



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

ENVIRONMENTAL PROTECTION DIVISION

Air Protection Branch
Ambient Monitoring Program

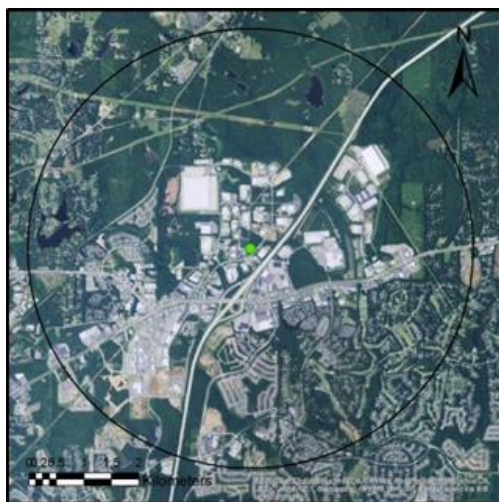
Addendum to 2018 Ambient Air Monitoring Plan

Per the Environmental Protection Agency regulations, the Georgia Ambient Air Monitoring Program (GA AAMP) produces an annual network monitoring plan to show how the ambient air monitoring requirements are met (40 CFR 58.10). If that plan is modified during the year after it is published, it is the state's responsibility to let the public know of those modifications. Since the publication of the 2018 Ambient Air Monitoring Plan in June 2018 the GA AAMP is in the process of making the following changes to the ambient air monitoring network.

Newnan:

Due to the property changing ownership, the Newnan site (13-077-0002) located within Coweta County in the Atlanta-Marietta-Roswell MSA was shut down as of November 15, 2017. The GA AAMP considered many factors regarding reestablishing the site, but decided against it. In accordance with 40 CFR 58.14 regarding discontinuation requests for State or Local Air Monitoring Stations (SLAMS), the GA AAMP provides the following documentation in support of terminating the Newnan ambient air monitoring site.

The following information shows site details and a list of parameters that were measured at the Newnan-University of West Georgia ambient air monitoring site. Ozone has been monitored at this site since 1999, and PM_{2.5} has been monitored since 2003.



AQS ID: 130770002

Address: Univ. of West GA, Newnan Campus, 7 Solar Circle, Newnan, Coweta County, Georgia 30265

Site Established: 5/5/99

Latitude/Longitude: N33.40389/W-84.74606

Elevation: 271 meters

Area Represented: Atlanta-Sandy Springs-Marietta MSA

Site History: Established as O₃ site



Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
O ₃	Population Exposure	Continuous (Mar-Oct)	4 m	Neighborhood	5/5/99
PM _{2.5}	Population Exposure	Continuous	4 m	Neighborhood	9/1/03
Wind Direction	General/ Background	Continuous	10 m	Neighborhood	1/1/04
Wind Speed	General/ Background	Continuous	10 m	Neighborhood	1/1/04

Within the Atlanta-Marietta-Roswell MSA, the GA AAMP had operated nine ozone monitors through 2017, and the EPA operated the CASTNET site, making a total of ten ozone monitors in the Atlanta-Marietta-Roswell MSA. According to 40 CFR 58, Appendix D, Table D-2 (see below), the Atlanta-Marietta-Roswell MSA is required to have three ozone monitors in place. Therefore, there were seven more ozone monitors than required to meet the federal regulations operating in the Atlanta-Marietta-Roswell MSA in 2017. In addition, as of June 2018, EPA designated a seven county area within the Atlanta-Marietta-Roswell MSA as non-attainment, and Coweta County is not part of the 2015 ozone non-attainment area (83FR25776).

Figure 1: SLAMS Minimum O₃ Monitoring Requirements

TABLE D-2 OF APPENDIX D TO PART 58— SLAMS MINIMUM O₃ MONITORING REQUIREMENTS

MSA population ^{1,2}	Most recent 3-year design value concentrations ≥85% of any O ₃ NAAQS ³	Most recent 3-year design value concentrations <85% of any O ₃ NAAQS ^{3,4}
>10 million	4	2
4-10 million	3	1
350,000-<4 million	2	1
50,000-<350,000 ⁵	1	0

¹Minimum monitoring requirements apply to the Metropolitan statistical area (MSA).

²Population based on latest available census figures.

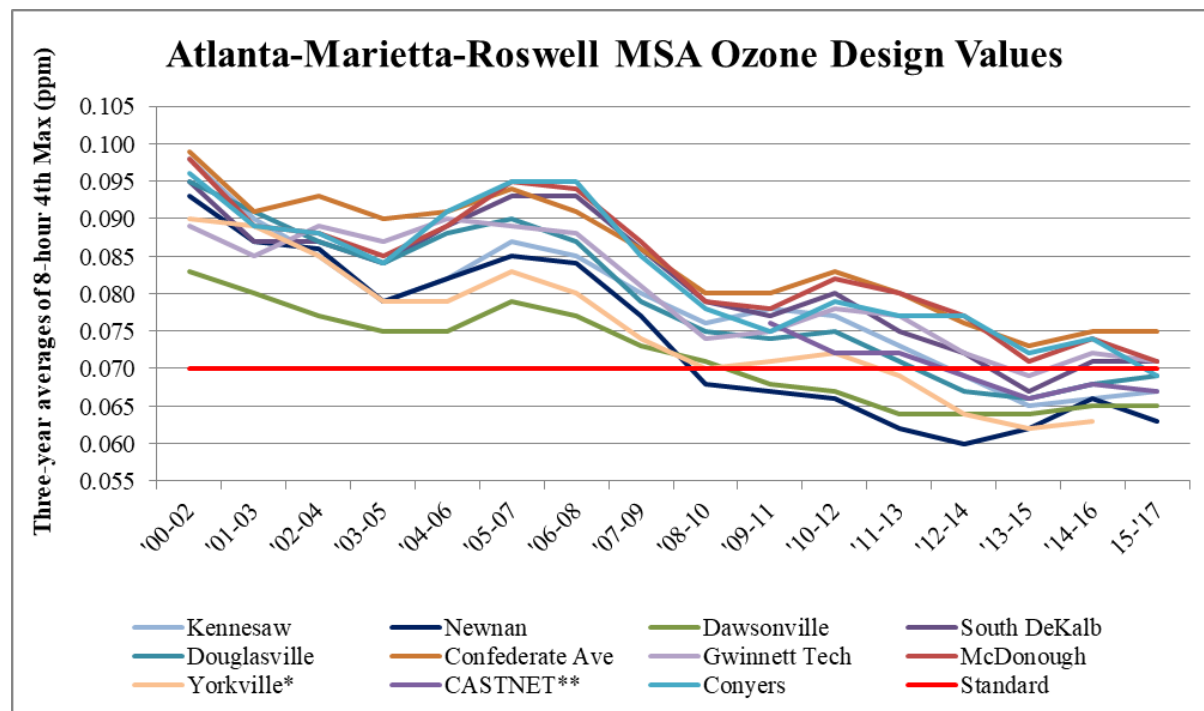
³The ozone (O₃) National Ambient Air Quality Standards (NAAQS) levels and forms are defined in 40 CFR part 50.

⁴These minimum monitoring requirements apply in the absence of a design value.

⁵Metropolitan statistical areas (MSA) must contain an urbanized area of 50,000 or more population.

In addition to operating several more ozone monitors than required by federal regulations, the 2015-2017 ozone design value for the Newnan site was 0.063 ppm, which was the lowest three-year average for the Atlanta-Marietta-Roswell MSA. The following graph shows the Newnan site ozone design values (dark blue line) well below the standards. Therefore, GA AAMP is discontinuing the site.

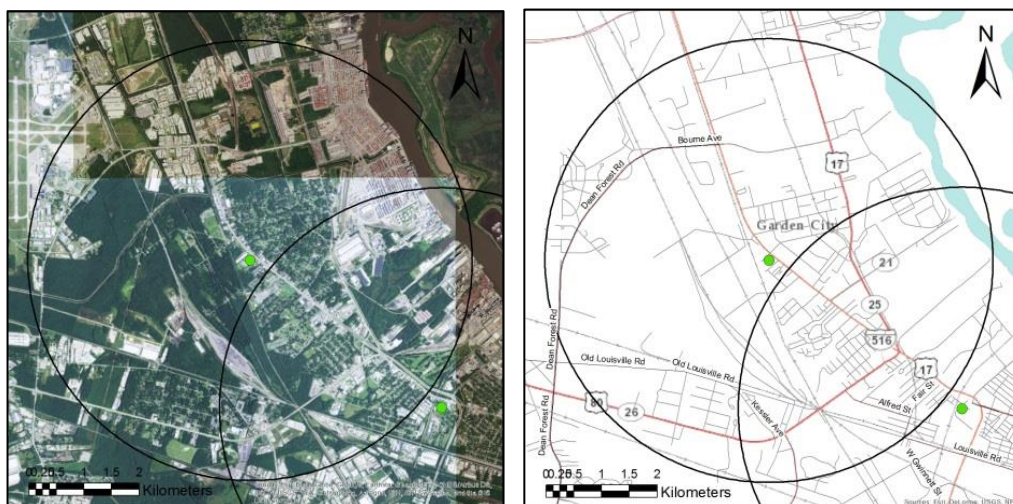
Figure 2: Atlanta-Marietta-Roswell MSA Ozone Design Values, 2000-2017



*Yorkville site shut down end of 2016
 **CASTNET site run by EPA

Savannah-Mercer:

In accordance with 40 CFR 58.14 regarding SLAMS discontinuation requests, the GA AAMP provides the subsequent documentation in support of terminating the Savannah-Mercer ambient air monitoring site. The GA AAMP will close the Savannah-Mercer site (13-051-0091), which collects PM_{2.5} data with a Partisol 2025, which is a federal reference method (FRM). This PM_{2.5} Partisol 2025 monitor is the sole monitor at the Savannah-Mercer site. In order to have sufficient coverage of the Savannah MSA and meet the EPA regulations, the GA AAMP will run a federal equivalent method (FEM) Teledyne T640 continuous PM_{2.5} monitor at the Savannah-L&A site (13-051-1002). This will be a better use of the GA AAMP’s resources, and the Savannah MSA will continue to have a regulatory PM_{2.5} monitor that can be used for attainment decisions. In addition, the Savannah-L&A site also monitors sulfur dioxide (SO₂), wind direction and wind speed. The information below shows the site details for both sites.



AQS ID: 130510091

Address: Mercer Middle School, 201 Rommel Avenue, Savannah, Chatham County, Georgia 31408

Site Established: 7/7/76

Latitude/Longitude: N32.1105/W-81.1620

Elevation: 9.8 meters

Area Represented: Savannah MSA

Site History: Established as TSP site

North

South

East

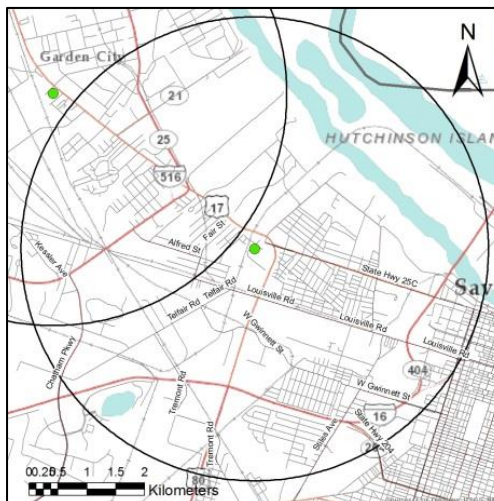
West



Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
PM _{2.5}	Population Exposure	Every 3 days	2.2 m	Neighborhood	1/1/99

GA AAMP’s plans for this site: Continue monitoring; GA AAMP may discontinue this monitor once confidence is gained in the FEM Teledyne T640 Continuous PM_{2.5} sampler established at the Savannah-L&A site.

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

East

West

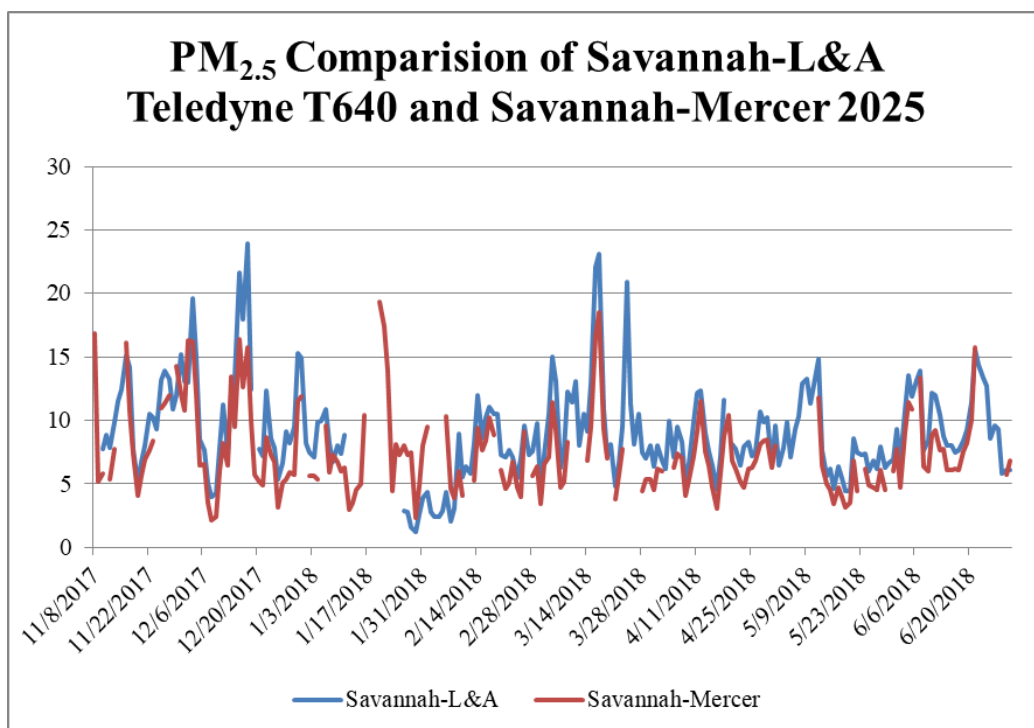


Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
SO ₂	Population Exposure	Continuous	4.1 m	Neighborhood	1/1/98
SO ₂ 5-Minute Maximum	Population Exposure	Continuous	4.1 m	Neighborhood	8/1/10
Wind Direction	General/ Background	Continuous	10 m	Neighborhood	1/1/79
Wind Speed	General/ Background	Continuous	10 m	Neighborhood	1/1/79
PM _{2.5}	Population Exposure	Continuous	4.5 m	Neighborhood	10/1/03

GA AAMP's plans for this site: Continue monitoring; propose to add an ozone monitor when initiated by EPA. On November 7, 2017 GA AAMP installed an FEM Teledyne T640 Continuous PM_{2.5} sampler to replace the TEOM PM_{2.5} sampler.

The GA AAMP has been evaluating correlations between the data collected with the two PM_{2.5} federal regulatory methods (Partisol 2025 and the Teledyne T640) at sites across the state, and has found very high correlations between these two types of monitors. The GA AAMP has determined that the Teledyne T640 will be a very efficient sampler to collect and represent PM_{2.5} data. Due to the nature of the continuous sampler, there will be less personnel time needed to collect the data. In addition, since the sampler collects data on a continuous basis, this increases the percentage of data capture. The T640 potentially collects data every hour, compared to the integrated PM_{2.5} 2025 sampler at the Savannah-Mercer site, which collects a 24-hour sample of data every three days. The following table is a summary of the correlations between the PM_{2.5} Partisol 2025 and the Teledyne T640 data, with various start dates for the Teledyne T640.

Figure 3: Comparison of PM_{2.5} Data



**Correlations between
PM_{2.5} 2025 and T640
samplers**

Augusta	0.97
Macon	0.76
Rossville	0.98
Gainesville	0.95
Gwinnett Tech	0.92
Savannah	0.87
Warner Robins	0.82
South DeKalb	0.95

Changing NO₂ Collection Method at NR-285 Site:

As of June 2018, the GA AAMP changed the collection method of nitrogen dioxide (NO₂) at the NR-285 site (13-089-0003). The GA AAMP changed from the Teledyne T200 to the Thermo 42i collection method.

Changing Analytical Laboratories:

As of January 1, 2019, the GA AAMP will no longer use the GA EPD Laboratory to conduct analysis of the collected PM_{2.5} and PM₁₀ filter based samples. The GA AAMP will begin using the InterMountain Laboratory (IML) to analyze the gravimetric PM_{2.5} and PM₁₀ data.

Changing Lead Collection Method:

In the upcoming year, the GA AAMP will change the collection method for lead (Pb) at the Columbus sites (13-215-0009, 13-215-0010, 13-215-0011). The GA AAMP will change from the Hi-Vol collection method to the Pb Low-Volume (PM₁₀) collection method.

Closing Air Toxics Network Monitors:

The GA AAMP will be closing the Air Toxics Network monitors at the Macon-Forestry site (13-021-0012), the Savannah-E. President's Street site (13-051-0021), and the General Coffee site (13-069-0002) by the end of 2018. This will include the volatile organic compounds (VOCs), semi-VOCs, metals and carbonyls monitors at these sites. These monitors are non-regulatory, and the data collected is not compared to the National Ambient Air Quality Standards (NAAQS). GA AAMP will continue to monitor for air toxics at the South DeKalb site (13-089-0002) as part of the National Air Toxics Trends Station (NATTS) network.