



RICHARD E. DUNN, DIRECTOR

AIR PROTECTION BRANCH
4244 INTERNATIONAL PARKWAY
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404-363-7000

March 12, 2018

**NOTICE OF THE OPPORTUNITY FOR PUBLIC COMMENT
GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
AIR PROTECTION BRANCH**

STATE OF GEORGIA

NOTICE OF SITE WAIVER REQUEST – March 2018

To All Interested Parties:

The Georgia Environmental Protection Division (GA EPD) announces its intent to request siting waivers for select sites from the U.S. Environmental Protection Agency.

GA EPD's air monitoring network consists of a number of stations located throughout the state. GA EPD uses the air monitoring data to track if air quality standards are being met, to assist in enforcement actions, to determine the improvement or decline of air quality, to trace the extent of allowable industrial expansion and to provide air pollution information to the public.

The site waiver request will be available for review on the GA EPD Air Protection Branch internet site: <https://epd.georgia.gov/air-protection-branch-public-announcements> and the Ambient Air Monitoring Program website: <https://airgeorgia.org/>. Please note that the internet is generally accessible from most public libraries in Georgia. In addition, a hard copy is available at the Air Protection Branch office listed above.

If copies of the site waiver request are desired, each page is \$0.10 per copy. A copying machine for public use is provided by GA EPD at the Atlanta Air Protection Branch office only and is available on a first-come, first-served basis. Office hours are 8:30 a.m. to 4:00 p.m., Monday – Friday, excluding holidays.

Persons wishing to comment on the site waiver request are required to submit their comments, in writing, to GA EPD 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 DeAnna Oser, Program Manager of the Ambient Monitoring Program, at DeAnna.Oser@dnr.ga.gov

Comments must be received by GA EPD no later than 30 days after the date on which this document is published on <https://epd.georgia.gov/air-protection-branch-public-announcements> and <https://airgeorgia.org/>. Should the comment period end on a weekend or holiday, comments will be accepted up until the next working day. GA EPD, in soliciting comments for the final draft before submittal to EPA as required by 40CFR58, will consider all comments received on or prior to that date.

After the comment period has expired, GA EPD will consider all comments received. GA EPD's responses to comments and any other relevant information will then be made available for public review during normal business hours at the office of the Air Protection Branch.

For additional information, contact the manager of the Ambient Air Monitoring Program, DeAnna Oser at the Atlanta address, or by phone at 404-363-7000. Please refer to this notice when requesting information.



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March 12, 2018

Beverly H. Banister, Director
Air, Pesticides & Toxics Management Division
US EPA Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth St., SW
Atlanta, GA 30303

RE: Ambient Air Monitoring Site/Operational Waiver Requests

This letter is to inform you of modifications that the Georgia Ambient Air Monitoring Program (GA AAMP) of the Georgia Environmental Protection Division wishes to make to the Georgia Ambient Air Monitoring Network. Specifically, the GA AAMP respectfully requests approval for a 40 CFR Part 58, Appendix E – Probe Siting waiver to be granted for the Columbus-Fort Benning site (13-215-0010) and the South DeKalb site (13-089-0002). In addition, the GA AAMP requests an operational waiver for the Photochemical Assessment Monitoring Station (PAMS) gas chromatograph (GC) at the South DeKalb site.

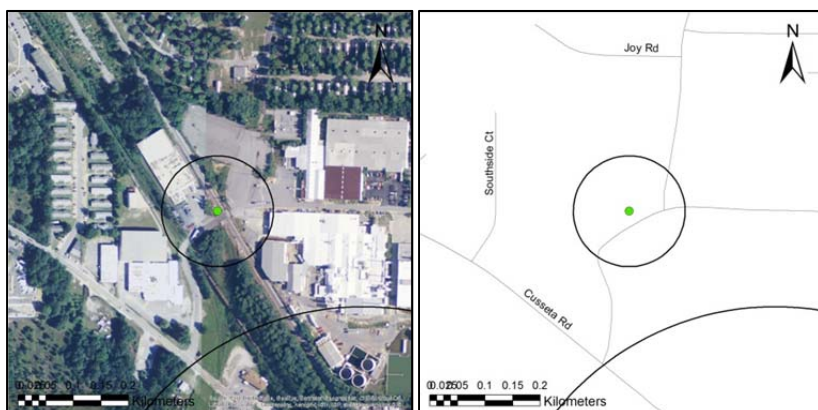
For the siting criteria waivers, Chapter 40 of the Code of Federal Regulations (CFR) Part 58, Appendix E, Section 10-Waiver Provisions, states that “The EPA will consider a written request from the State agency to waive one or more siting criteria for some monitoring sites providing that the State can adequately demonstrate the need (purpose) for monitoring ... at that location” and (in Section 10.1.2) if “the monitor or probe cannot reasonably be located so as to meet the siting criteria because of physical constraints (e.g., inability to locate the required type of site the necessary distance from roadways or obstructions)”. The GA AAMP believes that the requirements for consideration of the above waivers specified in 40 CFR Part 58, Appendix E, Section 10 are met.

Due to circumstances beyond its control with the PAMS GC monitoring equipment, GA AAMP is requesting an operational waiver for its PAMS site to collect GC data on an alternate schedule. As stated in 40 CFR 58.14(c), “Other requests for discontinuation may also be approved on a case-by-case basis if discontinuance does not compromise data collection needed for implementation of a NAAQS and if the requirements of appendix D to this part, if any, continue to be met.” In conjunction, 40 CFR 58.13(h) states “The Photochemical Assessment Monitoring sites required under 40 CFR part 58 Appendix D, section 5(a) must be physically established and operating under all of the requirements of this part, including the requirements of appendix A, C, D, and E of this part, no later than June 1, 2019.” The PAMS requirements prior to the 2015 National Ambient Air Quality Standard for Ozone were deleted and replaced with new requirements. During this new transition period (from when the rule became effective and the required start date of June 1, 2019), there are no PAMS requirements. As such, GA AAMP will be meeting the Appendix D requirements.

1. Waiver for Siting Criteria at Columbus-Fort Benning Site (13-215-0010)

1.1 General Information

GA AAMP requests a waiver for the probe siting criteria for spacing from trees specified in 40 CFR Part 58, Appendix E Section 5 for the lead sampling being conducted at the Columbus Fort-Benning ambient air monitoring site (13-215-0010). Basic site information is listed below. The site record indicates that requirements specified in 40 CFR Part 58, Appendix E Section 10.1.2 for consideration of a waiver have been met.



AQS ID: 132150010

Address: Ft. Benning Junction, 975 Joy Road, Columbus, Muscogee County, Georgia 31906

Site Established: 3/1/91

Latitude/Longitude: 32.4363/-84.9342

Elevation: 83 meters

Area Represented: Columbus Georgia-Alabama MSA

Site History: Established as lead site

North

West

South

East



Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
Lead	Source Oriented	Every 6 days	2 m	Micro	3/1/91*

* Sampler inactive from 3/31/04 until reopened on 12/27/11

Figure 1. Basic Site Information for Columbus-Fort Benning Site

1.2 Predominant and Secondary Wind Patterns

The wind data from the GA AAMP Columbus-Crime Lab site (13-215-1003) is representative of the wind pattern for the Columbus-Fort Benning site. To show an average of wind patterns, data from 2015 through 2017 was used (Figure 2 through Figure 4). The wind roses indicate that the predominant wind direction is from the North. The secondary dominant wind direction comes from the East/Northeast.

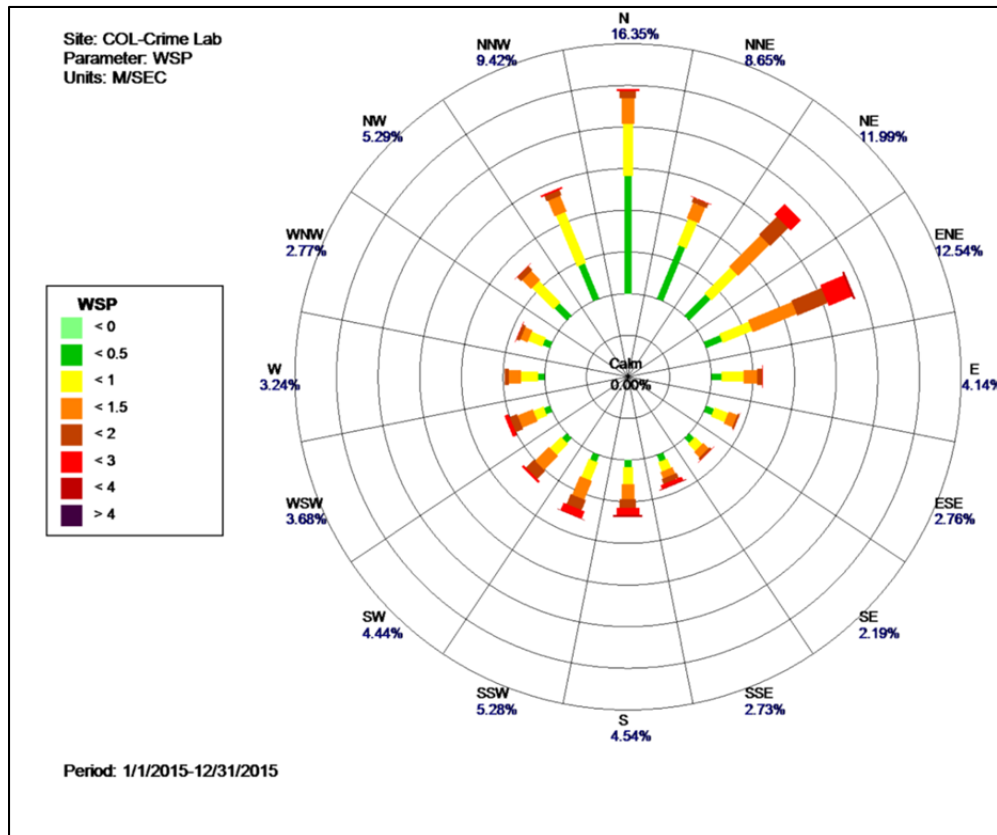


Figure 2. Columbus Wind Rose 2015

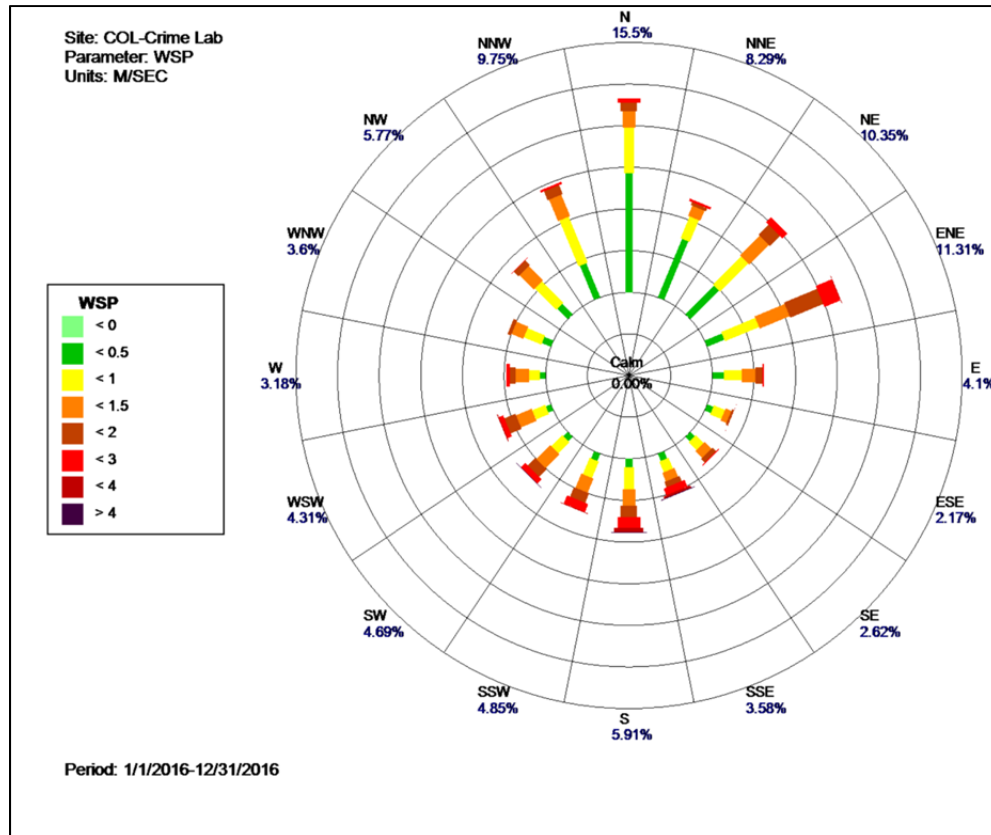


Figure 3. Columbus Wind Rose 2016

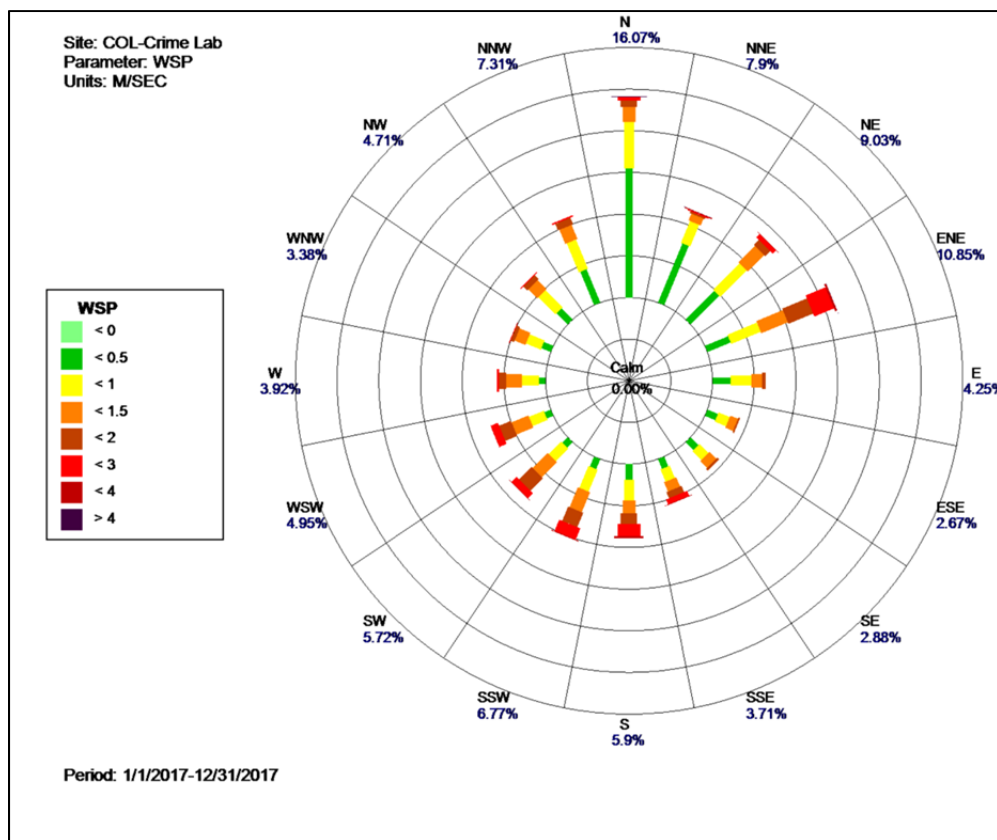


Figure 4. Columbus Wind Rose 2017

1.3 Justification for Request

The US EPA 2017 Technical Systems Audit (TSA) findings for GA AAMP reported that the Columbus-Ft Benning site with collocated lead monitors had restricted airflow due to trees in the southwest, west, and northwest resulting in approximately 225° of unrestricted airflow. According to 40 CFR Part 58, Appendix E, Table E-4, lead monitors must have a minimum of 270° of unrestricted airflow. Regarding the unrestricted airflow, the trees located to the Southwest, West, and Northwest of the monitor do not impact the predominant or secondary wind flow, as seen in the above wind roses. The monitor was placed at this location as a source type ambient air monitor for the lead source industry that is located to the East of the monitor and spans from the East/Northeast to the East/Southeast (Figure 5), which includes the direction of the secondary dominant wind flow. In addition, the trees at this site serve as a buffer between the facility located to the West/Northwest and the railroad, which runs along the Eastern side of the building (Figure 6).

In addition, the TSA findings showed the distance between the primary and collocated monitors was 1.2 m, and 40 CFR Part 58, Appendix A, Section 3.4.4.2 (b) states that collocated monitors must be at least 2 m apart. To comply with the collocation spacing between monitors requirement, GA AAMP

discontinued collocation monitoring of lead at the Columbus-Ft Benning site, and began collocated lead monitoring at the nearby Columbus-UPS site (13-215-0009) as of February 1, 2018.



Figure 5. Columbus-Fort Benning Site with Source to the East

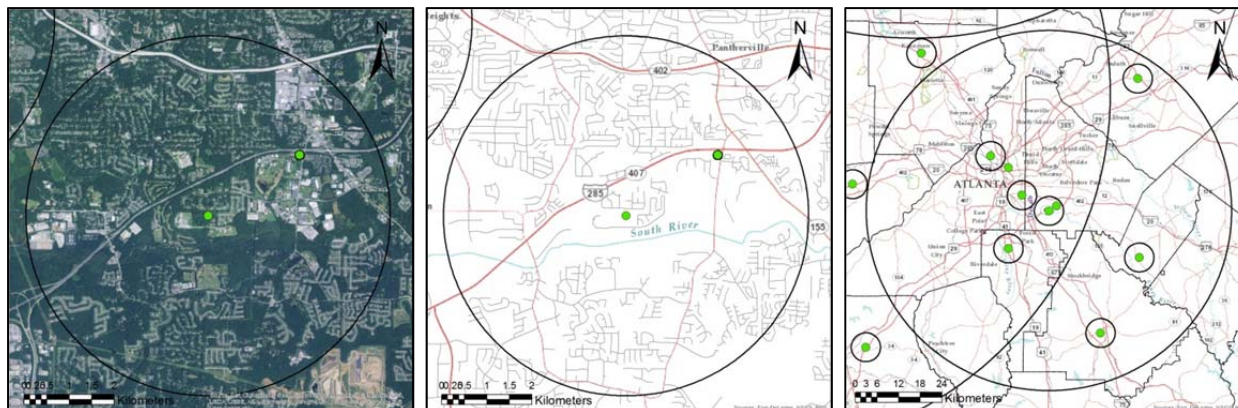


Figure 6. Columbus-Fort Benning Site Detail View

2. Waiver for Siting Criteria at South DeKalb Site (13-089-0002)

2.1 General Information

GA AAMP requests a waiver for the probe siting criteria for spacing from trees specified in 40 CFR Part 58, Appendix E, Section 5 for the criteria pollutant sampling being conducted at the South DeKalb air monitoring site (13-089-0002). The site record indicates that requirements specified in 40 CFR Part 58, Appendix E Section 10.1 for consideration of a waiver have been met. Basic site information is listed below (Figure 7).



AQS ID: 130890002

Address: 2390-B Wildcat Road, Decatur, DeKalb County, Georgia 30034

Site Established: 1/1/74

Latitude/Longitude: N33.68808/W-84.29018

Elevation: 308 meters

Area Represented: Atlanta-Sandy Springs-Marietta MSA

Site History: Established as O₃ 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	Neighborhood	1/22/99
PM _{2.5}	Quality Assurance	Every 12 days	2.7 m	Neighborhood	12/20/08
PM _{2.5}	Population Exposure	Continuous	4 m	Neighborhood	5/1/03
PM _{2.5} Speciation	Population Exposure	Every 3 days	2.6 m	Neighborhood	10/1/00

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
SO ₂	Population Exposure	Continuous	4 m	Neighborhood	10/1/10
SO ₂ 5-Minute Maximum	Population Exposure	Continuous	4 m	Neighborhood	10/1/10
O ₃	Highest Concentration	Continuous	4 m	Neighborhood/ Urban	1/1/74
CO	Population Exposure	Continuous	4 m	Neighborhood	5/19/03
NO _y	Population Exposure	Continuous	10 m	Neighborhood/ Urban	1/1/98
NO	Population Exposure	Continuous	4 m	Neighborhood/ Urban	4/1/94
NO _x	Population Exposure	Continuous	4 m	Neighborhood/ Urban	4/1/94
NO ₂	Population Exposure	Continuous	5 m	Neighborhood/ Urban	7/21/78
Carbonyls (PAMS)	Max Precursor Emissions	Three 8-hour samples every third day in summer	4 m	Neighborhood	6/1/93
Carbonyls (NATTS)	Population Exposure	Every 6 days	4 m	Neighborhood	6/1/93
Carbonyls (NATTS)	Quality Assurance	Every 12 days	4 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	Every 12 days	2 m	Neighborhood	1/1/05

Parameter	Monitoring Objective	Sampling Schedule	Probe Inlet Height	Spatial Scale	Begin Date
PM ₁₀ Continuous	Population Exposure	Continuous	4 m	Neighborhood	1/1/11
PM _{coarse} Continuous	Population Exposure	Continuous	4 m	Neighborhood	1/1/11
VOCs (PAMS)	Max Precursor Emissions	Continuous in Summer (June-August)**	4 m	Neighborhood	6/1/93
VOCs (NATTS)	Population Exposure	Every 6 days	4 m	Neighborhood	6/1/93
VOCs (NATTS)	Quality Assurance	Every 6 days	4 m	Neighborhood	1/1/05
Semi-VOCs (NATTS)	Population Exposure	Every 6 days	2 m	Neighborhood	4/30/07
Semi-VOCs (NATTS)	Quality Assurance	Every 12 days	2 m	Neighborhood	4/30/07
Outdoor Temperature	General/Background	Continuous	2 m	Neighborhood	6/1/93
Rain/Melt Precipitation	General/Background	Continuous	3 m	Neighborhood	1/1/97
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

**normal operation

Figure 7. Basic Site Information for South DeKalb Site

2.2 Predominant Wind Pattern

The wind data from the GA AAMP South DeKalb site (13-089-0002) is used to show the wind pattern for the site. To show an average of wind patterns, data from 2015 through 2017 was used (Figure 8 through Figure 10). The wind roses indicate that the predominant wind direction is from West/Northwest.

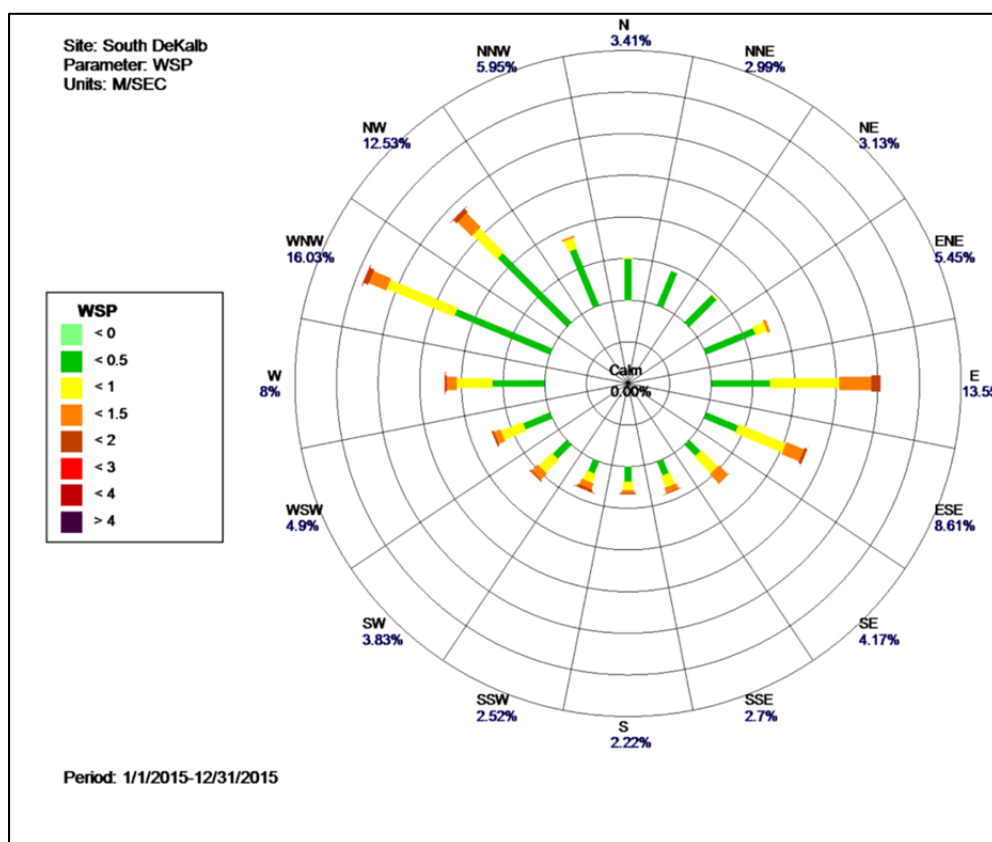


Figure 8. South DeKalb Wind Rose 2015

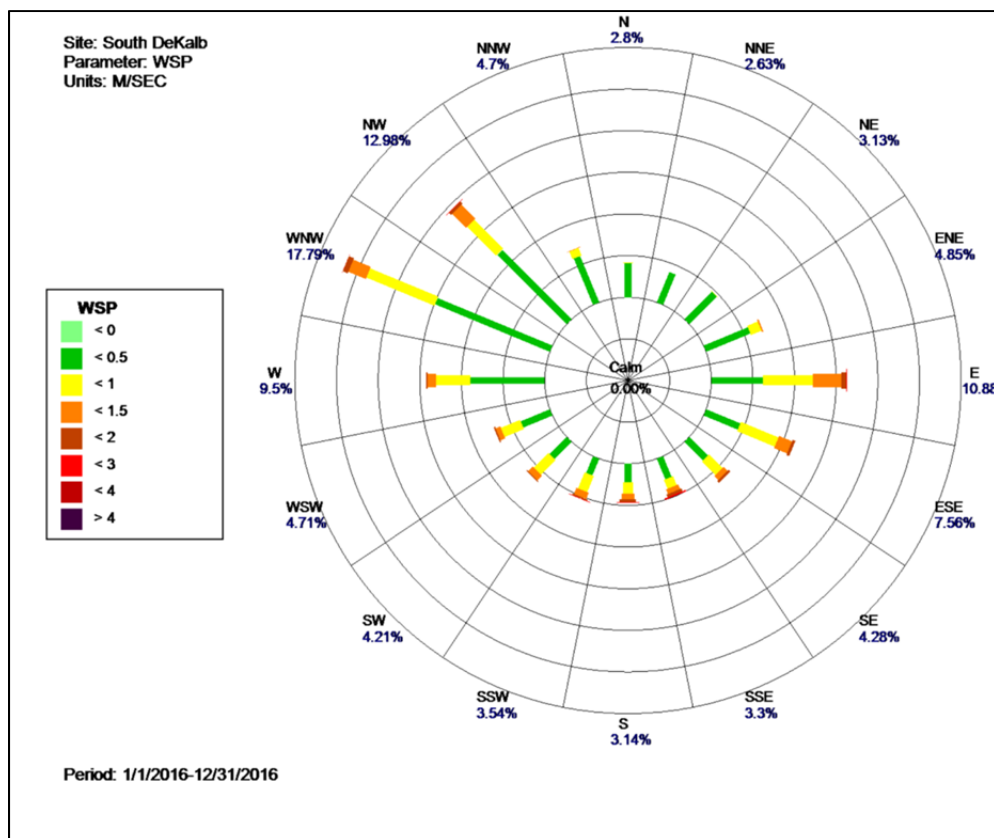


Figure 9. South DeKalb Wind Rose 2016

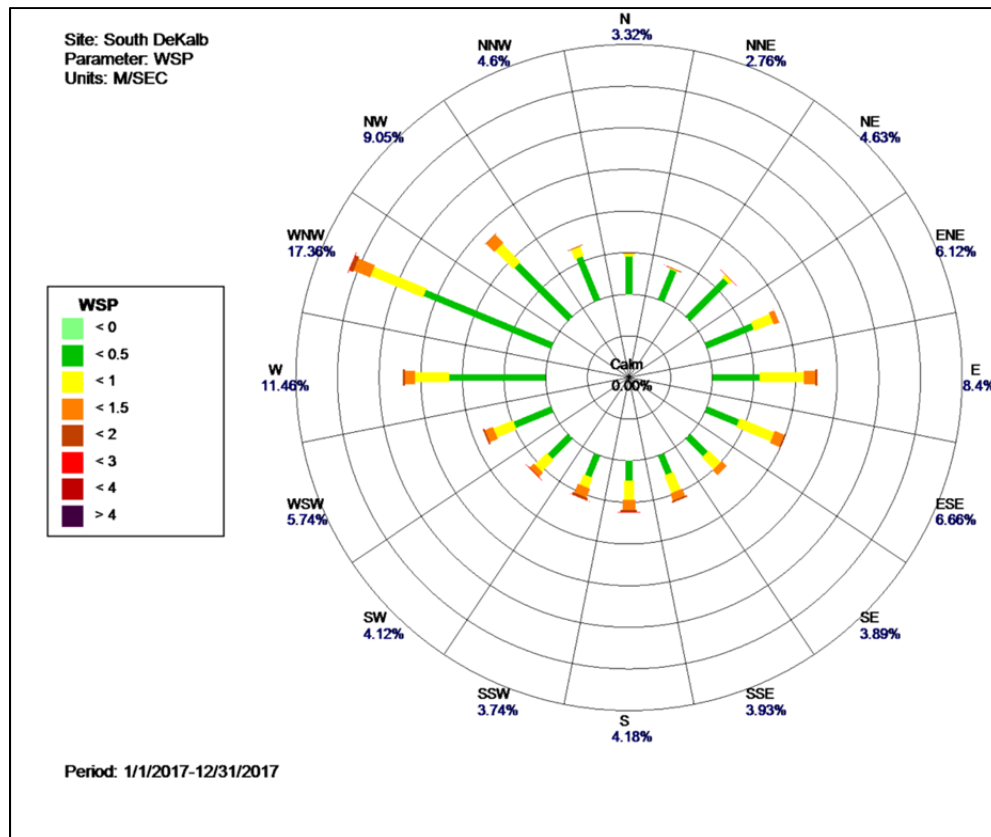


Figure 10. South DeKalb Wind Rose 2017

2.3 Justification for Request

The US EPA 2017 TSA findings reported that the South DeKalb site criteria monitors had restricted airflow due to trees in the northwest and east located too close to the monitor sample inlets. According to 40CFR Part 58, Appendix E, Section 4 (a) states that 90% of the monitoring path must have unrestricted airflow and be located away from obstacles.

GA AAMP has made efforts to comply with siting criteria by building a new deck and relocating the monitors to maximize the distance from the trees, as well as cutting trees. The South DeKalb site is a long standing site that has significant, historical data, and over time, the trees have grown. Due the location of the monitors in a neighborhood and near a school (Figure 11), GA AAMP has made use of the trees as a natural barrier to the surroundings. As seen in the above wind roses, the predominant wind flow is from the West/Northwest, which has the most open fetch to the monitors. GA AAMP plans to cut the trees to the east (Figure 12) as much as possible, up to the property line, as was done in the other directions on the property.

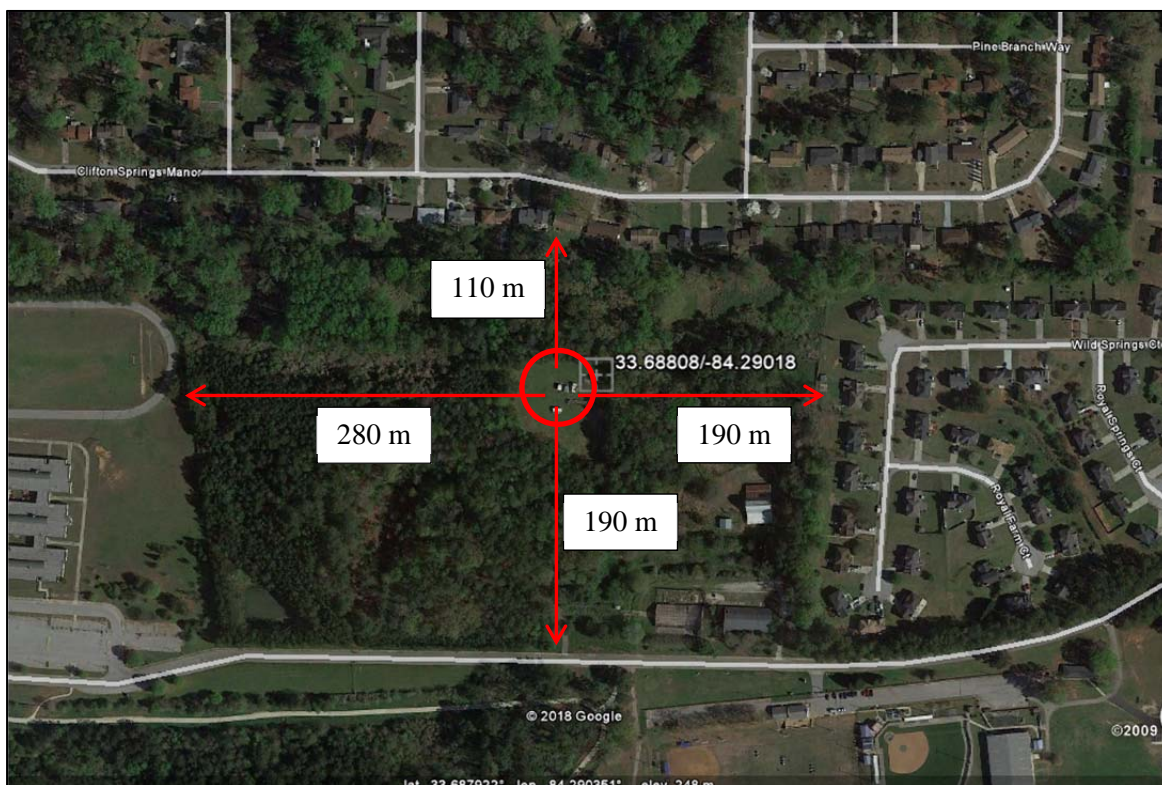


Figure 11. South DeKalb Site with Approximate Distances (in meters) to Surrounding Neighborhood and School

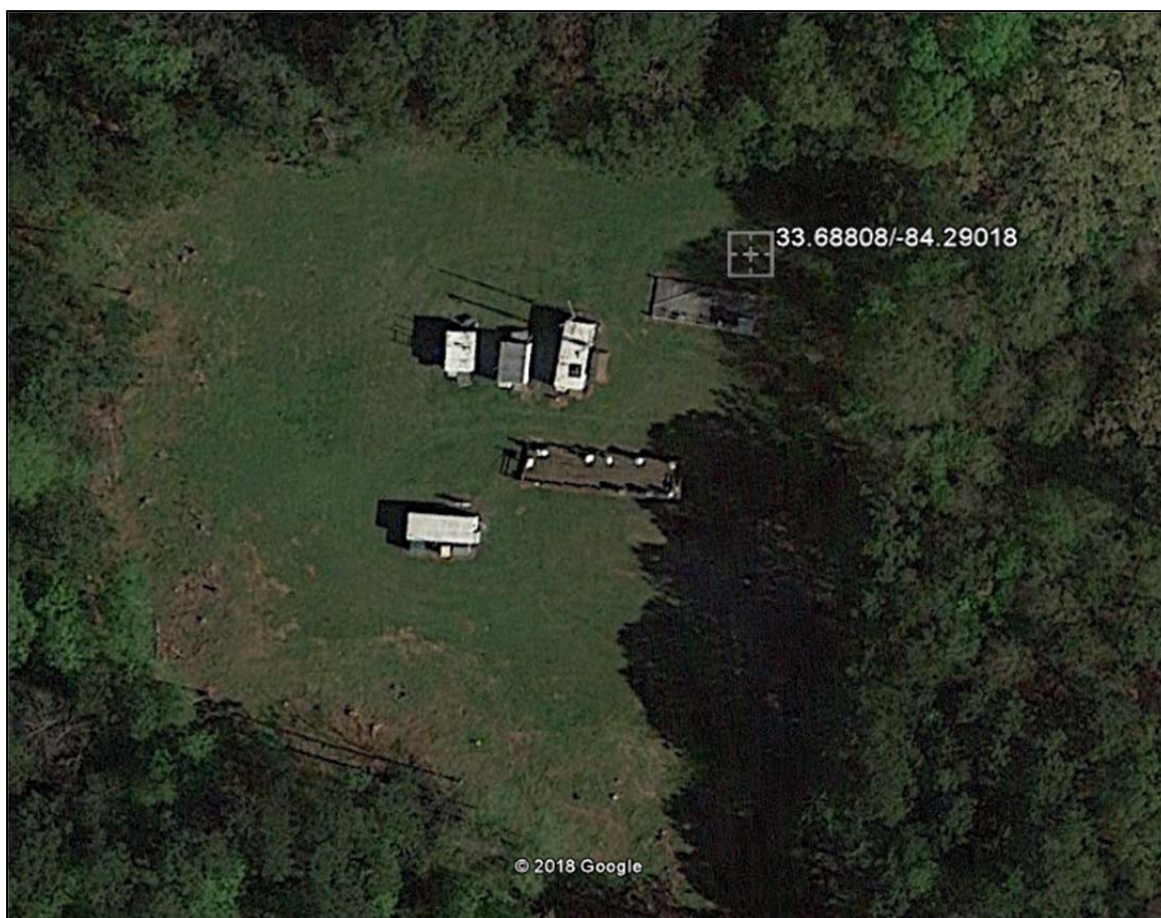


Figure 12. South DeKalb Site, Detailed View

3. Waiver for PAMS Monitoring at South DeKalb Site (13-089-0002)

The GA AAMP is requesting a PAMS 1-hour waiver pursuant to 40 CFR Part 58. This monitoring is required to be conducted at the South DeKalb site (AQS ID 13-089-0002) to characterize the concentrations of compounds that react to form ozone. PAMS monitoring includes enhanced monitoring for ozone, oxides of nitrogen, select carbonyl compounds and volatile organic compounds (VOCs). For more information on this monitoring, please refer to the GA AAMP 2017 Ambient Air Monitoring Plan located at <https://airgeorgia.org/docs/2017%20Ambient%20Air%20Monitoring%20Plan.pdf>. This request is for a waiver on measuring the hourly speciated VOCs during the 2018 PAMS season (June 1 – August 31) due to machine malfunction, repair issues, and overall system age. GA AAMP has utilized the Perkin Elmer Thermal Desorber (TD), Gas Chromatograph (GC), and Flame Ionization Detector (FID) system to collect volatile organic compounds (VOCs) in ambient air for many years. The thermal desorber currently used is estimated to be 6 years old, and the gas chromatograph is estimated to be 9 years old. This TD is at the end of its serviceable life. The design of GCs and TDs are constantly

evolving, presenting GA AAMP with the possibility of requiring replacement parts that are no longer available from Perkin Elmer. Therefore, GA AAMP will not be able to collect hourly speciated VOCs during this PAMS season.

In addition to the age of GA AAMP's system and the lack of spare parts, this current system has encountered major issues in recent PAMS' seasons. During the middle of the 2017 PAMS season, GA AAMP experienced an unstable baseline that continued to worsen. This issue was traced to the variability of the compressed air pressure in the system. A massive air leak was discovered in the TD, which was causing the air compressor to frequently cycle. Compressed cylinder air was utilized to correct the baseline, but the air leak persisted. Multiple visits from Perkin Elmer technicians occurred for the duration of the season in attempt to resolve the issue to no avail.

Data collected during the 2016 season was acceptable due to replacing the TD with a spare, but trap failure was imminent at the conclusion of the sampling season. It was necessary to replace the TD due to problems encountered during the 2015 season, which were related to the misalignment of a four-way valve. The misalignment resulted in repeated failures of the charcoal trap throughout the season. There were multiple visits by Perkin Elmer technicians, but they could not solve the underlying issue. GA AAMP lost 2 months of data due to this malfunction.

As the current system is no longer operable, GA AAMP is requesting a waiver for the hourly speciated VOCs sampling. GA AAMP is currently collecting canister VOCs for the NATTS site at the same monitoring station (South DeKalb). These canister samples are required to be collected every 6 days, over a 24-hour period for the NATTS network. In lieu of AutoGC VOCs collection, GA AAMP will perform a second analysis using GC/FID on these canisters for the PAMS target compounds. This will allow a partial data collection while waiting on a new continuous gas chromatograph/thermal desorber system from the EPA National Contract. GA AAMP has conducted this supplemental PAMS VOC analysis on the canisters for a number of years, and therefore an evaluation to previous PAMS seasons could be made to provide a comparison analysis if needed. Once the new thermal desorber/gas chromatograph equipment is received, GA AAMP will endeavor to have the new system installed and collecting data as quickly as possible, by June 1, 2019.

4. Public Comment Period

The public comment period for these site waiver requests will be from March 13, 2018 through April 13, 2018. All comments received will be forwarded to EPA Region 4 along with GA AAMP's response.

Thank you for your consideration to granting these siting and operational waivers. Should you have any questions or need additional information regarding this matter, please contact me at 404-363-7004.

Sincerely,

A handwritten signature in black ink, appearing to read "DeAnna Oser". The signature is fluid and cursive, with the first name "DeAnna" and the last name "Oser" clearly distinguishable.

DeAnna Oser
Ambient Monitoring Program Manager
Georgia Environmental Protection Division

Cc: Njeri Carlton-Carew, US EPA, Region IV
Darren Palmer, US EPA, Region IV
EPA Correspondence file