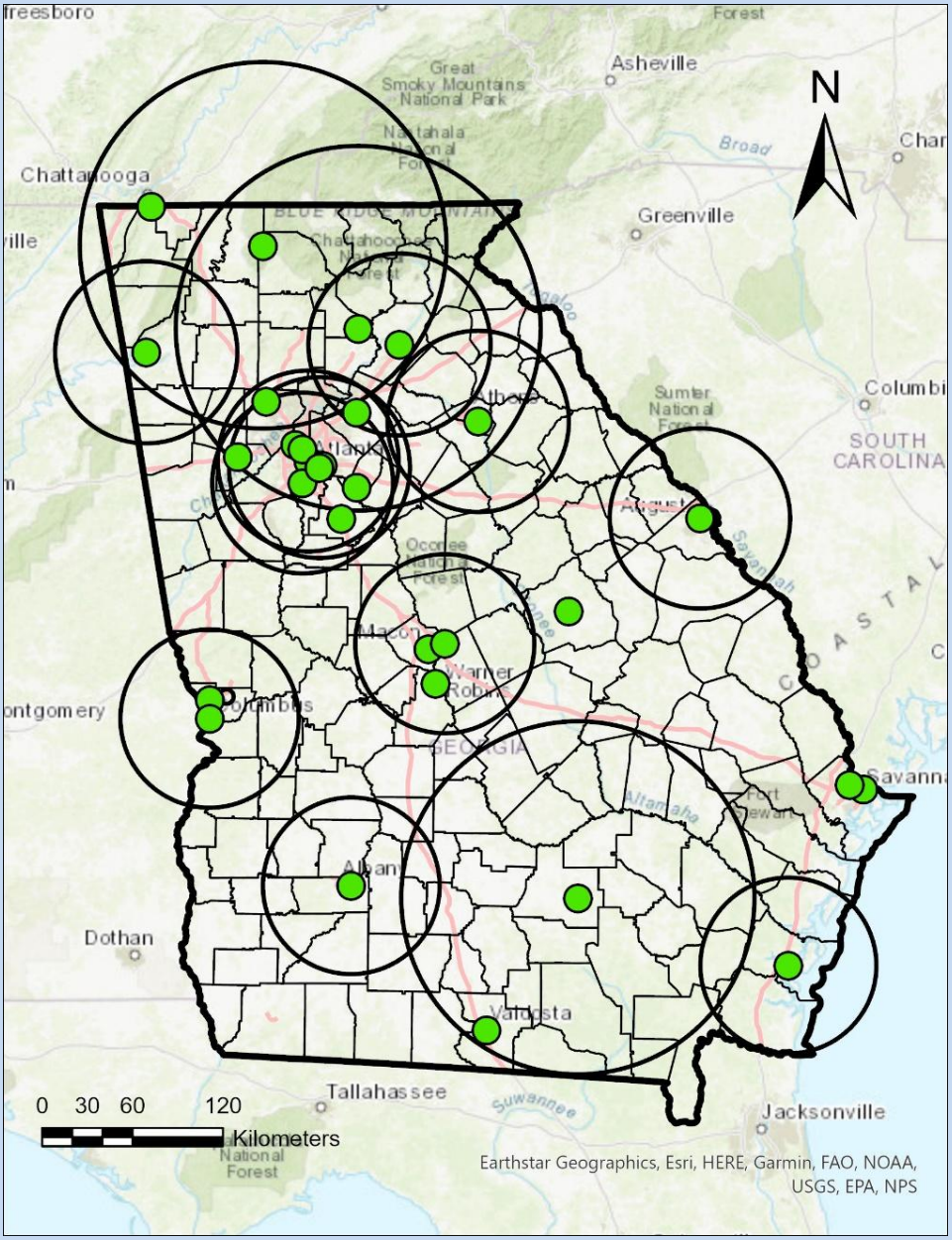
SITE ID	COMMON NAME	COUNTY	SITE EVALUATION DATE	COMMENTS	ACTION TAKEN
131210055	United Ave.	Fulton	5/5/2025	Samplers meet siting criteria for criteria pollutants. With EPA visit on 2/27/2025, site was found to have a siting deviation with tree drip line distance. On 3/3/2025 Site Operators trimmed the branches of a tree that was intertwined with a post directly behind the shelter.*	On 3/2/2025, Site Operators trimmed branches. Qualify hourly SO_2 data "SX" from 2/27/2025 to 3/2/2025.
131210056	NR-GA Tech	Fulton	8/11/2025	Oak tree to the south and magnolia tree to the north within the dripline of PM, CO, and NO_2.	GA AAMP requesting waiver from EPA.
131210057	Empire Blvd	Fulton	9/29/2025	There are two trees that do not meet the distance requirements or dripline distance requirements.	Lead monitoring waiver request. GA AAMP and EPA are in agreement that the road has minimal impact on the air monitors and they are representative of the microscale. In addition, the monitors cannot be reasonably relocated in another area to minimize safety concerns and have the least amount of unobstructed wind flow in the vicinity.
131350002	Gwinnett Tech	Gwinnett	7/23/2025	Samplers did not meet criteria. Highway 316 does not meet the distance criteria to the sampler inlets.	Requesting a waiver from EPA since a feasible site location could not be found.
131510002	McDonough	Henry	4/9/2025	Samplers meet siting criteria.	No action required.
132470001	Conyers	Rockdale	7/28/2025	Samplers meet siting criteria for criteria pollutants.*	No action required.
Chattanooga Tennessee-Georgia MSA					
132950004	Rossville-Williams St.	Walker	6/3/2025	Samplers meet siting criteria.	No action required.
Not in an MSA					
130690002	General Coffee	Coffee	7/7/2025	Samplers did not meet siting criteria. Trees are too close to dripline.	GA AAMP requesting a waiver.
133030001	Sandersville	Washington	5/1/2025	Samplers meet siting criteria.	No action required.

*Deviation noted for meteorological sensor distance to nearby obstructions is less than the recommended 10x obstruction height from Quality Assurance Handbook for Air Pollution Monitoring Systems, Volume IV, Version 2.0, March 2008 (EPA-454/B-08-002).

Appendix A: Individual Site Information Grouped by Metropolitan Statistical Area (Smallest to Largest)

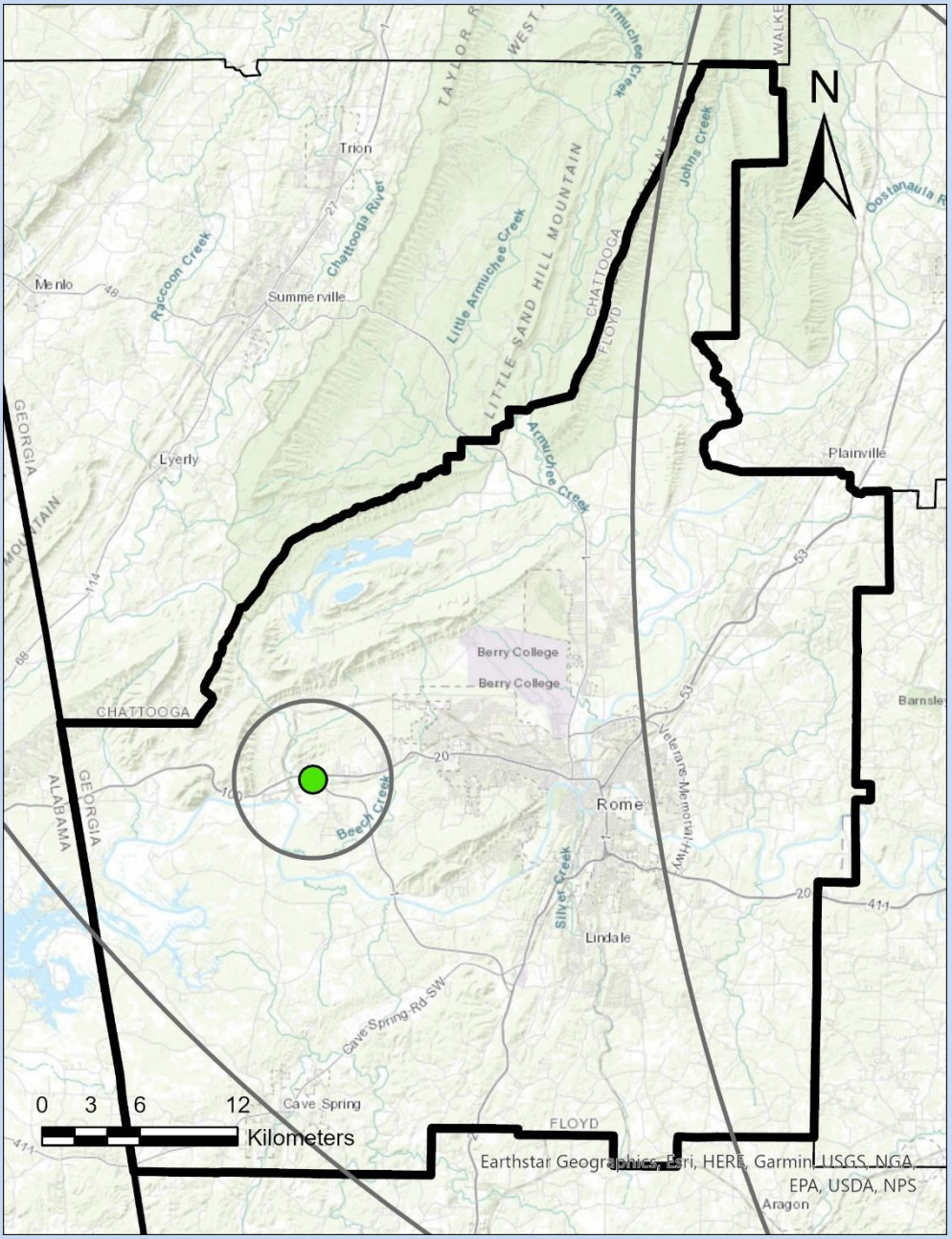
Georgia Department of Natural Resources Environmental Protection Division

Spatial Scales of GA AAMP's Ambient Air Monitors



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

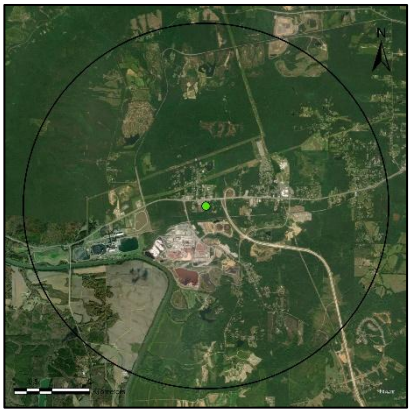
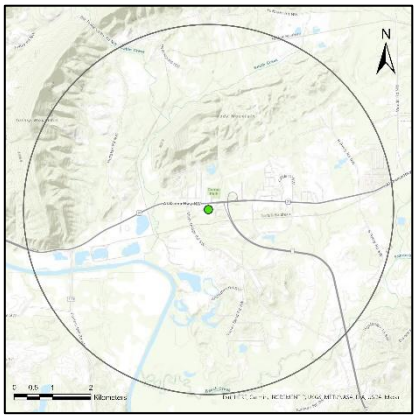
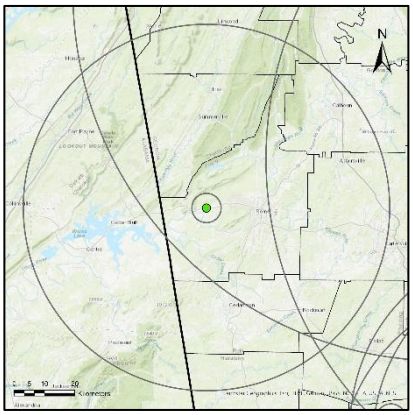
Rome MSA



Radius of Circles on Map

Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Rome

AQS ID: 131150003
Address: 5041 Alabama Hwy, Rome, Floyd County, Georgia 30165
Site Established: 1/1/74
Latitude/Longitude: N34.2605/W-85.3232
Elevation: 186 meters
Area Represented: Rome MSA
Site History: Established as SO_2 site

North South East West

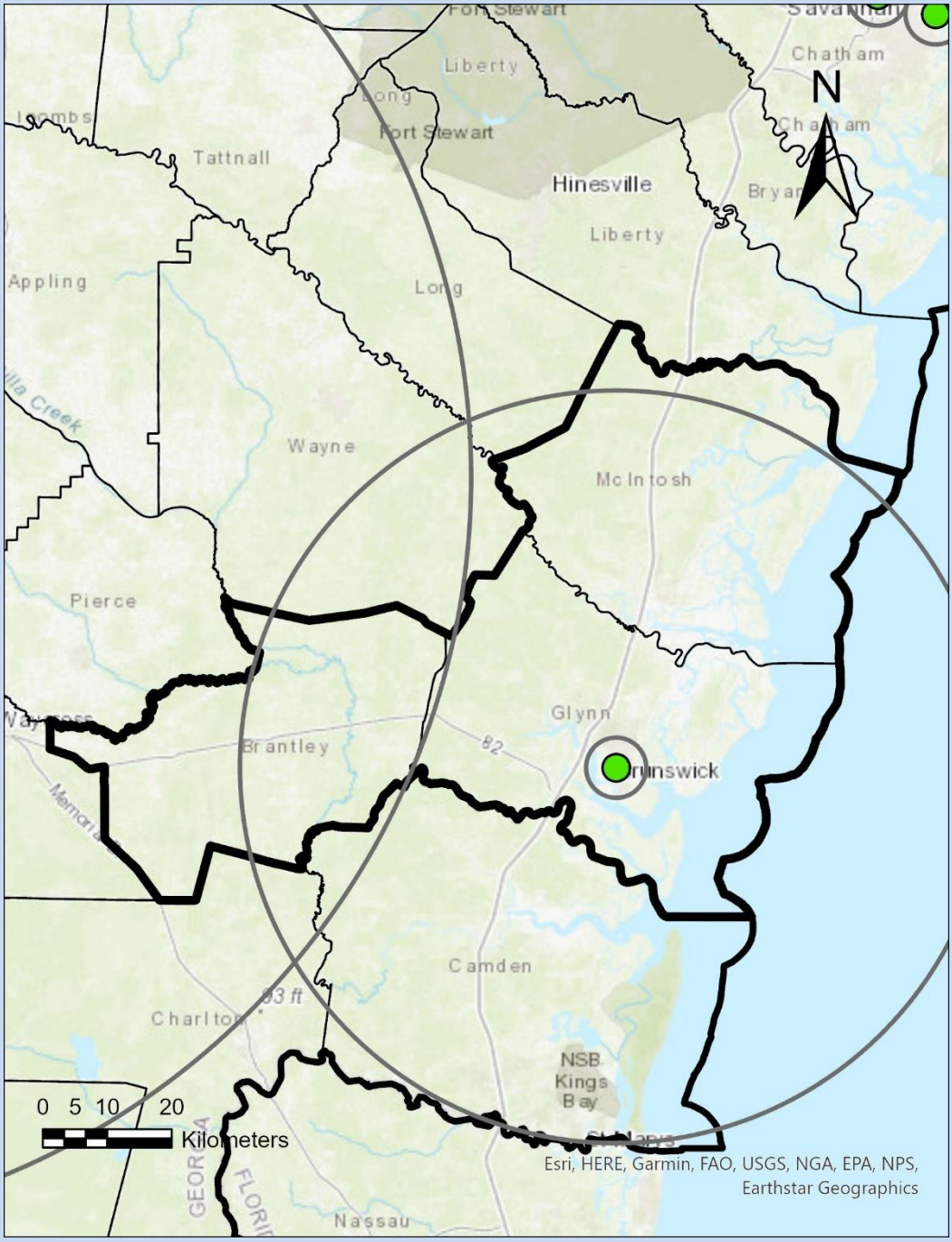



Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$ Speciation	Population Exposure	Every 6 days	2.5 m	Neighborhood	3/1/02
$PM_{2.5}$ Continuous	Population Exposure/Highest Concentration	Continuous	3.5 m	Urban	3/24/09*

*Sampler inactive from 1/1/15 until reopened 2/15/17

GA AAMP's plans for this site: Continue monitoring; spatial scale was changed from neighborhood to urban for the continuous $PM_{2.5}$ monitor; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ Continuous monitor

Brunswick MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Brunswick

AQS ID: 131270006
Address: Glynn Learning Center, 2900 Albany Street, Brunswick, Glynn County, Georgia 31520
Established: 1/1/87
Latitude/Longitude: N31.169611/W-81.495194
Elevation: 19.4 meters
Area Represented: Brunswick MSA
Site History: Established as SO_2 site

North

South

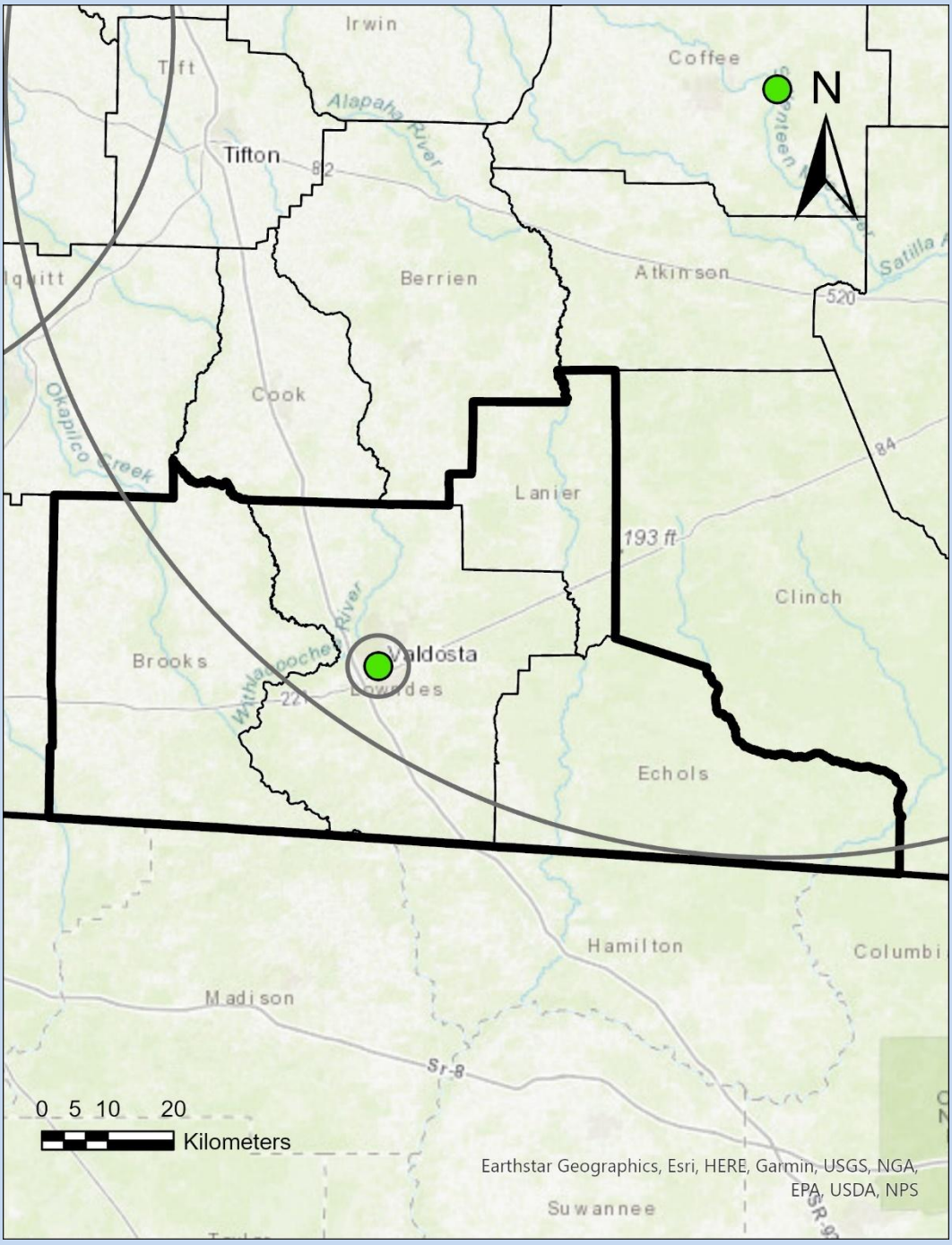
East

West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure/Highest Concentration	Every 3 days	4.6 m	Urban	8/31/95
$PM_{2.5}$	Population Exposure	Continuous	4.8 m	Urban	10/21/21
O_3	Population Exposure	Continuous (Mar-Oct)	4.6 m	Neighborhood	3/1/95
Wind Speed	General/ Background	Continuous	9 m	Neighborhood	1/1/04
Wind Direction	General/ Background	Continuous	9 m	Neighborhood	1/1/04

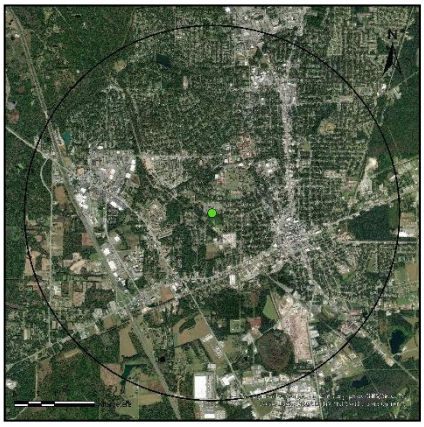
GA AAMP's plans for this site: Continue monitoring; running FEM continuous $PM_{2.5}$ T640 since October 21, 2021; moved to a new shelter in June 2023; spatial scale was changed from neighborhood to urban for the $PM_{2.5}$ monitors; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ FRM monitor

Valdosta MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Valdosta



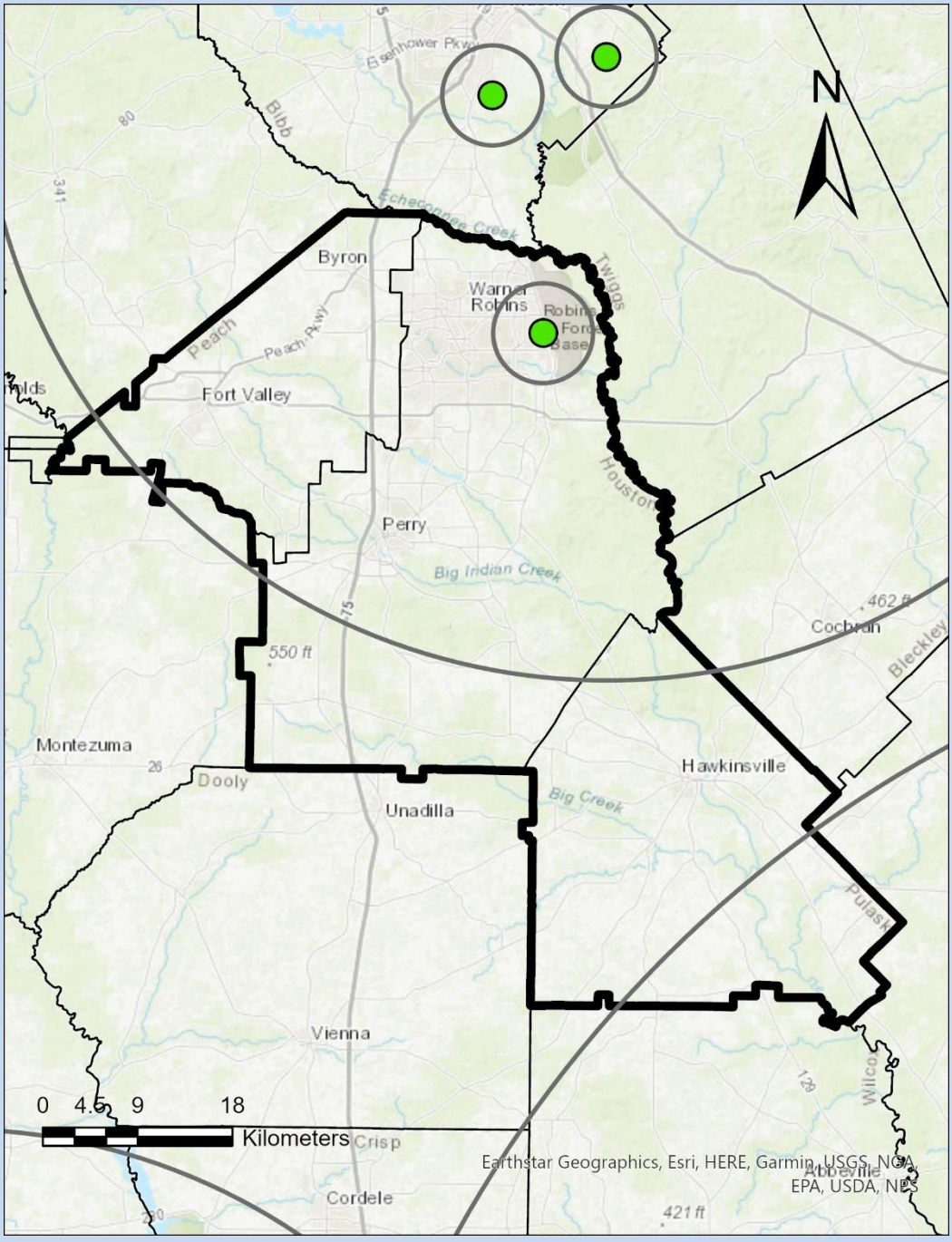

AQS ID: 131850003
Address: 821 W Gordon Street, Lowndes County, Georgia 31602
Site Established: 12/17/99
Latitude/Longitude: N30.836577/W-83.294719
Elevation: 55.0 meters
Area Represented: Valdosta MSA
History: Established as $PM_{2.5}$ site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure/Highest Concentration	Daily	2.8 m	Neighborhood	1/1/00
$PM_{2.5}$	Population Exposure	Continuous	3.2 m	Neighborhood	1/1/08

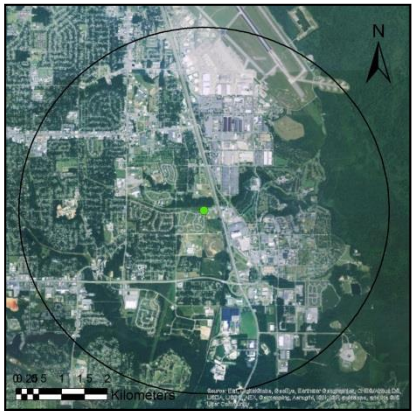
GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ monitor as FEM as of October 22, 2020; Changed the $PM_{2.5}$ FRM sampling schedule to every day as of January 1, 2025; with the August 2023-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ FRM monitor

Warner Robins MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Warner Robins



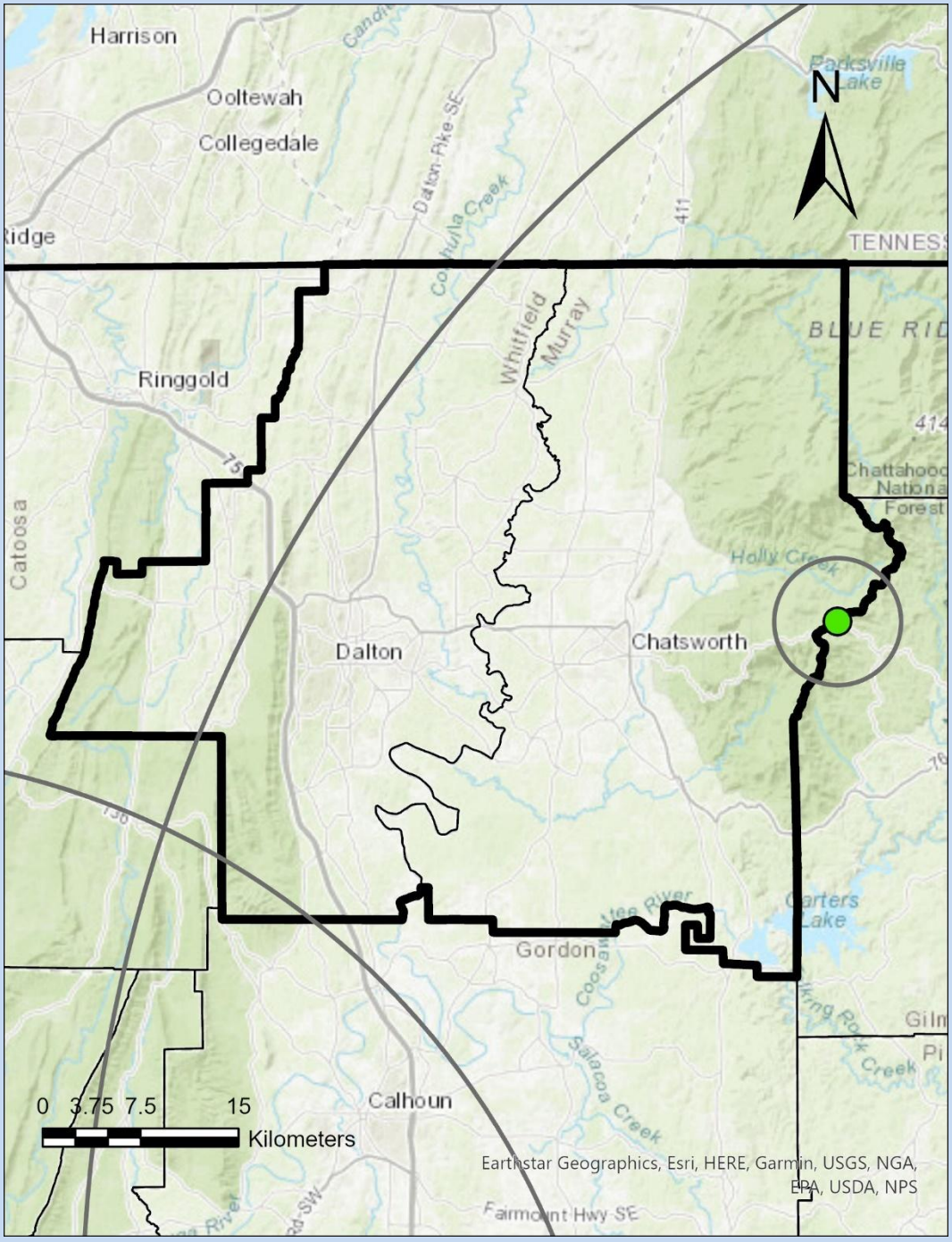
AQS ID: 131530001
Address: Warner Robins Air Force Base, Memorial Park, 800 South 1st Street, Warner Robins, Houston County, Georgia 31088
Site Established: 6/15/00
Latitude/Longitude: N32.6056/W-83.5978
Elevation: 86.25 meters
Area Represented: Warner Robins MSA
Site History: Established as $PM_{2.5}$ site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure/Highest Concentration	Daily	2.4 m	Neighborhood	7/5/00
$PM_{2.5}$	Population Exposure	Continuous	2.2 m	Neighborhood	1/1/08

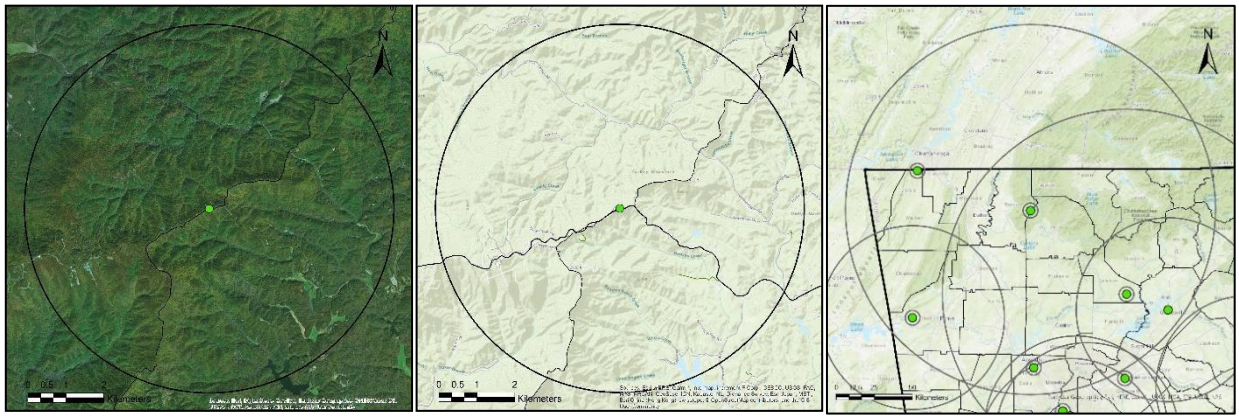
GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ monitor as FEM as of March 7, 2018; on January 7, 2025 the sampling schedule on the $PM_{2.5}$ FRM sampler increased from sampling every 3 days to daily; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ FRM monitor

Dalton MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Fort Mountain



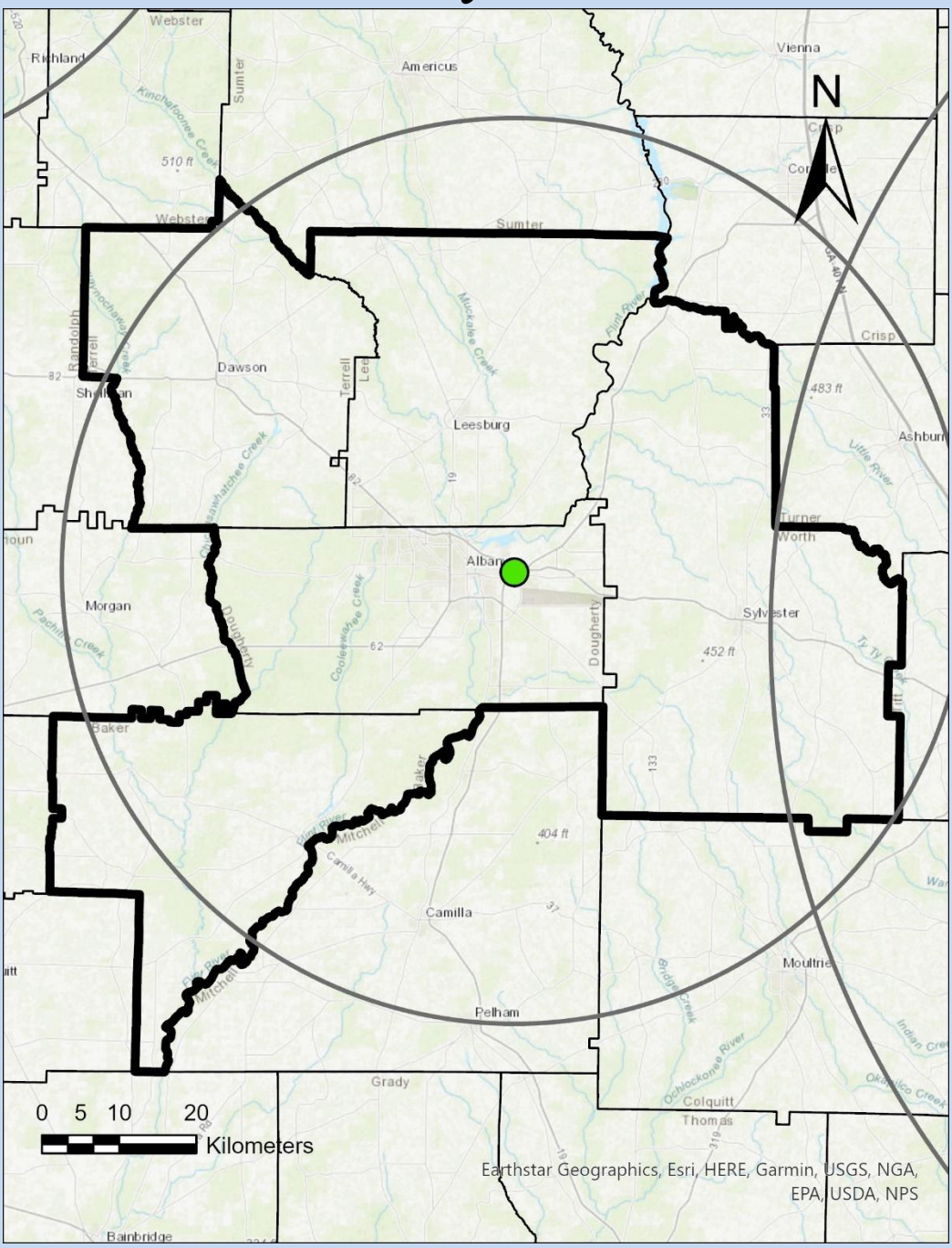
AQS ID: 132130003
Address: Fort Mountain, State Highway 52, Cohutta Overlook, Chatsworth, Murray County, Georgia 30705
Site Established: 3/23/99
Latitude/Longitude: N34.7851/W-84.6265
Elevation: 794 meters
Area Represented: Dalton MSA
Site History: Established as O_3 site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure/Highest Concentration	Continuous (Mar-Oct)	5 m	Regional	3/1/00
Wind Speed	General/ Background	Continuous	10 m	Neighborhood	2/7/02
Wind Direction	General/ Background	Continuous	10 m	Neighborhood	2/7/02
Outdoor Temperature	General/ Background	Continuous	2 m	Neighborhood	2/7/02
Relative Humidity	General/ Background	Continuous	2 m	Neighborhood	2/7/02

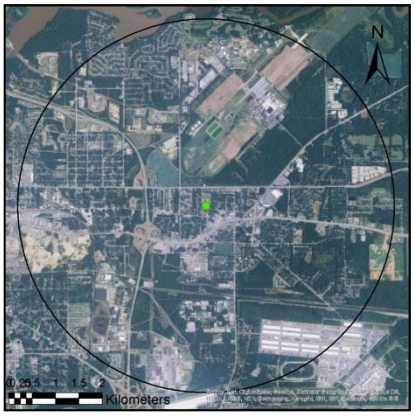
GA AAMP's plans for this site: Continue monitoring; updated the monitoring objective to include "highest concentration" for the ozone monitor

Albany MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Albany



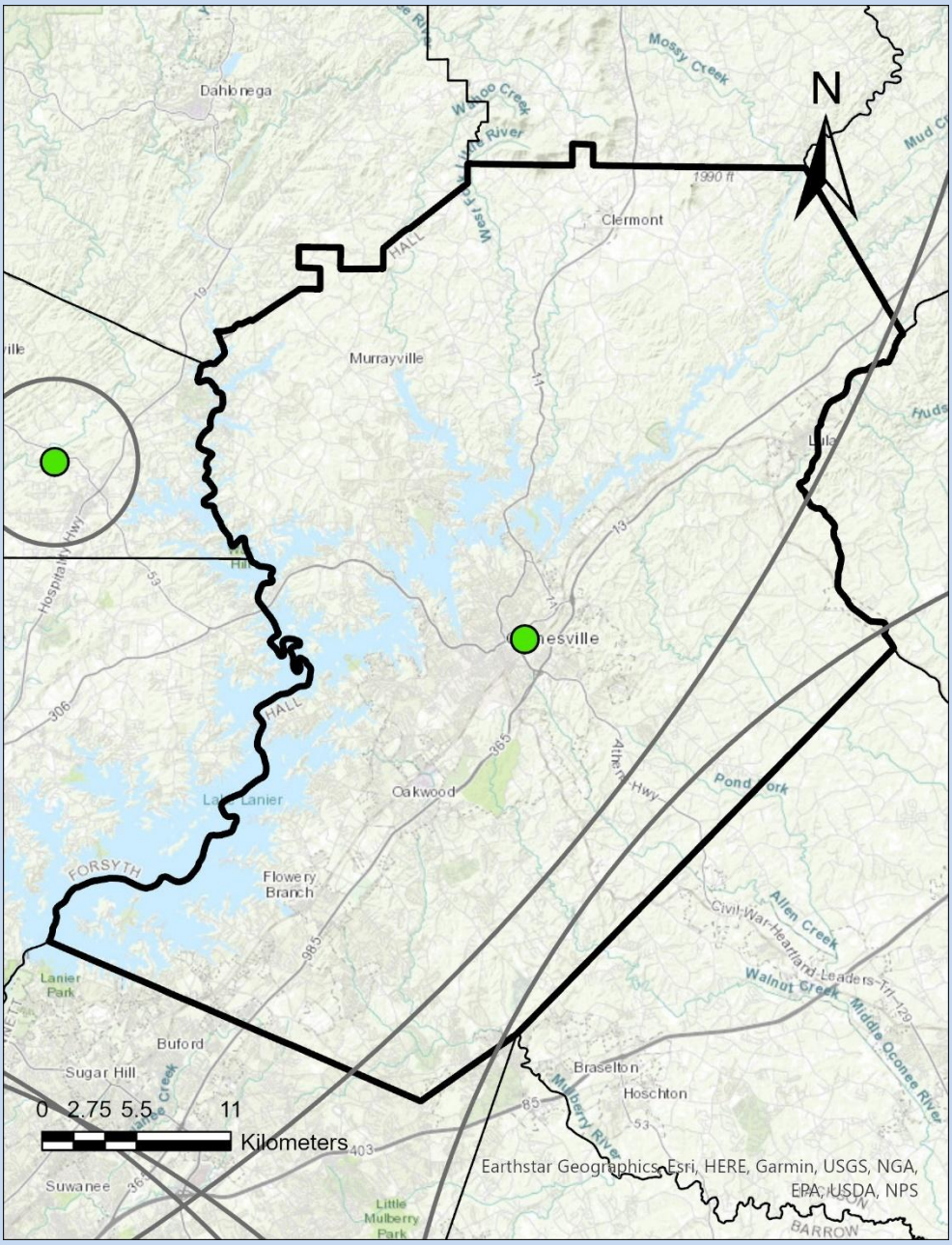
AQS ID: 130950007
Address: Turner Elementary School, 2001 Leonard Avenue, Albany, Dougherty County, Georgia 31705
Site Established: 7/31/91
Latitude/Longitude: N31.57757/W-84.10087
Elevation: 62 meters
Area Represented: Albany MSA Site
History: Established as TSP site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure/Highest Concentration	Daily	2.1 m	Urban	2/2/99
$PM_{2.5}$	Quality Assurance	Every 12 days	2.1 m	Urban	1/10/13
$PM_{2.5}$	Population Exposure	Continuous	2.2 m	Urban	5/11/08

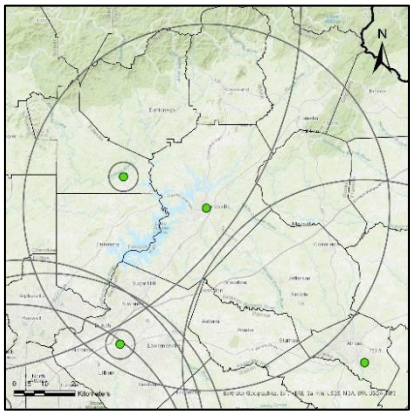
GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ monitor as FEM as of January 10, 2013; from January 1, 2022 to July 31, 2023 there was a NAAQS exclusion for testing the data network alignment; from August 1, 2023 through August 1, 2025, the continuous $PM_{2.5}$ monitor continues to be non-NAAQS with a NAAQS exclusion; GA AAMP relocated the sampling station to ground level as of March 2024; with the August 2023-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; on August 15, 2025 the RH setpoint was changed to 20% on the continuous $PM_{2.5}$ T640 monitor; starting April 1, 2026, the collocated $PM_{2.5}$ FRM sampling frequency was changed from 1 in 3 day schedule to a 1 in 12 day schedule; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ FRM monitor

Gainesville MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Gainesville



AQS ID: 131390003
Address: Fair Street School, 695 Fair Street, Gainesville, GA 30501
Site Established: 1/1/97
Latitude/Longitude: N34.2993/W-83.8134
Elevation: 353 meters
Area Represented: Gainesville MSA
Site History: Established as $PM_{2.5}$ site

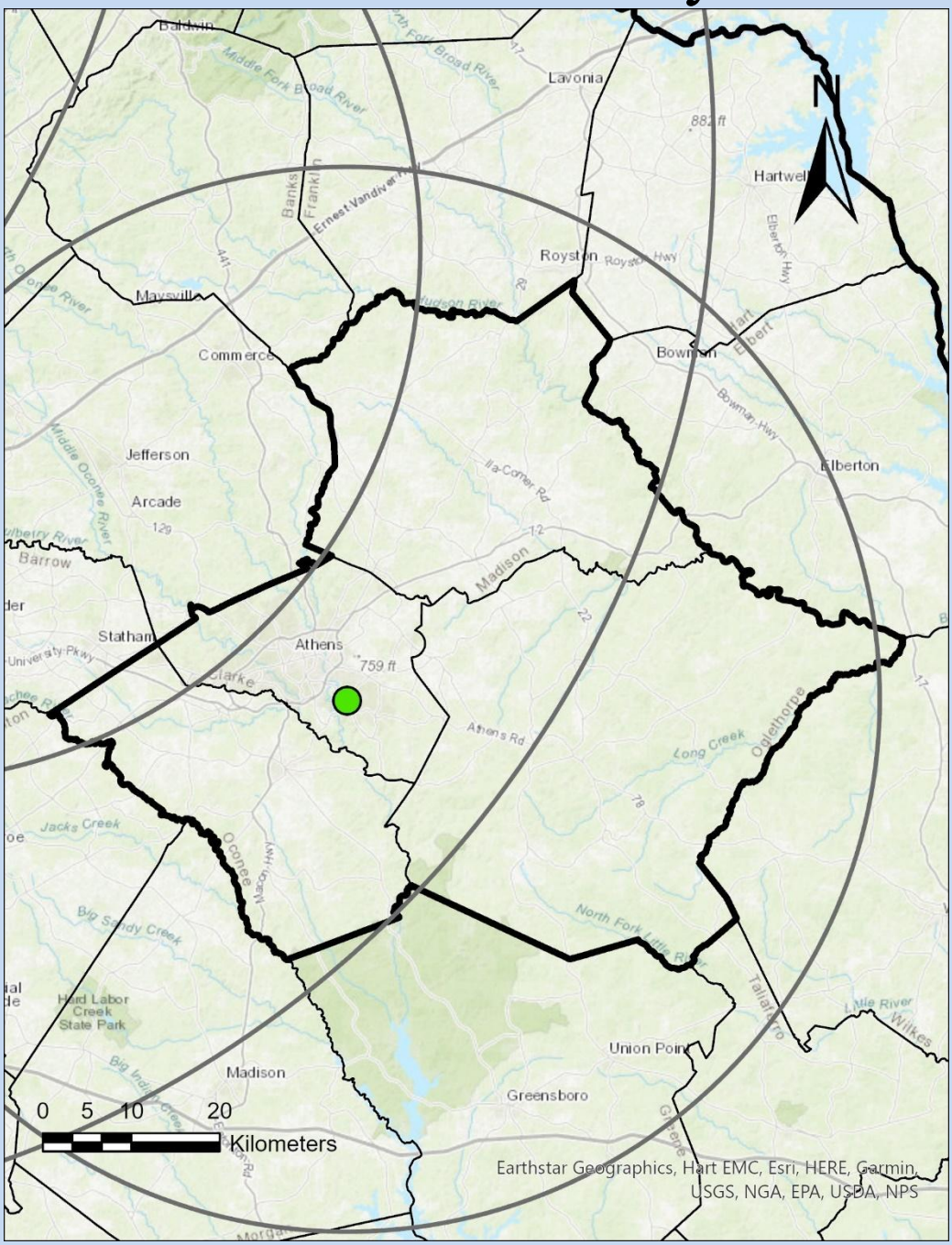
North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure/Highest Concentration	Every 3 days	2.9 m	Urban	2/14/99*
$PM_{2.5}$	Population Exposure	Continuous	2.9 m	Urban	1/1/08

*Sampler inactive from 11/1/18 until reopened 3/24/23

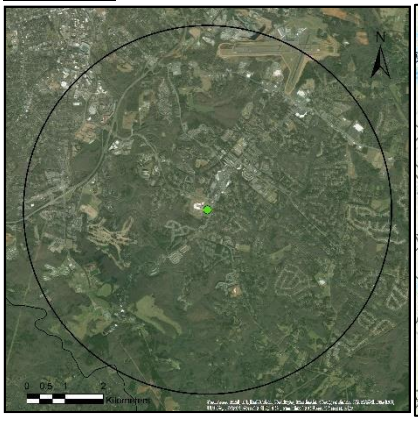
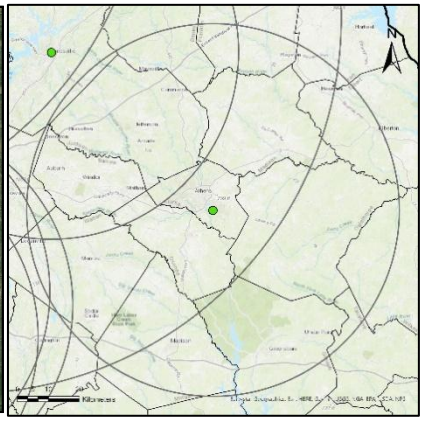
GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ monitor as FEM as of October 3, 2017; $PM_{2.5}$ FRM monitor was inactive from November 1, 2018 to March 24, 2023 when daily sampling was reinstated to ensure redundancy in the Gainesville MSA and avoid completeness issues; Spatial scale was changed from neighborhood to urban for the $PM_{2.5}$ monitors; a NAAQS exclusion was approved for the $PM_{2.5}$ T640 monitor from January 1, 2021 to July 31, 2025 for testing network data alignment; with the August 2023-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; on August 15, 2025 RH setpoint was changed to 10% on the continuous $PM_{2.5}$ T640 monitor; starting January 1, 2026, $PM_{2.5}$ FRM sampling frequency changed from a daily schedule to 1 in 3 days; updated the monitoring objective to include “highest concentration” for the $PM_{2.5}$ FRM monitor

Athens-Clarke County MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Athens

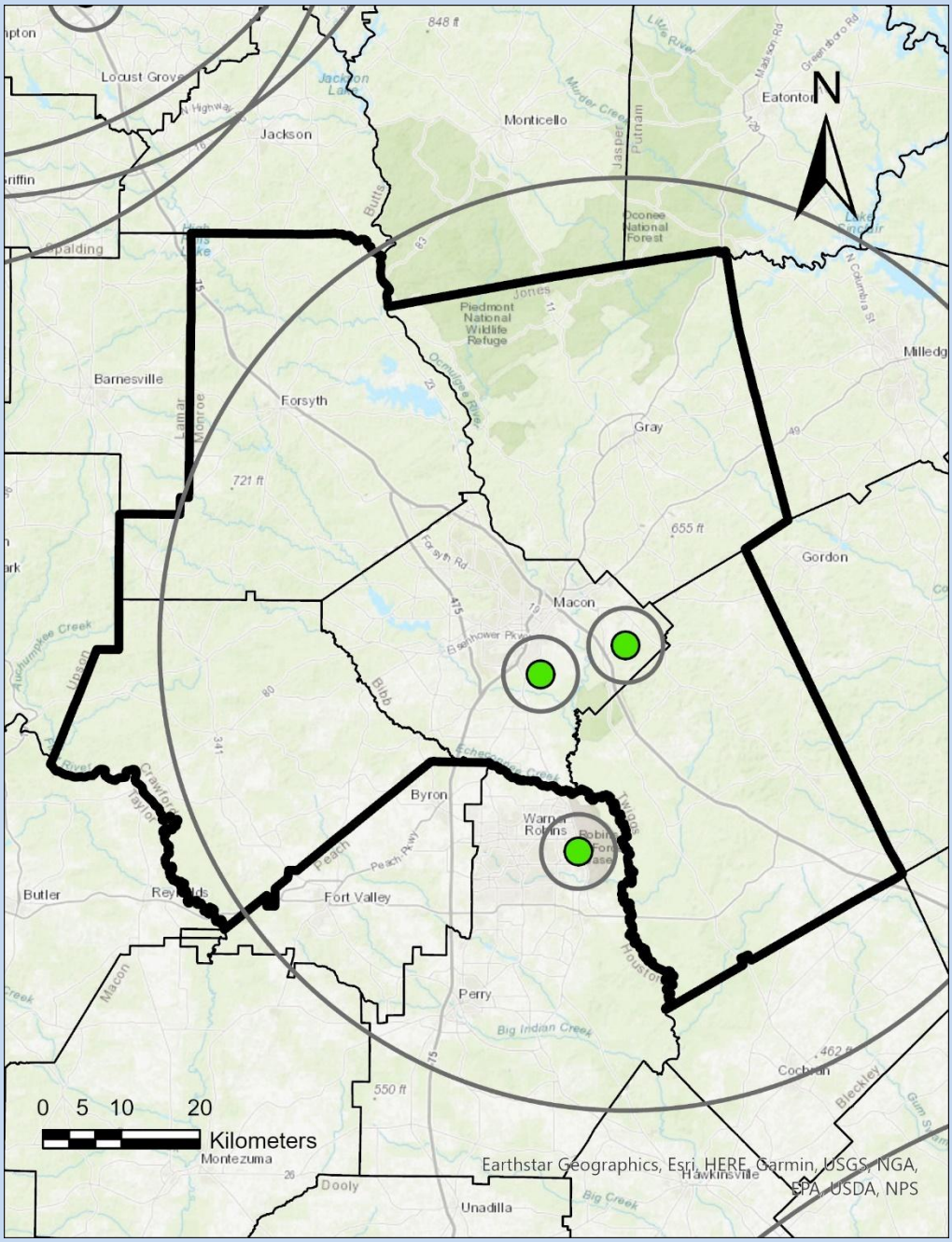
AQS ID: 130590002
Address: 2350 Barnett Shoals Road, Athens, Clarke County, Georgia 30605
Site Established: 3/1/02
Latitude/Longitude: N33.9180/W-83.3445
Elevation: 220 meters
Area Represented: Athens-Clarke County MSA
Site History: Established as O_3 and PM site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure/Highest Concentration	Continuous (Mar-Oct)	4.6 m	Urban	5/1/02
$PM_{2.5}$	Population Exposure/Highest Concentration	Continuous	4.6 m	Urban	8/1/04
$PM_{2.5}$	Quality Assurance	Continuous	4.6 m	Urban	2/15/19

GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ monitor as FEM as of April 1, 2018; on February 15, 2019, GA AAMP added a second FEM Teledyne T640 Continuous $PM_{2.5}$ sampler to satisfy collocation requirements; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ FEM monitor; updated the monitoring objective to include "highest concentration" for the ozone monitor

Macon-Bibb County, MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Macon-Allied

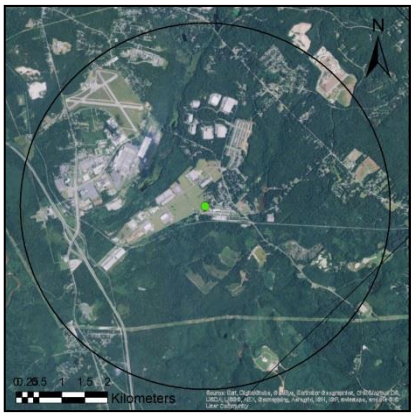
AQS ID: 130210007
Address: 300 Allied Industrial Blvd., Macon, Bibb County, Georgia 31206
Site Established: 1/1/74
Latitude/Longitude: N32.7773/W-83.6411
Elevation: 106 meters
Area Represented: Macon-Bibb County MSA
Site History: Established as TSP site

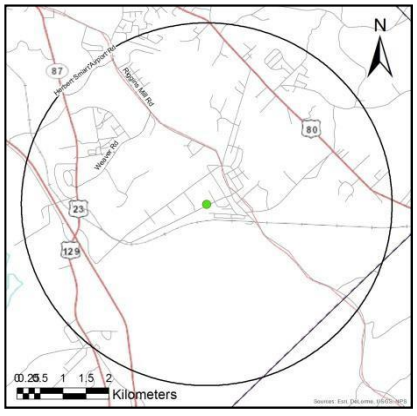
North South East West

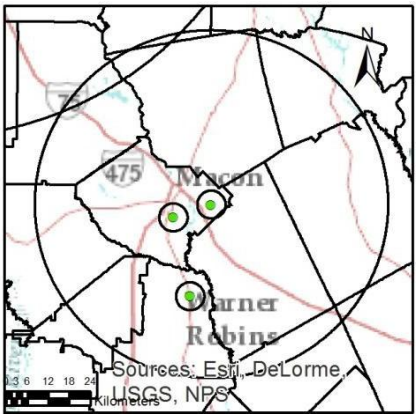
Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$ Speciation (SASS/URG)	Population Exposure	Every 6 days	1.9 m/2.1 m	Neighborhood	3/1/02
$PM_{2.5}$	Population Exposure/Highest Concentration	Daily	2.2 m	Neighborhood	2/2/99
$PM_{2.5}$	Population Exposure	Continuous	2.5 m	Neighborhood	6/5/23
$PM_{2.5}$	Population Exposure	Continuous	2.5 m	Neighborhood	1/3/25

GA AAMP's plans for this site: Continue monitoring; GA AAMP installed a continuous $PM_{2.5}$ non-NAAQS sampler with the EPA American Rescue Plan funds on June 5, 2023 and the monitor was a non-NAAQS for two years; the collocated $PM_{2.5}$ sampler was shut down as of December 30, 2024; the $PM_{2.5}$ FRM sampling schedule changed from every 3 days to daily on January 7, 2025; at the request of Teledyne, as of January 2, 2025, the GA AAMP is conducting an experimental (non-regulatory) data collection with a $PM_{2.5}$ Teledyne T640 monitor for upgrades to the data alignment feature; with the August 2023-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; on January 28, 2025 the experimental T640 monitor's RH setpoint was changed to 5%, then on July 29, 2025 to 20%, then on January 26, 2026 back to 35%, and will be adjusted back to 20% after an evaluation period; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ FRM monitor

Macon-Forestry







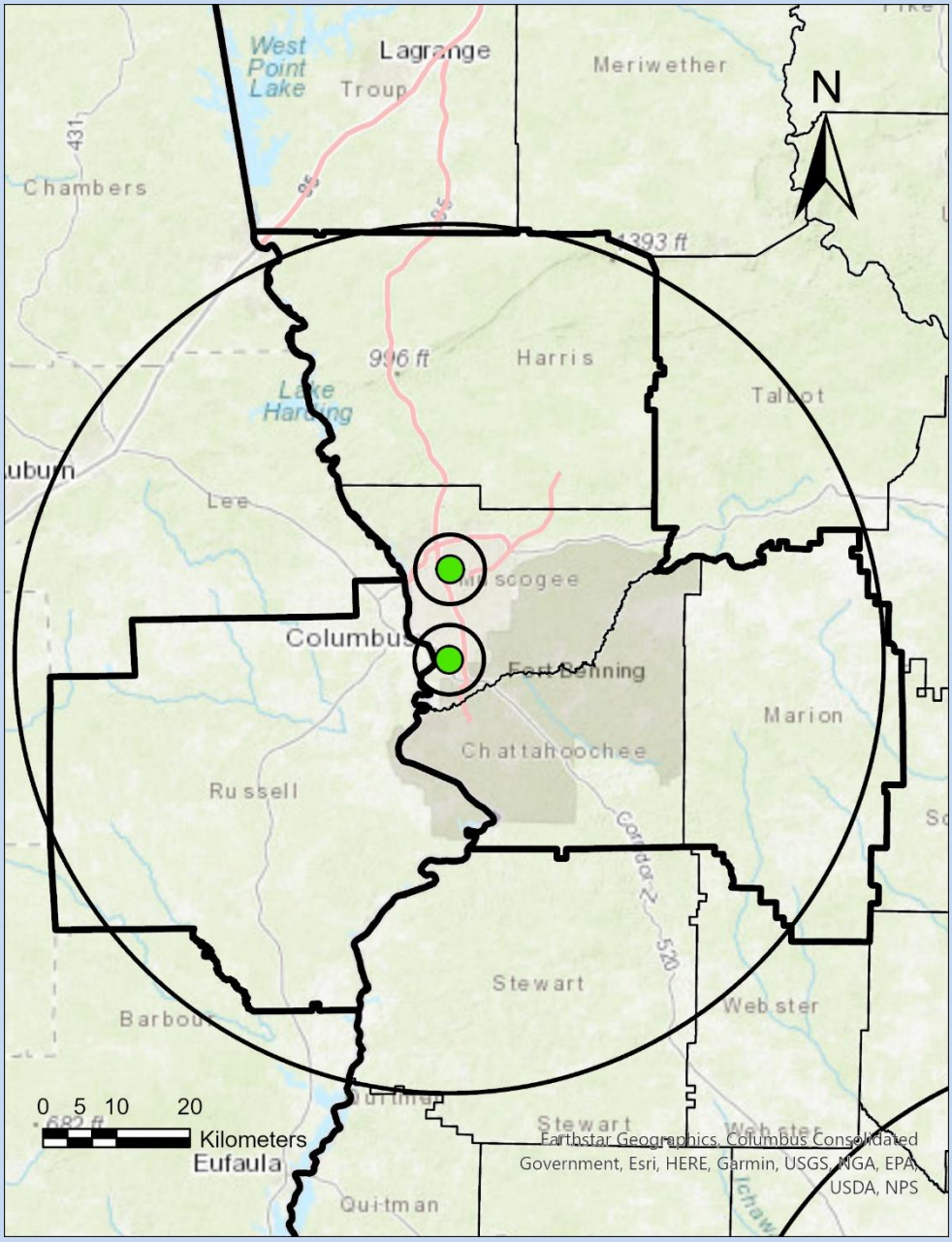
AQS ID: 130210012
Address: Georgia Forestry Commission, 5645 Riggins Mill Road, Dry Branch, Bibb County, Georgia 31020
Site Established: 5/7/97
Latitude/Longitude: N32.8051/W-83.5436
Elevation: 120 meters
Area Represented: Macon-Bibb County MSA
Site History: Established as O_3 and SO_2 site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure	Every 3 days	4.5 m	Urban	2/1/99
Wind Direction	General/ Background	Continuous	9 m	Neighborhood	1/1/04
Wind Speed	General/ Background	Continuous	9 m	Neighborhood	1/1/04
O_3	Population Exposure/Highest Concentration	Continuous (Mar-Oct)	4.3 m	Neighborhood	5/7/97
SO_2	Population Exposure	Continuous	4.3 m	Urban	5/7/97
SO_2 5-Minute Maximum	Population Exposure	Continuous	4.3 m	Neighborhood	8/1/10

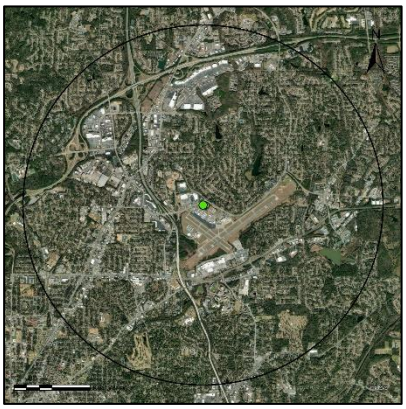
GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ monitor as FEM as of October 1, 2017; a new shelter was installed February 2024; spatial scale for $PM_{2.5}$ monitors was changed from neighborhood to urban; $PM_{2.5}$ continuous T640 monitor was shut down September 30, 2024; updated the monitoring objective to include "highest concentration" for the ozone monitor

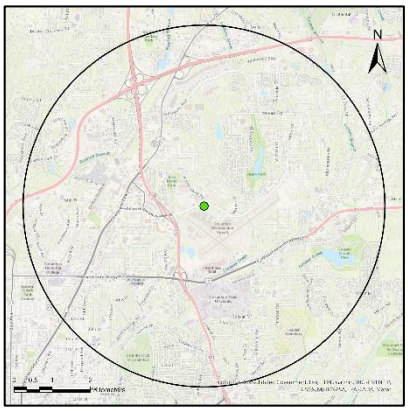
Columbus Georgia-Alabama MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Columbus-Airport





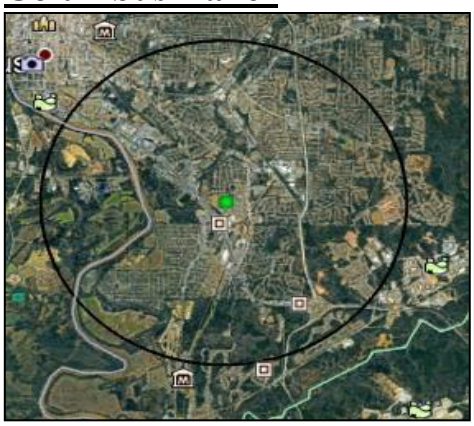
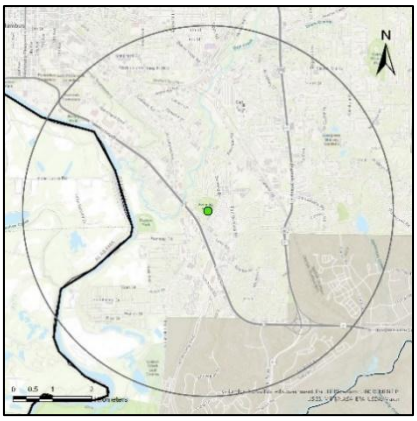
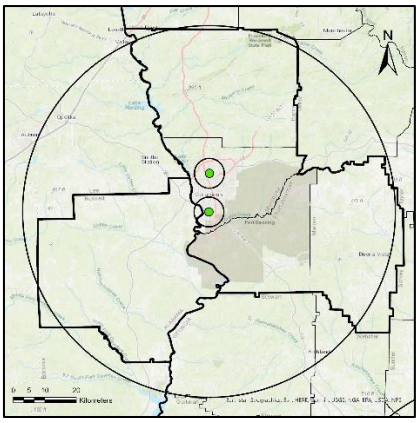
AQS ID: 132150008
Address: Columbus Airport, 3100 Airport Thruway Drive, Columbus, Muscogee County, Georgia 31909
Site Established: 7/1/82
Latitude/Longitude: N32.5211/W-84.9447
Elevation: 445 meters
Area Represented: Columbus Georgia-Alabama MSA
Site History: Established as O_3 site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure/Highest Concentration	Continuous (Mar-Oct)	4m	Neighborhood	7/1/82
$PM_{2.5}$	Population Exposure	Every 3 days	4.7 m	Neighborhood	6/2/03

GA AAMP's plans for this site: Continue monitoring; GA AAMP installed a continuous FEM $PM_{2.5}$ T640 sampler to replace the continuous non-FEM $PM_{2.5}$ TEOM on November 23, 2021; beginning with January 1, 2022 to July 31, 2023 there was a NAAQS exclusion on the $PM_{2.5}$ T640 monitor for testing data network alignment; another NAAQS exclusion was approved from August 1, 2023 to September 30, 2024; the continuous $PM_{2.5}$ T640 monitor was shut down on September 30, 2024; as of November 2, 2024 the $PM_{2.5}$ FRM sampling schedule changed from daily to every 3 days; updated the monitoring objective to include “highest concentration” for the ozone monitor

Columbus-Baker

AQS ID: 132150012
Address: Baker Middle School, 1215 Benning Dr, Columbus, Muscogee County, Georgia 31903
Site Established: 3/1/21
Latitude/Longitude: N32.4274/W-84.9457
Elevation: 85 meters
Area Represented: Columbus Georgia-Alabama MSA
Site History: Established as $PM_{2.5}$ site

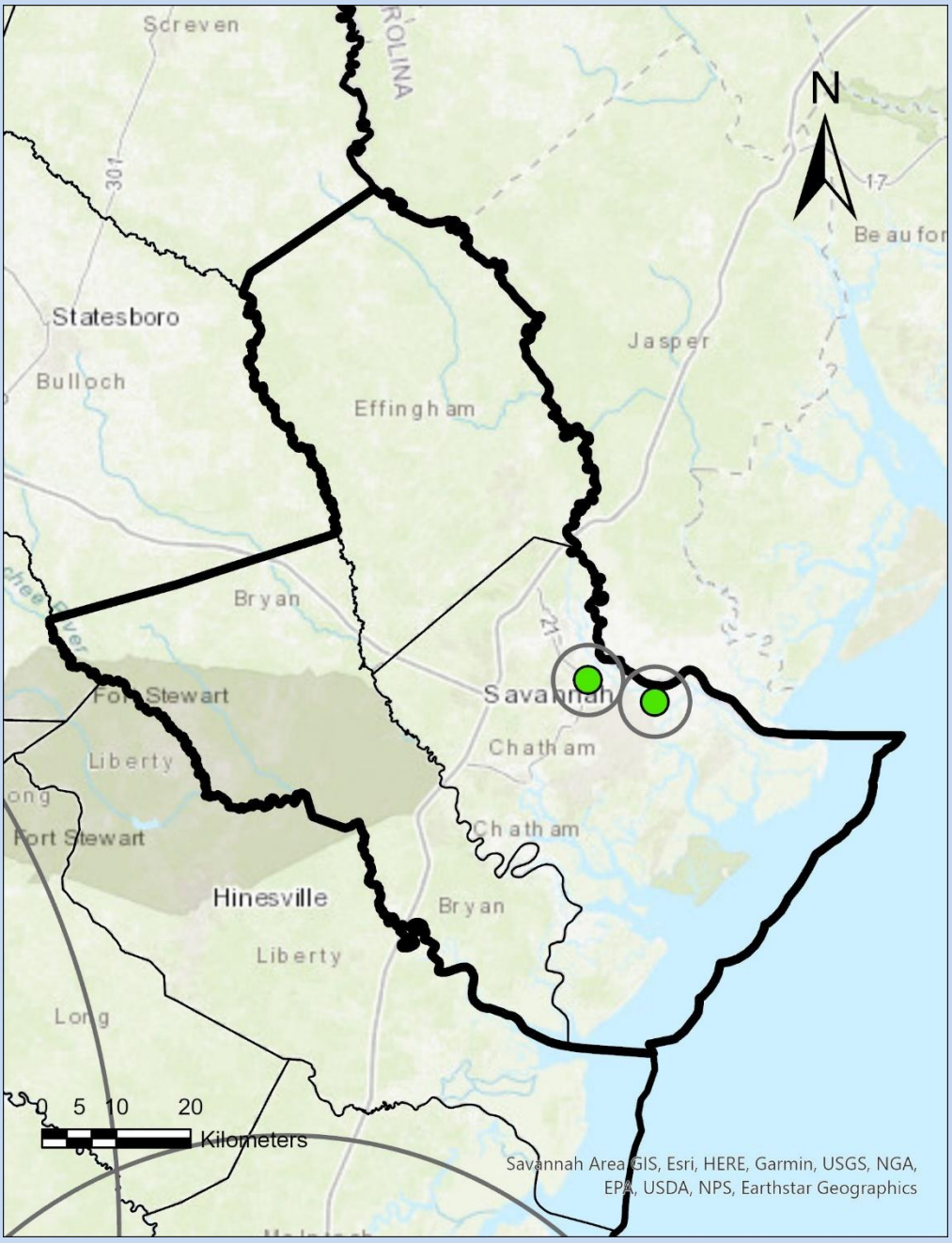
North South East West




Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure/Highest Concentration	Every 3 days	2.8 m	Urban	3/1/21
$PM_{2.5}$ Speciation (SASS/URG)	Population Exposure	Every 6 days	1.8 m/ 2.7 m	Neighborhood	3/1/21
$PM_{2.5}$	Population Exposure	Continuous	3 m	Urban	6/6/23

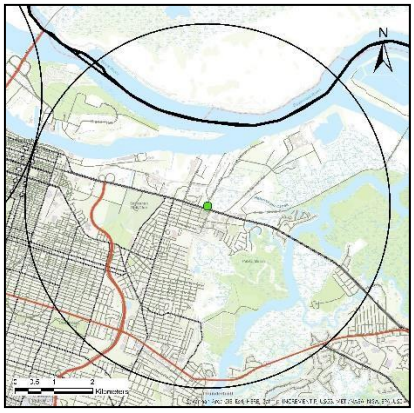
GA AAMP's plans for this site: Continue monitoring; site moved from Columbus-Cusseta location and historical data can be found with AQS ID 13-215-0011; GA AAMP installed a continuous $PM_{2.5}$ non-NAAQS sampler with the EPA American Rescue Plan funds on June 6, 2023 and the monitor was a non-NAAQS for two years; spatial scale was changed from neighborhood to urban for the $PM_{2.5}$ monitors; the $PM_{2.5}$ FRM sampler was updated to a daily sampling schedule as of January 7, 2025; with the August 2023-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; on August 15, 2025, RH setpoint was changed to 20% continuous $PM_{2.5}$ monitor; starting April 1, 2026, $PM_{2.5}$ FRM sampling frequency changed from a daily schedule to 1 in 3 days; updated the monitoring objective to include “highest concentration” for the $PM_{2.5}$ FRM monitor

Savannah MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Savannah- E. President

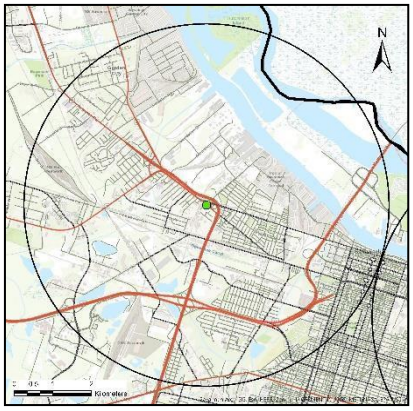
AQS ID: 130510021
Address: American Red Cross, 2500 E. President Street, Bd-A, Savannah, Chatham County, Georgia 31404
Site Established: 2/1/95
Latitude/Longitude: N32.0683/W-81.0496
Elevation: 10.4 meters
Area Represented: Savannah MSA
Site History: Established as SO_2 and H_2S site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure/Highest Concentration	Continuous (Mar-Oct)	3.9 m	Neighborhood	4/19/95
SO_2	Source Oriented	Continuous	3.9 m	Neighborhood	3/29/95
SO_2 5-Minute Maximum	Population Exposure	Continuous	3.9 m	Neighborhood	8/1/10
Wind Direction	General/ Background	Continuous	8.6 m	Neighborhood	1/1/04
Wind Speed	General/ Background	Continuous	8.6 m	Neighborhood	1/1/04
VOCs	Source Oriented	Every 6 Days	X	Neighborhood	6/23/25

GA AAMP's plans for this site: Continue monitoring; began monitoring for 17 VOC parameters on June 23, 2025 as part of a short-term community study in Rincon, GA to characterize the air for specific compounds; updated the monitoring objective to include “highest concentration” for the ozone monitor

Savannah- L&A

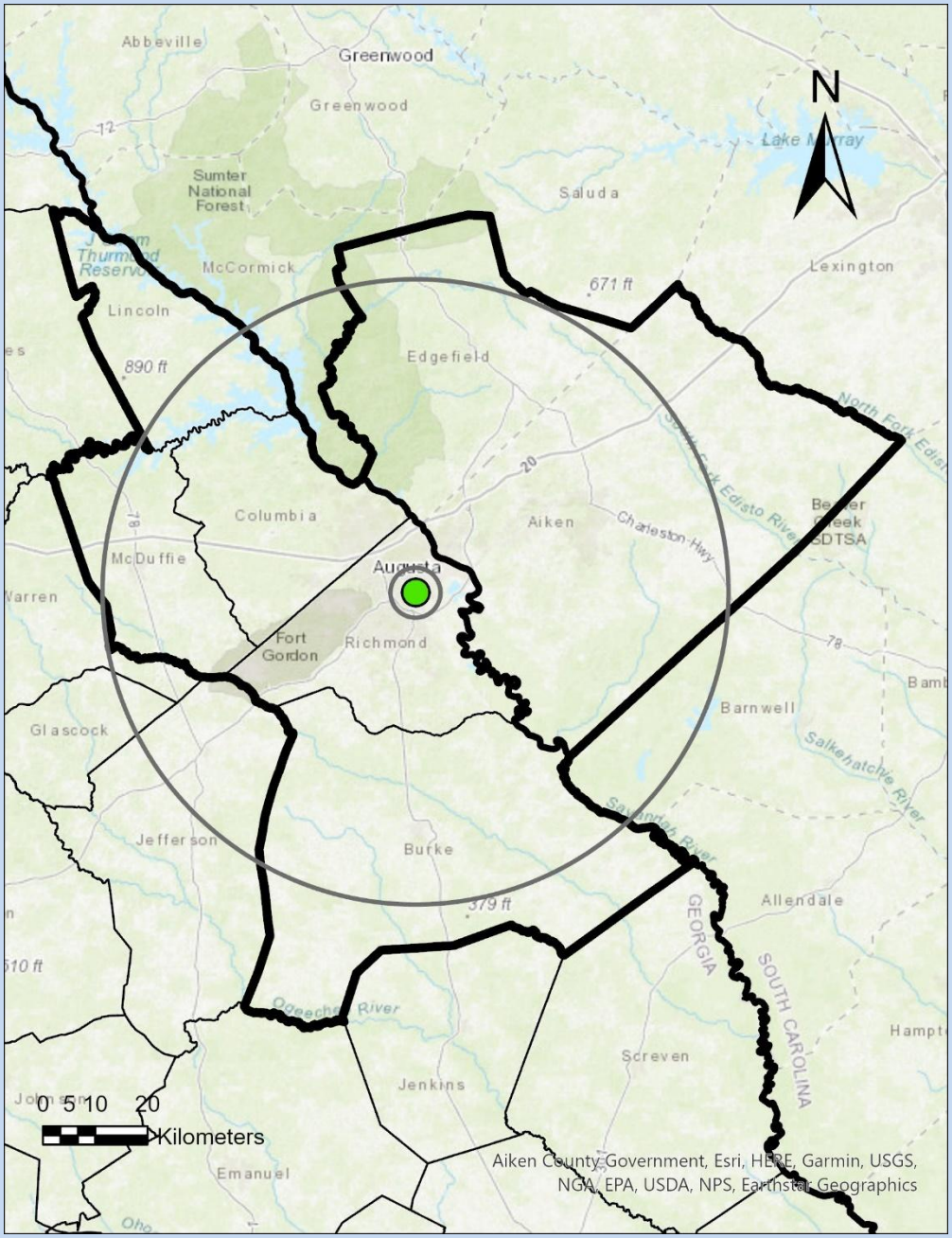
AQS ID: 130511002
Address: Pumping Station at Intersection of West Lathrop and Augusta Avenue, Savannah, Chatham County, Georgia 31415
Site Established: 1/1/72
Latitude/Longitude: N32.0906/W-81.1304
Elevation: 6.11 meters
Area Represented: Savannah MSA
Site History: Established as TSP site

North South Southeast West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
SO_2	Population Exposure	Continuous	4.3 m	Neighborhood	1/1/98
SO_2 5-Minute Maximum	Population Exposure	Continuous	4.3 m	Neighborhood	8/1/10
Wind Direction	General/ Background	Continuous	9.8 m	Neighborhood	1/1/79
Wind Speed	General/ Background	Continuous	9.8 m	Neighborhood	1/1/79
$PM_{2.5}$	Population Exposure/Highest Concentration	Daily	4.7 m	Neighborhood	3/13/23
$PM_{2.5}$	Population Exposure	Continuous	4.3 m	Neighborhood	10/1/03

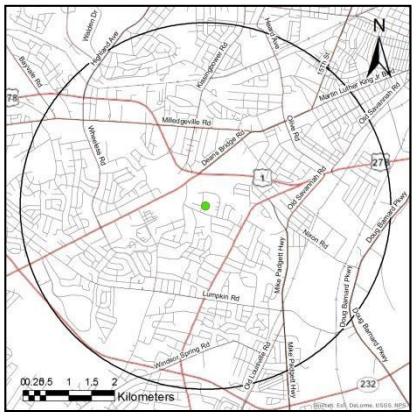
GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ sampler as FEM as of November 7, 2017 to ensure redundancy in the Savannah MSA and avoid data completeness issues; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ FRM monitor

Augusta-Richmond County, Georgia-South Carolina MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Augusta



AQS ID: 132450091
Address: Bungalow Road Elementary School, 2216 Bungalow Rd, Augusta, Richmond County, Georgia 30906
Site Established: 1/1/76
Latitude/Longitude: N33.4339/W-82.0224
Elevation: 48.77 meters
Area Represented: Augusta-Richmond County, Georgia-South Carolina MSA
Site History: Established as TSP site

North South East West

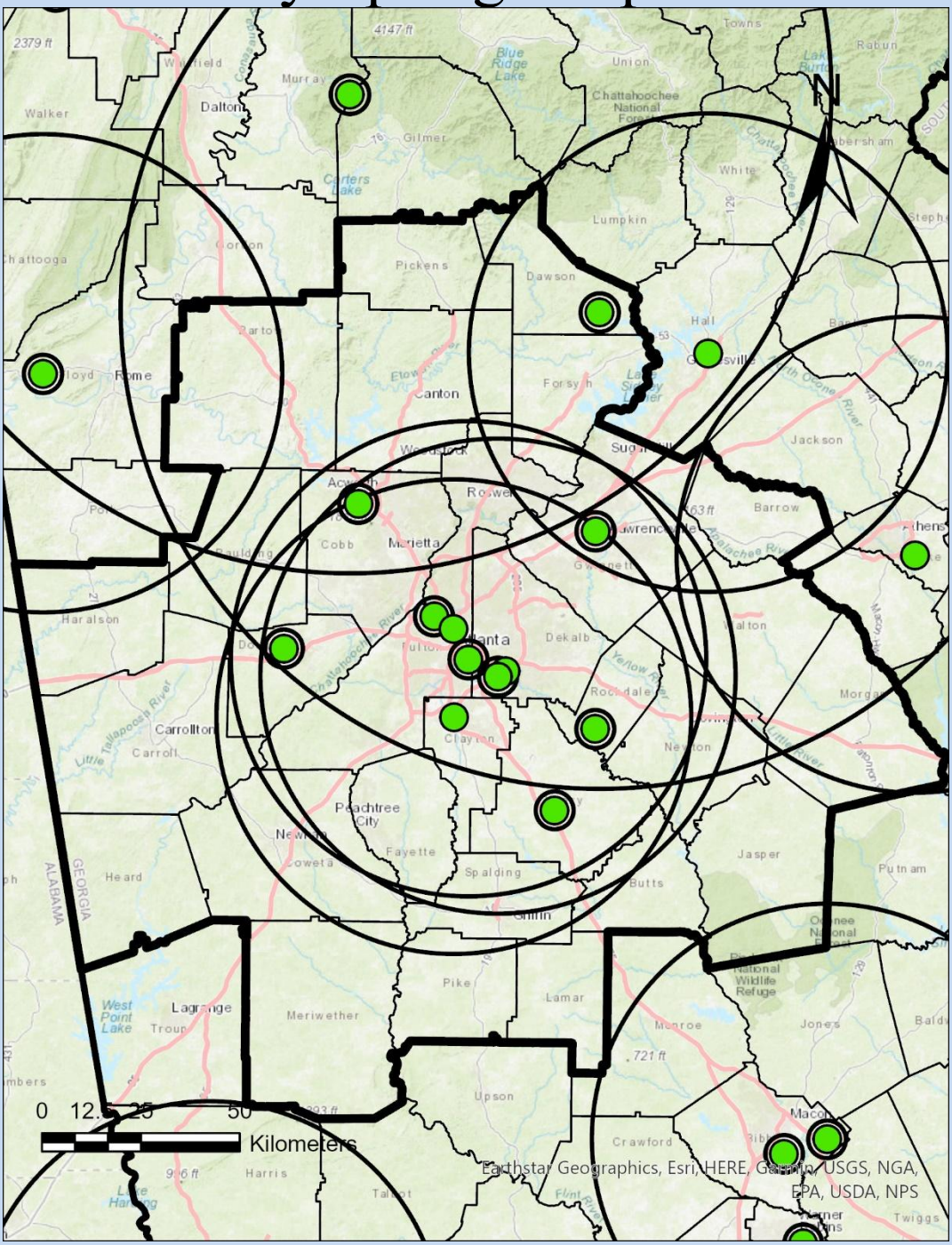
Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure/Highest Concentration	Continuous (Mar-Oct)	4.5 m	Neighborhood	4/27/89
PM_{10}	Population Exposure	Continuous	4.6 m	Urban	7/13/21
$PM_{2.5}$ Speciation (SASS/URG)	Population Exposure	Every 6 days	2.4 m/2.7 m	Neighborhood	3/2/02
$PM_{2.5}$	Population Exposure	Continuous	4.6 m	Urban	10/1/03
$PM_{2.5}$	Population Exposure/Highest Concentration	Daily	2.6 m	Urban	1/1/22
$PM_{2.5}$	Quality Assurance	Every 3 days	2.6 m	Urban	9/20/22
SO_2	Population Exposure	Continuous	4.5 m	Neighborhood	1/14/13

Augusta (continued)

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
SO_2 5-Minute Maximum	Population Exposure	Continuous	4.5 m	Neighborhood	1/14/13
Wind Speed	General/ Background	Continuous	9.5 m	Neighborhood	10/2/03
Wind Direction	General/ Background	Continuous	9.5 m	Neighborhood	10/2/03
Outside Temperature	General/ Background	Continuous	2 m	Neighborhood	10/2/03
Relative Humidity	General/ Background	Continuous	2 m	Neighborhood	10/2/03
Rain/Melt Precipitation	General/ Background	Continuous	4 m	Neighborhood	10/2/03
Barometric Pressure	General/ Background	Continuous	1.7 m	Neighborhood	10/2/03

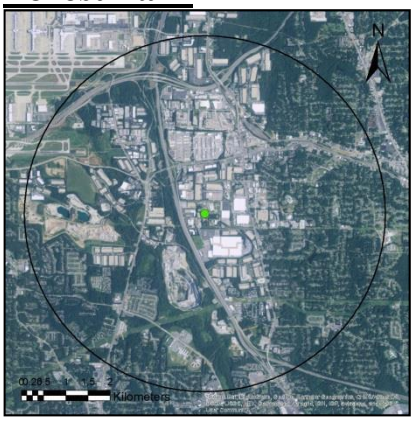
GA AAMP's plans for this site: GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ monitor as FEM as of October 1, 2017; beginning with August 1, 2023 data, continuous $PM_{2.5}$ monitor was non-NAAQS for two years; GA AAMP replaced the continuous PM_{10} TEOM and continuous $PM_{2.5}$ T640 with continuous T640X, which reads $PM_{2.5}$, PM_{10}, and PM_{coarse} on July 13, 2021; the $PM_{2.5}$ speciation sampling was temporarily suspended from March 23, 2021 until June 9, 2021; the integrated $PM_{2.5}$ FRM monitor was shut down from 2018-2021, and reopened January 1, 2022 to meet collocation requirements; spatial scale was changed from neighborhood to urban for the $PM_{2.5}$ and PM_{10} monitors, excluding the $PM_{2.5}$ speciation monitor; GA EPD is currently evaluating the siting location of the SO_2 monitor and nearby area; modeling is being conducted by the Planning and Support Program to determine the best location for the monitor; the $PM_{2.5}$ T640 monitor had a NAAQS exclusion starting in January 2022 through 2023; with the August 2023-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; updated the monitoring objective to include “highest concentration” for the $PM_{2.5}$ FRM monitor; updated the monitoring objective to include “highest concentration” for the ozone monitor

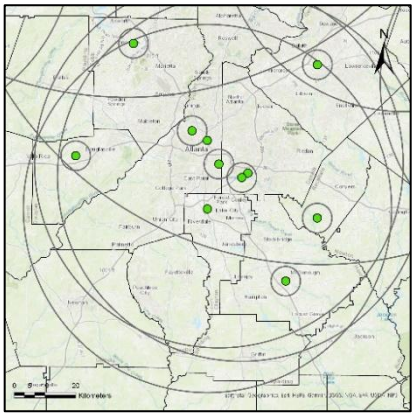
Atlanta-Sandy Springs-Alpharetta MSA



Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Forest Park





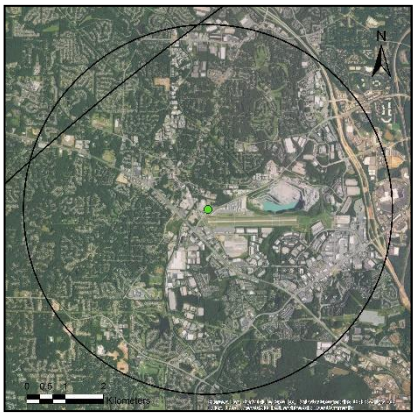
AQS ID: 130630091
Address: 25 Kennedy Drive, Forest Park, Clayton County, Georgia 30297 Site Established: 1/1/78
Latitude/Longitude: N33.6107/W-84.3908
Elevation: 288 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as TSP site

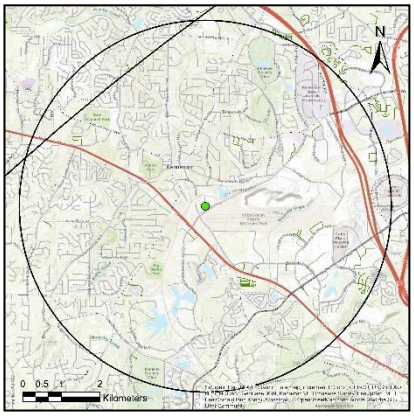
North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure	Every 3 Days	2.7 m	Urban	1/9/99

GA AAMP's plans for this site: Continue monitoring; GA AAMP replaced the FRM $PM_{2.5}$ with a continuous FEM $PM_{2.5}$ T640 sampler on February 20, 2024, and used EPA American Rescue Plan funds for this new sampler; Spatial scale was changed from neighborhood to urban for the $PM_{2.5}$ monitor; the FRM $PM_{2.5}$ monitor replaced the continuous $PM_{2.5}$ T640 on July 22, 2024

Kennesaw





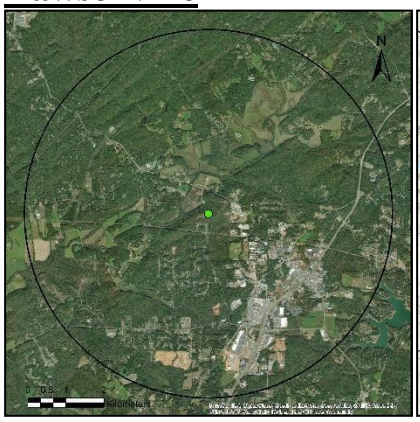
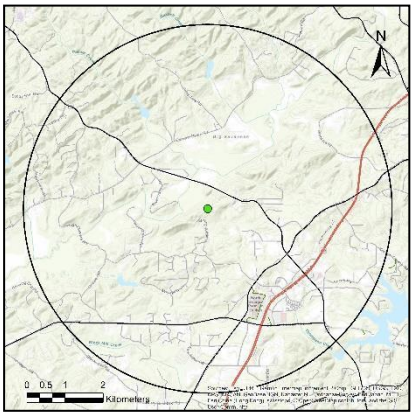
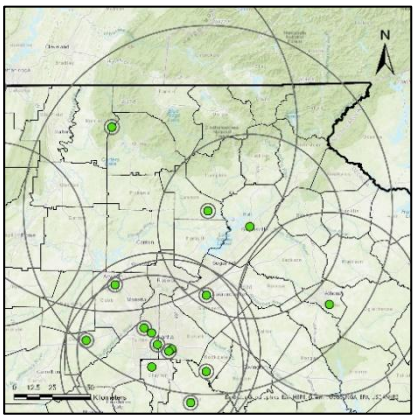
AQS ID: 130670003
Address: Georgia National Guard, 1901 McCollum Parkway, Kennesaw, Cobb County, Georgia, 30144
Site Established: 2/7/99
Latitude/Longitude: N34.0153/W-84.6075
Elevation: 317 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as $PM_{2.5}$ site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure	Continuous (Mar-Oct)	4.2 m	Neighborhood	9/1/99

GA AAMP's plans for this site: Continue monitoring; GA AAMP installed a continuous $PM_{2.5}$ non-NAAQS T640 sampler with the EPA American Rescue Plan funds on October 25, 2023, and the monitor was installed with a NAAQS exclusion; the $PM_{2.5}$ T640 monitor was shut down on January 2, 2025; the $PM_{2.5}$ FRM monitor was shut down on March 19, 2025

Dawsonville

AQS ID: 130850001
Address: Georgia Forestry Commission, 4500 Georgia Highway 53 East, Dawsonville, Dawson County, Georgia 30534
Site Established: 1/1/85
Latitude/Longitude: N34.3761/W-84.0596
Elevation: 372 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as O_3 site

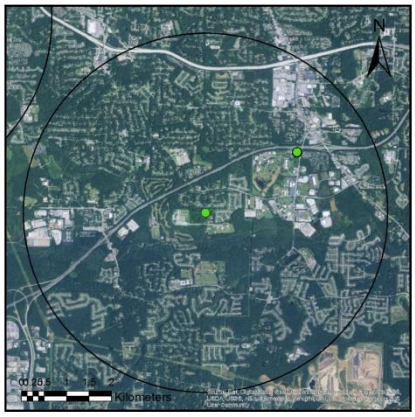
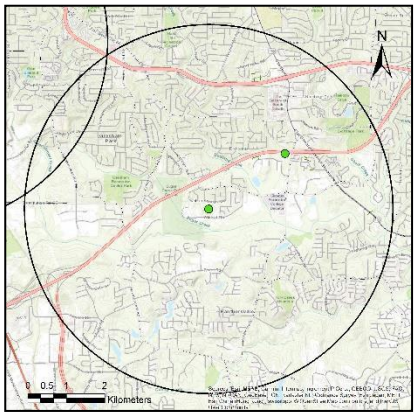
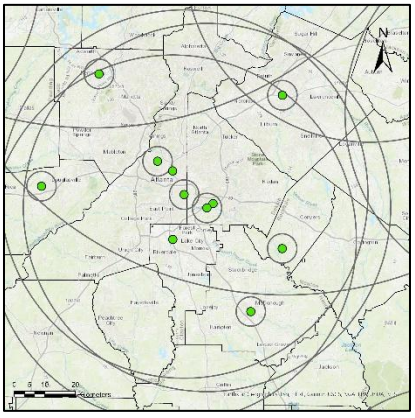
North South East West




Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure	Continuous (Mar-Oct)	4 m	Neighborhood	1/1/85
Wind Speed	General/ Background	Continuous	10 m	Regional	1/1/05
Wind Direction	General/ Background	Continuous	10 m	Regional	1/1/05

GA AAMP's plans for this site: Continue monitoring

South DeKalb

AQS ID: 130890002
Address: 2300-C Wildcat Road, Decatur, DeKalb County, Georgia 30034
Site Established: 1/1/74
Latitude/Longitude: N33.6877/W-84.2905
Elevation: 308 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as O_3 site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure	Daily	2.4 m	Urban	1/22/99
$PM_{2.5}$	Quality Assurance	Every 3 days	2.4 m	Urban	12/20/08
$PM_{2.5}$	Population Exposure	Continuous	4 m	Urban	5/1/03
$PM_{2.5}$ Speciation (SASS/URG)	Population Exposure	Every 3 days	2.4 m	Neighborhood	10/1/00
SO_2	Population Exposure	Continuous	3.8 m	Neighborhood	10/1/10
SO_2 5-Minute Maximum	Population Exposure	Continuous	3.8 m	Neighborhood	10/1/10
O_3	Population Exposure	Continuous	4 m	Neighborhood/ Urban	1/1/74
CO	Population Exposure	Continuous	4 m	Neighborhood	5/19/03

South DeKalb (continued)

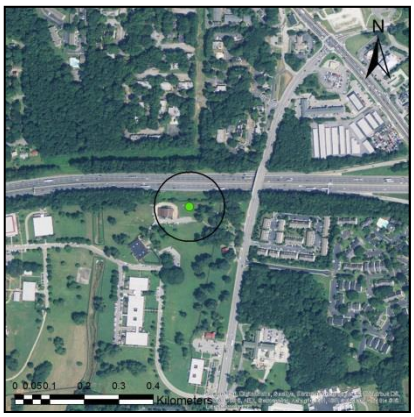
Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
NOy	Population Exposure	Continuous	9.5 m	Neighborhood/ Urban	1/1/98
NO	Population Exposure	Continuous	4 m	Neighborhood/ Urban	4/1/94
NOx	Population Exposure	Continuous	4 m	Neighborhood/ Urban	4/1/94
NO_2	Population Exposure	Continuous	4 m	Neighborhood/ Urban	7/21/78
Carbonyls (PAMS)	Max Precursor Emissions	Three 8-hour samples every third day in summer	3.8 m	Neighborhood	6/1/93
Carbonyls (NATTS)	Population Exposure	Every 6 days	3.8 m	Neighborhood	6/1/93
Carbonyls (NATTS)	Quality Assurance	1/month	3.8 m	Neighborhood	1/1/06
PM_{10} Select Metals (NATTS)	Population Exposure	Every 6 days	2 m	Neighborhood	1/1/00
PM_{10} Select Metals (NATTS)	Quality Assurance	1/month	2 m	Neighborhood	1/1/05
PM_{10} Continuous	Population Exposure	Continuous	4 m	Urban	1/1/11
PM_{coarse} Continuous	Population Exposure	Continuous	4 m	Urban	1/1/11
VOCs (PAMS)	Max Precursor Emissions	Continuous in Summer (June-August)	3.8 m	Neighborhood	6/1/93
VOCs (NATTS)	Population Exposure	Every 6 days	3.8 m	Neighborhood	6/1/93
VOCs (NATTS)	Quality Assurance	1/month	3.8 m	Neighborhood	1/1/05
Semi-VOCs (NATTS)	Population Exposure	Every 6 days	2.5 m	Neighborhood	4/30/07
Semi-VOCs (NATTS)	Quality Assurance	1/month	2.5 m	Neighborhood	4/30/07
Outdoor Temperature	General/ Background	Continuous	2 m	Neighborhood	6/1/93
Rain/Melt Precipitation	General/ Background	Continuous	3.2 m	Neighborhood	1/1/97

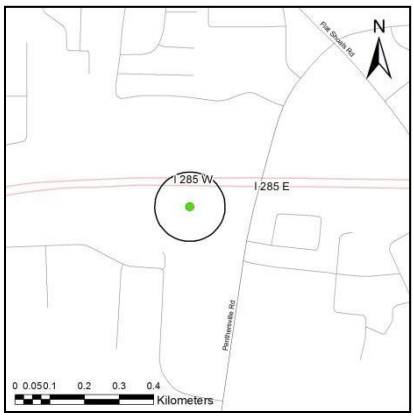
South DeKalb (continued)

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
Barometric Pressure	General/ Background	Continuous	2 m	Neighborhood	6/1/93
Wind Direction	General/ Background	Continuous	10 m	Neighborhood	6/1/93
Wind Speed	General/ Background	Continuous	10 m	Neighborhood	6/1/93
Sigma Theta	General/ Background	Continuous	10 m	Neighborhood	1/1/02
Relative Humidity	General/ Background	Continuous	2 m	Neighborhood	6/1/93
Mixing Layer Height	General/ Background	Continuous	4.2	Neighborhood	12/5/24

GA AAMP's plans for this site: Continue monitoring. NCore site (refer to GA AAMP's *2011 Ambient Air Monitoring Plan, Appendix C, Ambient Air Monitoring Plan for National Core (NCore) Multipollutant Monitoring Station* for full description and approval). Solar radiation and ultraviolet radiation for South DeKalb PAMS are currently monitored at the Conyers site due to equipment specifications (see Section 1.4 for waiver request). GA AAMP replaced both the primary and collocated NATTS high-volume PM_{10} metals samplers with low-volume PM_{10} metals samplers as of April 1, 2022. GA AAMP installed a Markes-Agilent 7890B Gas Chromatograph to fulfill the PAMS requirement for measuring hourly VOCs by June 1, 2021. GA AAMP also installed a direct NO_2 monitor in June 2021 to fulfill PAMS requirements; spatial scale was changed from neighborhood to urban for all $PM_{2.5}$ and PM_{10} monitors, except the $PM_{2.5}$ speciation monitors; GA AAMP installed a ceilometer on December 5, 2024

NR-285





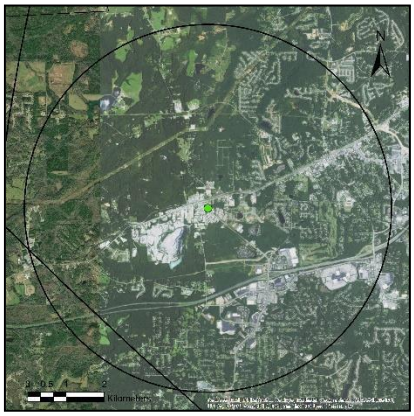
AQS ID: 130890003
Address: 3073 Panthersville Road, Decatur, DeKalb County, Georgia 30034
Site Established: 7/1/86
Latitude/Longitude: N33.6985/W-84.2727
Elevation: 238 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as lead site

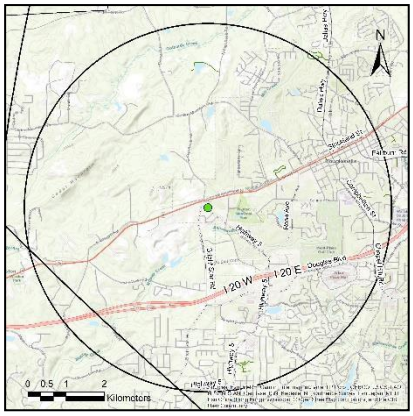
North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
NO_2	Source Oriented	Continuous	4.5 m	Micro	1/1/15
NO	Source Oriented	Continuous	4.5 m	Micro	1/1/15
NOx	Source Oriented	Continuous	4.5 m	Micro	1/1/15
VOCs	Source Oriented	Every 12 days	3.9 m	Micro	3/31/15
Black Carbon	Source Oriented	Continuous	3.9 m	Micro	9/1/15

GA AAMP's plans for this site: Continue monitoring; Near-road site as of January 1, 2015 (see *Addendum to 2015 Ambient Monitoring Plan* for full description); black carbon instrument was replaced with a Met One sampler on January 1, 2022 and was shut down from January 31, 2022 until March 17, 2023 and restarted collecting data as of April 18, 2023; the continuous $PM_{2.5}$ monitor is a non-FEM, non-NAAQS TEOM 1405; the non-FEM continuous $PM_{2.5}$ TEOM sampler was shut down July 2, 2024

Douglasville





AQS ID: 130970004
Address: Douglas County Water Authority, 7725 W. Strickland St., Douglasville, Douglas County, Georgia 30134
Site Established: 8/15/97
Latitude/Longitude: N33.7411/W-84.7765
Elevation: 373 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as O_3 site

North

South

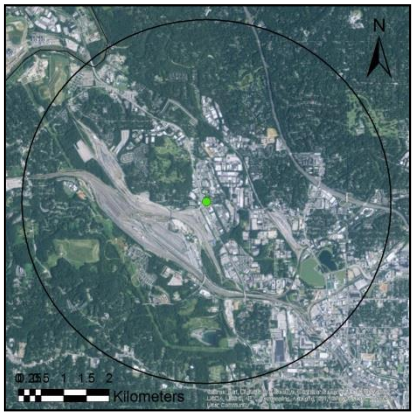
East

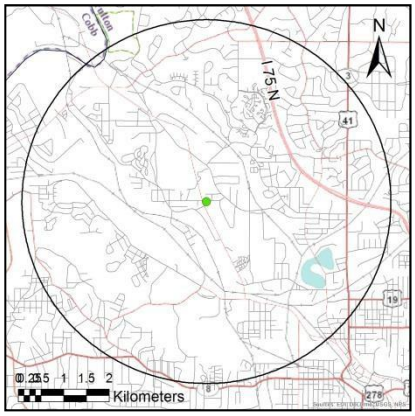
West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure	Continuous (Mar-Oct)	4 m	Neighborhood	8/15/97
Wind Direction	General/ Background	Continuous	10 m	Neighborhood	8/15/97
Wind Speed	General/ Background	Continuous	10 m	Neighborhood	8/15/97

GA AAMP's plans for this site: Continue monitoring

Fire Station #8





AQS ID: 131210039
Address: Fire Station #8, 1711 Marietta Blvd., Atlanta, Fulton County, Georgia 30318
Site Established: 1/1/73
Latitude/Longitude: N33.8021/W-84.4357
Elevation: 265 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as TSP site

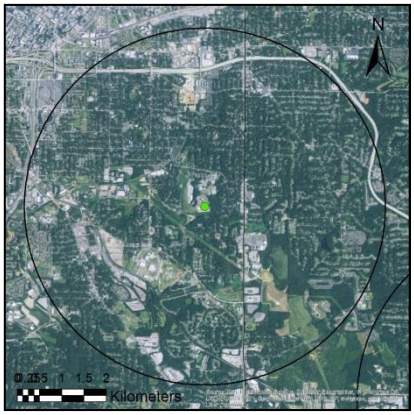
North South East West

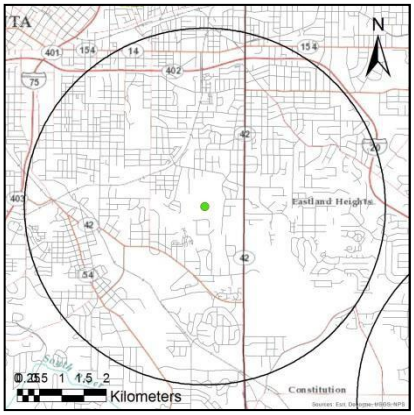
Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure	Every 3 days	10.1 m	Neighborhood	1/21/99*
PM_{10}	Population Exposure	Every 6 days	10 m	Neighborhood	1/1/86**
PM_{10}	Population Exposure/Quality Assurance	Every 12 days	10 m	Neighborhood	2/1/86***

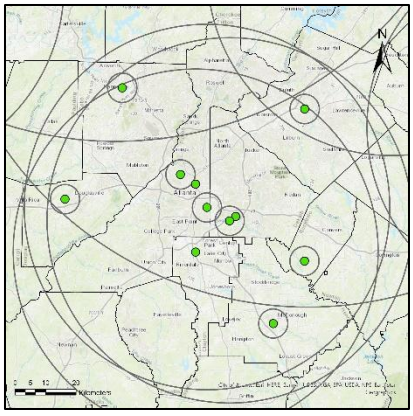
* Sampler inactive from 9/30/06 to 12/1/08, **Sampler inactive from 9/26/06 to 1/3/13, ***Sampler inactive from 10/12/87 to 1/1/06 and from 9/26/06 to 6/1/17

GA AAMP's plans for this site: Continue monitoring

United Avenue







AQS ID: 131210055
Address: 945 United Avenue, Atlanta, Fulton County, Georgia 30316 Site Established: 10/1/91
Latitude/Longitude: N33.7206/W-84.3574
Elevation: 288 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as O_3 and SO_2 site

North

South

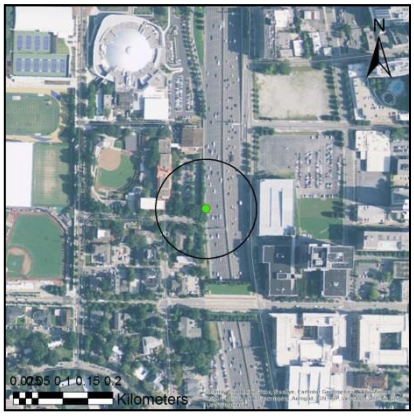
East

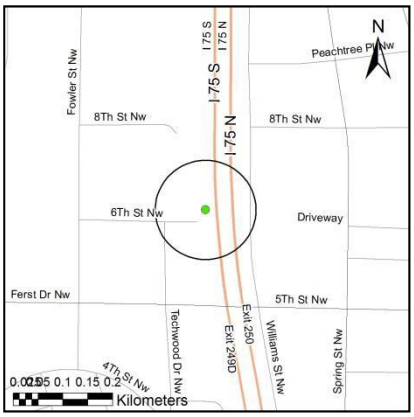
West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
SO_2	Population Exposure	Continuous	4 m	Neighborhood	10/1/91
SO_2 5-Minute Maximum	Population Exposure	Continuous	4 m	Neighborhood	8/1/10
O_3	Maximum Concentration	Continuous (Mar-Oct)	4 m	Neighborhood	10/1/91
$PM_{2.5}$	Population Exposure/Highest Concentration	Continuous	4.8 m	Urban	7/1/05
Wind Direction	General/ Background	Continuous	10 m	Neighborhood	1/1/04
Wind Speed	General/ Background	Continuous	10 m	Neighborhood	1/1/04

GA AAMP's plans for this site: Continue monitoring; Spatial scale was changed from neighborhood to urban for continuous $PM_{2.5}$ monitor; updated the monitoring objective to include "highest concentration" for the $PM_{2.5}$ continuous monitor

NR-GA Tech





AQS ID: 131210056
Address: Georgia Institute of Technology, 6th Street and I-75, Atlanta, Fulton County, Georgia, 30313
Site Established: 6/15/14
Latitude/Longitude: N33.7784/W-84.3914
Elevation: 286 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as near-road site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
NO_2	Source Oriented	Continuous	3.8 m	Micro	6/15/14
NO	Source Oriented	Continuous	3.8 m	Micro	6/15/14
NOx	Source Oriented	Continuous	3.8 m	Micro	6/15/14
CO	Source Oriented	Continuous	3.8 m	Micro	6/15/14
$PM_{2.5}$	Source Oriented	Every 3 days	5 m	Micro	1/1/15
$PM_{2.5}$	Source Oriented	Continuous	4.8 m	Micro	3/1/18
Black Carbon	Source Oriented	Continuous	4.0 m	Micro	7/9/15

NR-GA Tech (continued)

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
Wind Direction	Source Oriented	Continuous	5.5 m	Micro	8/20/14
Wind Speed	Source Oriented	Continuous	5.5 m	Micro	8/20/14

GA AAMP's plans for this site: Continue monitoring; see Appendix E of *2014 Ambient Air Monitoring Plan* for near- road site establishment and details; GA AAMP replaced the $PM_{2.5}$ continuous nephelometer with a $PM_{2.5}$ non-FEM continuous TEOM sampler on April 20, 2023; replaced the black carbon with a Met One sampler on May 10, 2023; refer to the *Addendum to 2024 Ambient Air Monitoring Plan* for discussion of GA AAMP's request for the reclassification of the $PM_{2.5}$ FRM monitor to a non-regulatory, non-NAAQS monitor for the purpose of comparison to the annual $PM_{2.5}$ NAAQS (request approved by EPA on March 9, 2026); requesting a siting waiver to continue monitoring despite trees obstructing the requirement of a 270° unrestricted airflow standard (see Section 1.4 for waiver request)

Empire Blvd

AQS ID: 131210057
Address: 3325 Empire Blvd SW, Atlanta, GA 30354
Established: 5/30/2025
Latitude/Longitude: N33.664893, W-84.392036
Elevation: 280 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta
Site History: Established as Lead site

North

South

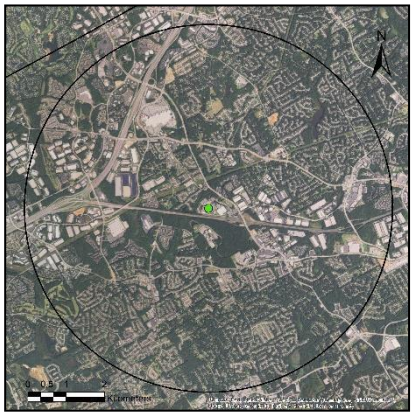
East

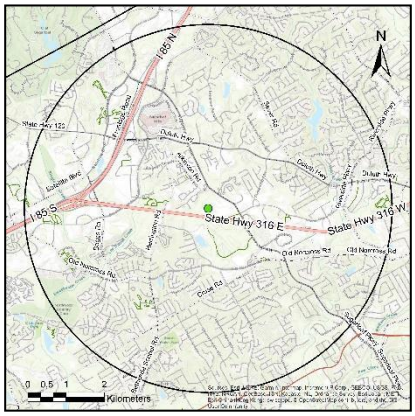
West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
Lead	Source Oriented	Every 6 days	2.13 m	Micro	5/30/2025
Lead	Quality Assurance	Every 12 days	2.13 m	Micro	5/30/2025

GA AAMP's plans for this site: Continue monitoring

Gwinnett Tech





AQS ID: 131350002
Address: Gwinnett Tech, 5150 Sugarloaf Parkway, Lawrenceville, Gwinnett County, Georgia 30043
Established: 3/17/95
Latitude/Longitude: N33.9632/W-84.0691
Elevation: 294 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as O_3 site

North

South

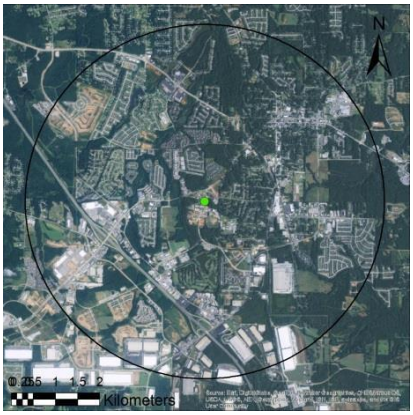
East

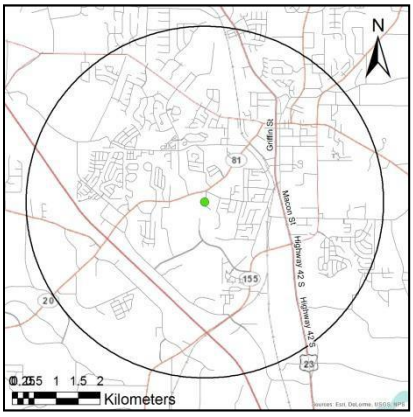
West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Population Exposure	Continuous (Mar-Oct)	3.4 m	Neighborhood	5/17/95
$PM_{2.5}$	Population Exposure	Continuous	4.4 m	Neighborhood	9/1/03
$PM_{2.5}$	Population Exposure	Every 3 Days	4.5 m	Neighborhood	9/30/24

GA AAMP's plans for this site: Continue monitoring; running continuous $PM_{2.5}$ sampler as FEM as of October 26, 2017; due to increased traffic counts, a siting waiver was approved on 1/26/2026 for the ozone monitoring, to find a new location for the site; on September 30, 2024 an FRM $PM_{2.5}$ sampler was deployed and started on a daily sampling schedule; with the October 2024-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; on August 15, 2025, RH setpoint was changed to 20% on the continuous $PM_{2.5}$ T640 monitor; starting January 1, 2026, $PM_{2.5}$ FRM sampling frequency changed from a daily schedule to 1 in 3 days

McDonough





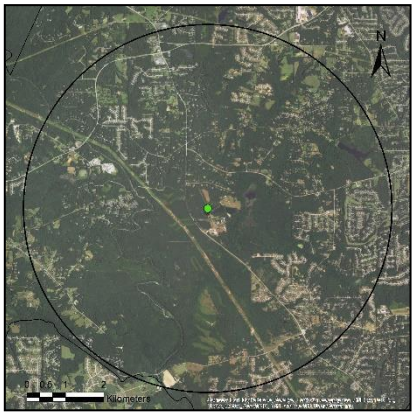
AQS ID: 131510002
Address: 86 Work Camp Rd, McDonough, Henry County, Georgia 30253
Site Established: 6/7/99
Latitude/Longitude: N33.4338/W-84.1619
Elevation: 261.35 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as O_3 site

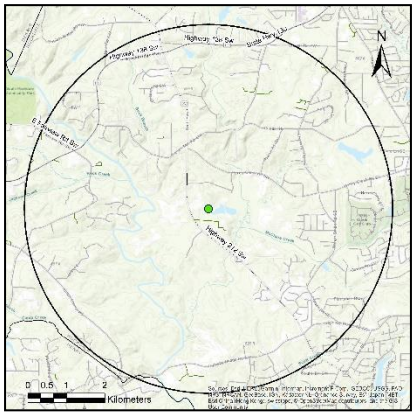
North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Maximum Concentration	Continuous (Mar-Oct)	4 m	Neighborhood	6/7/99
$PM_{2.5}$	Population Exposure	Continuous	4.2 m	Neighborhood	9/1/03

GA AAMP's plans for this site: Continue monitoring

Conyers





AQS ID: 132470001
Address: 2625 Georgia Highway 212, Conyers, Rockdale County, Georgia 30094
Established: 7/26/78
Latitude/Longitude: N33.5884/W-84.0697
Elevation: 219 meters
Area Represented: Atlanta-Sandy Springs-Alpharetta MSA
Site History: Established as O_3 site

North South East West

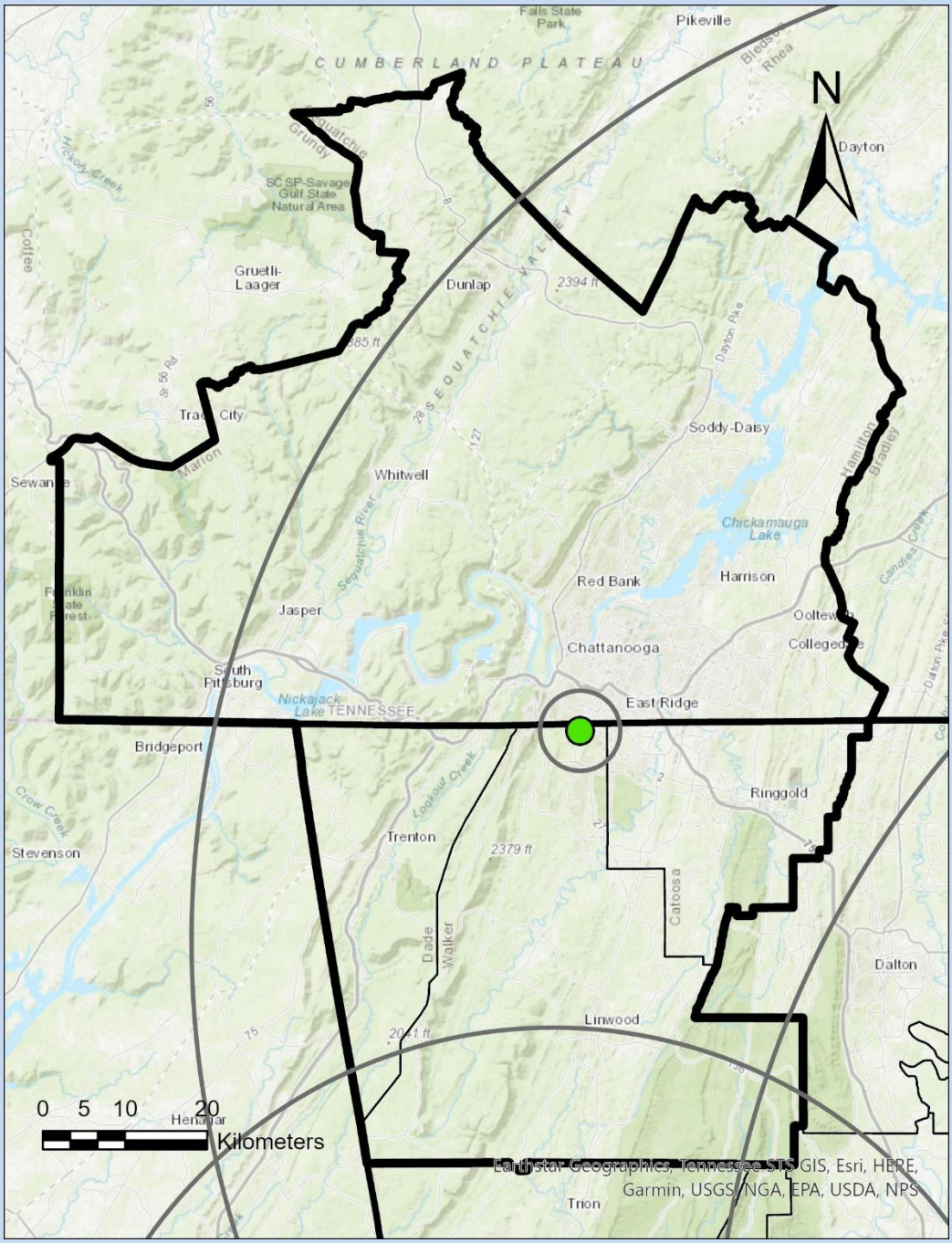
Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O_3	Maximum Concentration	Continuous (Mar-Oct)	4.2 m	Neighborhood	7/26/78
Relative Humidity	General/ Background	Continuous	2.3 m	Neighborhood	6/1/94
Barometric Pressure	General/ Background	Continuous	2.2 m	Neighborhood	6/1/94
Ultraviolet Radiation	General/ Background	Continuous	2.2 m	Neighborhood	1/1/97
Outdoor Temperature	General/ Background	Continuous	2.3 m	Neighborhood	6/1/94
Solar Radiation	General/ Background	Continuous	2.2 m	Neighborhood	6/1/94

Conyers (continued)

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
Wind Direction	General/ Background	Continuous	10 m	Neighborhood	6/1/94
Wind Speed	General/ Background	Continuous	10 m	Neighborhood	6/1/94
Rain/Melt Precipitation	General/ Background	Continuous	3.8 m	Neighborhood	7/1/03

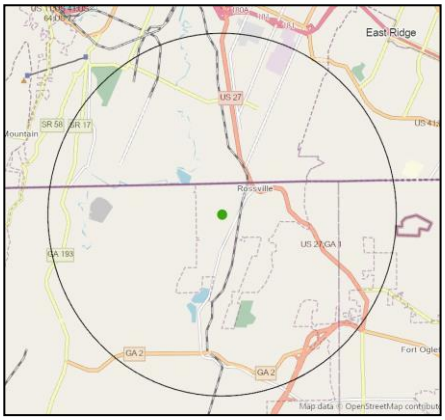
GA AAMP's plans for this site: Continue monitoring; ultraviolet radiation and solar radiation monitored at Conyers are also used to fulfill meteorological requirements for South DeKalb PAMS (see Section 1.4 for waiver request)

Chattanooga Tennessee-Georgia MSA



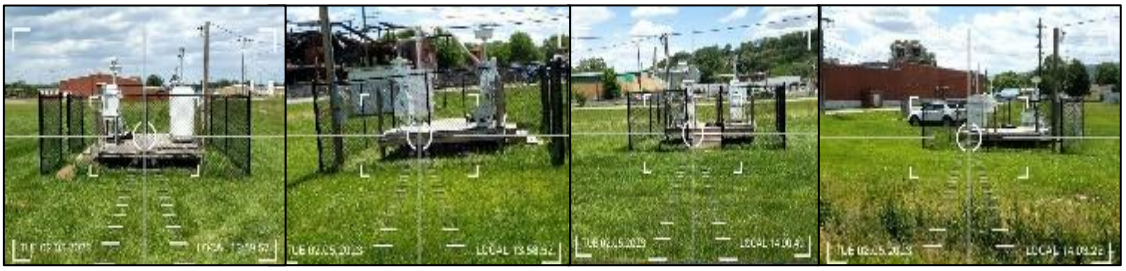
Radius of Circles on Map
Micro Scale: up to 100m
Middle Scale: up to 0.5km
Neighborhood Scale: up to 4.0km
Urban Scale: up to 50km
Regional Scale: up to 100s of km (100km shown)

Rossville-Williams St.



AQS ID: 132950004
Address: 301 Williams St., Rossville, Walker County, Georgia, 30741
Site Established: 3/1/21
Latitude/Longitude: N34.9784/W-85.2943
Elevation: 200 meters
Area Represented: Chattanooga Tennessee-Georgia MSA
Site History: Established as $PM_{2.5}$ site

North South East West

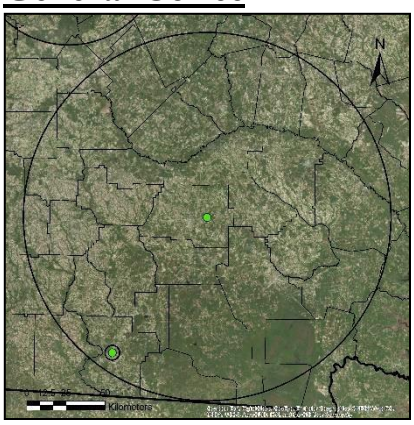


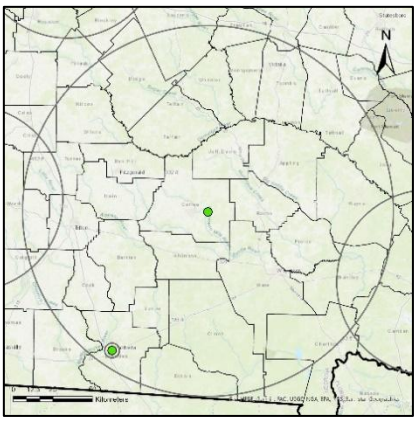
Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure	Continuous	2.5 m	Neighborhood	3/1/21
$PM_{2.5}$	Population Exposure/ Regional Transport	Every 3 Days	2.7 m	Neighborhood	3/1/21
$PM_{2.5}$ Speciation	Population Exposure	Every 6 Days	2.5 m	Neighborhood	4/28/21

GA AAMP's plans for this site: Continue monitoring; site moved from Maple St. location and historical data can be found with AQS ID 13-295-0002; the speciation sampling was temporarily suspended from July 1, 2020 until April 28, 2021; The spatial scale was changed from regional to neighborhood in 2024, but remains the 'regional transport site'; $PM_{2.5}$ FRM sampling schedule changed from every 3 day to daily on January 1, 2025; with the August 2023-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; on July 29, 2025, RH setpoint was changed to 20% on the continuous $PM_{2.5}$ T640 monitor; starting January 1, 2026, $PM_{2.5}$ FRM sampling frequency changed from a daily schedule to 1 in 3 days; GA AAMP is currently in the process of relocating this site

Sites Not in an MSA
(Listed in AQS ID Order)

General Coffee





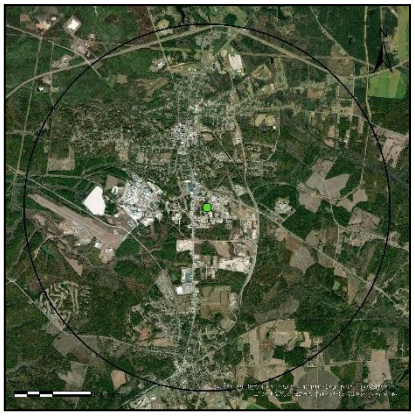
AQS ID: 130690002
Address: 46 John Coffee Road, Nicholls, Coffee County, Georgia 31554
Site Established: 1/1/99
Latitude/Longitude: N31.5129/W-82.7501
Elevation: 49 meters
Area Represented: Not in an MSA, Douglas Micropolitan Statistical Area
Site History: Established as Air Toxics site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$ Speciation (SASS/URG)	General Background	Every 6 days	2.7 m/2.9 m	Regional	3/1/02
$PM_{2.5}$	General Background	Every 3 days	2.9 m	Regional	2/1/17
$PM_{2.5}$	Population Exposure	Continuous	3.2 m	Regional	9/8/23
$PM_{2.5}$	Quality Assurance	Continuous	3.2 m	Regional	10/17/24

GA AAMP's plans for this site: Continue monitoring; GA AAMP installed a continuous $PM_{2.5}$ FEM T640 sampler with the EPA American Rescue Plan funds on September 8, 2023; as of October 17, 2023, the FRM $PM_{2.5}$ sampler was changed from a 1 in 3 day sampling schedule to a daily sampling schedule; the deck at General Coffee was rebuilt in April 2023; a collocated $PM_{2.5}$ FEM T640 monitor for quality assurance started October 17, 2024; as of October 30, 2024 the $PM_{2.5}$ FRM sampling schedule changed from daily to every 3 days; on July 29, 2025, the RH setpoint of the collocated T640 was changed to 10% on the continuous $PM_{2.5}$ and it was relabeled a non-FEM monitor; requesting a siting waiver to continue monitoring despite trees obstructing the requirement of a 270° unrestricted airflow standard (see Section 1.4 for waiver request)

Sandersville



AQS ID: 133030001
Address: 420 Riddleville Road, Sandersville, Washington County, Georgia 31082
Site Established: 1/1/74
Latitude/Longitude: N32.968060/W-82.805903
Elevation: 140 meters
Area Represented: Not in an MSA, Washington County
Site History: Established as TSP site

North South East West

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
$PM_{2.5}$	Population Exposure	Every 3 Days	3.1 m	Neighborhood	1/30/99
$PM_{2.5}$	Population Exposure	Continuous	3.0 m	Neighborhood	1/30/19

GA AAMP's plans for this site: Continue monitoring; on August 14, 2019, GA AAMP replaced the $PM_{2.5}$ FRM with an FEM Teledyne T640 Continuous $PM_{2.5}$ sampler; GA AAMP added another FEM sampler to ensure redundancy in the area and avoid data completeness issues; the $PM_{2.5}$ FRM sampler did not collect data from August 15, 2019 to July 18, 2024; on July 18, 2024 GA AAMP redeployed the FRM $PM_{2.5}$ monitor sampling on a daily schedule; on July 18, 2024 the collocated FEM $PM_{2.5}$ monitor was removed from the site; with the July 2024-December 2025 data outside the additive vs. multiplicative bias polygon and the bias higher than 5%, GA AAMP is requesting that the continuous $PM_{2.5}$ T640 sampler be a non-NAAQS special purpose monitor, with exclusion from the annual $PM_{2.5}$ NAAQS until at least August 2028; on August 15, 2025, RH setpoint was changed to 20% on continuous $PM_{2.5}$ T640 monitor; starting April 1, 2026, $PM_{2.5}$ FRM sampling frequency changed from a daily schedule to 1 in 3 days

Appendix B: Inventory of Ambient Monitoring Equipment

Georgia Department of Natural Resources
Environmental Protection Division

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
Rome MSA			
Rome	Agilaire 8872	Datalogger	>2
	Met One SASS	$PM_{2.5}$ Speciation Sampler	>10
	URG 3000N	$PM_{2.5}$ Speciation Sampler	>14
	TEOM 1400AB	Continuous $PM_{2.5}$ Sampler	>10
Brunswick MSA			
Brunswick	Agilaire 8872	Datalogger	>2
	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>13
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>4
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>4
	Aluma T-135	Meteorological Crank Tower	>15
	Environics 7000	Zero Air Supply	>10
Valdosta MSA			
Valdosta	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>10
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>4
	ESC DAS 8832	Datalogger	>9
Warner Robins MSA			
Warner Robins	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>9
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>7
	ESC DAS 8832	Datalogger	>11
Dalton MSA			
Fort Mountain	Agilaire 8872	Datalogger	>2
	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	GAST Air Compressor	Zero Air Generator	>15
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>1
	RM Young Temp/RH Probe 41382VC	Ambient Temperature & Relative Humidity	>4
	Aluma FOT-10	Meteorological Fold Over Tower	>15
Gainesville MSA			
Gainesville	Thermo Partisol-Plus 2025i	Integrated $PM_{2.5}$ Sampler	>3
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>7
	ESC DAS 8832	Datalogger	>11
Albany MSA			
Albany	Thermo Partisol-Plus 2025i	Integrated $PM_{2.5}$ Sampler	>9
	Thermo Partisol-Plus 2025i	Collocated Integrated $PM_{2.5}$ Sampler	>9
	ESC DAS 8832	Datalogger	>11
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>5
Athens-Clarke County MSA			
Athens	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>6
	Teledyne T640	Collocated Continuous $PM_{2.5}$ Sampler	>5
	Agilaire 8872	Datalogger	>2
	ESC DAS 8832	Datalogger	>11
	Environics 7000	Zero Air Supply	>9
Macon-Bibb County, MSA			
Macon-Allied	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>9

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
Macon-Allied cont'd	Thermo Partisol-Plus 2025	Collocated Integrated $PM_{2.5}$ Sampler	>9
	URG 3000N	$PM_{2.5}$ Speciation Sampler	>14
	Met One SASS	$PM_{2.5}$ Speciation Sampler	>14
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>2
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>2
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>2
	ESC DAS 8832	Datalogger	>11
Macon-Forestry	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>9
	Sulfur Dioxide Cylinder	Gas Cylinder	>11
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>2
	Aluma T-135	Meteorological Crank Tower	>15
	Agilaire 8872	Datalogger	>2
	Thermo 49i series	O_3 Analyzer	>14
	Thermo 49iPS series	O_3 Calibrator	>13
	Thermo 43i	SO_2 Analyzer	>13
	Thermo 146i	Multi-Gas Calibrator	>14
Columbus Georgia-Alabama MSA			
Columbus - Airport	Thermo 49iQ series	O_3 Calibrator	>13
	Thermo 49iPS series	O_3 Analyzer	>13
	Thermo 43i	SO_2 Analyzer	>13
	Thermo 146i	Multi-Gas Calibrator	>14
	Thermo Partisol-Plus 2025i	Integrated $PM_{2.5}$ Sampler	>9
	Sabio 1001	Zero Air Supply	>2
	Agilaire 8872	Datalogger	>2
Columbus - Baker	Thermo Partisol-Plus 2025i	Integrated $PM_{2.5}$ Sampler	>2
	Met One SASS	$PM_{2.5}$ Speciation Sampler	>11
	URG 3000N	$PM_{2.5}$ Speciation Sampler	>9
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>2
	ESC DAS 8832	Datalogger	>11
Savannah MSA			
Savannah - E President	Agilaire 8872	Datalogger	>2
	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	Thermo 43i	SO_2 Analyzer	>13
	Thermo 146i	Multi-Gas Calibrator	>13
	Sabio 1001	Zero Air Supply	>5
	Sulfur Dioxide Cylinder	Gas Cylinder	>13
	Entech	VOC can sampler	>5
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>4
	Aluma T-135	Meteorological Crank Tower	>15
	RM Young Temp/RH Probe 41382VC	Ambient Temperature & Relative Humidity	>2
	RM Young Barometric Pressure Sensor 61302	Barometric Pressure Sensor	>2

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
Savannah - L&A	Agilaire 8872	Datalogger	>2
	Thermo 43i	SO_2 Analyzer	>13
	Thermo 146i	Multi-Gas Calibrator	>13
	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>3
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>6
	Sulfur Dioxide Cylinder	Gas Cylinder	>13
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>5
	Aluma T-135	Meteorological Crank Tower	>15
	Environics 7000	Zero Air Supply	>9
Augusta-Richmond County, Georgia-South Carolina MSA			
Augusta	Sabio 1001	Zero Air Supply	>9
	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	Thermo 43i-TLE	SO_2 Analyzer	>13
	Thermo 146i	Multi-Gas Calibrator	>13
	Teledyne T640X	Continuous $PM_{2.5}$ Sampler	>5
	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>4
	Thermo Partisol-Plus 2025	Collocated Integrated $PM_{2.5}$ Sampler	>4
	Met One SASS	$PM_{2.5}$ Speciation Sampler	>10
	URG 3000N	$PM_{2.5}$ Speciation Sampler	>10
	Sulfur Dioxide Cylinder	Gas Cylinder	>13
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>9
	Aluma T-135	Meteorological Crank Tower	>15
	Agilaire 8872	Datalogger	>2
	Novalynx 260-2501 Tipping Bucket	Precipitation Sensor	>2
	RM Young Temp/RH Probe 41382VC	Ambient Temperature & Relative Humidity	>3
	PM Young Barometric Pressure Sensor 61302	Barometric Pressure Sensor	>4
Atlanta-Sandy Springs-Alpharetta MSA			
Forest Park	Thermo Partisol-Plus 2025i	Integrated $PM_{2.5}$ Sampler	>1
Kennesaw	Agilaire 8872	Datalogger	>2
	Thermo 49i series	O_3 Analyzer	>12
	Thermo 49 iQPS	O_3 Calibrator	>6
Dawsonville	Thermo 49i series	O_3 Analyzer	>11
	Thermo 49iPS series	O_3 Calibrator	>11
	Agiliare 8872	Datalogger	>1
	Environics 7000	Zero Air Supply	>11
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>6
	Aluma FOT-10	Meteorological Fold Over Tower	>15
South DeKalb	Agilaire 8872	Datalogger	>4
	Thermo 49i series	O_3 Analyzer	>8
	Thermo 49iQPS	O_3 Calibrator	>6
	Environics 6103	Multi-Gas Calibrator	>9
	Environics 6103	Multi-Gas Calibrator	>8
	Thermo 42iY	NOy Analyzer	>14
	Teledyne N500 CAPS	NO, NO2, NOx	>4
	Thermo 48i-TLE	CO Analyzer	>9
	Thermo 43i-TLE	SO_2 Analyzer	>9
	Thermo Partisol-Plus 2025i	Integrated $PM_{2.5}$ Sampler	>1

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
South DeKalb cont'd	Thermo Partisol-Plus 2025i	Collocated Integrated $PM_{2.5}$ Sampler	>1
	Teledyne T640X	Continuous $PM_{2.5}$ Sampler	>7
	Tisch TE-Wilbur Filter Based (2)	Integrated $PM_{2.5}$ Metals Sampler	>2
	Met One SASS	$PM_{2.5}$ Speciation Sampler	>9
	URG 3000N	$PM_{2.5}$ Speciation Sampler	>13
	Environics 7000 (2)	Zero Air Supply	>8
	ATEC 8000	Carbonyls Sampler	>9
	ATEC 8000/ATEC 2200-1C	Collocated Carbonyls Sampler	>9
	Tisch Environmental PUF	Semi-VOCs (PAH) Sampler	>12
	Tisch Environmental PUF	Collocated Semi-VOCs (PAH) Sampler	>12
	Grasby Environmental PUF	Semi-VOCs (PAH) Sampler	>14
	Grasby Environmental PUF	Collocated Semi-VOCs (PAH) Sampler	>14
	ATEC 2200	VOCs Sampler	>13
	ATEC 2200/ATEC 2200-22P	Collocated VOCs Sampler	>13
	Sierra-Andersen/Graseby High-Vol	PM_{10} Metals	>13
	Sierra/Andersen/Graseby High-Vol	Collocated PM_{10} Metals	>13
	Met-One Low-Vol	PM_{10} Metals	>5
	Met-One Low-Vol	Collocated PM_{10} Metals	>5
	Markes Unity XR Thermal Desorber	Gas Chromatograph	>5
	Agilent 7890B	Gas Chromatograph	>5
	Markes CIA Advantage	VOC Analyzer	>5
	Markes Kori XR	VOC Desorber	>5
	Merlin Microscience System	Gas Dilution System	>5
	Parker Zero Air Generator 75-83NA	Zero Air Generator	>5
	Werther PC1-24-3	Oil-free Air Compressor	>5
	AirGas Hydrogen Cylinder (13)	Gas Cylinder	>5
	AirGas Helium Cylinder (6)	Gas Cylinder	>5
	NexAir Helium Cylinder	Gas Cylinder	>5
	AirGas Compressed Air (4)	Gas Cylinder	>5
	Parker TOC Generator	Zero Air Generator	>5
	Peak Scientific Hydrogen Generator	Hydrogen Generator	>5
	AirGas Nitrogen Cylinder (1)	Gas Cylinder	>5
	Carbon Monoxide Cylinder	Gas Cylinder	<13
	Nitrogen Oxide Cylinder	Gas Cylinder	<13
	Sulfur Dioxide Cylinder	Gas Cylinder	<13
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>9
	Aluma T-135	Meteorological Crank Tower	>15
	RM Young Temp/RH Probe 41382VC	Ambient Temperature & Relative Humidity	>3
	Novalynx 260-2501 Tipping Bucket	Precipitation Sensor	>2
	RM Young Barometric Pressure Sensor 61302	Barometric Pressure Sensor	>2
	Vaisala Inc. CL51 Ceilometer	Cloud Height and mixing layer height detection	>2
NR-285	Agilaire 8872	Datalogger	>4
	Thermo 42i	NOx Analyzer	>9
	Xonteck 910	VOC Sampler	>9
	Environics 6103	Multi-gas Calibrator	>9
	Nitrogen Oxide Cylinder	Gas Cylinder	>13
	Met One Instrument BC-1060	Black Carbon Sampler	>4

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
Douglasville	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>6
	Aluma T-135	Meteorological Crank Tower	>15
	Environics 7000	Zero Air Supply	>9
	Agilaire 8872	Datalogger	>2
Fire Station #8	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>9
	Tisch TE-Wilbur Filter Based	Integrated PM_{10} Sampler	>7
	Tisch TE-Wilbur Filter Based	Collocated Integrated PM_{10} Sampler	>7
United Avenue	Thermo 146i	Multi-gas Calibrator	>8
	Agilaire 8872	Datalogger	>4
	Thermo 49i series	O_3 Analyzer	>11
	Thermo 49iPS series	O_3 Calibrator	>11
	Thermo 43i	SO_2 Analyzer	>10
	TEOM 1400AB	Continuous $PM_{2.5}$ Sampler	>13
	Sulfur Dioxide Cylinder	Gas Cylinder	>13
	Environics 7000	Zero Air Supply	>9
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>9
	Aluma T-135	Meteorological Crank Tower	>15
NR-GA Tech	Agilaire 8872	Datalogger	>2
	Thermo 42i	NO_2 Analyzer	>9
	Thermo 48i-TLE	CO Analyzer	>13
	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>9
	TEOM 1405	Continuous $PM_{2.5}$ Sampler	>3
	Carbon Monoxide Cylinder	Gas Cylinder	>13
	Nitrogen Oxide Cylinder	Gas Cylinder	>13
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>1
	Aluma T-135	Meteorological Crank Tower	>11
	Environics 7000	Zero Air Supply	>9
	Environics 6103	Multi-gas Calibrator	>9
	Met One Instruments BC-1060	Black Carbon Sampler	>4
Empire Blvd	Graseby Hi-Vol	Lead Sampler	>11
	Graseby Hi-Vol	Collocated Lead Sampler	>11
Gwinnett Tech	Agilaire 8872	Datalogger	>2
	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	Thermo Partisol-Plus 2025i	Integrated $PM_{2.5}$ Sampler	>1
	Environics 7000	Zero Air Supply	>8
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>7
McDonough	Agilaire 8872	Datalogger	>2
	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iPS series	O_3 Calibrator	>13
	Environics 7000	Zero Air Supply	>9
	TEOM 1400AB	Continuous $PM_{2.5}$ Sampler	>13
Conyers	Agilaire 8872	Datalogger	>4
	Thermo 49i series	O_3 Analyzer	>13
	Thermo 49iQPS	O_3 Calibrator	>6
	Environics 7000	Zero Air Supply	>9
	RM Young Ultrasonic Anemometer 81000	Wind Speed and Wind Direction	>6
	Aluma T-135	Meteorological Crank Tower	>15

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
Conyers cont'd	Aluma T-135	Meteorological Crank Tower	>15
	Eppley Lab Standard Precision Pyronometer 38380F3	Solar Radiation Instrument	>4
	Eppley Lab TUVR 38020	Ultraviolet Radiometer	>4
	Novalynx 260-2501 Tipping Bucket	Precipitation Sensor	>9
	RM Young Temp/RH Probe 41382VC	Ambient Temperature & Relative Humidity	>8
	RM Young Barometric Pressure Sensor 61302	Barometric Pressure Sensor	>9
Chattanooga Tennessee-Georgia MSA			
Rossville-Williams St.	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>10
	Met One SASS	$PM_{2.5}$ Speciation Sampler	>10
	URG 3000N	$PM_{2.5}$ Speciation Sampler	>10
	ESC DAS 8832	Datalogger	>11
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>6
Sites Not in an MSA			
General Coffee	Met One SASS	$PM_{2.5}$ Speciation Sampler	>9
	URG 3000N	$PM_{2.5}$ Speciation Sampler	>13
	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>14
	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>2
	Teledyne T640	Collocated Continuous $PM_{2.5}$ Sampler	>1
	ESC DAS 8832	Datalogger	>9
Sandersville	Teledyne T640	Continuous $PM_{2.5}$ Sampler	>7
	Thermo Partisol-Plus 2025	Integrated $PM_{2.5}$ Sampler	>1
	ESC DAS 8832	Datalogger	>9
Georgia AAMP-QA Unit			
	BGI/MesaLabs DeltaCal (4)	Flow, Temperature & Pressure Standard	>10
	BGI/MesaLabs TetraCal (3)	Flow, Temperature & Pressure Standard	>10
	BIOS Definer 220 High Flow	High flow volumetric standardized gas	>10
	BIOS Definer 220 Low Flow	Low flow volumetric standardized gas	>10
	Chinook Engineering Streamline Pro (3)	Flow Transfer Standard	>10
	Graseby GMW	PUF Orifice	>10
	Sensidyne Gilibrator Flow Cell (6)	Flow Standard	>10
	Sensidyne Gilibrator Flow Cell Base (2)	Flow Standard	>10
	Tisch Environmental TE-5040A	PUF Orifice	>10
	Tisch Environmental VRC	Hi-Vol Orifice	>10
	Vaisala HM40/HM46 (3)	Temperature & Relative Humidity Probe	variable
	Vaisala HMI41/HMP46 (2)	Temperature & Relative Humidity Probe	>10
	Thermo 49i-PS (2)	O_3 Standard	>13
	Thermo 49-PS (2)	O_3 Standard	>14
	Thermo 146i (2)	Multi-Gas Calibrator	>14
	Airgas EPA Protocol Gas Standard (5)	EPA Protocol NO/NOx/CO/SO_2 Gas Standard	>10
	Bosch GLM 80 (2)	Laser Distance/Angle Measurer	>10
	NexAir EPA Protocol Gas Standard (5)	EPA Protocol NO/CO/SO_2 Gas Standard	>10
	Linde/Nexair	EPA Protocol Utltrapure PAMS Gas Standard	>1
	Thermo 49iQqps (2)	O_3 Standard	>1

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
Meteorology Unit Workshop	RM Young Ultrasonic Anemometer 810000 (15)	Wind Speed and Wind Direction	Various
	RM Young Meteorological Translator 26800	Datalogger	>5
	Eppley Lab Standard Precision Pyronometer 38380F3 (7)	Solar Radiation Instrument	Various
	Eppley Lab TUVR (5)	Ultraviolet Radiometer	Various
	Novalynx 260-2501 Tipping Bucket (6)	Precipitation Sensor	Various
	RM Young Temp/RH Probe 41382VC/ 41382VC (23)	Ambient Temperature & Relative Humidity	Various
	RM Young Barometric Pressure Sensor 61302 (19)	Barometric Pressure	Various
	Aluma FOT-10 (1)	Fold-Over Tower	Various
	Aluma T-135 (5)	Meteorological Crank Tower	Various
Workshop	Met One SASS (9)	$PM_{2.5}$ Speciation Sampler	>12
	URG 3000N (4)	$PM_{2.5}$ Speciation Sampler	>9
	Thermo 43i-TLE (4)	SO_2 Analyzer	Various
	Thermo 146i (10)	Multi-Gas Calibrator	Various
	Thermo 42i (5)	NO, NO_2, NOx Analyzer	Various
	Environics 6103 (10)	Multi-Gas Calibrator	>9
	Thermo 48i-TLE (5)	CO Analyzer	Various
	Thermo 42iY	NOy Analyzer	>12
	Thermo 42iY	NOy Analyzer	>3
	Thermo 43i (3)	SO_2 Analyzer	Various
	Thermo 43iQ(3)	SO_2 Analyzer	>2
	Sabio 1001 (14)	Zero Air Supply	>9
	Teledyne T701H (2)	Zero Air Supply	Various
	Environics 7000 (4)	Zero Air Supply	>8
	Teledyne T640 (8)	Continuous $PM_{2.5}$ Sampler	>7
	Teledyne T640X	Continuous $PM_{2.5}$ Sampler	>7
	Met One E-SEQ-FRM (4)	Integrated $PM_{2.5}$ Sampler	Various
	Thermo 49i-PS (7)	O_3 Calibrator	Various
	Thermo 49i (15)	O_3 Analyzer	Various
	Thermo 49iQ (5)	O_3 Analyzer	Various
	Thermo 49C (7)*	O_3 Analyzer	Various
	Thermo Partisol-Plus 2025 (19)	Integrated $PM_{2.5}$ Sampler	Various
	TEOM 1400AB (6)	Continuous $PM_{2.5}$ Sampler	>12
	Agilaire 8872 (8)	Datalogger	Various
	ATEC 2200-1P (9)	VOCs Sampler	>12
	ATEC 2200-1C (2)	VOCs Sampler	>12
	ATEC 8000 (5)	Carbonyls Sampler	Various
	Thermo 49i QPS (8)	Primary O_3 Standard	>7
	Thermo 49i-PS, Thermo 49i	O_3 Bench Calibrator and Sampler	>12
	Thermo 146iQ (2)	Multi-Gas Calibrator	>6
	Xonteck 911 (2)	Canister Sampler	>9
	Tisch Wilbur	PM_{10} Sampler	>7
	Alicat Scientific FP-25 (23)	Flow, Temperature & Pressure Standard	Various
	Alicat Whisper	Flow, Temperature & Pressure Standard	Various
	BGI/MesaLabs TetraCal (26)	Flow, Temperature & Pressure Standard	Various
	BGI/MesaLabs DeltaCal (23)	Flow, Temperature & Pressure Standard	Various
	Tisch Environmental TE-5028A VRC (8)	Variable High Volume Orifice	Various
	Tisch Environmental TE-5040A (4)	PUF Orifice	Various
	Sensidyne Gilibrator Sets (13)	Flow Standard	Various

SITE NAME	EQUIPMENT NAME	EQUIPMENT DESCRIPTION	AGE
	Carbon Monoxide Cylinder(5)	Gas Cylinder	>13
	Nitrogen Oxide Cylinder (7)	Gas Cylinder	>13
	Sulfur Dioxide Cylinder (4)	Gas Cylinder	>13
	ESC DAS 8832 (26)	Datalogger	>10
	Carbon Dioxide Cylinder	Gas Cylinder	>12
	Environics 4040	Gas Binder	>10
	Aluma T-135 (4)	Meteorological Crank Tower	>7
	Environics 7000 (2)	Zero Air Supply	>9
	AVOCS* (2)	VOC Sampler	>14
	Chinook Engineering Streamline Pro (3)	Flow Transfer Standard	>10
	Thermo Partisol-Plus 2025i (5)	Integrated $PM_{2.5}$ Sampler	>3
	ATEC 1000*	Carbonyls Sampler	>13
	Entech CS1200E Passive Sampler	Ethylene oxide	>5
	Helium (2)	Gas Cylinder	>13
	Mesa Labs Flexcal High Flow (2)	High Flow	>10
	Mesa Labs Flexcal Low Flow (2)	Low Flow	>10
	Marathon Zero Air Generator	Zero Air Gas Generator	Various
	Parker TOC Generator	Zero Air Generator	Various
	PAMS Air Compressor	Air Compressor	Various
	Met One Instrument BC-1060	Black Carbon Sampler	>1
	Teledyne T200UP (2)	NO_x Analyzer	>1
	Environics 9100	Zero Air Supply	>1
	Shelter One BAM enclosure (2)	Enclosure	>1
	Shelter One T640 enclosure (2)	Enclosure	>1
	MetOne EBAM	Continuous $PM_{2.5}$ Sampler	>1
	TISH PUF orifices (12)	Flow Standard	>1
	TISH Hi-Vol orifices (11)	Flow Standard	>1
	TISH ProCal	Flow Standard	>1
	AirGas Ultra High Pure Air Cylinder (7)	Gas Cylinder	>1
	Teledyne 701 (4)	Zero Air Supply	>1

NOTE:
Age = age in years
*** = Not currently in use**

Appendix C: Pollutant Description, Analysis Method, and Quality Assurance Schedule

Georgia Department of Natural Resources
Environmental Protection Division

Pollutant Description, Analysis Method, and Quality Assurance Schedule

All monitors have known precision, accuracy, interferences, and operational parameters. The monitors as well as all measurement devices are carefully calibrated at predetermined frequencies, varying from daily to quarterly. Calibration standards are traceable to National Institute of Standards and Technology (NIST) master standards.

Monitoring and analysis are performed according to a set of standard operating procedures (SOP). Field personnel visit sampling sites, replace sample media, and check the operation and calibration of monitors per the SOP.

Specialized data-collection and storage equipment is used at most sites to collect the data. A computerized telemetry system aids in assembly of the data for submission to EPA. This enhances data validity, minimizes travel costs, and allows data to be available by computer at GA AAMP's main office immediately. Numerous manual and automated checks are performed to ensure that only valid data are reported to EPA.

Quality assurance activities are carried out to determine the quality of the collected ambient data, improve the quality of the data, and evaluate how well the entire monitoring system operates. The goal of quality assurance activities is to produce high quality monitoring data.

1.0 Particulate Matter

Particulate matter is defined as any airborne material, except uncombined water (liquid, mist, steam, etc.) that exists in a finely divided form as liquid or solid at standard temperature (25°C) and pressure (760mmHg) and has an aerodynamic diameter of less than 100 micrometers. Three sizes of particulate matter are monitored: PM_{10}, $PM_{2.5}$, and PM_{coarse} (10-2.5). PM_{10} is particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (μm). $PM_{2.5}$ are solid particles and liquid droplets found in the air that are less than 2.5 micrometers (μm) or microns in diameter. Individually, these particles and droplets are invisible to the naked eye. Collectively, however, they can appear as clouds or a fog-like haze. $PM_{2.5}$ is also referred to as "fine" particles. $PM_{10-2.5}$ is called PM_{coarse}. The PM_{coarse} fraction has a diameter between 2.5 and 10 micrometers (μm) or microns. In comparison, a human hair is 70-100 μm in diameter.

Particulates are emitted by many human activities, such as fuel combustion, motor vehicle operation, industrial processes, grass mowing, agricultural tilling, and open burning. Natural sources include windblown dust, forest fires, volcanic eruptions, and pollen. Particulates emitted directly from a source may be either fine (less than 2.5 μm) or larger (2.5-60 μm), but particles formed in the atmosphere will usually be fine. Typically, fine particles are formed by condensation of materials produced during combustion or atmospheric reactions in which gaseous pollutants are chemically converted to particles.

Particulate matter can cause health problems affecting the breathing system, including aggravation of existing lung and heart disease, limitation of lung clearance, changes in form and structure of organs, and development of cancer. Individuals most sensitive to the effects of particulate matter include those with chronic obstructive lung or heart disease, those suffering from the flu, asthmatics, the elderly, children, and mouth breathers.

Health effects from inhaled particles are influenced by the depth of penetration of the particles into the respiratory system, the amount of particles deposited in the respiratory system, and the chemical composition of the deposited particles. The risks of adverse health effects are greater when particles enter the tracheobronchial and alveolar portions of the respiratory system. Healthy respiratory systems can trap particles larger than 10 μm more efficiently before they move deeply into the system, and can more effectively remove the particles that are not trapped before they can lodge deeply in lung tissue.

Particulate matter also can interfere with plant photosynthesis by forming a film on leaves that reduces exposure to sunlight. Particles also can cause soiling and degradation of property, which can be costly to clean and maintain. Suspended particles can absorb and scatter light, causing reduction of visibility. This is a national concern, especially in areas such as national parks, historic sites, and scenic attractions.

a. Particulate Matter (PM_{10}) Integrated

GA AAMP conducts PM_{10} monitoring on an integrated basis at one site in Georgia. GA AAMP uses an EPA-approved method. The Tisch – TE Wilbur Filter Based PM_{10} Air Sampler functions to collect airborne particulate matter ≤ 10 μm (PM_{10}) on a pre-weighted 47mm diameter filter over a 24-hour period, midnight to midnight. The sampler normally samples every 6 days and exposed filters are subsequently collected and sent to Pace Analytical Services, LLC for gravimetric analysis and measurement of PM_{10} concentration. The system monitors and records all system sensors such as flow, temperatures and barometric pressure, as well as the system pressure, filter temperature variation, and flow total which provides the operator or laboratory technician additional information on the sample if warnings or alarms occurred during the sample run. These monitors are used to determine attainment of the PM_{10} standard. These analyzers are subjected to quarterly checks and are audited by GA AAMP's Quality Assurance Unit on a semi-annual basis, within a five to seven month window.

b. Particulate Matter (PM_{10}) Continuous

GA AAMP conducts PM_{10} monitoring on a continuous basis at two sites in Georgia. GA AAMP uses an EPA-approved equivalent method, the Teledyne T640/640x, which is a real-time, continuous PM mass monitor that uses scattered light spectrometry for measurement. The T640 measures $PM_{2.5}$, and the T640x Option measures $PM_{2.5}$, PM_{10}, and $PM_{10\text{-}2.5}$. The sampling head draws in the ambient air with different size particles, which are dried with the Aerosol Sample Conditioner (ASC) and moved into the optical particle sensor where scattered light intensity is measured to determine particle size diameter. The inlet used for the T640x option samples at 16.67 liters per minute (LPM) to mechanically cut the aerosol intake by size for sampling particles at 10 microns and under. The particles move separately into the T-aperture through an optically differentiated measurement volume that is homogeneously illuminated with polychromatic light. This Model T640 with 640x option PM_{10} monitor is configurable as a PM_{10} FEM (EQPM-0516-239), and the data is used to determine attainment of the PM_{10} NAAQS. This analyzer is subjected to monthly flow checks and is audited by GA AAMP's Quality Assurance Unit on a semi-annual basis.

c. Fine Particulate Matter ($PM_{2.5}$) Integrated

At sites where GA AAMP collects $PM_{2.5}$ samples on an integrated basis, the samples are measured using very similar techniques utilized for measuring PM_{10}. The official federal reference method (FRM) requires that samples are collected on Teflon™ filters with a $PM_{2.5}$ sampler for 24 hours. A specialized particle size sorting device is used to filter the air, collecting only particles 2.5 microns in size and smaller. The filters are weighed in a laboratory before and after the sampling period. The change in the filter weight corresponds to the mass weight of $PM_{2.5}$ particles collected. That mass weight, divided by the total volume of air sampled, corresponds to the mass concentration of the particles in the air for that 24-hour period. This data is collected using the FRM, and the data is appropriate to use for making attainment determinations relative to the $PM_{2.5}$ NAAQS. Currently, GA AAMP uses the Thermo Scientific Partisol 2025 (RFPS-0498-118 or EQPM-0202-145) and Thermo Scientific Partisol 2025i (RFPS-0498-118). The sampling frequency for integrated $PM_{2.5}$ sampling varies by site, based on EPA rules, and is listed with each individual site's information in Appendix A of this document and in Table 1 below. On a semi-annual basis, GA AAMP's Quality Assurance Unit audits these $PM_{2.5}$ samplers.

d. Fine Particulate Matter ($PM_{2.5}$) Continuous

GA AAMP monitors for $PM_{2.5}$ on a continuous basis with two different methods. One method is the Teledyne T640/640x, which is an optical aerosol spectrometer that converts optical measurements to mass measurements by determining sampled particle size via scattered light using 90° white- light scattering with polychromatic LED. The inlet used for the T640/640x samples at 5.0 liters per minute (LPM). The Aerosol Sample Conditioner (ASC) removes the volatile components (mainly water) of the aerosol to avoid false particle size. The internal vacuum pump is controlled by a pulse-width modulation (PWM) feedback control for consistently accurate flow to the sensor. The external vacuum pump is controlled by an ambient and pressure compensated mass flow controller in combination with a pneumatic valve for consistently accurate flow. The Teledyne T640/640x is officially designated as an EPA federal equivalent method (FEM) (EQPM-0516-236 and EQPM-0516-238) (81 FR 45285), and can be used for making attainment decisions relative to the $PM_{2.5}$ NAAQS. GA AAMP continues to evaluate the continuous $PM_{2.5}$ Teledyne T640/640x monitors at locations where they are collocated with the $PM_{2.5}$ FRMs (filter based) monitors. At this time, GA AAMP has continuous $PM_{2.5}$ Teledyne T640/640x monitors that are not configured to sample as FEMs and are not comparable to the NAAQS. For these T640s, the relative humidity was adjusted in an effort to make them more comparable to the FRMs. Therefore, data collected from these T640s with the adjusted relative humidity cannot be used for making attainment decisions relative to the NAAQS. These monitors are not federal equivalent method (FEM) and are labeled non-FEM. Please see Table 5 of this Appendix for more information.

Another $PM_{2.5}$ continuous collection method utilized by GA AAMP is the Thermo Scientific tapered element oscillating microbalance (TEOM) Series 1400/1400a/1405 monitors. These monitors use an inline $PM_{2.5}$ cyclone for particle size selection and an inline Sample Equilibration System (SES), which uses a diffusion drying technique to minimize water vapor interference with the particle mass measurement. The instrument oscillates the sample filter on a microbalance continuously while particles are collected from ambient air. By measuring the change in the oscillation frequency, the change in filter mass can be determined. The sampling method for the TEOM type of continuous $PM_{2.5}$ monitor was approved as federal equivalent method (FEM) in Notices of the Federal Register/Vol.74; page 28696 dated June 17, 2009 when used with a "Filter

Dynamics Measurement System (FDMS)". The FDMS component estimates and adjusts for the volatile component of the mass. Currently, the TEOMs in the ambient air monitoring network are not configured to sample as FEMs. Therefore, data collected from the TEOM samplers cannot be used for making attainment decisions relative to the NAAQS.

Both types of continuous $PM_{2.5}$ samplers are used to support development of air quality models and forecasts, including the AQI, and to provide the public with information about pollutant concentrations in real time. All three types of analyzers are subject to monthly flow checks and are audited by GA AAMP's Quality Assurance Unit on a semi-annual basis.

e. Fine Particulate Matter ($PM_{2.5}$) Speciation

Particle speciation measurements require the use of a wide variety of analytical techniques, but all generally use filter media to collect the particles to be analyzed. Laboratory techniques currently in use are gravimetric (micro weighing); X-ray fluorescence and particle-induced X-ray emission for trace elements; ion chromatography for anions and selected cations; controlled combustion for carbon; and gas chromatography/mass spectroscopy (GC/MS) for semi-volatile organic particles. Samples are collected for 24 hours and shipped to an EPA-appointed laboratory for analysis. The sampling frequency varies by site and is detailed in Table 1. GA AAMP's Quality Assurance Unit subjects these samplers to audits on a semi-annual basis.

f. Coarse Particulate Matter ($PM_{10-2.5}$)

As part of the NCore requirements (discussed in Section 4.1 of the Introduction), the South DeKalb site (13-089-0002) began $PM_{10-2.5}$ sampling as of January 1, 2011. The Teledyne T640x $PM_{10-2.5}$ is the current system used to measure coarse particulate matter. The Teledyne T640/640x is a real-time, continuous PM mass monitor that uses scattered light spectrometry for measurement. The T640x Option measures $PM_{2.5}$, PM_{10}, and $PM_{10-2.5}$. The sampling head draws in the ambient air with different size particles, which are dried with the Aerosol Sample Conditioner (ASC) and moved into the optical particle sensor where scattered light intensity is measured to determine particle size diameter. The particles move separately into the T-aperture through an optically differentiated measurement volume that is homogeneously illuminated with polychromatic light. GA AAMP uses the 16.7 LPM Model T640 with 640x option $PM_{10-2.5}$ monitor: EQPM-0516-240. This analyzer is subjected to monthly flow checks and is audited by GA AAMP's Quality Assurance Unit on a semi-annual basis.

The sampling frequency of the integrated (FRM), continuous (Teledyne, TEOM), and speciated $PM_{2.5}$ samplers is detailed in Table 5, and Appendix A. The $PM_{2.5}$ samplers highlighted in yellow are the $PM_{2.5}$ samplers that are used for comparison to the NAAQS for attainment purposes. For more detailed information about the $PM_{2.5}$ continuous monitors, please see the next table (Table 6). The $PM_{2.5}$ T640 monitors with the adjusted RH percentage have the parameter code 88502 in the federal database, Air Quality System (AQS) and are not federal equivalent method (FEM), with a 'Non-FEM' label. The $PM_{2.5}$ T640 monitors that have parameter code 88101 in AQS with NAAQS exclusion are labeled 'SPM'.

Table 5. $PM_{2.5}$ Sampling Frequency

Site ID	Site Name	County	Integrated	Continuous	Speciation
Rome MSA					
131150003	Rome	Floyd		Non-FEM $PM_{2.5}$	6 Day
Brunswick MSA					
131270006	Brunswick	Glynn	$PM_{2.5}$ (3 Day)	FEM $PM_{2.5}$	
Valdosta MSA					
131850003	Valdosta	Lowndes	$PM_{2.5}$ (Daily)	SPM $PM_{2.5}$	
Warner Robins MSA					
131530001	Warner Robins	Houston	$PM_{2.5}$ (Daily)	FEM $PM_{2.5}$	
Albany MSA					
130950007	Albany	Dougherty	2 $PM_{2.5}$ (Daily, 12 Day)	Non-FEM $PM_{2.5}$	
Gainesville MSA					
131390003	Gainesville	Hall	$PM_{2.5}$ (3 Day)	Non-FEM $PM_{2.5}$	
Athens-Clarke County MSA					
130590002	Athens	Clarke		2 FEM $PM_{2.5}$	
Macon-Bibb County, MSA					
130210007	Macon-Allied	Bibb	$PM_{2.5}$ (Daily)	Non-FEM $PM_{2.5}$/SPM $PM_{2.5}$	6 Day
130210012	Macon-Forestry	Bibb	$PM_{2.5}$ (3 Day)		
Columbus, Georgia- Alabama MSA					
132150008	Columbus-Airport	Muscogee	$PM_{2.5}$ (3 Day)		
132150012	Columbus-Baker	Muscogee	$PM_{2.5}$ (3 Day)	Non-FEM $PM_{2.5}$	6 Day
Savannah MSA					
130511002	Savannah-L&A	Chatham	$PM_{2.5}$ (Daily)	FEM $PM_{2.5}$	
Augusta, Georgia-South Carolina MSA					
132450091	Augusta	Richmond	2 $PM_{2.5}$ (Daily, 3 Day)	SPM $PM_{2.5}$	6 Day
Atlanta-Sandy Springs-Alpharetta MSA					
130630091	Forest Park	Clayton	$PM_{2.5}$ (3 Day)		
130890002	South DeKalb	DeKalb	2 $PM_{2.5}$ (Daily, 3 Day)	FEM $PM_{2.5}$	3 Day
131210039	Fire Station #8	Fulton	$PM_{2.5}$ (3 Day)		
131210055	United Ave.	Fulton		Non-FEM $PM_{2.5}$	
131210056	NR-Georgia Tech	Fulton	$PM_{2.5}$ (3 Day)*	Non-FEM $PM_{2.5}$	
131350002	Gwinnett Tech	Gwinnett	$PM_{2.5}$ (3 Day)	Non-FEM $PM_{2.5}$	
131510002	McDonough	Henry		Non-FEM $PM_{2.5}$	
Chattanooga, Tennessee-Georgia MSA					
132950004	Rossville-Williams St.	Walker	$PM_{2.5}$ (3 Day)	Non-FEM $PM_{2.5}$	6 Day
Not in an MSA					
130690002	General Coffee	Coffee	$PM_{2.5}$ (3 Day)	FEM $PM_{2.5}$/Non-FEM $PM_{2.5}$	6 Day
133030001	Sandersville	Washington	$PM_{2.5}$ (3 Day)	Non-FEM $PM_{2.5}$	

Highlighted samplers used for comparison to NAAQS.
See Appendix A for updates to this network over the next 18 months.
*This monitor is only used for the 24-hour average form of the $PM_{2.5}$ NAAQS and is not compared to the Annual $PM_{2.5}$ NAAQS.

Table 6. Detail Information about the $PM_{2.5}$ Continuous Monitors

Site ID	Site Name	Parameter Code	POC	SPM/ SLAMS	NAAQS Exclusion	Monitor Category	Monitor Type
13-115-0003	Rome	88502	3	SLAMS	No	Non-FEM	TEOM
13-127-0006	Brunswick	88101	3	SLAMS	No	FEM	T640
13-185-0003	Valdosta	88101	3	SPM	Yes	FEM	T640
13-153-0001	Warner Robins	88101	3	SLAMS	No	FEM	T640
13-095-0007	Albany	88502	3	SLAMS	No	Non-FEM	T640
13-139-0003	Gainesville	88502	3	SLAMS	No	Non-FEM	T640
13-059-0002	Athens	88101	3	SLAMS	No	FEM	T640
13-059-0002	Athens	88101	4	SLAMS	No	FEM	T640
13-021-0007	Macon-Allied	88101	3	SPM	Yes	FEM	T640
13-021-0007	Macon-Allied	88502	3	SLAMS	No	Non-FEM	T640
13-215-0012	Columbus-Baker	88502	3	SLAMS	No	Non-FEM	T640
13-051-1002	Savannah L&A	88101	3	SLAMS	No	FEM	T640
13-245-0091	Augusta	88101	3	SPM	Yes	FEM	T640X
13-089-0002	South DeKalb	88101	3	SLAMS	No	FEM	T640X
13-121-0055	United Ave	88502	3	SLAMS	No	Non-FEM	TEOM
13-121-0056	NR-GA Tech	88502	3	SLAMS	No	Non-FEM	TEOM
13-135-0002	Gwinnett Tech	88502	3	SLAMS	No	Non-FEM	T640
13-151-0002	McDonough	88502	3	SLAMS	No	Non-FEM	TEOM
13-295-0004	Rossville-Williams St.	88502	3	SLAMS	No	Non-FEM	T640
13-069-0002	General Coffee	88101	3	SLAMS	No	FEM	T640
13-069-0002	General Coffee	88502	4	SLAMS	No	Non-FEM	T640
13-303-0001	Sandersville	88502	3	SLAMS	No	Non-FEM	T640

2.0 Carbon Monoxide (CO)

Carbon monoxide (CO) is a colorless and poisonous gas produced by incomplete burning of fossil fuels used in vehicles, space heating, and industrial processes. Boilers and other fuel burning heating systems are also significant sources.

Breathing elevated levels of carbon monoxide affects the oxygen-carrying capacity of the blood. Hemoglobin in the blood binds with CO more readily than with oxygen, starving the body of vital oxygen. Individuals with lung and heart diseases or anemia are particularly sensitive to CO health effects. Low concentrations affect mental function, vision, and alertness. High concentrations can cause fatigue, reduced work capacity and may adversely affect fetal development. Chronic exposure to CO at concentrations as low as 70 parts per million (ppm) (80 mg/m^3) can cause cardiac damage. Other health effects associated with exposure to CO include central nervous system effects and pulmonary function difficulties. Ambient CO apparently does not adversely affect vegetation or materials.

Carbon monoxide (CO) is monitored using EPA-approved reference or equivalent methods. These analyzers are self-contained and capable of measuring ambient CO on a continuous, real-time basis using the non-dispersive infrared analysis and gas filter correlation techniques. CO is monitored using specialized analyzers based on the principle that CO absorbs infrared radiation. The sample is drawn through the sample bulkhead and the optical bench. Radiation from an infrared source is chopped and then passed through a gas filter alternating between CO and nitrogen (N_2). The radiation then passes through a narrow bandpass interference filter and enters the optical bench where absorption by the sample gas occurs. The infrared radiation then exits the optical bench and falls on an infrared detector. The N_2 side of the filter wheel produces a measure beam which can be absorbed by the CO in the cell. The chopped detector signal is modulated by the alternation between the two gas filters with amplitude related to the concentration of CO in the sample cell. Thus, the gas filter correlation system responds specifically to CO. The sampler is equipped with a microprocessor that enables digital measurement of CO, automatic compensation for changes in temperature and pressure, and internal diagnostics. These analyzers are subjected to biweekly zero, precision, and span (ZPS) checks, quarterly multipoint calibrations, and are audited by GA AAMP's Quality Assurance Unit on a semi-annual basis.

3.0 Ozone (O_3)

Ozone (O_3) is a clear gas that forms in the troposphere (lower atmosphere) by chemical reactions involving hydrocarbons (also called volatile organic compounds) and oxides of nitrogen in the presence of sunlight. Even low concentrations of tropospheric ozone, also called ground level ozone are harmful to people, animals, vegetation and materials.

Ozone is the major component of a complex mixture of compounds known as photochemical oxidants. Ozone is not usually emitted directly into the atmosphere, but is formed by a series of complex reactions involving hydrocarbons, nitrogen oxides, and strong sunlight. Ozone concentrations are generally higher during the daytime, when temperatures are moderate or hot, and during seasons when conditions are dry and the sunlight is more intense.

Ozone is a pulmonary irritant, affecting the respiratory mucous membranes, as well as other lung tissues and respiratory functions. Ozone has been shown to impair normal function of the lung causing shallow, rapid breathing and a decrease in pulmonary function. Other symptoms of exposure include chest tightness, coughing and wheezing. People with asthma, bronchitis, or emphysema may experience breathing difficulty when exposed to short-term concentrations at higher levels of ozone. Continued or repeated long-term exposure may result in permanent lung structure damage.

Ozone damages vegetation by injuring leaves. Ozone also accelerates material aging, cracking rubber, fading dyes and eroding paint.

Georgia's ozone analyzers continuously measure the concentration of ozone in ambient air using the ultraviolet (UV) photometric method and are EPA-approved for regulatory air monitoring programs. The degree to which the UV light is absorbed is directly related to the ozone concentration. The ambient air is drawn into the sample bulkhead and is split into two gas streams. One gas stream flows through an ozone scrubber to become the reference gas. The reference gas then flows to the reference solenoid valve. The sample gas flows directly to the sample solenoid

valve. The solenoid valves alternate the reference and sample gas streams between the two cells every 10 seconds. When cell A contains reference gas, cell B contains sample gas and vice versa. The UV light intensities of each cell are measured by detectors A and B. When the solenoid valves switch the reference and sample gas streams to opposite cells, the light intensities are ignored for several seconds to allow the cells to be flushed. The sampler calculates the ozone concentration for each cell and outputs the average concentration to both the front panel display and the analog or digital output. Data gained from the monitors is used to determine compliance with the NAAQS for ozone.

As required by Table D-3 of 40 CFR Part 58, Appendix D (4.1)(c)(3)(i), GA AAMP operates ozone monitors each year from March 1st through October 31st, with the exception of the NCore (National Core Monitoring Network) ozone monitor. The NCore ozone monitor, located at the South DeKalb site (13-089-0002), samples year round, as required by 40 CFR Part 58. During the monitoring season, analyzers are subjected to biweekly ZPS checks and quarterly multipoint calibrations. GA AAMP's Quality Assurance Unit audits these samplers on an annual basis.

EPA established a Clean Air Status and Trends Network (CASTNET) monitoring site in Georgia in 1988. The CASTNET site (13-231-9991) is part of a national air quality monitoring network put in place to assess long-term trends in atmospheric deposition and ecological effects of air pollutants. The CASTNET site is one of 97 regional sites across rural areas of the United States and Canada measuring nitrogen, sulfur, and ozone concentrations, and deposition of sulfur and nitrogen. Like the South DeKalb ozone monitor, the CASTNET ozone monitor also collects data year-round. Since 2011, the CASTNET ozone monitor has met requirements for quality assurance and completeness criteria and can be used for comparison to the NAAQS [40 CFR 58, (1.1)(b)].

4.0 Sulfur Dioxide (SO_2)

Sulfur dioxide (SO_2) is a colorless, corrosive, harmful gas with a pungent odor. Sulfur oxides contribute to the formation of acid rain and the formation of particles that reduce visibility. The main sources of SO_2 are combustion of fossil fuels containing sulfur compounds and the manufacture of sulfuric acid. Other sources include refining of petroleum and smelting of ores that contain sulfur.

The most obvious health effect of sulfur dioxide is irritation and inflammation of body tissues brought in contact with the gas. Sulfur dioxide can increase the severity of existing respiratory diseases such as asthma, bronchitis, and emphysema. Sulfuric acid and fine particulate sulfates, which are formed from sulfur dioxide, also may cause significant health problems. Sulfur dioxide causes injury to many plants. A bleached appearance between the veins and margins on leaves indicates damage from SO_2 exposure. Commercially important plants sensitive to SO_2 include cotton, cucumber, alfalfa, sweet potatoes, tulips, apple trees, and several species of pine trees.

Sulfur dioxide is measured in the ambient air using EPA-approved reference method instruments as defined in 40 CFR Part 53. Georgia's sulfur dioxide network consists of continuous instruments using a pulsed ultraviolet (UV) fluorescence technique. This monitoring technique is based on measuring the emitted fluorescence of SO_2 produced by its absorption of UV radiation. Pulsating UV light is focused through a narrow bandpass filter allowing only light wavelengths of 1,900 to 2,300 angstrom units (Å) to pass into the fluorescence chamber. SO_2 absorbs light in this region without any quenching by air or most other molecules found in polluted air. The SO_2 molecules

are excited by UV light and emit a characteristic decay radiation. A second filter allows only this decay radiation to reach a photomultiplier tube. Electronic signal processing transforms the light energy impinging on the photomultiplier tube into a voltage which is directly proportional to the concentration of SO_2 in the sample stream being analyzed. The sampler outputs the SO_2 concentration to the front panel display and analog or digital output. These analyzers are subjected to biweekly ZPS checks, quarterly multipoint calibrations, and are audited by GA AAMP's Quality Assurance Unit on an annual basis.

5.0 Nitrogen Oxides (NOx)

Several gaseous oxides of nitrogen (NO_x) are normally found in the atmosphere, including nitrous oxide (N_2O), nitric oxide (NO) and nitrogen dioxide (NO_2). Nitrous oxide is a stable gas with anesthetic characteristics and typical ambient concentrations well below the threshold concentration for a biological effect. Nitric oxide is a colorless gas with ambient concentrations generally low enough to have no significant biological effect. Nitrogen dioxide is reddish-brown but is not usually visible at typical ambient concentrations.

The most significant nitrogen oxide emissions result from the burning of fossil fuels such as coal, oil, and gasoline, due to the oxidation of atmospheric nitrogen and nitrogen compounds in the fuel. The primary combustion product is NO, which immediately reacts with oxygen in the atmosphere to form NO_2.

At high concentrations, nitrogen dioxide has significant health effects as a pulmonary irritant, especially upon asthmatics and children. At concentrations more typical in Georgia, though, NO_2 is primarily of concern because of its role in the formation of ground-level ozone. In warm, sunny conditions, it reacts with hydrocarbons in the atmosphere to form ozone. Ironically, the same reaction can run in reverse in the absence of sunlight, though, meaning that urban areas with higher NO_2 emissions and daytime ozone problems will often have virtually zero ozone present at night. Yet the next morning, the store of unreacted NO_2 that builds up in these areas overnight can cause rapid ozone formation once the sun rises. Therefore, urban areas often have summertime ozone concentrations with dramatic afternoon peaks contrasting against periods overnight where no ozone is present. Areas without significant local NO_2 sources, like rural areas and national parks, tend to have ozone present around the clock, but in moderate concentrations that are steadier throughout a twenty-four hour period.

Some types of vegetation are very sensitive to NO_2, including oats, alfalfa, tobacco, peas, and carrots. Chronic exposure causes chlorosis (yellowing), and acute exposure usually causes irregularly shaped lesions on the leaves.

Nitric oxide and nitrogen dioxide do not directly damage materials. However, NO_2 can react with moisture in the air to produce nitric acid, which corrodes metal surfaces and contributes to acid rain. High concentrations of NO_2 may reduce visibility.

Oxides of nitrogen, particularly NO_2, are monitored using specialized analyzers that continuously measure the concentration of oxides of nitrogen in ambient air using the ozone-phase chemiluminescent method. GA AAMP operates a Thermo Environmental Model 42i Chemiluminescence NO-NO_2-NO_x Analyzer (EPA Automated Equivalent Method RFNA-1289-074). Nitric oxide (NO) and ozone (O_3) react to produce a characteristic luminescence with

intensity linearly proportional to the NO concentration. Infrared light emission results when electronically excited NO_2 molecules decay to lower energy states. NO_2 must first be converted to NO before it can be measured using the chemiluminescent reaction. NO_2 is converted to NO by a molybdenum NO_2-to-NO converter heated to about 325°C. The ambient air sample is drawn into the sample bulkhead. The sample flows through a particulate filter, a capillary, then to the mode solenoid valve. The solenoid valve routes the sample either straight to the reaction chamber (NO mode) or through the NO_2-to-NO converter and then to the reaction chamber (NO_x mode). Dry air enters the dry air bulkhead through a flow sensor, and then through a silent discharge ozonator. The ozonator generates the necessary ozone concentration needed for the chemiluminescent reaction. The ozone reacts with the NO in the ambient air to produce electronically excited NO_2 molecules. A photomultiplier tube housed in a thermoelectric cooler detects the NO_2 luminescence. The NO and NO_2 concentrations calculated in the NO and NO_x modes are stored in memory, and the difference between the concentrations are used to calculate the NO_2 concentration. The sampler outputs NO, NO_2, and NO_x concentrations on the front panel display and the analog or digital outputs. There are two major instrument designs. While they are closely related, they do not monitor the same species. NO_x analyzers measure NO, NO_2, and NO_x. NO_y analyzers measure NO and NO_y, but cannot measure NO_2. The NO_y analyzers are also specialized for measuring trace-level concentrations; as such, they cannot measure higher concentrations. Because of these tradeoffs, it is necessary to operate a network of both instrument types to get a complete picture of local conditions. Of the oxides of nitrogen, only NO_2 is regulated under the NAAQS. Therefore, only the NO_x type analyzers produce data directly relevant to the standard. These analyzers are subjected to biweekly ZPS checks, quarterly multipoint calibrations, and are audited by GA AAMP's Quality Assurance Unit on an annual basis.

At the South DeKalb PAMS site (13-089-0002), the GA AAMP utilizes the Teledyne Advanced Pollution Instrumentation Model N500 Nitrogen Dioxide Analyzer for collection of direct $NO/NO_2/NO_x$ measurements (Federal Equivalent Method EQNA-0320-256). The Model N500 collects direct measurements of $NO/NO_2/NO_x$ with cavity attenuated phase shift spectroscopy (CAPS). The N500 CAPS monitor operates as an optical absorption spectrometer. The CAPS method uses light from a blue Ultraviolet (UV) light emitting diode (LED) centered at 405 nm, a measurement cell with high reflectivity mirrors located at either end to provide an extensive optical path length, and a vacuum photodiode detector. The sampler outputs NO, NO_2, and NO_X concentrations on the front panel display and the analog or digital outputs directly to the AirVision database. These analyzers are subjected to biweekly ZPS checks, quarterly multipoint calibrations, and are audited by GA AAMP's Quality Assurance Unit on an annual basis.

6.0 Lead (Pb)

Lead (Pb) is a toxic heavy metal element occurring in the atmosphere as a constituent of small particles. The major source of atmospheric lead used to be the combustion of gasoline containing the additive tetraethyl lead as an antiknock agent. The use as a gasoline additive has been banned in all applications except aviation gasoline. This ban has dramatically decreased concentrations of lead in the ambient air. Significant remaining sources include coal combustion and sandblasting of highway structures and water tanks. Lead is also used in some batteries, paints, insecticides, and newspaper inks.

Lead persists and accumulates in the environment and the human body. It may be inhaled, ingested, and eventually absorbed into the bloodstream and distributed to all body tissues. Exposure to low

concentrations interferes with blood production and specific enzyme systems. It is believed to cause kidney and nerve cell damage, and severe lead poisoning is known to cause brain damage in children.

Since lead is a particulate, the measurement for ambient air lead concentrations is performed using a manual method, unlike measurements for the gaseous pollutants discussed earlier (ozone, SO_2, NO_2 and CO). Samples are collected on 8" x 10" pre-weighed fiberglass filters with a high volume total suspended (TSP) sampler for 24 hours, collecting particles with diameters of 100 microns or less. High volumes of ambient air in the flow range of 40-60 cubic feet per minute are sampled at a constant rate during the sampling period. This produces a uniform distribution of particles deposited on the sample filter downstream of the sampler inlet. Samples collected with the TSP high-volume sampler can be used to determine the average ambient TSP concentration over a sampling period followed by subsequent analysis to determine the identity and quantity of inorganic metals present in the TSP. The filter sample is shipped to a laboratory for analysis using inductively coupled plasma mass spectroscopy (commonly known as ICP-MS). Data gained from the criteria lead samplers is used to determine compliance with the National Ambient Air Quality Standards for lead. On a semi-annual basis, GA AAMP's Quality Assurance Unit audits these samplers.

In addition to the criteria lead network sites, lead is monitored as a trace metal in the National Air Toxics Trends Station (NATTS), and with the $PM_{2.5}$ speciation samplers. The NATTS lead is sampled using a PM_{10} sampler, and particles are sampled up to 10 microns in size. With the $PM_{2.5}$ speciation sampler, samples are collected that include particles up to 2.5 microns in size. These sampling techniques collect 24-hour samples on pre-weighed filters, have samples sent to a laboratory for analysis, and are analyzed using inductively coupled plasma mass spectroscopy (commonly known as ICP-MS). On a semi-annual basis, GA AAMP's Quality Assurance Unit audits these samplers.

7.0 Metals

A sub-group of the National Air Toxics Trends data includes the metals group, which encompass compounds such as cadmium, mercury, chromium and lead. These pollutants, also known as Hazardous Air Pollutants (HAPs), are those pollutants that are known or suspected to cause cancer or other serious health effects, such as damage to the immune system, reproductive effects or birth defects, developmental or neurological problems, or adverse environmental effects. These effects can vary depending on how often one is exposed, how long one is exposed, the person's health that is exposed, and the toxicity of the compound. Some of the substances tend to have only one critical effect, while others may have several. The lifetime, transportation, and make-up of these pollutants are affected by weather (rain and wind) and landscape (mountains and valleys). They can be transported far away from the original source, or be caught in rain and brought down to waterways or land.

In addition to exposure from breathing air toxics, some toxic air pollutants such as mercury can deposit onto soils or surface waters, where plants take them up, are ingested by animals, and are eventually magnified up through the food chain. Through this process, known as bioaccumulation, larger animals build up concentrations of these pollutants in their tissues that may be thousands of times higher than that found in the most polluted water or soil. Like humans, animals may experience health problems if exposed to sufficient quantities of air toxics over time. Humans who

eat animals that have accumulated large concentrations of these pollutants are at the very top of this bioaccumulative food chain and as such are at particular risk for experiencing health effects.

The PM_{10} sampler used for sampling toxic metal particles less than or equal to 10 microns in diameter as part of the NATTS network is a Met One low-volume single channel timed sampler. GA AAMP is in the process of replacing the Met One PM_{10} samplers with Tisch-Wilbur PM_{10} samplers. Collecting 16.7 liters per minute, with a total collection of 24.05 m^3, the sampler uses a 47 mm diameter Teflon™ filter to trap particulate matter. The samplers run once every six days following a pre-established schedule that corresponds to a nationwide sampling schedule. On the sixth day the sampler runs midnight to midnight and takes a 24-hour composite sample. The sample is analyzed using inductively coupled plasma mass spectrometry (ICP/MS). With ICP/MS, an argon gas is used to atomize and ionize the elements in a sample. The resulting ions are used to identify the isotopes of the elements and a mass spectrum is used to identify the element proportional to a specific peak formed from an isotope. The NATTS PM_{10} metals samplers are subjected to quarterly checks and audited by GA AAMP's Quality Assurance Unit on a semi-annual basis.

8.0 Volatile Organic Compounds (VOCs)

All volatile organic compounds (VOCs) contain carbon, the basic chemical element found in living beings. Carbon-containing chemicals are called organic. Volatile chemicals escape into the air easily and react with NO_2 in sunlight to form ground level ozone. Some VOCs are also hazardous air pollutants, which can cause serious health effects. VOCs are released from burning fuel (gasoline, oil, coal, natural gas, etc.), solvents, paints, glues, and other products used at work or at home. Cars are a significant source of VOCs. Chemicals that are VOCs include compounds such as benzene, toluene, methylene chloride and methyl chloroform. Some VOCs are naturally occurring. VOCs such as pinenes and terpenes emitted from pine trees are a significant source of VOCs in the southeastern United States.

VOCs are collected and analyzed with three different types of samplers. Two types of collection method use a passivated inert stainless steel canister: ATEC 2200 and Xonteck 910. The canister is evacuated to a near-perfect vacuum and attached to a sampler with a pump controlled by a timer. The canister is filled to greater than 5 psig. These samplers collect a sample for a representative 24-hour period, and the samples are analyzed using a gas chromatograph with mass spectroscopy detection (GC/MS), using EPA compendium method TO15, by the GA EPD laboratory. The South DeKalb site uses the ATEC 2200 to collect VOCs as part of the National Air Toxics Trends Station. These VOCs samplers are subjected to quarterly checks and are audited by GA AAMP's Quality Assurance Unit twice per year.

The third type of sampler used for VOCs collection and analysis is with the Photochemical Assessment Monitoring Station (PAMS) network in which VOCs are collected and analyzed on-site with a gas chromatograph/flame ionization detector (GC/FID). The South DeKalb site is the GA AAMP's PAMS site. During June, July, and August, the PAMS VOCs samples are collected continuously on an hourly basis. The VOCs sampler in the PAMS network is subjected to checks and audited during the PAMS season (June, July and August).

9.0 Carbonyls

Carbonyl compounds are a subset of VOCs, and define a large group of substances, which include acetaldehyde and formaldehyde. These compounds can act as precursors to ozone formation. They can be formed from the breakdown of certain organic pollutants in outdoor air, from forest fires and wildfires, as well as from vehicle exhaust.

The carbonyls are sampled with two types of methods. One type is an absorbent cartridge filled with dinitrophenylhydrazine (DNPH)-coated silica that is attached to a pump to allow approximately 180 liters of air to be sampled. The cartridge is then analyzed using high performance liquid chromatography (HPLC). For the PAMS site, during June, July, and August, three 8-hour samples are taken every third day. A 24-hour integrated carbonyls sample is also taken every 6 days throughout the year at the South DeKalb NATTS site. The other method used for collecting carbonyls is the canister sampler that is used for sampling volatile organic compounds. Acrolein is a carbonyl compound that is collected using this canister method, described above, and analyzed with the GC/MS method. The PAMS and NATTS carbonyls samplers are subjected to quarterly checks and audited by GA AAMP's Quality Assurance Unit every six months.

10.0 Semi-Volatile Organic Compounds

Polycyclic aromatic hydrocarbons (PAHs), also called semi-volatile organic compounds are chemical compounds that consist of fused, six-carbon aromatic rings. They are formed by incomplete combustion of carbon-containing fuels such as wood, coal, diesel fuels, fat or tobacco. PAHs can occur in air attached to dust particles, and some can evaporate into the air from soil or surface waters. PAHs can stick tightly to particles and seep through soil to contaminate groundwater. They do not dissolve easily in water and can stick to solid particles and settle to the bottoms of lakes and rivers. Many PAHs are known or suspected carcinogens. The PUF (polyurethane foam) sampler used for sampling semi-volatile organic compounds, as part of the NATTS network, is a timed sampler. The sampler is calibrated to collect 198 to 242 liters (L) of air per minute. A multi-layer cartridge is prepared which collects both the particulate fraction and the volatile fraction of this group of compounds. The plug, filter and absorbent are extracted at the GA EPD laboratory and analyzed using gas chromatography with an electron capture detector (ECD). The semi-VOCs samplers are subjected to quarterly checks and audited by GA AAMP's Quality Assurance Unit annually.

11.0 Black Carbon

Black carbon is a particulate aerosol formed from the incomplete combustion of fossil fuels, biomass, and biofuels. Diesel engines are a large contributor of black carbon. Sampling for black carbon provides an estimate of the anthropogenic portion of carbon sources in ambient air pollution. For continuous sampling of black carbon, GA AAMP is using the Met One Instruments BC-1060 at the NR-285 (13-089-0003) and NR-Georgia Tech (13-121-0056) sites. Operating continuously at 2 LPM, these instruments have dual-wavelength illumination (370 nm and 880 nm) and use quartz tape to perform an optical analysis to determine the concentration of carbon particles passing through an air stream. Concentrations are determined by measuring the change in optical transmission as black carbon containing particulate matter accumulates onto a filter and then converting this transmission data into black carbon concentration. These parameters are

subjected to quarterly checks and audited by GA AAMP's Quality Assurance Unit every six months.

12.0 Meteorological Parameters

GA AAMP has twelve meteorological stations across the state. Surface meteorological measurements, including wind speed and wind direction, are measured at each location. In addition, as part of the Photochemical Assessment Monitoring Site (PAMS) in the metropolitan Atlanta area, a complete suite of meteorological instrumentation is used to characterize meteorological conditions. The PAMS station measures hourly-averaged vector wind speed and vector-averaged wind direction at the 10-meter level, and hourly-averaged surface temperature, relative humidity and barometric pressure at the 2-meter level. Several sites include instruments to record total hourly precipitation, global solar radiation, and total ultraviolet radiation. In addition, the standard deviation of the wind direction is computed at the NCore site (South DeKalb). These parameters are audited by the GA AAMP's Quality Assurance Unit on an annual basis. For upper air measurement, GA AAMP uses a Vaisala BL-VIEW Ceilometer in conjunction with balloon rawinsonde data collected from NWS at Peachtree City. This upper air system is useful for monitoring the mixing height and low-level winds during smoke transport events.

Appendix D: List of Closed Ambient Monitors (in order of shut down date)

Georgia Department of Natural Resources
Environmental Protection Division

Site ID	Site Name	Sampler	Date Shut Down	Last Published in Annual Plan
131210039	Fire Station#8	PM_{10}	9/26/06	N/A
130893001	Tucker	Ozone	10/31/06	N/A
130090001	Milledgeville-Airport	SO_2	12/31/06	2009
130893001	Tucker	PAMS VOCs, NO/NOx/NOy/NO_2	1/7/07	N/A
131110091	McCaysville	SO_2	10/2/07	2007
131210001	Fulton Co Health Dept	PM_{10}	9/1/08	2008
130970003	Douglasville-Beulah Pump Station	PM_{10}	9/1/08	2008
132550002	Griffin-Spalding County	PM_{10}	9/1/08	2008
132151003	Columbus-Crime Lab	Ozone	10/31/08	2008
130090001	Milledgeville-Airport	Air Toxics	10/31/08	2011
131150004	Rome-Co. Health Dept	Air Toxics	10/31/08	2011
131210020	Utoy Creek	Air Toxics	10/31/08	2011
131273001	Brunswick-Brunswick Coll	Air Toxics/Carbonyls	10/31/08	2011
131390003	Gainesville	Air Toxics	10/31/08	2011
131530001	Warner Robins	Air Toxics	10/31/08	2011
131850003	Valdosta	Air Toxics	10/31/08	2011
132155000	Columbus-Columbus State	Air Toxics	10/31/08	2011
132450092	Augusta-Clara Jenkins	Air Toxics	10/31/08	2011
130550001	Summerville-Fish Hatchery	Acid Rain	10/31/08	2011
130850001	Dawsonville	Acid Rain	10/31/08	2011
131890001	McDuffie-Fish Hatchery	Acid Rain	10/31/08	2011
132410002	Hiawassee-Lake Burton	Acid Rain	10/31/08	2011
132970001	Social Circle-Fish Hatchery	Continuous $PM_{2.5}$	10/31/08	2011
131130001	Fayetteville-GA DOT	Ozone, Wind Speed, Wind Direction	10/31/08	2013
131270006	Brunswick	Total Reduced Sulfur	10/31/08	2013
131210048	Georgia Tech	$PM_{2.5}$	12/1/08	2008
131150005	Rome	$PM_{2.5}$ FRM, PM_{10}, $PM_{2.5}$ Speciation	Consolidated with 131150003 3/09	2008
131210048	Georgia Tech	SO_2, NO, NO_2, NOx	4/30/09	2011
130150003	Cartersville	Wind Speed, Wind Dir	12/31/11	2011
130730001	Evans	NO_y	7/28/2008	2012
130210013	Macon-Lake Tobesofkee	NO_y, O_3	10/31/2008	2012
131270006	Brunswick	SO_2	12/31/12	2012
132150008	Columbus -Airport	SO_2	12/31/12	2012
130510017	Savannah-Market St.	$PM_{2.5}$ FRM	12/31/12	2012
132450005	Augusta-Medical College	$PM_{2.5}$ FRM	12/31/12	2012
131210032	Atlanta-E. Rivers School	$PM_{2.5}$ FRM, PM_{10}	12/31/12	2012
130892001	Doraville Health Center	$PM_{2.5}$ FRM	12/31/12	2012
130670004	Powder Springs-Macland Aquatic Ctr.	$PM_{2.5}$ FRM	12/31/12	2012
130210007	Allied	PM_{10}	12/31/12	2012
130510014	Savannah-Shuman Middle	PM_{10}	12/31/12	2012
130550001	Summerville-Fish Hatchery	PM_{10}	12/31/12	2012
130892001	Doraville Health Center	PM_{10}	12/31/12	2012
130950007	Albany	PM_{10}	12/31/12	2012
131150003	Rome	PM_{10}	12/31/12	2012
131210048	Georgia Tech	PM_{10}	12/31/12	2012
131270004	Brunswick-Arco Pump Station	PM_{10}	12/31/12	2012

132150011	Columbus-Cusseta Road	PM_{10}	12/31/12	2012
133030001	Sandersville	PM_{10}	12/31/12	2012
130893001	Tucker-Idlewood Road	Wind Speed, Wind Direction, Temp, RH, Solar Radiation, UV Radiation, BP, Precip	5/31/13	2013
130890002	South DeKalb	Hexavalent chromium	7/15/13	2013
132470001	Conyers	Continuous Gas Chromatograph	8/31/13	2013
130150003	Cartersville	Lead	2/22/14	2013
131210099	Roswell Road	CO	3/5/14	2013
130590002	Athens	$PM_{2.5}$ Speciation	1/24/15	2014
132230003	Yorkville	Continuous Gas Chromatograph	8/31/15	2015
132230003	Yorkville	6-Day PAMs, $NO/NO_2/NOx$, CO	12/31/15	2015
130850001	Dawsonville	Air Toxics/Carbonyls	12/31/15	2015
132470001	Conyers	6-Day PAMs, $NO/NO_2/NOx$	12/31/15	2015
130890003	NR-285	Lead	6/30/16	2016
130890002	South DeKalb	Black carbon	12/31/16	2016
133190001	Gordon	$PM_{2.5}$ FRM	12/31/16	2016
132230003	Yorkville	O_3	12/31/16	2016
132230003	Yorkville	$PM_{2.5}$ FRM, Continuous $PM_{2.5}$, VOCs, Semi-VOCs, Carbonyls, Metals, Wind Speed, Wind Direction, Temp, RH, Solar Radiation, UV Radiation, BP, Precip	1/31/17	2016
131150003	Rome-Coosa	SO_2	12/31/16	2017
132450091	Augusta	Integrated PM_{10}	3/31/18	2017
130770002	Newnan	O_3, $PM_{2.5}$, Wind Direction, Wind Speed	11/15/17	2018
132150010	Columbus-Joy Rd	Lead	6/30/18	2018
132450091	Augusta	$PM_{2.5}$ FRM	10/31/18 (reopened 1/1/2022)	2018 (reinstated in 2022)
131390003	Gainesville	$PM_{2.5}$ FRM	10/31/18	2018 (reinstated in 2023)
131350002	Gwinnett Tech	$PM_{2.5}$ FRM	10/31/18	2018
130210012	Macon-Forestry	Air Toxics	12/31/18	2018
130510021	Savannah-E. President's Street	Air Toxics	12/31/18	2018
130690002	General Coffee	Air Toxics	12/31/18	2018
130590002	Athens	$PM_{2.5}$ FRM	3/31/19	2018
130510091	Savannah-Mercer	$PM_{2.5}$ FRM	6/30/19	2019
133030001	Sandersville	$PM_{2.5}$ FRM	8/15/19	2019
131150006	Rome-Kraftsman	SO_2, Wind Speed, Wind Direction	12/31/2020	2020
132150009	Columbus-Allied	Lead	3/31/2021	2020
132150011	Columbus-Cusseta	$PM_{2.5}$ FRM, Lead	7/30/2020	2020
132150001	Columbus-Health Department	$PM_{2.5}$ FRM	12/31/2020	2020
132950002	Rossville-Maple St.	$PM_{2.5}$ FRM, $PM_{2.5}$ Continuous, $PM_{2.5}$ Speciation	7/30/2020	2020
132450091	Augusta	PM_{10} TEOM	7/13/2021	2021

130630091	Forest Park	$PM_{2.5}$ FRM	2/18/2024	2023
130890003	NR-285	$PM_{2.5}$ non-FEM continuous	7/2/2024	2024
133030001	Sandersville	$PM_{2.5}$ Continuous	7/18/2024	2024
130630091	Forest Park	$PM_{2.5}$ Continuous	7/22/2024	2024
130730001	Evans	Wind Speed, Wind Direction	09/27/2024	2024
132150008	Columbus-Airport	$PM_{2.5}$ Continuous	9/30/2024	2024
130210012	Macon-Forestry	$PM_{2.5}$ Continuous	9/30/2024	2024
130730001	Evans	Outside Temperature, Relative Humidity	12/20/2024	2024
130730001	Evans	O_3	12/31/2024	2024
130550001	Summerville	O_3	12/31/2024	2024
132611001	Leslie	O_3	12/31/2024	2024
130670003	Kennesaw	$PM_{2.5}$ Continuous	1/2/2025	2024
130670003	Kennesaw	$PM_{2.5}$ FRM	3/19/2025	2024
132151003	Columbus-Crime Lab	Wind Speed, Wind Direction, Outdoor Temperature, Relative Humidity, Rain/Melt Precipitation, Barometric Pressure	4/14/2025	2024

Appendix E: Memorandum of Agreement

Georgia Department of Natural Resources
Environmental Protection Division

MEMORANDUM OF AGREEMENT

ON AIR QUALITY MONITORING FOR CRITERIA POLLUTANTS FOR

THE CHATTANOOGA, TN-GA

METROPOLITAN STATISTICAL AREA (MSA)

January 2027

Participating Agencies:

Georgia
Georgia Department of Natural Resources (GA DNR)
Environmental Protection Division Air Protection Branch (GA EPD)

Tennessee
Chattanooga-Hamilton County Air Pollution Control Bureau (CHCAPCB)

I. PURPOSE/OBJECTIVES/GOALS

The purpose of this Memorandum of Agreement (MOA) is to establish the Chattanooga, TN-GA Metropolitan Statistical Area (MSA) Criteria Pollutant Air Quality Monitoring Agreement between CHCAPCB and GA EPD (collectively referred to as the "affected agencies") to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less (PM_{10}), particles of an aerodynamic diameter of 2.5 micrometers and less ($PM_{2.5}$), and ozone; as well as other criteria pollutant air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will establish the terms and conditions of this collective agreement to provide adequate criteria pollutant monitoring for the Chattanooga, TN-GA MSA as required by 40 CFR 58 Appendix D, Section 2(e).

II. BACKGROUND

The Chattanooga, TN-GA MSA consists of the following counties: Dade, Walker, Catoosa, Hamilton, Marion, and Sequatchie. GA EPD has jurisdiction over Dade, Walker, and Catoosa Counties in Georgia and CHCAPCB has jurisdiction over Hamilton County, Tennessee. The State of Tennessee has jurisdiction over Marion and Sequatchie Counties in Tennessee but does not have any permanent air monitoring sites in those counties. The CHCAPCB and GA EPD are required by the Clean Air Act to measure for certain criteria pollutants in the ambient air in the Chattanooga, TN-GA MSA. The EPA has established minimum monitoring requirements based on the size of the MSA and the quality of the air in the MSA for PM_{10}, $PM_{2.5}$, and ozone.

40 CFR 58 Appendix D, Section 2(e) states (in part):

> "…The EPA recognizes that there may be situations where the EPA Regional Administrator and the affected State or local agencies may need to augment or to divide the overall MSA/CSA monitoring responsibilities and requirements among these various agencies to achieve an effective network design. Full monitoring requirements apply separately to each affected State or local agency in the absence of an agreement between the affected agencies and the EPA Regional Administrator."

Currently each air pollution control agency (affected agency) conducts monitoring in its respective jurisdiction and coordinates its monitoring with the other air pollution control agencies within the MSA.

III. ROLES AND RESPONSIBILITIES

The parties agree to the following terms and conditions:

- CHCAPCB and GA EPD (the "affected agencies") commit to conducting appropriate monitoring in their respective jurisdictions of the MSA; as needed, to collectively meet EPA minimum monitoring requirements for the entire MSA for PM_{10}, $PM_{2.5}$, and ozone, as well as other criteria air pollutant monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all affected agencies. The minimum air quality monitoring requirements (for PM_{10}, $PM_{2.5}$, and ozone described in 40 CFR 58) for the MSA shall apply to the MSA in its entirety and shall not apply to any sole affected agency within the MSA unless agreed upon by all affected agencies.

- The affected agencies commit to coordinating monitoring "responsibilities and requirements…to achieve an effective network design" regarding criteria air pollutant monitoring conducted in the MSA and commit to communicate unexpected or unplanned changes in monitoring activities within their jurisdictions to the other affected agency. As conditions warrant, the affected agencies may conduct telephone conference calls, meetings, or other communications to discuss

monitoring activities for the MSA. Each affected agency shall inform the other affected agencies via telephone or e-mail of any monitoring changes occurring in its jurisdiction of the MSA at its earliest convenience after learning of the need for the change or making the changes. Such unforeseen changes may include evictions from monitoring sites, destruction of monitoring sites due to natural disasters, or similar occurrences that result in a loss of more than 25% of data in quarter or a permanent change in the monitoring network. At least once a year in the second quarter of the year or before June 15th, each agency shall make available to the other affected agency, a copy of its proposed monitoring plan for its jurisdiction within the MSA for the next year. The CHCAPCB will submit the network review that is submitted to the State of Tennessee for inclusion in the State's monitoring plan.

- Each party reserves the right to revoke or terminate this MOA at any time and for any reason by giving thirty (30) days written notice prior to the date of termination.

IV. LIMITATIONS

A. All commitments made in this MOA are subject to the availability of appropriated funds and each party's budget priorities. Nothing in this MOA, in and of itself, obligates CHCAPCB or GA EPD to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or other financial obligation.

B. This MOA is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this MOA will be handled in accordance with applicable laws, regulations, and procedures, and will be subject to separate subsidiary agreements that will be effected in writing by representatives of the parties.

C. Except as provided in Section III, this MOA does not create any right or benefit, substantive or procedural, enforceable by law or equity against CHCAPCB or GA EPD, their officers or employees, or any other person. This MOA does not direct or apply to any person outside CHCAPCB or GA EPD.

V. PROPRIETARY INFORMATION AND INTELLECTUAL PROPERTY

No proprietary information or intellectual property is anticipated to arise out of this MOA.

VI. POINTS OF CONTACT

The following individuals are designated points of contact for the MOA:

GA EPD APB: Jaime Gore
Program Manager

Air Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
4244 International Parkway, Suite 120
Atlanta, GA 30354

Jaime.Gore@dnr.ga.gov
Office: (470) 524-0495
Cell: (770) 633-5136

CHCAPCB: Tyler Cantrell
CHCAPCB
2034 Hamilton Place Blvd, Suite 300
Chattanooga, TN 37421

tcantrell@chattanooga.gov
Office: (423) 643-5980

In the event that a point of contact needs to be changed, notification may be made via email to the other parties.

VII. MODIFICATION/DURATION/TERMINATION

This MOA will be effective when signed by all parties. This MOA may be amended at any time by the mutual written consent of the parties. The parties will review this MOA at least once every 10 years to determine whether it should be revised, renewed, or cancelled. This MOA may be revoked or terminated by an affected agency at any time and for any reason by giving thirty (30) days written notice prior to the date of termination.

VIII. REFERENCE

United States Environmental Protection Agency, Title 40 Code of Federal Regulations, Parts 53 and 58, "Network Design Criteria for Ambient Air Quality Monitoring", Section 2(e), "General Monitoring Requirements."

IX. APPROVALS

Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch (GA EPD)

BY: Jeffrey W. Cown

Director

TITLE: _____

DATE: 04/17/2026

Chattanooga-Hamilton County Air Pollution Bureau (CHCAPCB)

BY: Ron Drumgoole (RON DRUMGOOLE)

TITLE: EXECUTIVE DIRECTOR

DATE: 5/28/26

5

SCDES MOA# 2026-041 A

MEMORANDUM OF AGREEMENT

ON AIR QUALITY MONITORING FOR CRITERIA POLLUTANTS FOR

THE AUGUSTA-RICHMOND COUNTY, GA-SC

METROPOLITAN STATISTICAL AREA (MSA)

January 2027

Participating Agencies:

Georgia
Georgia Department of Natural Resources
Environmental Protection Division
Air Protection Branch (GA EPD)

South Carolina
Department of Environmental Services (SCDES)
Bureau of Air Quality

I. PURPOSE/OBJECTIVES/GOALS

The purpose of this Memorandum of Agreement (MOA) is to establish the Augusta-Richmond County, GA-SC Metropolitan Statistical Area (MSA) Criteria Pollutant Air Quality Monitoring Agreement between SCDES and GA EPD (collectively referred to as the "affected agencies") to collectively meet United States Environmental Protection Agency (EPA) minimum monitoring requirements for particles of an aerodynamic diameter of 10 micrometers and less (PM_{10}), particles of an aerodynamic diameter of 2.5 micrometers and less ($PM_{2.5}$), and ozone; as well as other criteria pollutant air quality monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all parties. This MOA will establish the terms and conditions of this collective agreement to provide adequate criteria pollutant monitoring for the Augusta-Richmond County, GA-SC MSA as required by 40 CFR 58 Appendix D, Section 2(e).

II. BACKGROUND

The Augusta-Richmond County, GA-SC MSA consists of the following counties: Burke, Columbia, McDuffee, Lincoln, Richmond, Aiken and Edgefield. GA EPD has jurisdiction over Burke, Columbia, McDuffee, Lincoln and Richmond Counties in Georgia and SCDES has jurisdiction over Aiken and Edgefield Counties, South Carolina. The SCDES and GA EPD are required by the Clean Air Act to measure for certain criteria pollutants in the ambient air in the Augusta-Richmond County, GA-SC MSA. The EPA has established minimum monitoring requirements based on the size of the MSA and the quality of the air in the MSA for PM_{10}, $PM_{2.5}$, and ozone.

40 CFR 58 Appendix D, Section 2(e) states (in part):

> "…The EPA recognizes that there may be situations where the EPA Regional Administrator and the affected State or local agencies may need to augment or to divide the overall MSA/CSA monitoring responsibilities and requirements among these various agencies to achieve an effective network design. Full monitoring requirements apply separately to each affected State or local agency in the absence of an agreement between the affected agencies and the EPA Regional Administrator."

Currently each air pollution control agency (affected agency) conducts monitoring in its respective jurisdiction and coordinates its monitoring with the other air pollution control agencies within the MSA.

III. ROLES AND RESPONSIBILITIES

The parties agree to the following terms and conditions:

- SCDES and GA EPD (the "affected agencies") commit to conducting appropriate monitoring in their respective jurisdictions of the MSA; as needed, to collectively meet EPA minimum monitoring requirements for the entire MSA for PM_{10}, $PM_{2.5}$, and ozone, as well as other criteria air pollutant monitoring deemed necessary to meet the needs of the MSA as determined reasonable by all affected agencies. The minimum air quality monitoring requirements (for PM_{10}, $PM_{2.5}$, and ozone described in 40 CFR 58) for the MSA shall apply to the MSA in its entirety and shall not apply to any sole affected agency within the MSA unless agreed upon by all affected agencies.

- The affected agencies commit to coordinating monitoring "responsibilities and requirements…to achieve an effective network design" regarding criteria air pollutant monitoring conducted in the MSA and commit to communicate unexpected or unplanned changes in monitoring activities within their jurisdictions to the other affected agency. As conditions warrant, the affected agencies may conduct telephone conference calls, meetings, or other communications to discuss monitoring activities for the MSA. Each affected agency shall inform the other

affected agencies via telephone or e-mail of any monitoring changes occurring in its jurisdiction of the MSA at its earliest convenience after learning of the need for the change or making the changes. Such unforeseen changes may include evictions from monitoring sites, destruction of monitoring sites due to natural disasters, or similar occurrences that result in an extended (greater than 1 quarter) or permanent change in the monitoring network. At least once a year in the second quarter of the year or before June 15th, each agency shall make available to the other affected agency, a copy of its proposed monitoring plan for its jurisdiction within the MSA for the next year.

- Each party reserves the right to revoke or terminate this MOA at any time and for any reason by giving thirty (30) days written notice prior to the date of termination.

IV. LIMITATIONS

A. All commitments made in this MOA are subject to the availability of appropriated funds and each party's budget priorities. Nothing in this MOA, in and of itself, obligates SCDES or GA EPD to expend appropriations or to enter into any contract, assistance agreement, interagency agreement or other financial obligation.

B. This MOA is neither a fiscal nor a funds obligation document. Any endeavor involving reimbursement or contribution of funds between parties to this MOA will be handled in accordance with applicable laws, regulations, and procedures, and will be subject to separate subsidiary agreements that will be effected in writing by representatives of the parties.

C. Except as provided in Section III, this MOA does not create any right or benefit, substantive or procedural, enforceable by law or equity against SCDES or GA EPD, their officers or employees, or any other person. This MOA does not direct or apply to any person outside SCDES or GA EPD.

V. PROPRIETARY INFORMATION AND INTELLECTUAL PROPERTY

No proprietary information or intellectual property is anticipated to arise out of this MOA.

VI. POINTS OF CONTACT

The following individuals are designated points of contact for the MOA:

GA EPD APB: Jaime Gore
Program Manager
Air Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources

4244 International Parkway, Suite 120
Atlanta, GA 30354

Jaime.Gore@dnr.ga.gov
Office: (470) 524-0495
Cell: (770) 633-5136

SCDES: Dr. Courtney Grimes
Division Director
Division of Air Quality Analysis
Bureau of Regional and Laboratory Services
South Carolina Department of Environmental Services
8231 Parklane Road
Columbia, SC 29223

Courtney.Grimes@des.sc.gov
Office: (803) 896-0903
Cell: (839) 292-8585

In the event that a point of contact needs to be changed, notification may be made via email to the other parties.

VII. MODIFICATION/DURATION/TERMINATION

This MOA will be effective when signed by all parties. This MOA may be amended at any time by the mutual written consent of the parties. The parties will review this MOA at least once every 10 years to determine whether it should be revised, renewed, or cancelled. This MOA may be revoked or terminated by an affected agency at any time and for any reason by giving thirty (30) days written notice prior to the date of termination.

VIII. REFERENCE

United States Environmental Protection Agency, Title 40 Code of Federal Regulations, Parts 53 and 58, "Network Design Criteria for Ambient Air Quality Monitoring", Section 2(e), "General Monitoring Requirements."

IX. APPROVALS

Georgia Department of Natural Resources, Environmental Protection Division (GA EPD)

BY: Jeffrey W. Cown

Director

TITLE: _____

DATE: 04/17/2026

South Carolina Department of Environmental Services (SCDES) Bureau of Air Quality

BY: _____

TITLE: Bureau Chief

DATE: 04/27/2026

5

Appendix F: EPA's $PM_{2.5}$ Comparability Assessments for FRMs and FEM (in order of AQS ID)

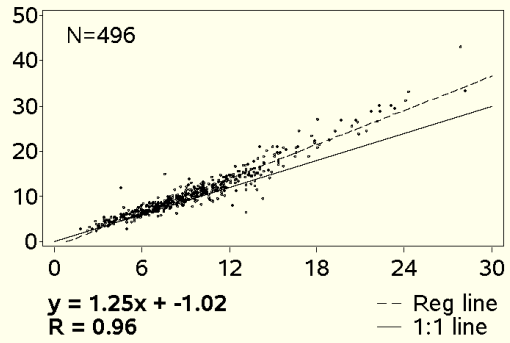
Georgia Department of Natural Resources
Environmental Protection Division

$PM_{2.5}$ Continuous Monitor Comparability Assessment

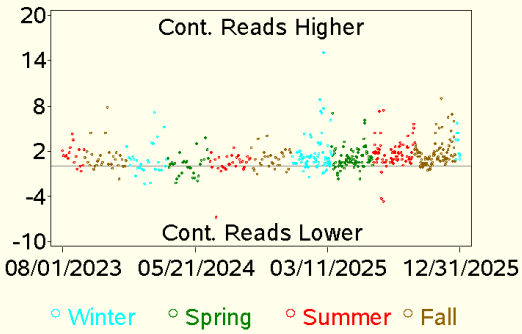
Site 13-021-0007: Macon, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (119,120,145), PM2.5 - Local Conditions (88101), POC=1,2
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

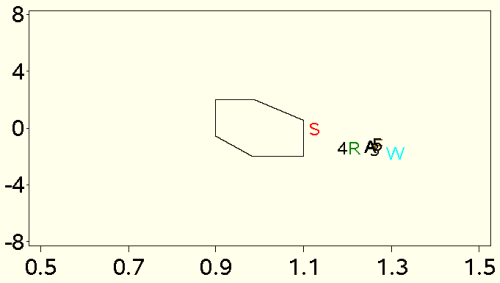
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

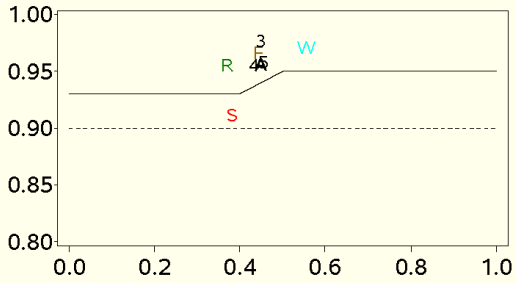


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**496**	**9.4**	**10.7**	**1.14**
Winter	109	10.1	11.8	1.16
Spring	117	9.4	10.3	1.09
Summer	122	9.1	10.5	1.15
Fall	148	9.0	10.5	1.16
2023	50	9.6	10.9	1.13
2024	118	9.2	9.9	1.07
2025	328	9.4	11.0	1.17

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**496**	**13.8**	**495**	**13.8**
Winter	109	15.4	108	15.3
Spring	117	8.7	117	8.7
Summer	122	15.3	122	15.3
Fall	148	15.4	148	15.4
2023	50	12.7	50	12.7
2024	118	5.8	118	5.8
2025	328	16.8	327	16.8

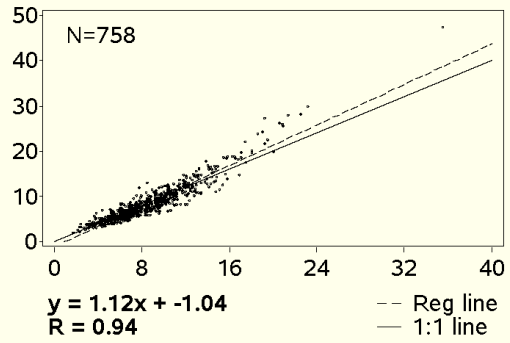
Based on 2024 Appendix A revision
Generated: March 24, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

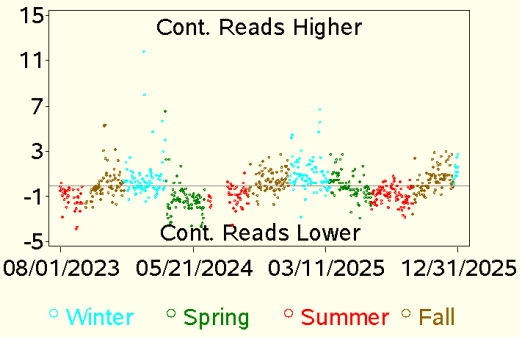
Site 13-051-1002: Savannah, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

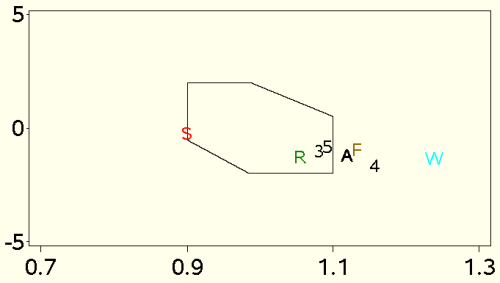
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

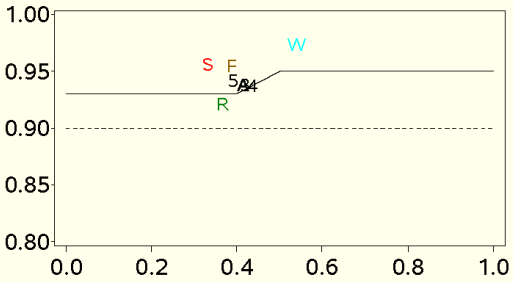


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**758**	**8.5**	**8.4**	**0.99**
Winter	183	8.4	9.2	1.10
Spring	166	8.4	7.8	0.93
Summer	174	8.7	7.8	0.89
Fall	235	8.3	8.7	1.04
2023	121	8.6	8.4	0.98
2024	299	8.4	8.2	0.98
2025	338	8.4	8.6	1.02

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**758**	**-0.8**	**756**	**-0.8**
Winter	183	8.6	183	8.6
Spring	166	-7.4	166	-7.4
Summer	174	-11	173	-11
Fall	235	3.7	234	3.7
2023	121	-2.2	120	-2.3
2024	299	-2.6	298	-2.6
2025	338	1.3	338	1.3

Includes all data
Data Source: EPA AQS Data Mart

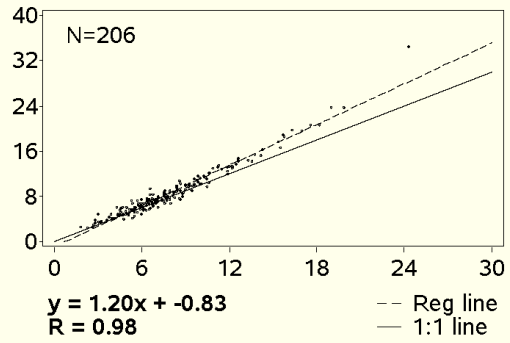
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

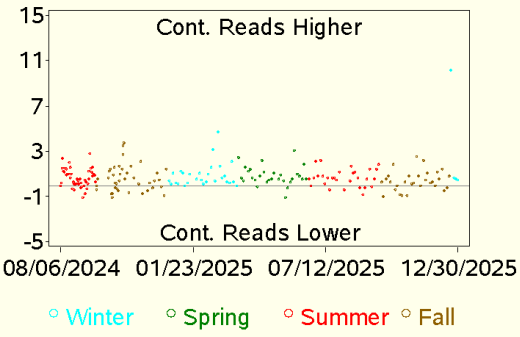
Site 13-069-0002: Not in a City, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

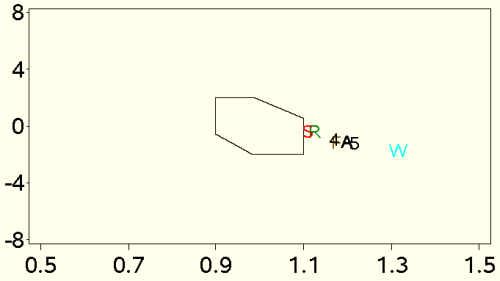
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

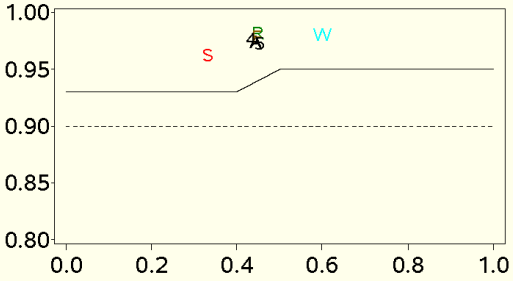


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**206**	**7.9**	**8.6**	**1.09**
Winter	32	8.2	9.3	1.14
Spring	29	8.1	8.9	1.11
Summer	75	7.4	8.1	1.09
Fall	70	8.1	8.7	1.06
2023	0	.	.	.
2024	89	7.7	8.4	1.08
2025	117	8.0	8.8	1.10

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**206**	**8.0**	**205**	**8.0**
Winter	32	11.8	32	11.8
Spring	29	10.0	29	10.0
Summer	75	8.0	75	8.0
Fall	70	5.5	69	5.3
2023	0	.	.	.
2024	89	7.0	89	7.0
2025	117	8.8	116	8.7

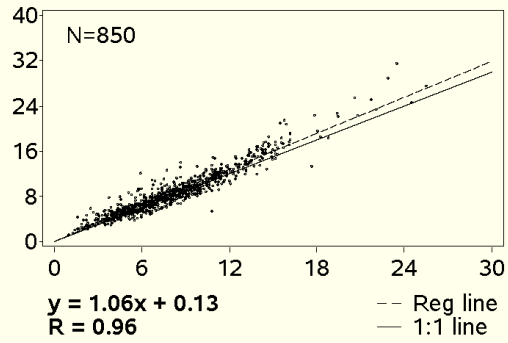
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

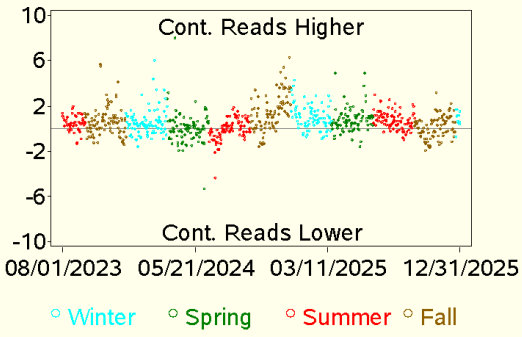
Site 13-089-0002: Not in a City, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1,2
Cont: Teledyne T640X at 16.67 LPM w/Network Data Alignment enabled - Broadband spectroscopy (638), PM2.5 - Local Conditions (88101), POC

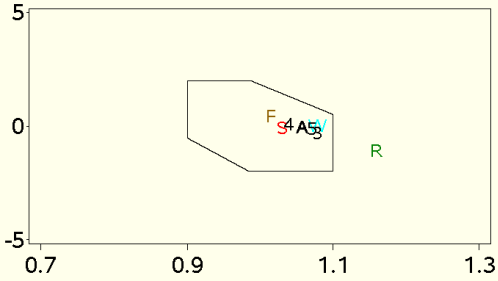
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

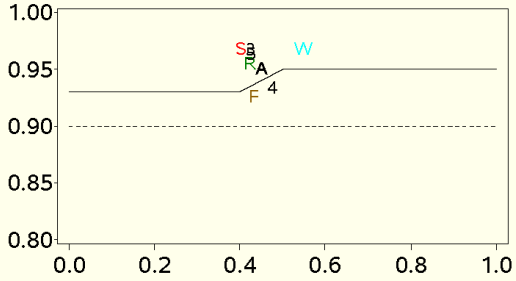


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**850**	**8.2**	**8.8**	**1.07**
Winter	182	7.5	8.3	1.10
Spring	175	8.2	8.7	1.05
Summer	225	8.9	9.3	1.04
Fall	268	8.0	8.8	1.09
2023	149	9.2	9.8	1.07
2024	353	8.0	8.6	1.07
2025	348	7.9	8.6	1.08

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N	Bias (all observations)	N	Bias (only >= 2 ug/m^3)
AllData	**850**	**7.4**	**838**	**7.2**
Winter	182	10.2	176	10.1
Spring	175	4.6	175	4.6
Summer	225	4.4	225	4.4
Fall	268	9.8	262	9.4
2023	149	6.8	148	6.7
2024	353	7.4	344	7.0
2025	348	7.6	346	7.5

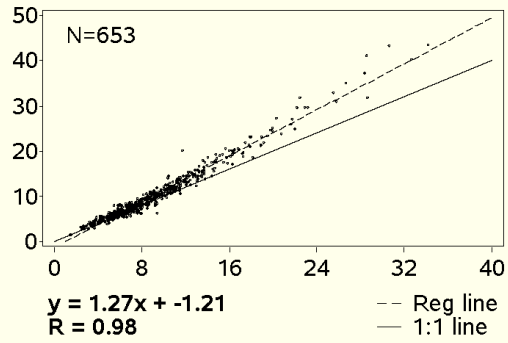
Based on 2024 Appendix A revision
Generated: April 7, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

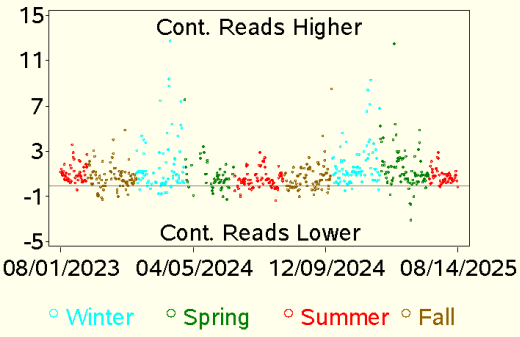
Site 13-095-0007: Albany, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1,2
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

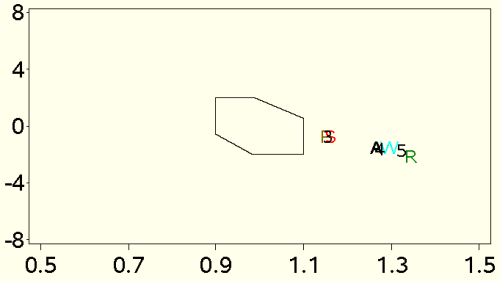
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

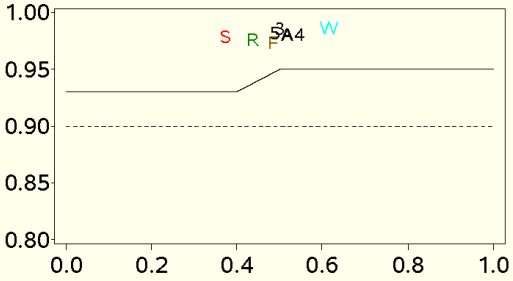


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**653**	**8.7**	**9.8**	**1.13**
Winter	163	10.2	12.0	1.17
Spring	144	8.9	10.2	1.14
Summer	182	7.7	8.5	1.10
Fall	164	8.2	9.0	1.09
2023	144	8.7	9.7	1.11
2024	292	8.6	9.5	1.11
2025	217	9.0	10.4	1.16

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**653**	**11.2**	**651**	**11.2**
Winter	163	16.3	162	16.3
Spring	144	12.2	144	12.2
Summer	182	8.8	182	8.8
Fall	164	8.1	163	8.1
2023	144	9.8	143	9.8
2024	292	9.5	291	9.5
2025	217	14.5	217	14.5

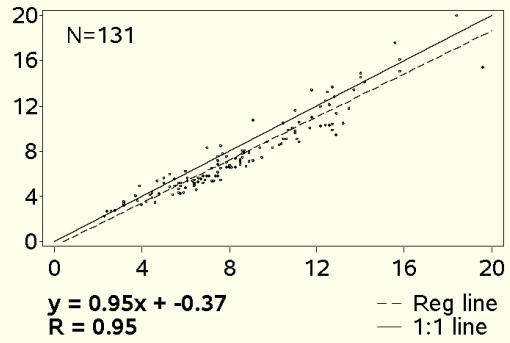
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

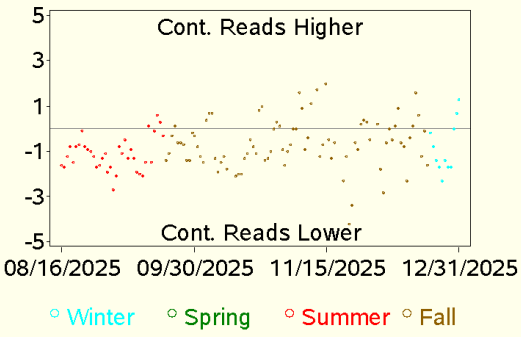
Site 13-095-0007: Albany, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1,2
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), Acceptable PM2.5 AQI & Speciation Mass (

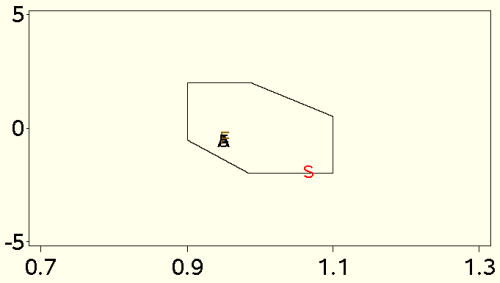
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

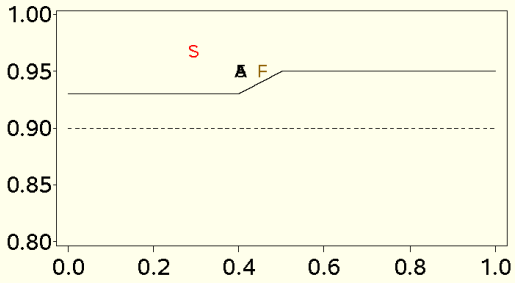


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**131**	**8.4**	**7.7**	**0.91**
Winter	11	9.2	8.4	0.91
Spring	0	.	.	.
Summer	36	9.3	8.1	0.88
Fall	84	8.0	7.4	0.92
2023	0	.	.	.
2024	0	.	.	.
2025	131	8.4	7.7	0.91

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**131**	**-8.9**	**131**	**-8.9**
Winter	11	-7.9	11	-7.9
Spring	0	.	.	.
Summer	36	-13	36	-13
Fall	84	-7.4	84	-7.4
2023	0	.	.	.
2024	0	.	.	.
2025	131	-8.9	131	-8.9

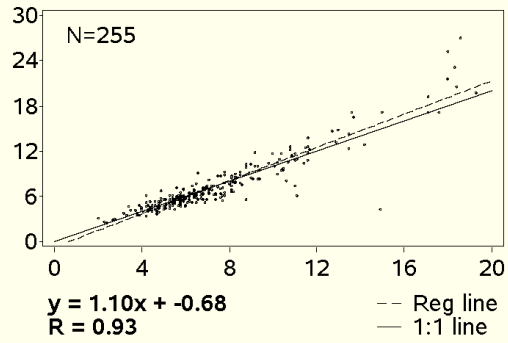
Based on 2024 Appendix A revision
Generated: April 7, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

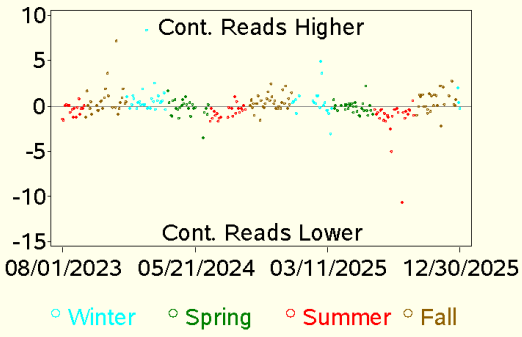
Site 13-127-0006: Brunswick, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

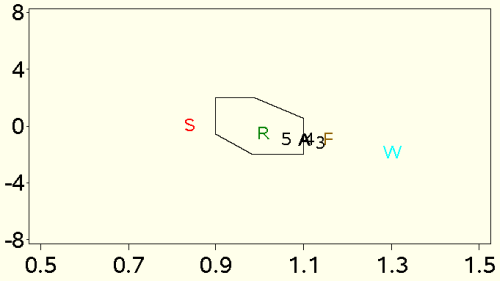
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

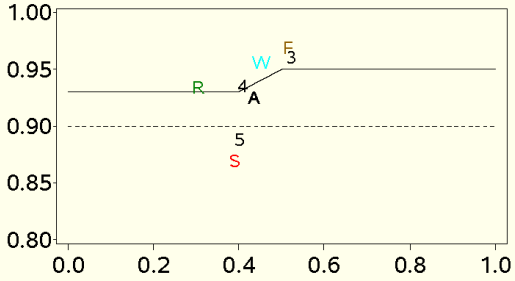


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**255**	**7.4**	**7.5**	**1.01**
Winter	50	7.4	8.0	1.09
Spring	55	7.1	7.0	0.98
Summer	66	7.6	6.7	0.89
Fall	84	7.4	8.0	1.07
2023	45	8.0	8.3	1.03
2024	109	7.1	7.2	1.03
2025	101	7.5	7.3	0.98

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**255**	**0.4**	**255**	**0.4**
Winter	50	7.1	50	7.1
Spring	55	-1.8	55	-1.8
Summer	66	-9.9	66	-9.9
Fall	84	6.0	84	6.0
2023	45	2.3	45	2.3
2024	109	2.0	109	2.0
2025	101	-2.1	101	-2.1

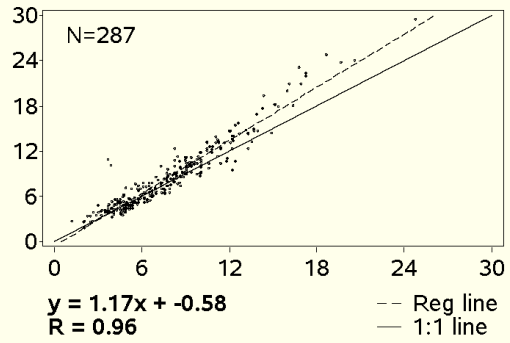
Based on 2024 Appendix A revision
Generated: April 7, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

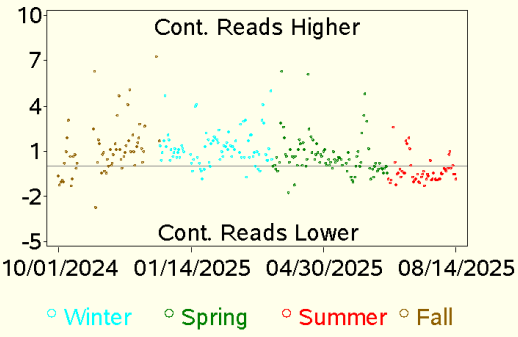
Site 13-135-0002: Not in a City, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

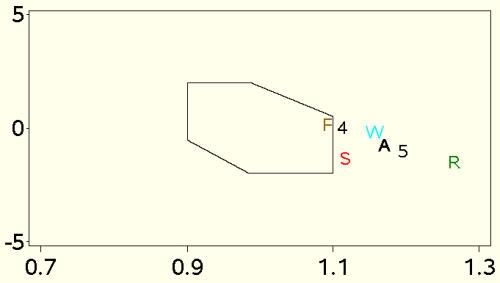
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

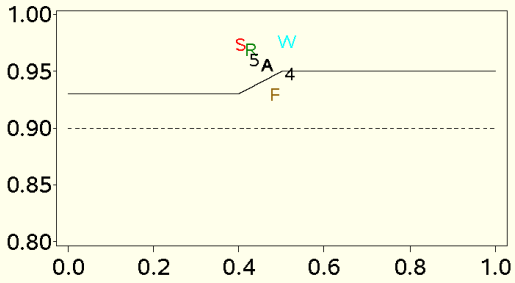


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**287**	**7.9**	**8.7**	**1.10**
Winter	84	8.0	9.2	1.16
Spring	89	7.6	8.3	1.09
Summer	54	7.6	7.3	0.96
Fall	60	8.5	9.6	1.13
2023	0	.	.	.
2024	71	8.7	9.9	1.14
2025	216	7.6	8.3	1.08

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**287**	**8.7**	**285**	**8.6**
Winter	84	15.2	83	14.8
Spring	89	7.2	89	7.2
Summer	54	-4.4	53	-4.4
Fall	60	13.6	60	13.6
2023	0	.	.	.
2024	71	14.0	71	14.0
2025	216	7.0	214	6.8

Includes all data
Data Source: EPA AQS Data Mart

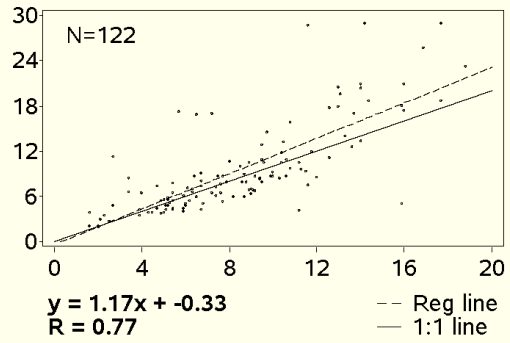
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

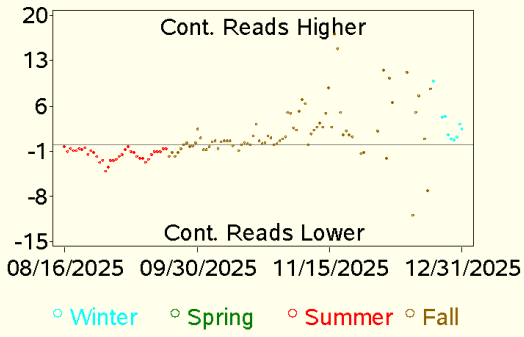
Site 13-135-0002: Not in a City, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), Acceptable PM2.5 AQI & Speciation Mass (

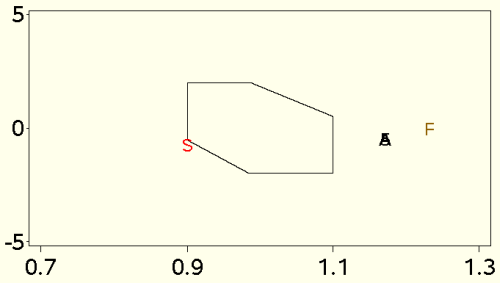
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

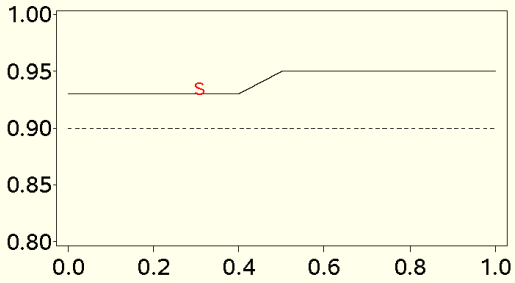


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**122**	**8.4**	**9.5**	**1.13**
Winter	9	9.3	12.5	1.34
Spring	0	.	.	.
Summer	36	8.4	7.0	0.83
Fall	77	8.3	10.4	1.25
2023	0	.	.	.
2024	0	.	.	.
2025	122	8.4	9.5	1.13

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**122**	**13.3**	**120**	**12.8**
Winter	9	38.9	9	38.9
Spring	0	.	.	.
Summer	36	-17	36	-17
Fall	77	24.2	75	23.9
2023	0	.	.	.
2024	0	.	.	.
2025	122	13.3	120	12.8

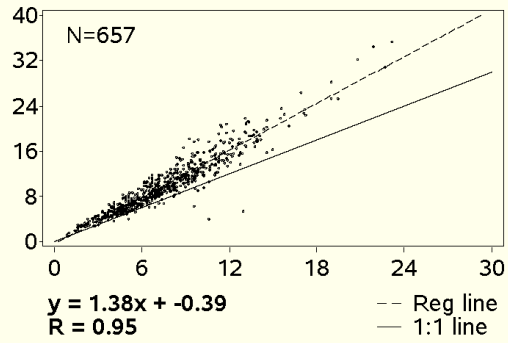
Based on 2024 Appendix A revision
Generated: March 24, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

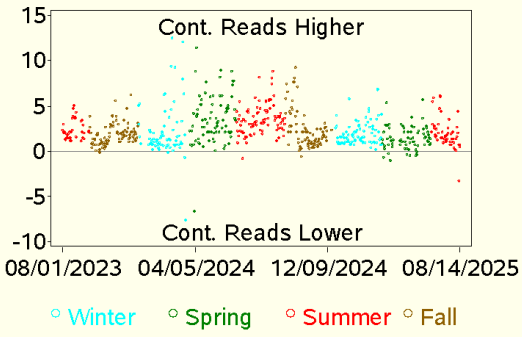
Site 13-139-0003: Gainesville, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

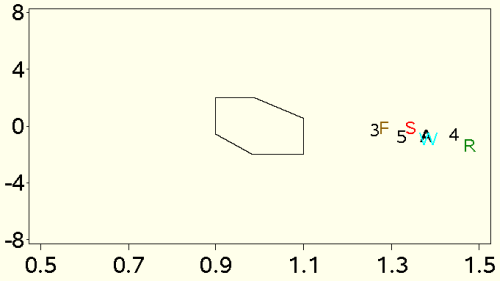
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

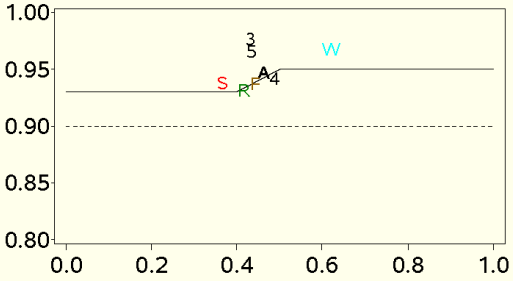


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**657**	**7.4**	**9.9**	**1.33**
Winter	156	7.1	9.2	1.30
Spring	155	7.6	10.2	1.34
Summer	180	7.9	10.8	1.36
Fall	166	7.2	9.3	1.30
2023	130	7.9	10.0	1.27
2024	323	7.5	10.4	1.39
2025	204	7.1	8.9	1.26

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**657**	**28.8**	**640**	**29.0**
Winter	156	25.0	146	25.2
Spring	155	29.6	153	29.7
Summer	180	33.4	180	33.4
Fall	166	26.7	161	26.9
2023	130	24.7	127	24.8
2024	323	34.6	313	35.0
2025	204	22.2	200	22.2

Includes all data
Data Source: EPA AQS Data Mart

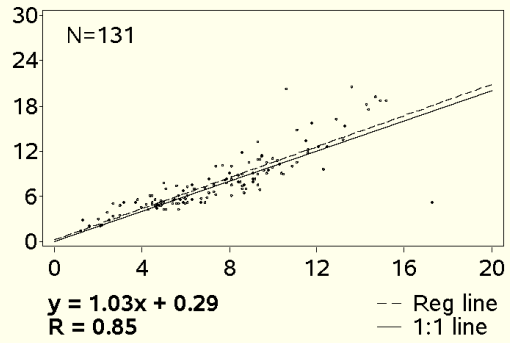
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

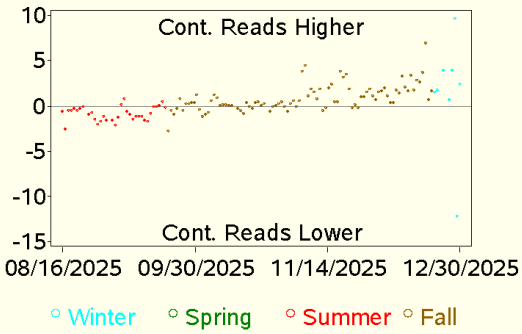
Site 13-139-0003: Gainesville, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), Acceptable PM2.5 AQI & Speciation Mass (

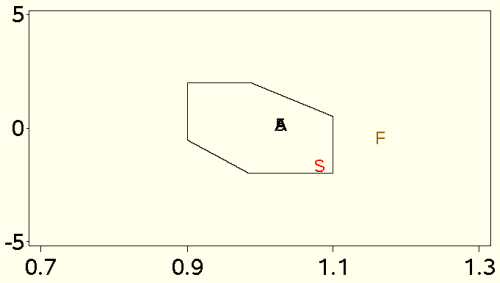
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

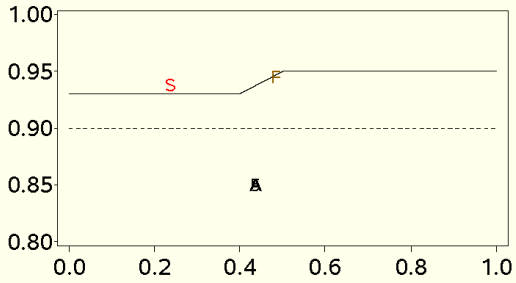


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**131**	**7.5**	**8.0**	**1.07**
Winter	8	9.4	10.9	1.16
Spring	0	.	.	.
Summer	34	8.4	7.6	0.90
Fall	89	7.0	8.0	1.13
2023	0	.	.	.
2024	0	.	.	.
2025	131	7.5	8.0	1.07

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**131**	**6.8**	**128**	**6.4**
Winter	8	24.1	8	24.1
Spring	0	.	.	.
Summer	34	-9.9	34	-9.9
Fall	89	11.6	86	11.2
2023	0	.	.	.
2024	0	.	.	.
2025	131	6.8	128	6.4

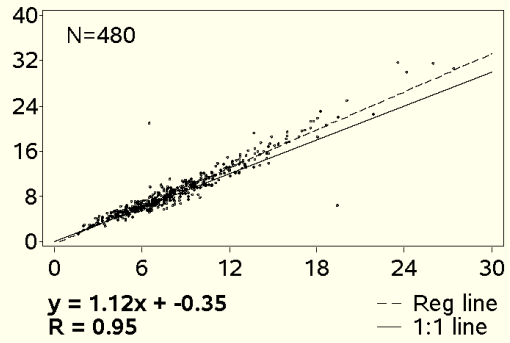
Based on 2024 Appendix A revision
Generated: March 24, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

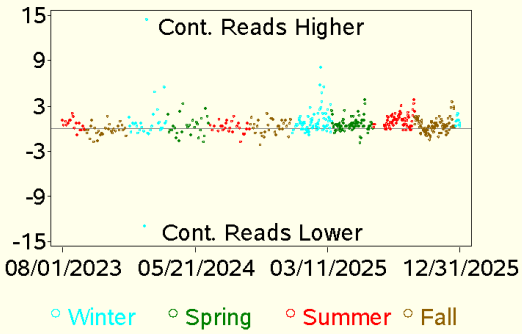
Site 13-153-0001: Warner Robins, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

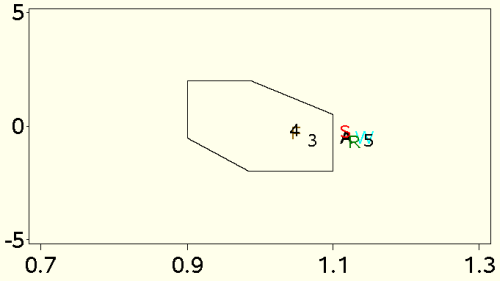
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

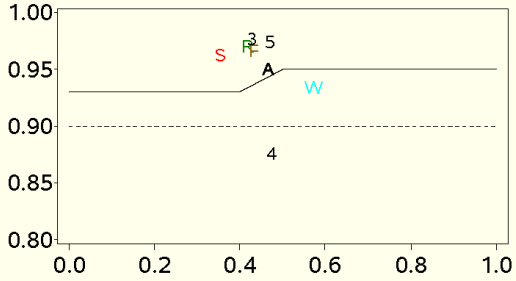


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**480**	**8.2**	**8.8**	**1.08**
Winter	111	9.2	10.2	1.11
Spring	109	8.0	8.5	1.06
Summer	112	7.7	8.6	1.11
Fall	148	7.9	8.2	1.04
2023	48	8.5	8.7	1.02
2024	114	8.0	8.4	1.05
2025	318	8.2	9.0	1.09

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**480**	**7.0**	**478**	**7.1**
Winter	111	10.2	109	10.5
Spring	109	5.6	109	5.6
Summer	112	10.0	112	10.0
Fall	148	3.4	148	3.4
2023	48	1.6	48	1.6
2024	114	4.6	112	4.7
2025	318	8.7	318	8.7

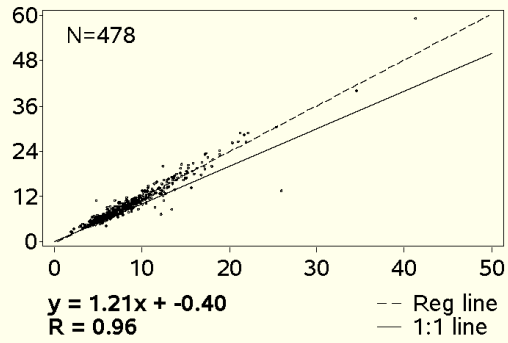
Based on 2024 Appendix A revision
Generated: April 7, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

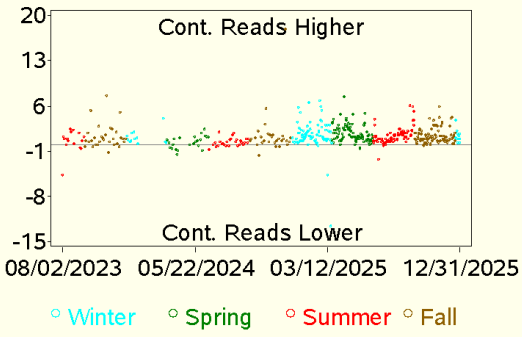
Site 13-185-0003: Valdosta, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

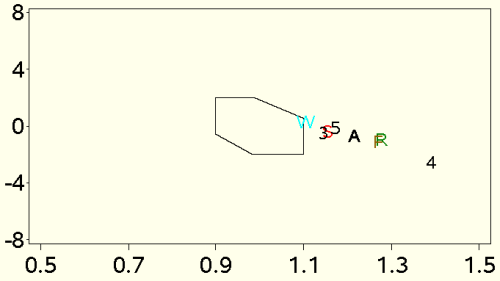
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

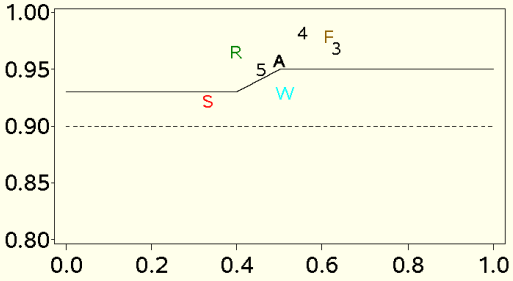


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**478**	**8.4**	**9.8**	**1.17**
Winter	100	9.3	10.8	1.16
Spring	114	7.9	9.4	1.19
Summer	118	8.0	9.1	1.14
Fall	146	8.5	10.0	1.17
2023	49	8.9	10.0	1.12
2024	92	8.1	9.0	1.11
2025	337	8.4	10.0	1.19

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**478**	**15.6**	**477**	**15.6**
Winter	100	16.6	100	16.6
Spring	114	17.3	114	17.3
Summer	118	12.9	118	12.9
Fall	146	15.7	145	15.7
2023	49	11.7	49	11.7
2024	92	8.9	92	8.9
2025	337	18.0	336	18.0

Includes all data
Data Source: EPA AQS Data Mart

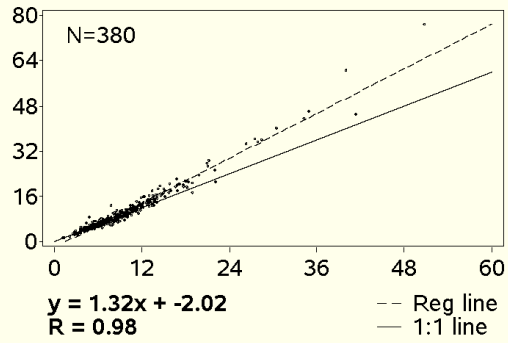
Based on 2024 Appendix A revision
Generated: March 24, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

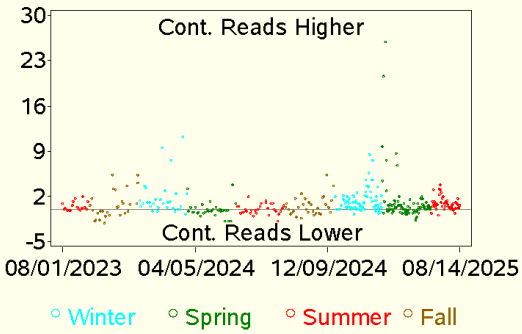
Site 13-215-0012: Columbus, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

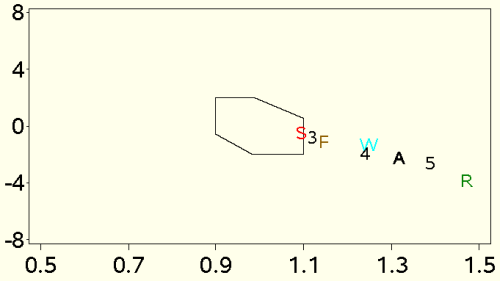
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

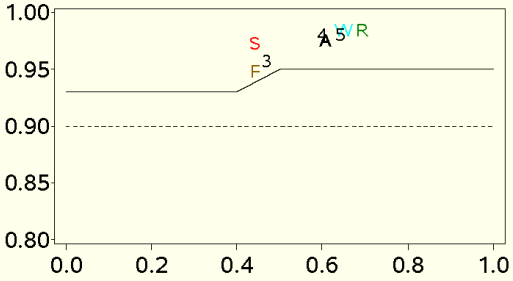


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**380**	**9.5**	**10.5**	**1.10**
Winter	105	10.4	12.0	1.15
Spring	117	9.5	10.5	1.10
Summer	99	8.2	8.8	1.07
Fall	59	10.0	10.7	1.07
2023	48	10.0	10.7	1.07
2024	120	9.7	10.3	1.07
2025	212	9.3	10.5	1.13

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**380**	**8.6**	**377**	**8.6**
Winter	105	14.3	103	14.4
Spring	117	6.3	117	6.3
Summer	99	6.6	99	6.6
Fall	59	6.3	58	6.4
2023	48	6.5	47	6.7
2024	120	5.1	118	5.0
2025	212	11.0	212	11.0

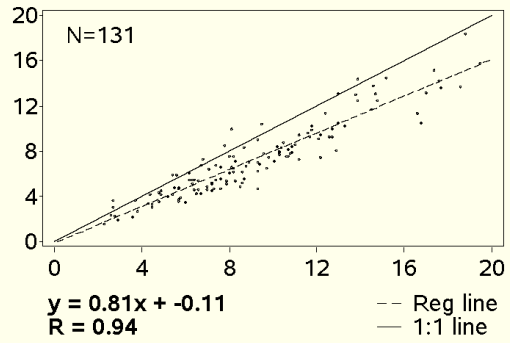
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

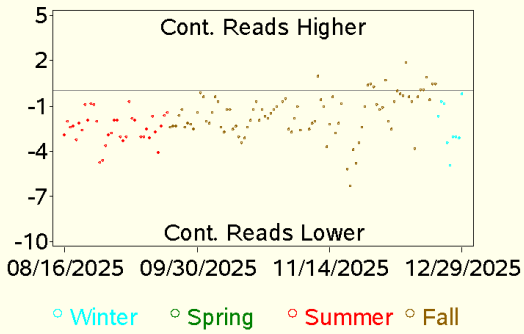
Site 13-215-0012: Columbus, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), Acceptable PM2.5 AQI & Speciation Mass (

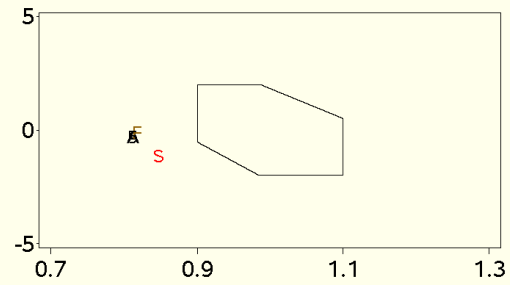
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

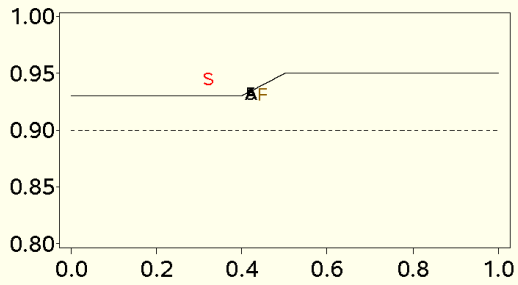


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**131**	**9.1**	**7.3**	**0.80**
Winter	9	11.4	9.1	0.80
Spring	0	.	.	.
Summer	35	9.5	7.1	0.74
Fall	87	8.7	7.2	0.82
2023	0	.	.	.
2024	0	.	.	.
2025	131	9.1	7.3	0.80

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**131**	**-20**	**129**	**-20**
Winter	9	-22	9	-22
Spring	0	.	.	.
Summer	35	-27	35	-27
Fall	87	-17	85	-17
2023	0	.	.	.
2024	0	.	.	.
2025	131	-20	129	-20

Includes all data
Data Source: EPA AQS Data Mart

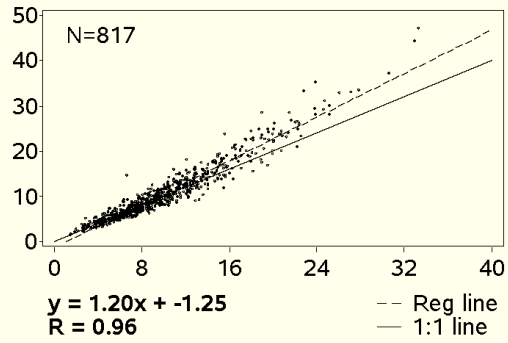
Based on 2024 Appendix A revision
Generated: March 24, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

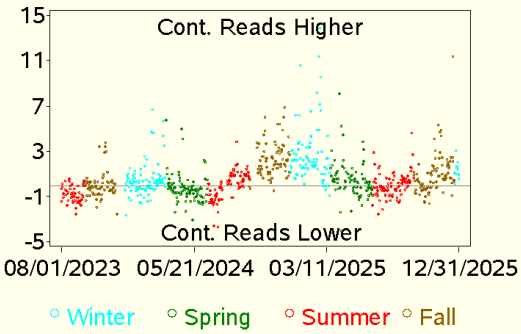
Site 13-245-0091: Augusta, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (120,145), PM2.5 - Local Conditions (88101), POC=1,2
Cont: Teledyne T640X at 16.67 LPM w/Network Data Alignment enabled - Broadband spectroscopy (638), PM2.5 - Local Conditions (88101), POC

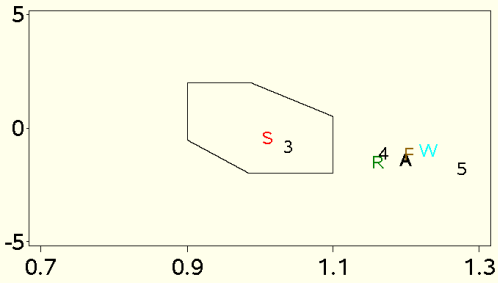
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

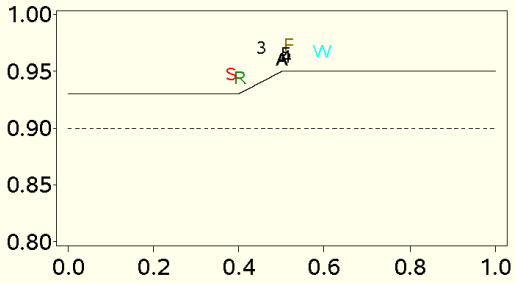


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**817**	**9.6**	**10.3**	**1.07**
Winter	187	10.3	11.9	1.15
Spring	171	8.8	9.0	1.01
Summer	220	8.9	8.8	0.98
Fall	239	10.3	11.4	1.11
2023	130	9.7	9.4	0.97
2024	337	9.5	10.2	1.07
2025	350	9.7	10.7	1.11

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**817**	**6.1**	**813**	**6.1**
Winter	187	14.9	185	14.9
Spring	171	0.6	171	0.6
Summer	220	-1.8	220	-1.8
Fall	239	10.4	237	10.4
2023	130	-3.2	130	-3.2
2024	337	6.2	335	6.2
2025	350	9.4	348	9.4

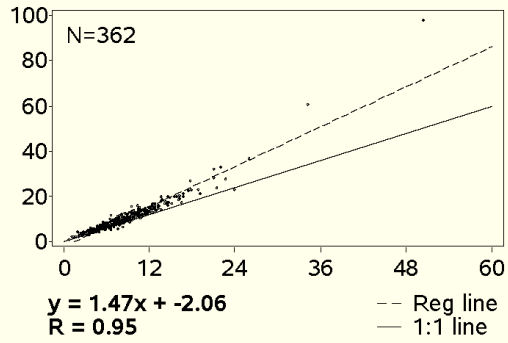
Based on 2024 Appendix A revision
Generated: March 24, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

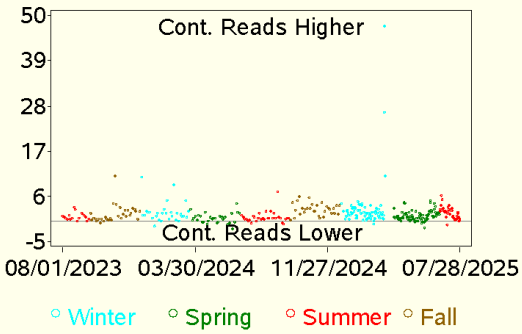
Site 13-295-0004: Rossville, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

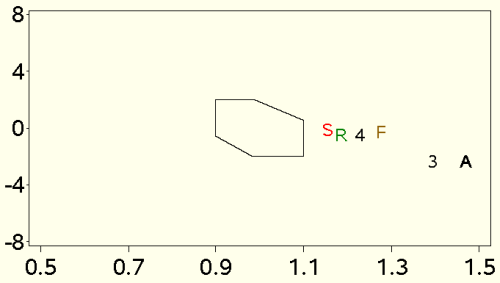
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

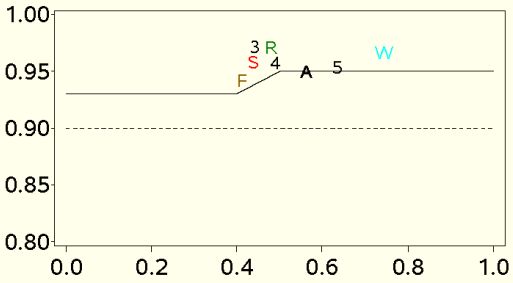


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**362**	**8.6**	**10.6**	**1.23**
Winter	103	9.1	12.0	1.32
Spring	114	7.8	9.0	1.16
Summer	83	9.0	10.5	1.17
Fall	62	8.6	11.0	1.28
2023	50	9.7	11.5	1.19
2024	120	8.4	10.1	1.20
2025	192	8.4	10.6	1.26

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**362**	**20.9**	**358**	**20.9**
Winter	103	27.8	101	27.9
Spring	114	14.5	113	14.5
Summer	83	16.6	83	16.6
Fall	62	27.1	61	27.2
2023	50	17.8	50	17.8
2024	120	19.3	118	19.4
2025	192	22.8	190	22.7

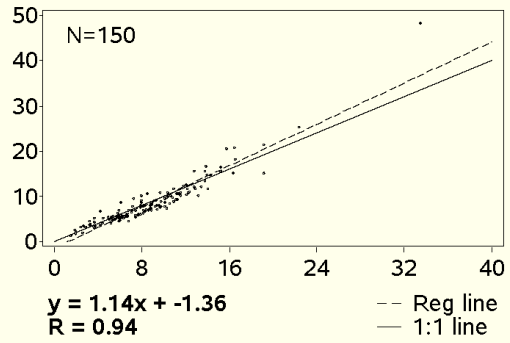
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

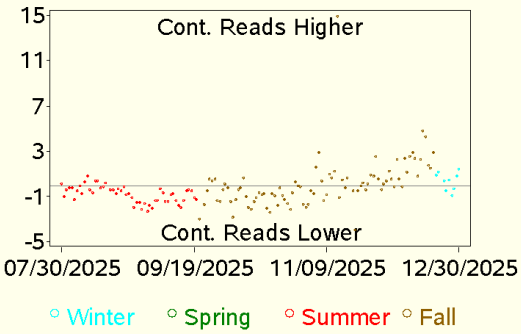
Site 13-295-0004: Rossville, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), Acceptable PM2.5 AQI & Speciation Mass (

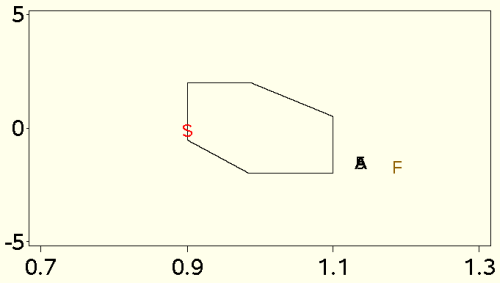
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

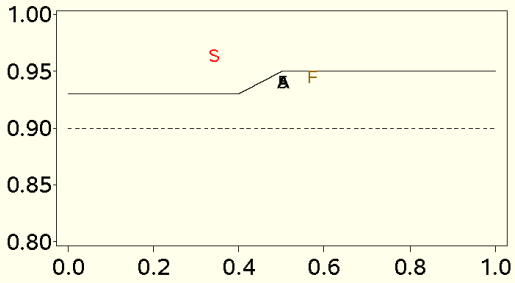


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**150**	**8.6**	**8.5**	**0.98**
Winter	9	8.7	9.0	1.04
Spring	0	.	.	.
Summer	52	8.3	7.5	0.91
Fall	89	8.8	9.0	1.02
2023	0	.	.	.
2024	0	.	.	.
2025	150	8.6	8.5	0.98

Includes all data
Data Source: EPA AQS Data Mart

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**150**	**-2.1**	**147**	**-2.3**
Winter	9	6.8	8	5.2
Spring	0	.	.	.
Summer	52	-8.7	52	-8.7
Fall	89	0.9	87	0.9
2023	0	.	.	.
2024	0	.	.	.
2025	150	-2.1	147	-2.3

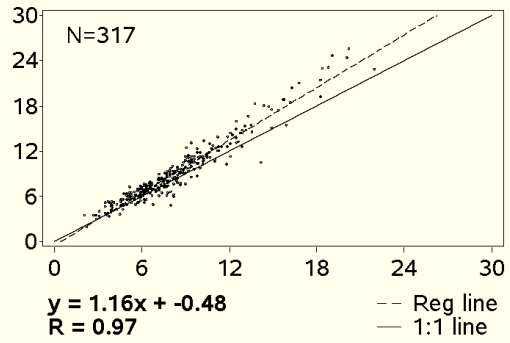
Based on 2024 Appendix A revision
Generated: March 24, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

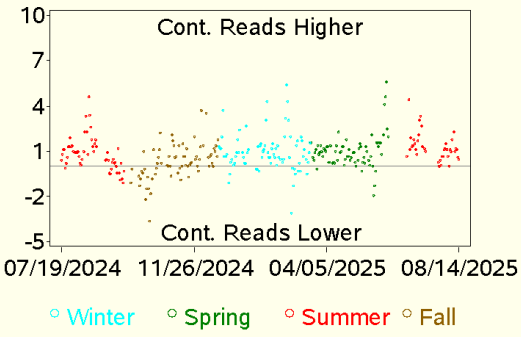
Site 13-303-0001: Sandersville, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (119,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), PM2.5 - Local Conditions (88101), POC=3

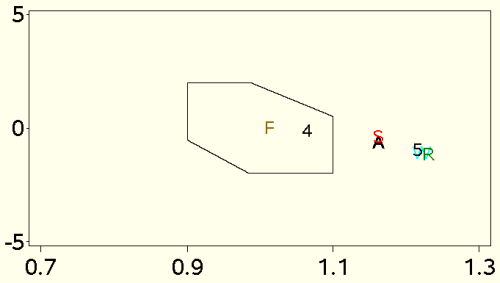
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

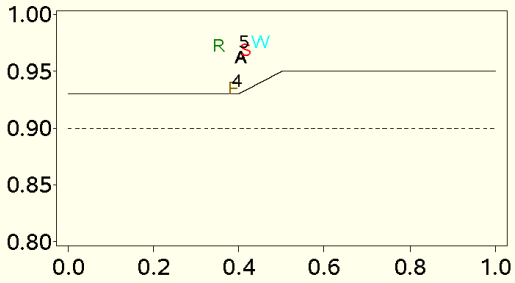


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**317**	**8.2**	**9.1**	**1.10**
Winter	80	8.5	9.4	1.11
Spring	73	8.6	9.6	1.12
Summer	94	7.8	8.8	1.13
Fall	70	8.3	8.6	1.04
2023	0	.	.	.
2024	136	7.9	8.5	1.07
2025	181	8.5	9.5	1.12

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**317**	**9.5**	**317**	**9.5**
Winter	80	10.3	80	10.3
Spring	73	11.0	73	11.0
Summer	94	12.1	94	12.1
Fall	70	3.8	70	3.8
2023	0	.	.	.
2024	136	6.9	136	6.9
2025	181	11.5	181	11.5

Includes all data
Data Source: EPA AQS Data Mart

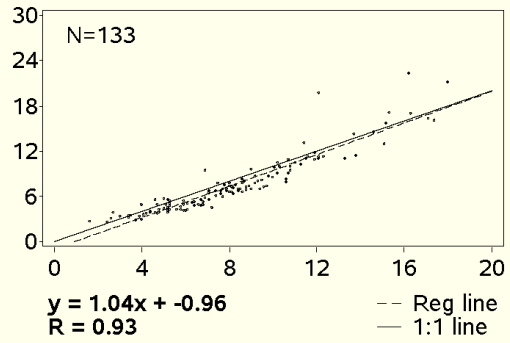
Based on 2024 Appendix A revision
Generated: April 10, 2026

$PM_{2.5}$ Continuous Monitor Comparability Assessment

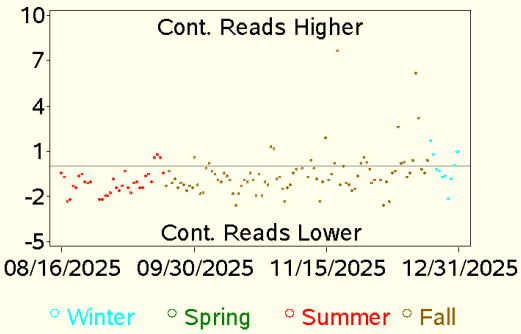
Site 13-303-0001: Sandersville, GA

FRM: R & P Model 2025 PM-2.5 Sequential Air Sampler w/VSCC - Gravimetric (119,145), PM2.5 - Local Conditions (88101), POC=1
Cont: Teledyne T640 at 5.0 LPM w/Network Data Alignment enabled - Broadband spectroscopy (636), Acceptable PM2.5 AQI & Speciation Mass (

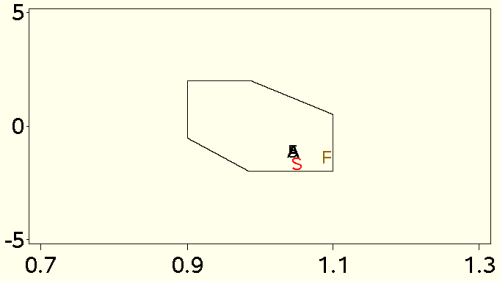
Cont. (y) vs. FRM (x) ($\mu g/m^3$)



Cont. minus FRM ($\mu g/m^3$)

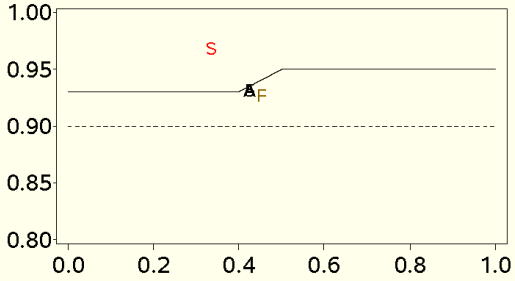


Additive (y) vs. Multiplicative (x) Bias



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

R (y) vs. FRM CCV (x)



A=AllData, 3=2023, 4=2024, 5=2025
W=Winter, R=Spring, S=Summer, F=Fall

Mean Concentration ($\mu g/m^3$)

Dataset	N	FRM	Cont	Ratio (Cont/FRM)
AllData	**133**	**8.1**	**7.5**	**0.93**
Winter	11	8.6	8.6	1.00
Spring	0	.	.	.
Summer	34	9.0	8.0	0.88
Fall	88	7.6	7.1	0.93
2023	0	.	.	.
2024	0	.	.	.
2025	133	8.1	7.5	0.93

Appendix A Statistics

Dataset	N (all observations)	Bias	N (only >= 2 ug/m^3)	Bias
AllData	**133**	**-7.3**	**132**	**-7.6**
Winter	11	1.6	11	1.6
Spring	0	.	.	.
Summer	34	-12	34	-12
Fall	88	-6.5	87	-6.9
2023	0	.	.	.
2024	0	.	.	.
2025	133	-7.3	132	-7.6

Includes all data
Data Source: EPA AQS Data Mart

Based on 2024 Appendix A revision
Generated: March 24, 2026

Appendix G: Comments

Georgia Department of Natural Resources
Environmental Protection Division

The *2026 Ambient Air Monitoring Plan* was available for public comment from May 18, 2026 through June 17, 2026. During this time, GA AAMP received the updated MOA between GA AAMP and Chattanooga, TN and added this information to Section 1.3 and Appendix E. Also, a typo was noticed in Table 5 on page 94, with the sampling frequency for the General Coffee (13-069-0002) $PM_{2.5}$ FRM monitor needing to be edited from daily to every 3 days. At the request of EPA, statements were added to the Introduction section regarding the Macon-Allied site (13-021-0007) and General Coffee site (13-069-0002) $PM_{2.5}$ T640 monitor start dates and these monitors not being comparable to the NAAQS. Additionally, the Southern Environmental Law Center (SELC) submitted the comments below. GA AAMP appreciates the comments, and the following text includes GA AAMP's responses to these comments.

Public Comments Received:

SOUTHERN ENVIRONMENTAL LAW CENTER

Ten 10th Street Northwest, Suite 1050
Atlanta, GA 30309

Telephone 404-521-9900
Facsimile 404-521-9909

June 15, 2026

Via Electronic Mail
Jaime Gore
Program Manager, Ambient Monitoring Program
Georgia Environmental Protection Division, Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, Georgia 30354
Jaime.Gore@dnr.ga.gov

SUBJECT: Comments Regarding Draft 2026 Ambient Air Monitoring Plan

Dear Program Manager Gore:

Southern Environmental Law Center respectfully submits the following comments regarding Georgia's Draft 2026 Ambient Air Monitoring Plan. We appreciate the Georgia Environmental Protection Division's ("Georgia EPD") work to design and operate Georgia's network of air pollution monitors. These monitors are a critical source of information regarding the state's air quality, and we appreciate the effort and dedication required to operate this equipment. The air pollution data these monitors collect is essential for Georgians to protect their health and to ensure that necessary pollution controls are implemented. To that end, we recommend the following two modifications to Georgia's Draft 2026 Ambient Air Monitoring Plan to ensure that appropriate information is available to inform these important decisions.

I. An Additional Ozone Monitor Should Be Added in Bartow County to Evaluate Plant Bowen's Impact on Atlanta Ozone Pollution.

One of the primary goals of air monitoring is to "determine the impact of significant sources or source categories on air quality."[1] By siting monitors "near major air pollution sources, source-oriented monitoring data can provide insight into how well industrial sources are controlling their pollutant emissions."[2]

The Atlanta region has struggled to attain the federal ozone standard for decades. Initially designated as a nonattainment area under the 2015 8-hour ozone standard, Atlanta's air quality improved and the area was redesignated as an attainment/maintenance area for ozone. Unfortunately, ozone pollution rebounded in recent years, and the Atlanta area is once again exceeding the 2015 8-hour ozone standard.

[1] 40 C.F.R. Pt. 58, Appx. D: Network Design Criteria for Ambient Air Quality Monitoring at Section 1.1.1 (c).
[2] *Id.* at Section 1.1(b).

The largest point source of NOx emissions in the Atlanta nonattainment area is Georgia Power's Plant Bowen, located in Bartow County.[3] Georgia EPD has recognized Plant Bowen's outsized role on ozone pollution in the region and its impact on downwind monitors. For example, back trajectory analysis shows that NOx emissions from Bartow County – primarily Plant Bowen –impacted the ozone levels at downwind monitors across the metro Atlanta area, including those in Fulton, Henry, and Dekalb Counties.[4] Source apportionment modeling for ozone pollution reached the same result.[5]

Yet Bartow County is one of the few counties in the seven-county Atlanta ozone nonattainment area without a State and Local Air Monitoring Station (SLAMS) for ozone. The closest ozone SLAMs monitor is located in Kennesaw, GA, approximately twenty miles away. The lack of an ozone monitor in closer proximity to the region's largest stationary source of ozone pollution is a significant gap in Georgia's air monitoring network. This gap impedes Georgia EPD's ability to "determine the impact of significant sources or source categories on air quality" as prescribed by EPA regulations.[6] The lack of more proximate data regarding Plant Bowen's ozone pollution is particularly important given efforts to expand the facility despite Atlanta's ongoing failure to attain the federal ozone standard.

Georgia EPD should install an ozone SLAMS monitor in Bartow County to better support and inform its regulation of ozone pollution in metro-Atlanta region.

II. Monitor Capabilities Should Be Integrated to Understand the Impact of Wildfire and Prescribed Fire Smoke on Georgia's Air Quality.

Smoke from wildfires and prescribed fires pollutes Georgia's air with increasing frequency. As recently as April 2026, wildfires in southern Georgia impacted the air quality in Atlanta, Savannah, and other parts of the state.[7] Smoke from wildfires in Georgia, other states, and Canada have similarly affected our state's air quality in recent years. Likewise, smoke from prescribed fires and other open burning events are a significant source of air pollution throughout the state. Citing these events, Georgia EPD sought to exclude exceedances of federal air quality

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[3] Atlanta, Georgia Nonattainment Area Final Area Designations for the 2015 Ozone National Ambient Air Quality Standards Technical Support Document at 13. ("The largest major point source in the area, Georgia Power Company-Plant Bowen, which emits 7,062 tons NOx emissions, is located in Bartow County and the emissions from that facility account for 55 percent of Bartow County's total NOx emissions.").
[4] *Id.* at p. 28.
[5] *Id.* at Figure 11.
[6] 40 C.F.R. Pt. 58, Appx. D: Network Design Criteria for Ambient Air Quality Monitoring at Section 1.1.1 (c).
[7] Smoke From Wildfires Spreads In Georgia, Press Release, Georgia Department of Public Health (April 22, 2026), https://dph.georgia.gov/press-releases/2026-04-22/smoke-wildfires-spreads-georgia.

standards from regulatory consideration under the Clean Air Act's "exceptional events" provision.[8]

To exclude an exceedance as an exceptional event, the Clean Air Act requires a "clear causal connection" linking the event to the air quality exceedance.[9] Rather than considering data from a SLAMS monitor in isolation, EPA guidance instructs local air agencies to draw on the full range of air monitoring data available to support this causal connection in an exceptional event demonstration.

> While fires typically generate emissions of CO, NO, NO2, VOCs, PM10, and PM2.5, anthropogenic sources, such as industrial and vehicular combustion, also emit these pollutants. Therefore, the air agency should distinguish the difference in the non-event pollutant behavior (e.g., concentration, timing, ratios, and/or spatial patterns) from the behavior during the event impact to more clearly show that the emissions from the fire(s) affected the monitor(s). *Air agencies can use evidence from regulatory and non-regulatory (e.g., special purpose, emergency) monitors to support these analyses.*[10]

But Georgia EPD's exceptional event demonstrations have not relied on the full range of data and functionality afforded by Georgia's air monitoring network to define the precise timing and extent of smoke impacts on Georgia's air quality.

Specifically, Georgia EPD should better utilize the NCore, Photochemical Assessment Monitoring Station, and PM2.5 speciation monitors in its air monitoring network to discern the impact of smoke from wildfires and prescribed fires. For example, the purpose of photochemical assessment monitoring station monitors is to identify trends in ozone precursors.[11] NCore multipollutant monitors also support air pollution trend analysis, but track pollutants other than ozone precursors and record relevant data like ground-level wind speed and direction.[12] They are sited "away from direct emission sources that could substantially impact the ability to detect area-wide concentrations," so they can be better positioned to focus on smoke transported from longer distances rather than pollution from local sources.[13] PM2.5 speciation monitors can also assist by providing a more refined view of the precise types of PM2.5 recorded during an event, and whether that composition reflects smoke from wildfires or prescribed fires.

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[8] 42 U.S.C. § 7619 and https://epd.georgia.gov/air-protection-branch/air-branch-programs/planning-and-support-program/exceptional-event.
[9] 40 C.F.R. § 50.14(c)(3)(iv)(B).
[10] Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations, Environmental Protection Agency, EPA-457/B-16-001 (September 2016) at Section 3.5.2 (emphasis added).
[11] 40 C.F.R. Pt. 58, Appx. D: Network Design Criteria for Ambient Air Quality Monitoring at Section 5.
[12] 40 C.F.R. § Pt. 58, App. D Section 2(c).
[13] *Id.*

EPA guidance offers three specific examples of how data from these non-SLAMS monitors can be used in a more integrated fashion to identify smoke events and support appropriate exceptional event demonstrations. First, speciation data can compare the types of PM2.5 measured during an event to determine whether or not they are typical of wildfire/prescribed fire smoke.[14] Second, evaluating data across multiple monitors can help demonstrate that the event's spatial or diurnal profile is consistent with an influx of smoke and inconsistent with the trends normally experienced at those monitors.[15] Third, comparing pollutant ratios can help distinguish between smoke from wildfire/prescribed fire versus smoke from other sources.[16]

Consistent with EPA guidance, Georgia EPD should utilize the full range of data available across its entire air monitoring network to better define the impact of smoke from wildfires and prescribed fires on Georgia air quality. This integrated approach for identifying and supporting exceptional event demonstrations should be incorporated into Georgia's draft 2026 Ambient Air Monitoring Plan.

CONCLUSION

Thank you for your consideration of these comments and your work to protect Georgia's air quality.

Sincerely,

/s/ Brian L Gist
Brian L. Gist

cc via email: Air-General.Comments@dnr.ga.gov

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[14] Guidance on the Preparation of Exceptional Events Demonstrations for Wildfire Events that May Influence Ozone Concentrations, at Section 3.5.2. ("PM2.5 emissions from forest fires often contain elevated levels of organic carbon (OC) and occasionally are enriched in water soluble potassium (K) (Watson et al., 2001). Levoglucosan, a tracer molecule, is a constituent of smoke from biomass burning that can serve as an indicator for fire; PM10 from wood smoke is 14% or higher levoglucosan by mass (Jordan et al., 2006; Dennis et al., 2002). Co-located or nearby particle speciation data (OC, K, and/or levoglucosan) can be used to indicate fire impacts.")

[15] *Id.* ("The timing and spatial distribution of NO, NO2, and O3, shown with data from multiple monitoring sites. These pollutant concentrations may vary when influenced by a wildfire plume. Elevated levels that are widespread throughout a region, or are upwind of the urban area, may be due to impact of a fire plume. Peaks at locations and times different than those normally seen in an O3 episode can indicate fire plume impact.")

[16] *Id.* ("The ratio of CO and NOx emissions depends on their source; for agricultural burning it is about 10-20, for wildfire and prescribed wildland burning about 100 (Dennis et al., 2002), whereas for high-temperature fossil fuel combustion sources it is more like 4 (Chin et al., 1994). Thus, an unusually high CO/NOx ratio is consistent with fire impact. Similarly, the CO/PM10 emission ratio is 8-16 in fires, but 200-2000 for vehicles (Phuleria et al., 2005). Changes in CO and CO ratios might be difficult to discern in an area dominated by vehicular CO, however, as the fire signal may be small in comparison.")

Comment: I. An Additional Ozone Monitor Should Be Added in Bartow County to Evaluate Plant Bowen's Impact on Atlanta Ozone Pollution.

GA AAMP Response:
GA AAMP currently uses a comprehensive air quality monitoring network of approximately 33 monitoring stations spread across the state to help identify, track, and control air pollution in Georgia. Any action taken to modify or expand this vast air quality monitoring network requires prior approval from EPA through this Ambient Air Monitoring Plan. When the GA AAMP considers adding, moving, or removing a monitoring station, it determines the need for the station, where it should be located, and its characteristics based on federal guidelines (in 40 CFR Part 58 Appendix E available here). Even if GA AAMP determines that a change is needed, all changes are ultimately reviewed and approved by EPA before a station can be added, moved, or removed. The location of GA AAMP's current sites can be found in Appendix A of this document. GA AAMP currently exceeds the number of required ozone monitors in the Atlanta MSA (three) by operating eight ozone monitors in the Atlanta MSA, with the Kennesaw ozone monitor (AQS ID 130670003) being the closest to Bartow County. The Kennesaw monitor and other ozone monitors in the Atlanta MSA adequately capture the impacts of Plant Bowen and other significant sources on air quality; therefore, GA AAMP does not believe that an additional ozone monitor in Bartow County is necessary. The state of Georgia attained the 2015 ozone standard of 0.070 ppm with the 2018-2020 data. In 2022, EPA designated the Atlanta MSA as attainment for the 2015 ozone NAAQS.

Comment II. Monitor Capabilities Should Be Integrated to Understand the Impact of Wildfire and Prescribed Fire Smoke on Georgia's Air Quality.

GA AAMP Response:
Georgia EPD's exceptional events demonstrations submitted to EPA on September 19, 2025, and February 7, 2026, for the 2024 $PM_{2.5}$ NAAQS followed EPA regulations and guidance for identifying eligible days and presented sufficient evidence to support the approval of our exceptional events demonstrations. Each exceptional event demonstration submitted for approval fully addressed each of the elements required for an exceptional event demonstration required by 40 CFR 50.14. To date, EPA has concurred or deferred with five of the six areas requested, with the sixth area currently under review. Georgia EPD's demonstrations and EPA's concurrence letters can be found on the Exceptional Event page of the Georgia EPD website.

Each prescribed fire exception event demonstration contains integrated maps for each exceedance day and the day before. The maps include silviculture burn permits issued by the Georgia Forestry Commission, National Oceanic and Atmospheric Administration (NOAA) Hazard Mapping System (HMS) smoke plumes, and 24-hour $PM_{2.5}$ concentrations at the $PM_{2.5}$ monitor site and other nearby sites. Both maps contain Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) back trajectories for hourly measured $PM_{2.5}$ concentrations above 9.0 $\mu g/m^3$ on the exceedance day. Back-trajectories for 0:00 AM-9:59 AM EST are shown on the map for the previous day and back-trajectories for 10:00 AM-11:59 PM EST are shown on the map for the exceedance day. Also, Georgia EPD added HYSPLIT trajectories for two different starting heights (100-m and 500-m) for all prescribed fire exceptional event days to better understand the transport of smoke from prescribed fires. Finally, hourly $PM_{2.5}$ time series plots are shown for the

exceedance day and the day before to demonstrate the timing of fire emissions impacts on $PM_{2.5}$ concentrations at the monitor. In total, three lines of evidence supporting the clear causal relationship are presented in each map.

The additional data referenced by SELC could also be used to support the exceptional event demonstrations, where appropriate. However, the PAMS data is only collected at a single site and only during the months of June, July, and August; and the $PM_{2.5}$ speciation data is typically collected every 1-in-6 days, leaving many days without speciation data. Georgia EPD's exceptional event demonstrations prioritized the use of information that was available for all demonstration days across the entire state of Georgia.