June 16, 2025

Via Electronic Mail

Ms. Gina Curvin, Chief
Ambient Air Quality Monitoring Program Manager
Field Operations Division – Montgomery Branch
Alabama Department of Environmental Management
1350 Coliseum Boulevard
Montgomery, Alabama 36110-2059
gcurvin@adem.alabama.gov

RE: Comments on ADEM's State of Alabama Ambient Air Monitoring 2025 Network Plan

Dear Ms. Curvin:

The Southern Environmental Law Center ("SELC"),[1] GASP,[2] Mobile Baykeeper ("MBK"),[3] and the Mobile Environmental Justice Action Coalition ("MEJAC")[4] (collectively, "Commenters") respectfully submit the following comments on the Alabama Department of Environmental Management ("ADEM") State of Alabama Ambient Air Monitoring 2025 Network Plan (the "2025 Network Plan" or "Plan").[5] As discussed below, Commenters appreciate ADEM's efforts to relocate the Chickasaw monitor to Africatown and urge ADEM to continue to improve

[1] SELC is a non-profit, regional environmental organization dedicated to protecting clean air, preserving special places, and promoting vibrant communities throughout the South.
[2] GASP is a non-profit health advocacy organization fighting for healthy air in Alabama. GASP strives to reduce air pollution through education and advocacy—because Alabamians deserve clean, healthy air.
[3] MBK works to defend and revive the health of the waters of Coastal Alabama impacted by many sources of pollution, including air pollution. MBK joins these comments to the extent they apply to the Mobile area.
[4] MEJAC was formed in 2013 with the mission to engage and organize with Mobile's most threatened communities in order to defend the inalienable rights to clean air, water, soil, health, and safety and to take direct action when government fails to do so, ensuring community self-determination.
[5] ADEM, State of Alabama Ambient Air Monitoring 2025 Network Plan (May 16, 2025), https://adem.alabama.gov/sites/default/files/2025-05/ADEM%20Ambient%20Air%202025%20Plan.pdf [hereinafter "2025 Network Plan" or "Plan"].

and expand its air monitoring network. We look forward to reviewing ADEM's response to our comments.

I. Background & Introduction

As ADEM knows, Commenters have been reviewing and commenting on ADEM's Ambient Air Monitoring Network plan for years. As noted in our comments submitted regarding the State of Alabama Ambient Air Monitoring 2024 Network Plan, we appreciate the diligent work ADEM puts into these plans and the changes that ADEM has demonstrated it is willingness to make changes to improve Alabama's air monitoring network, such as the decision to relocate the Chickasaw monitor (AQS ID 01-097-003) to Africatown (AQS ID 01-097-0023). We also appreciate ADEM's efforts to upgrade equipment and shelters to improve the monitoring network using funding made available by the Inflation Reduction Act.[6] These improvements benefit all Alabamians.

As discussed in years past, Commenters remain concerned that ADEM's monitoring network has been shrinking despite the fact that the population of Alabama is growing. For example, as noted by Commenters last year, though Alabama's population is growing, the number of statewide active fine particulate matter ("$PM_{2.5}$") monitors has been drastically reduced since 2010.[7] This is particularly concerning given that several areas in the state are very near or above the 2024 National Ambient Air Quality Standards ("NAAQS") for $PM_{2.5}$.[8] Additionally, in the 2025 Network Plan, ADEM indicated that two of its monitors (a nitrogen dioxide monitor in Ward and the Seals Park FEM continuous PM_{10} monitor) malfunctioned and have yet to be successfully repaired.[9] We urge ADEM to fast-track repairs to the extent possible to ensure Alabama citizens have an accurate and complete understanding of their air quality. We emphasize that in order to "evaluate the effectiveness of emission control strategies," "assess the extent of pollution," and "support human health objectives," the air monitoring network must be robust and fully functional.[10]

Commenters also note that despite EPA's 2023 request that ADEM ensure notices for public comment are made available "in more than one location that is easily accessible to the public and individuals with disabilities,"[11] ADEM once again only placed this announcement on its website. It did not publish it in any community centers or other locations that would be more readily accessible to a wider audience, particularly those without ready access to the internet, rendering it likely that many of the communities most impacted by air pollution and this

[6] *See* 2025 Network Plan at 13-14 (describing completed and planned upgrades).
[7] ADEM removed $PM_{2.5}$ monitors from Florence and Dothan in 2011; Pelham in 2015; Childersburg in 2017; Gadsden and Tuscaloosa in 2018; and Dothan and Muscle Shoals in 2019. *See generally* ADEM, State of Alabama Ambient Air Monitoring Plan, 2012-2023 Network Plans.
[8] *See* 2025 Network Plan at 17, Table 6 (showing that the design values for four sites are at or above 85 percent of the 2024 $PM_{2.5}$ NAAQS).
[9] *Id.* at 3, 11, and 15.
[10] EPA, Managing Air Quality – Ambient Air Monitoring, https://www.epa.gov/air-quality-management-process/managing-air-quality-ambient-air-monitoring.
[11] EPA Letter, Attachment A at 5.

monitoring plan have no idea that this opportunity to comment exists. We ask once more that ADEM adopt EPA's recommendations to make this and future drafts more accessible.

Consistent with the comments below, Commenters appreciate the work ADEM has already done. We also encourage ADEM and the State to prioritize air pollution control and take all opportunities to improve and expand the air monitoring network.

II. In order to represent ambient air quality on the Africatown Community, ADEM should site the Africatown Monitor at the Africatown Hall Location.

Based on more than two years of advocacy to locate an ambient air monitor to Africatown, we appreciate ADEM's plan to move the Chickasaw air quality monitor to Africatown.[12] Regarding ADEM's proposed monitor move we offer the following comments:

- First, while we appreciate ADEM's outreach and interactions with representatives of Africatown, we are deeply disappointed in the location ADEM selected—the Whitley Elementary School. ADEM's approach was to identify a number of possible locations, and then hearing feedback, provide further refinement for the site location.

  Unfortunately, ADEM did not listen to the voices of the community, which expressed clear preference for the Africatown Hall location. The Africatown Hall location is the community's preference because it is closer to the major sources of air pollutants. The Whitley Elementary School is so much further from the major sources of air pollution and the community's concern is that the ambient air at that location will likely not be representative of the air pollution from the major sources, which continues to have an impact on the community and its visitors. Indeed, Commenters disagree with ADEM's characterization that the chosen site is "appropriate for measurements intending to represent highest concentrations … and impacts from sources"[13] because is located further away from the major stationary sources.

  Although the community's perspective, shared with ADEM during the conversations earlier this year, was that monitoring sites outside of the Africatown Historic District should be considered (*i.e.* sites other than the Africatown Hall location) it appears ADEM has not yet taken that information into consideration.

- Second, we are troubled that the Draft 2025 Ambient Air Monitoring Plan lacks transparency in that it does not include the scoring ADEM used for each of the

[12] 2025 Network Plan at 49 ("ADEM plans to relocate the Chickasaw O3, PM2.5, and SO2 monitoring site (AQS ID: 01-097-0003) to a new site in Africatown (AQS ID: 01-097-0023). This site relocation is in response to public comments that ADEM received on the 2023 and 2024 Network Plans requesting an air monitoring site in Africatown and raising environmental justice concerns in the community. The EPA provided funding to ADEM under an IRA Air Monitoring Grant to support this site relocation.").
[13] *Id.* at 53.

monitoring sites they considered. We ask that the response to comments and final Plan include the scoring information.

- Third, we note and regret the delay in ADEM's assessment of site locations, which had been planned for the summer of 2024, and was delayed.

- Fourth, we reiterate our keen interest in having the Africatown monitor provide more fulsome information for the Africatown community and that in addition to ozone, SO_2 and hourly $PM_{2.5}$ concentrations, ADEM install monitors for PM_{10}, VOCs, and hazardous air pollutants. In response to our comment to this effect last year, ADEM responded that it did not have funding to expand the pollutants measured and any expansion would require additional funding from EPA.[14] In its 2023 response to ADEM's 2023 Network Plan, EPA outlined grant opportunities available.[15] Commenters request clarification from ADEM as to which of these opportunities it has pursued along with the status or outcome of any such pursuit.

- Fifth, we take issue with ADEM's assessment of the Africatown Hall property. While the Africatown Hall property is located on a road with truck traffic,[16] there is much truck traffic throughout the community, and thus a monitor on the property would be representative of the community's ambient air. Furthermore, there are gravel and unpaved properties throughout the community, and thus ADEM's note that the Africatown Hall property location adjacent to a gravel lot is similarly out-of-place.

In conclusion, Commenters strongly urge ADEM to site the ambient air monitor at the Africatown Hall location, which will be representative of ambient air quality the community faces.

III. ADEM should analyze, adequately monitor, and address the root causes of the continued statewide increase in ozone concentrations.

Commenters once again note that the concentrations of ozone continue to rise statewide.[17] Commenters requested that ADEM acknowledge and address this in its 2024 Network Plan, to which ADEM responded that over a longer period of time concentrations have been decreasing and indicated that the current increase is merely a rebound from Covid-19 rather than a trend.[18] However, it appears that as most—if not all—of the Ozone monitors have now met or exceeded pre-covid levels. Given the health impacts associated with the pollutants, this upward trend is concerning.

As depicted in the figures below, in 2020-2022, only two of the twelve ozone monitoring sites had design values above 85 percent of the ozone NAAQS.[19] In 2021-2023, however, that

[14] *See* 2024 ADEM's Response to Comments, Attachment B at ¶ 1.
[15] EPA Letter, Attachment A.
[16] *Id.* at 50.
[17] *See* 2025 Network Plan at 12, 16.
[18] *See* 2024 ADEM's Response to Comments, Attachment B at ¶ 6.
[19] *See* ADEM, State of Alabama Ambient Air Monitoring 2023 Network Plan at 12 (July 26, 2023) https://adem.alabama.gov/sites/default/files/legacyfiles/programs/air/airquality/2023AmbientAirPlan.pdf.

number skyrocketed to seven of the eleven ozone monitors.[20] Finally, in 2022-2024, nine of the eleven ozone monitors had design values above 85 percent of the ozone NAAQS. Compare the following excerpts from the three most recent Network Plans:

2023 Network Plan

Table 4 ADEM Ozone Monitoring Sites and Design Values

Site Name	AQS ID	2020-2022 Design Values	MSA	MSA MAX DV[2]	2022 Population Base
Helena[1]	01-117-0004	0.061	Birmingham-Hoover	0.063	1,116,857
Phenix City - South Girard School[1]	01-113-0003	0.057			
Columbus-Airport GA	13-215-0008	0.057	Columbus, GA-AL	0.057	324,110
Fairhope	01-003-0010	0.058	Daphne-Fairhope-Foley	0.058	246,435
Decatur	01-103-0011	0.060	Decatur	0.060	157,425
Southside	01-055-0011	0.057	Gadsden	0.057	103,088
Chickasaw	01-097-0003	0.057	Mobile	0.057	426,533
Bay Road[4]	01-097-2005	0.054			
Wetumpka Westside Technology	01-051-0004	0.053	Montgomery	0.058	385,460
MOMS, ADEM	01-101-1002	0.058			
Duncanville Middle School[3]	01-125-0011	0.055	Tuscaloosa	0.055	277,494
Ward, Sumter Co.	01-119-0003	0.053	not in MSA	N/A	NA
DV ≥ 85% of the NAAQS					
[1] Only site within MSA operated by ADEM					
[2] MSA MAX DV may be obtained from monitors not operated by ADEM					
[3] Data continued from Duncanville, Tuscaloosa 01-125-0010					
[4] Invalid design value due to invalid data completeness.					

[20] *See* ADEM, State of Alabama Ambient Air Monitoring 2024 Network Plan at 11 (June 28, 2024) (note the drop from twelve to eleven monitors is the result of the exclusion of the Columbus-Airport GA monitor included in the 203 Network Plan) https://adem.alabama.gov/sites/default/files/2025-05/ADEM%20Ambient%20Air%202024%20Network%20Plan.pdf.

2024 Network Plan

Table 4 ADEM Ozone Monitoring Sites and Design Values

Site Name	AQS ID	2021-2023 Design Values	MSA	MSA MAX DV	2023 Population Base
Helena[1]	01-117-0004	0.063	Birmingham-Hoover[3]	0.068	1,184,290
Phenix City - South Girard School[1]	01-113-0003	0.061	Columbus, GA-AL	0.061	323,768
Fairhope	01-003-0010	0.061	Daphne-Fairhope-Foley	0.061	253,507
Decatur	01-103-0011	0.064	Decatur	0.064	158,635
Southside[2]	01-055-0011	0.061	Gadsden	0.061	103,241
Chickasaw	01-097-0003	0.060	Mobile	0.060	411,640
Bay Road	01-097-2005	0.058			
Wetumpka Westside Technology	01-051-0004	0.057	Montgomery	0.062	385,480
MOMS, ADEM	01-101-1002	0.062			
Duncanville Middle School	01-125-0011	0.058	Tuscaloosa	0.058	278,290
Ward, Sumter Co.	01-119-0003	0.055	not in MSA	N/A	NA
DV ≥ 85% of the NAAQS					
1 Only site within MSA operated by ADEM. MSA MAX DV may be obtained from monitors not operated by ADEM.					
2 Closed 11/1/23. Ozone monitoring in Gadsden MSA continued at Gadsden Community College, AQS 01-055-0010.					
3 One Jefferson County monitor lacks enough valid data to meet completeness requirements to calculate design value.					

2025 Network Plan

Table 4 ADEM Ozone Monitoring Sites and Design Values

Site Name	AQS ID	2022-2024 Design Values	MSA	MSA MAX DV	2024 Population Base
Helena[1]	01-117-0004	0.065	Birmingham-Hoover[3]	0.069	1,192,583
Phenix City - South Girard School[1]	01-113-0003	0.061	Columbus, GA-AL	0.061	324,343
Fairhope	01-003-0010	0.063	Daphne-Fairhope-Foley	0.063	261,608
Decatur	01-103-0011	0.065	Decatur	0.065	159,651
Gadsden Community College[2]	01-055-0011	0.061	Gadsden	0.061	103,207
Chickasaw	01-097-0003	0.061	Mobile	0.061	412,339
Bay Road	01-097-2005	0.060			
Wetumpka Westside Technology	01-051-0004	0.057	Montgomery	0.061	387,885
MOMS, ADEM	01-101-1002	0.061			
Duncanville Middle School	01-125-0011	0.061	Tuscaloosa	0.061	281,963
Ward, Sumter Co.	01-119-0003	0.054	not in MSA	N/A	NA
DV ≥ 85% of the NAAQS					
1 Only site within MSA operated by ADEM. MSA MAX DV may be obtained from monitors not operated by ADEM.					
2 Replaced Southside for ozone monitoring in Gadsden MSA beginning March 2024.					
3 One JCHD monitor lacked enough valid data to calculate design value.					

Given the continued increases in ozone concentrations across multiple monitoring cites throughout the state, ADEM should conduct a more thorough root-cause analysis and proactively take these increases into consideration in the current Air Monitoring Plan and related air monitoring assessment that ADEM must complete this year, which should assess whether new

ozone monitoring sites are needed.[21] ADEM should also consider and address these ozone pollution increases its overall implementation of the Clean Air Act, including its permitting processes, adequacy of the existing State Implementation Plan, and other final agency decisions. We look forward to seeing how ADEM plans to address these issues in 2025 and beyond, and we are committed to working with ADEM to ensure that all Alabamians breath clean, healthy air.

IV. Conclusion

As described above, Commenters appreciate ADEM's efforts to create an adequate Air Monitoring Plan. A robust ambient air monitoring network is crucial for protecting Alabamians. To that end, we ask that ADEM reconsider the chosen site for the new Africatown monitor pursuant to community input such that it accurately reflects the true concentrations of pollutants in the Africatown community. Further, we ask that ADEM address the root cause of continued increases in ozone concentrations statewide given the real and present risk ozone poses to the health and safety of Alabama residents. Finally, we look forward to reviewing the 2025 assessment due pursuant to 40 C.F.R. § 58.10(d).

Thank you for your consideration of these comments. We look forward to ADEM's response.

Respectfully submitted,

/s *Ramsey Sprague*
Ramsey Sprague
President, MEJAC
Ramsey@mejacoalition.org
(251) 593-2488

/s *Jilisa Milton*
Jilisa Milton
Director
GASP
Jmilton@gaspgroup.org
(205) 701-4277

/s *Morgan Bishop*
Morgan Bishop
Fish and Toxics Specialist
Mobile Baykeeper

[21] *See* 40 C.F.R. § 58.10(d) (requiring an "assessment of the air quality surveillance system every 5 years," with the next assessment due July 1, 2025, and noting that one of the primary objectives of such assessments is determining "whether new sites are needed").

mbishop@mobilebaykeeper.org
(251) 433- 4229

/s *Jaclyn Brass*
Jaclyn Brass
Southern Environmental Law Center
Staff Attorney, Alabama Office
jbrass@selcal.org
(205) 745-3060

Attachment A

REGION 4
ATLANTA, GA 30303

November 16, 2023

Mr. Ron Gore
Chief, Air Division
Alabama Department of Environmental Management
1400 Coliseum Boulevard
Montgomery, Alabama 36130

Dear Mr. Gore:

Thank you for submitting the State of Alabama's 2023 Annual Ambient Air Monitoring Network Plan (Network Plan), dated July 26, 2023. The Network Plan is required by 40 Code of Federal Regulations (CFR) § 58.10. The U.S. Environmental Protection Agency understands that the Alabama Department of Environmental Management (ADEM) provided the public a 30-day review period and public comments were received. The final Network Plan submitted by ADEM included the public comments received and ADEM's responses. ADEM also provided supplemental responses to three comments on November 15, 2023, as requested by the EPA. With the inclusion of these supplemental responses to comments, the EPA has determined that the 2023 Network Plan is complete. Our review is enclosed. In future Network Plan submittals, to satisfy the requirement in 40 CFR § 58.10 (a)(1) to "address, as appropriate, any received comments" ADEM must:

1. Respond point-by-point to each comment received. (This can include responding that a comment is not relevant to the plan.)
2. For each significant comment received (i.e., each comment requesting a specific change to the network), provide a rationale to explain the agency's decision, and reference any data or information used to reach that decision.

In response to the 2022 Network Plan, the EPA did not approve the SO_2 network and required additional characterization of SO_2 concentrations near Alabama Power Plant Barry. A public comment received on the 2021 Network Plan requested monitoring of SO_2 around Plant Barry to assess compliance with the SO_2 national ambient air quality standards (NAAQS). ADEM agreed to conduct an additional modeling analysis to characterize SO_2 concentrations in the area. In 2022, the EPA reviewed and provided comments on ADEM's draft SO_2 air modeling analysis. The EPA submitted a public comment on the 2023 Network Plan reminding ADEM that it was required to include the final SO_2 air modeling analysis in its 2023 Network Plan, as the EPA had required ADEM to do so in its response to the 2022 Network Plan on November 2, 2022. In response to the EPA comment, ADEM included a link to the final SO_2 air modeling analysis in the 2023 Network Plan.

The EPA has reviewed the final SO_2 modeling analysis and ADEM's responses to the EPA's prior comments on the modeling and has determined that the modeling analysis was performed in a manner consistent with the EPA *SO_2 NAAQS Designations Modeling Technical Assistance Document*.[1] The modeling shows a maximum 1-hour SO_2 concentration of 61.5 ppb, which is below the 2010 1-hour SO_2 NAAQS of 75 ppb. The modeling shows that SO_2 concentrations in the entire area are expected to be below the 1-hour SO_2 NAAQS. Based on this analysis, the EPA concurs that the existing SO_2 monitoring network is adequate to meet the required monitoring objectives of 40 CFR Part 58, and additional SO_2 monitoring is not required at this time. The proposed SO_2 monitoring network described in the Network Plan meets all the minimum requirements of 40 CFR Part 58 and is approved.

ADEM submitted an addendum to its 2022 Network Plan on April 5, 2023, that proposed two network modifications, but some of the information required by 40 CFR § 58.10(b) was not yet finalized. These modifications are now approved as part of the 2023 Network Plan, which included all the required information.

The Network Plan meets the minimum requirements of 40 CFR Part 58. The EPA approves the 2023 ADEM Network Plan and the proposed monitoring network changes.

The EPA Region 4 is committed to working with ADEM to continue to identify and evaluate areas with environmental justice concerns[2] related to ambient air monitoring, and to address disproportionate and adverse human health, environmental, and other cumulative impacts on communities with environmental justice concerns, including the Africatown community highlighted in public comments received on the Network Plan. The EPA is available to discuss how ADEM plans to address these considerations through the annual air monitoring network design process, as detailed in the enclosure. Any additional characterization or network changes resulting from this process should be submitted in the 2024 Network Plan or in an addendum to the 2023 Network Plan and made available for public comment as required by 40 CFR §58.10(a)(1). ADEM may wish to expedite this process because the EPA has several upcoming Inflation Reduction Act (IRA) grant programs under which ADEM can request funding to assist with these activities.

Please note that on July 21, 2023, the Office of Management and Budget released revised delineations of core-based statistical areas and guidance on uses of the delineations of these areas (https://www.whitehouse.gov/wp-content/uploads/2023/07/OMB-Bulletin-23-01.pdf). We encourage all agencies to review and consider these delineations in preparation of the development of their Network Plans due by July 1, 2024, including any proposed changes that may need to be implemented in calendar year 2025.

[1] SO_2 NAAQS Designations Modeling Technical Assistance Document, August 2016 Draft. U.S. EPA Office of Air and Radiation, Office of Air Quality Planning and Standards, Air Quality Assessment Division. https://www.epa.gov/sites/default/files/2016-06/documents/so2modelingtad.pdf

[2] Executive Order 14096 of April 21, 2023, Revitalizing Our Nation's Commitment to Environmental Justice for All, Section 2(b) *Definitions*. 88 FR 25251, 25252 (Apr. 26, 2023).

Thank you for working with the EPA to monitor air pollution and promote clean air in Alabama. Please let us know of any problems in meeting any of the requirements we have identified. If you have any questions or concerns, please contact Katy Lusky at (404) 562-9130 or Daniel Garver at (404) 562-9839.

Sincerely,

Anthony G. Toney
Acting Director

Enclosure
1. CY 2023 State of Alabama Ambient Air Monitoring Network Plan, U.S. EPA Comments and Recommendations

cc: Ms. Darlene Duerr, Director
Air Division, City of Huntsville Department of Natural Resources and Environmental Management

Mr. Jason Howanitz, PE
Principal Air Pollution Control Engineer, Air and Radiation Protection Division,
Jefferson County Department of Health

CY 2023 State of Alabama Ambient Air Monitoring Network Plan
U.S. EPA Comments and Recommendations

This document contains the U.S. Environmental Protection Agency (EPA) comments and recommendations on the state of Alabama's 2023 Ambient Air Monitoring Network Plan (Network Plan). Ambient air monitoring rules, which include regulatory requirements that address network plans, data certification, and minimum monitoring requirements, among other requirements, are found in 40 CFR Part 58. Minimum monitoring requirements for criteria pollutants are listed in 40 CFR Part 58, Appendix D, including those for ozone (O_3), particulate matter less than 2.5 microns ($PM_{2.5}$), particulate matter less than 10 microns (PM_{10}), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), carbon monoxide (CO), and lead (Pb).

The minimum monitoring requirements are based on core based statistical area (CBSA) boundaries as defined by the U.S. Office of Management and Budget (OMB), July 1, 2022, population estimates from the U.S. Census Bureau, and historical ambient air monitoring data. Minimum monitoring requirements for O_3, $PM_{2.5}$, and PM_{10}, only apply to metropolitan statistical areas (MSAs), which are a subset of CBSAs. The OMB currently defines 13 MSAs in the state of Alabama. These MSAs and the respective July 1, 2022, population estimates from the U.S. Census Bureau are shown in Table 1.

Table 1: Metropolitan Statistical Areas and July 1, 2022 Population Estimates

MSA Name	Population
Anniston-Oxford, AL	115,788
Auburn-Opelika, AL	180,773
Birmingham-Hoover, AL	1,116,857
Columbus, GA-AL	324,110
Daphne-Fairhope-Foley, AL	246,435
Decatur, AL	157,425
Dothan, AL	152,517
Florence-Muscle Shoals, AL	153,911
Gadsden, AL	103,088
Huntsville, AL	514,465
Mobile, AL	426,533
Montgomery, AL	385,460
Tuscaloosa, AL	277,494

Network Changes Proposed by ADEM
40 CFR §58.10(b), 58.14

The EPA has approval authority for changes to state or local air monitoring stations (SLAMS). SLAMS include the ambient air quality monitoring sites and monitors that are required by Appendix D of 40 CFR Part 58 and are needed for the monitoring objectives of Appendix D, including NAAQS comparisons, but may also serve other data purposes. The EPA is not required to approve changes made to special purpose monitors (SPMs). SPMs are monitors designated by the monitoring agency as special purpose and do not count towards minimum monitoring requirements of 40 CFR Part 58. SPMs are required to be identified in the Network Plan for public and EPA review.

The ADEM's Network Plan identified proposed changes to the state's ambient air monitoring network. The local agency monitoring programs are operated by the City of Huntsville Division of Natural Resources and the Environmental Management (HDNREM) and the Jefferson County Department of Health (JCDH), which submit separate plans to the EPA. The EPA also responds to those plans separately. The EPA's rationale for approval or disapproval of specific network changes can be found below in the pollutant sections of this document. Monitors proposed for discontinuation and the EPA's determinations are summarized in Table 2. Monitors proposed for reconfiguration, relocation, or monitor start-up and the EPA's determination are summarized in Table 3. For any relocated monitors, unless noted below, the EPA approves the use of a combined dataset between the existing and proposed sites for the purpose of calculating air quality design values.

Table 2. Monitors Proposed for Discontinuation

CBSA	Air Quality System (AQS) ID	Site Name	Pollutant	Type	Comments
Gadsden, AL	01-055-0011	Southside	O_3	SLAMS	Approved. Discontinue and relocate to the existing Gadsden Community College site (AQS ID: 01-055-0010).
Tuscaloosa, AL	01-125-0004	VA, Tuscaloosa	$PM_{2.5}$	SLAMS	Previously approved in the 2022 Network Plan. The $PM_{2.5}$ monitor relocated to the Duncanville Middle School site (AQS ID 01-125-0011) because reliable access to power was not available at the VA site, and relocation increases efficiency and utilizes the new shelter at the Duncanville Middle School site.

Table 3. Proposed Changes in Monitoring

CBSA	AQS ID	Site Name	Pollutant	Type	Comments
None	01-027-0001	Ashland	$PM_{2.5}$	SLAMS	Previously approved in the 2022 Network Plan. Method change--replaced a manual FRM with a continuous FEM on 1/1/2023.
Mobile, AL	01-097-0003	Chickasaw	$PM_{2.5}$	SLAMS	Approved. Method change--replace a manual FRM and a continuous non-FEM with a continuous FEM.
None	01-049-1003	Crossville	$PM_{2.5}$	SLAMS	Previously approved in the 2022 Network Plan. Method change--replaced a manual FRM with a continuous FEM on 1/1/2023.
Decatur, AL	01-103-0011	Decatur	$PM_{2.5}$	SLAMS	Approved. Method change--replace a manual FRM and an SPM continuous FEM with a SLAMS continuous FEM.
Tuscaloosa, AL	01-125-0011	Duncanville Middle School	$PM_{2.5}$	SLAMS	Previously approved in 2022 Network Plan. The $PM_{2.5}$ monitor from the VA Tuscaloosa site (AQS ID: 01-125-0004) was relocated to the Duncanville Middle School site.
Daphne-Fairhope-Foley, AL	01-003-0010	Fairhope	$PM_{2.5}$	SLAMS	Previously approved in the 2022 Network Plan. Method change--replaced a manual FRM with a continuous FEM on 1/1/2023.
Montgomery, AL	01-101-1002	MOMS	$PM_{2.5}$	SLAMS	Previously approved in the 2022 Network Plan. Both the primary FRM and the non-FEM BAM-1020 were shut down and replaced by a continuous FEM BAM-1022 on 1/1/2023. The FEM BAM-1022 will be designated as the

CBSA	AQS ID	Site Name	Pollutant	Type	Comments
					primary monitor at the site. The FRM will continue to operate as a collocated FRM to meet QA collocation requirements.
Columbus, GA-AL	01-113-0003	Phenix City – South Girard School	$PM_{2.5}$	SLAMS	Approved. Method change - replace manual FRM with continuous FEM.
Troy, AL	01-109-0003	Troy Lead	Pb	SLAMS	Previously approved in the 2022 Network Plan. High volume TSP FRM samplers were replaced with an updated version of the same FRM equipment.
Mobile, AL	01-097-8001	Seals Park	Manual $PM_{10,}$ Continuous PM_{10}, Particle Composition Microscopy	SPM	Acknowledged. ADEM worked with EPA to establish a new PM_{10} monitoring site in Mobile. EPA appreciates ADEM's efforts to conduct monitoring in this area in response to community concerns and provided additional grant funding to ADEM to support this monitoring. ADEM submitted an addendum to the 2022 Network Plan on 4/5/2023, but some of the required information was not yet finalized. All required information about the proposed site is included in the 2023 Network Plan
Gadsden, AL	01-055-0010	Gadsden Community College	O_3	SLAMS	Approved. Relocate an O_3 monitor from the Southside site (AQS ID: 01-055-0011). The monitoring shelter will also be replaced. This consolidation will improve efficiency of the network. Previously submitted in the 2022 Network Plan Addendum on 4/5/2023.
None	01-119-0003	Ward (Sumter Co.)	NO_2	SPM	Previously acknowledged in the 2022 Network Plan. Under 40 CFR 58.20(e), as an SPM that will be operated for 2 years (24 months), these data will not be solely used by EPA for regulatory decision making (i.e., a nonattainment designation). Monitor startup was delayed due to staffing change and the delivery of a new shelter to the site.

Public Inspection and Comments
40 CFR §58.10(a)(1)

The requirement for a public comment period and response from the agency in the final Network Plan is found in 40 CFR § 58.10 (a)(1):

> "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 also include and address, as appropriate, any received comments."

The public comment period for the 2023 Network Plan was held from June 1, 2023, to June 30, 2023. Public comments were received, and the ADEM provided responses to the comments in the final Network Plan. ADEM also provided supplemental responses to three comments on November 15, 2023, as requested by the EPA. In future Network Plan submittals, to satisfy the requirement in 40 CFR § 58.10 (a)(1) to "address, as appropriate, any received comments," ADEM must:

1. Respond point-by-point to each comment received. (This can include responding that a comment is not relevant to the plan.)
2. For each significant comment received (i.e., each comment requesting a specific change to the network), provide a rationale to explain the agency's decision, and reference any data or information used to reach that decision.

Comments on the 2023 Network Plan were submitted by Sanders Lead Company, EPA Region 4, and a joint set of comments submitted by the Mobile Environmental Justice Action Coalition (MEJAC), the Greater-Birmingham Alliance to Stop Pollution (GASP), and the Southern Environmental Law Center (SELC).

The EPA evaluated the public comments and the ADEM's responses as part of the Network Plan review. This evaluation is incorporated into the specific pollutant monitoring network evaluations in the sections following. The table below summarizes the Network Plan public comments, the ADEM's responses, and any comments from the EPA.

Table 4: Network Plan Public Comments and Agency Responses

Commenter	Summary of Public Comment	ADEM Response	EPA Comments
Sanders Lead Company	There was no mention of the Sample Saver Devices for the Troy Lead Station. Does ADEM still intend to install these devices on their ambient monitors?	Yes. Added language about sample savers to Pb network section on page 11.	
MEJAC, GASP, and SELC	"ADEM should undertake a more sufficient and meaningful consideration of environmental justice impacts in developing the 2023 Network Monitoring Plan." … "Commenters appreciate that ADEM included information from the EPA's EJScreen tool in an attempt to categorize environmental justice (EJ) impacts and implications of this Network Plan. However, running an EJScreen report does not amount to an actual EJ analysis."	*Supplemental Response on 11/15/2023:* "In monitoring for certain criteria pollutants, ADEM must follow EPA's regulations in determining the types and numbers of monitors in urban areas. Other than that population factor, ADEM's siting of monitors over the	The EPA provided the comments related to Title VI of the Civil Rights Act to the EPA's Office of External Civil Rights Compliance. The Network Plan meets the minimum requirements of 40 CFR Part 58. For future

Commenter	Summary of Public Comment	ADEM Response	EPA Comments
	"In order to fulfill that duty and ensure compliance with its obligations under Title VI [of the Civil Rights Act], as well as address environmental justice generally as requested in this comment, ADEM must conduct a meaningful analysis of EJ communities in developing its 2023 Network Plan." Comment references the GA EPD and JCDH plans as examples that more thoroughly analyze EJ considerations and address EJ. "Before finalizing the 2023 Network Plan, ADEM must undertake meaningful consideration of the air monitoring needs of EJ communities, such as assessing whether the Plan contains adequate air monitoring in communities of concern and if not, exploring options for changing the Plan or undertaking additional efforts to provide such monitoring in the near future…" … "At a minimum, ADEM should engage its existing Community Engagement program to hold public meetings throughout EJ communities in the state to determine their air pollution concerns and discuss options for monitoring ambient air pollution in EJ communities to address those concerns."	years has been, and continues to be, demographically neutral. For some criteria pollutants, siting has been determined by macro-scale considerations. An example is that, in monitoring for ozone in an urban area, a location in the urban core is desired, followed by a downwind site which allows for measurement of maximum ozone levels during summertime ozone events. For other criteria pollutants, monitoring is on a micro-scale, i.e., aimed at point sources with high levels of emissions. An example is lead, where ADEM's monitor is located as close as possible to a secondary smelter's plant boundary. In either of the above cases, one must find a monitor site which meets the extensive requirements of EPA's regulations. The site must be away from trees and roads, must have electrical power available, must be on property which the owner is willing to al low access free or by lease, must be accessible by road for servicing, must be secure from vandals and fauna, etc. For these reasons, siting of monitors over the last 50 years has been, and continues to be, demographically neutral."	plans, the EPA encourages ADEM to continue to identify and evaluate areas with environmental justice concerns related to ambient air monitoring. Also, for future Network Plans, including next year's, the EPA recommends that ADEM strive to ensure notices for public comment are made available: 1) in the predominant language(s) of the potentially impacted communities, and 2) in more than one location that is easily accessible to the public and individuals with disabilities (e.g., libraries, community centers, etc). Additionally, the EPA recommends that ADEM hold public meetings when requested by community members.
MEJAC, GASP, and SELC	"ADEM should modify its draft Network Plan to expand monitoring of air pollution in the Africatown community." "Commenters request that ADEM modify its draft Network Plan to include additional monitors to continuously measure ozone, particulate matter (PM), including PM2.5, and PM10, volatile organic compounds (VOCs), sulfur dioxide (SO2), and hazardous air pollutants to be sited in the Africatown environmental justice community in Mobile." - References EJSCREEN data for Africatown, which shows elevated EJ and air pollution indicators - Lists the air pollution sources in the	*Supplemental Response on 11/15/2023:* "Based on an analysis of major emission sources in Alabama, ADEM has determined all areas where there is a reasonable potential for the NAAQS not to be met are covered by the current air monitoring plan. If there are material changes in the distribution of major emission sources, future monitoring plans will re-purpose existing monitors and resources to address the new	The EPA will continue to work with ADEM to consider environmental justice in its air monitoring network design. See below for a discussion of possible options to further address environmental justice concerns in Africatown and in other communities with EJ concerns. Additionally, please find below additional information

Commenter	Summary of Public Comment	ADEM Response	EPA Comments
	community, including 6 major sources, 4 synthetic minor sources, and 22 unpermitted sources including mobile sources such as transportation facilities, and 8 bulk gasoline terminal facilities. - Cites Part 58 requirements: "...in developing its network monitoring plan, ADEM must consider "the ability of existing and proposed sites" to characterize exposures for "areas with relatively high populations of susceptible individuals (e.g., children with asthma) [.]" - Cites EPA Legal Tools to Advance Environmental Justice: "Furthermore, EPA, which reviews state plans, has authority to assess and ensure protections of vulnerable populations through ambient air monitoring network plans. EPA may 'apply greater scrutiny to the network assessments for areas where susceptible and vulnerable populations may be disproportionately affected by air pollution and may recommend network design changes and/or disapprove the submitted network assessments, as appropriate, to ensure that representative air quality data is available for use in air quality planning for such areas.'" "If ADEM does not have resources in its budget for additional monitors, we ask that it seek additional resources in grant funding from EPA. Additionally, the precise locations for the monitors should be determined in conjunction with the Africatown community."	data. In 50 years of operating a monitoring system, ADEM has located monitors across the State and so has sufficient information to make the determination that there are no areas which merit additional monitoring. It would not be a good use of society's resources to gather ambient data at additional sites which would show compliance with the Air Quality Standards, as the Standards ensure that all effects on human health are prevented if these Standards are met. The industrial and business activities associated with the seaport, as well as in the metropolitan area around Africatown, have been considered historically and currently and the latest air monitoring plan addresses them."	concerning EPA funding opportunities.
MEJAC, GASP, and SELC	"ADEM should commit to permanent PM10 monitoring in the downtown Mobile area." "Commenters commend ADEM for working with EPA and the City of Mobile to address citizen concerns regarding fugitive dust near the downtown area by deploying PM10 monitoring in Seals Park (AQS ID 01-097-8001)." … "Given the health impacts of PM10 pollution and the longstanding concerns of citizens in the area, ADEM should designate the Seals Park monitors as permanent SLAMS monitors instead of SPMs."	"Regarding the length of time ADEM plans to operate the PM10 monitor in downtown Mobile, ADEM plans to acquire data for at least three years. If the data shows levels significantly below the air quality standard, ADEM may remove the monitor. If levels are above the standard, ADEM will continue operation of the monitor, determine the cause(s) of the problem, and take appropriate action to correct it."	Since ADEM has committed to operate the monitors for at least three years to evaluate NAAQS compliance, the EPA accepts ADEM's proposal to classify the monitors as SPMs. After three complete years of data are collected, the EPA will use this data to evaluate the appropriateness of the PM_{10} network design for the Mobile, AL MSA. If the PM_{10} data show ambient concentrations exceeding 80 percent of the PM_{10} NAAQS, then a minimum SLAMS

Commenter	Summary of Public Comment	ADEM Response	EPA Comments
			requirement would apply to the MSA under 40 CFR Part 58, Appendix D, Table D-4.
MEJAC, GASP, and SELC	"ADEM should include a section on public information and outreach in the annual air monitoring plan, including a summary of air quality complaints." "Commenters recommend that each plan: (a) contain a section that summarizes community complaints received by ADEM over the past year relating to issues such as air quality, odors, and nuisance due to fugitive PM emissions; (b) address how monitoring might allow specific air pollutant data to be collected to address the specific community concerns raised by the complaints; (c) prioritize such monitoring efforts, if needed, based on factors such as the nature and severity of the complaints that need to be addressed; (d) propose the appropriate monitoring in the plan; and (e) attach the complaints received by ADEM"	Regarding availability of complaint information, access to the complaint database is available to the public at the following link: https://prd.adem.alabama.gov/complaints/	Possible violations of environmental laws and regulations can also be reported directly to the EPA on EPA's website.
MEJAC, GASP, and SELC	"ADEM should look into funding opportunities for a mobile ambient air monitoring device for supporting emergency management and monitoring fence line communities." - Commenters request that ADEM acquire a mobile Geospatial Measurement of Air Pollution (GMAP) monitoring vehicle - Referenced recent Moody Landfill emergency response, where EPA emergency response conducted air sampling.	*Supplemental Response on 11/15/2023:* "Although not relevant to the Monitoring Plan, ADEM is pleased to respond to this concern. Portable monitors are useful mainly in emergency situations which involve large quantities of air pollutant emissions. This type of emergency is infrequent. EPA has been willing to provide short-term monitoring with its extensive resources. It would not be a good use of society's resources for ADEM and similar States to purchase portable equipment and hire, train, and maintain personnel for such infrequent use."	Information about upcoming EPA grant funding available to ADEM is included below. The EPA Region 4 received funding under the Inflation Reduction Act (IRA) for mobile monitoring and is working to design and build a GMAP vehicle that can be deployed to communities and near air pollution sources starting in late 2024 or in 2025. Information about the EPA's emergency response air sampling near the Moody Landfill fire is available on the EPA's website.
MEJAC, GASP, and SELC	"ADEM must update the Network Plan to include monitoring of SO2 around Plant Barry." "Last year, EPA noted that ADEM's lack of SO2 monitoring as a deficiency in the 22-23 Network Plan and stated that ADEM should either install an SO2 SLAMS monitor or include its planned SO2 modeling as an addendum to the Plan and	"Regarding the need for SO2 monitoring near Alabama Power Co.'s Barry Plant, modelling shows that the air quality standard is not endangered. Modelling files are available at the following	The EPA appreciates ADEM's inclusion of the SO_2 modeling analysis in the final Network Plan and concurs that the analysis shows compliance with the

Commenter	Summary of Public Comment	ADEM Response	EPA Comments
	posted for a 30-day comment period." "Commenters request that ADEM provide such SO2 modeling or add a SO2 SLAMS monitor near Plant Barry." ... "Commenters request that ADEM provide them with a thorough update on the status of the Department's SO2 modeling and monitoring for Plant Barry."	link: https://adem.alabama.gov/programs/air/modelingfiles.cnt"	2010 1-hour SO_2 NAAQS.
EPA Region 4	"For the EPA to approve of the state's Network Plan, the ADEM must include the SO2 air modeling analysis that it performed for the area around Alabama Power Plant Barry."	"As a result of your comment, we are attaching a link to the SO2 modeling analysis as Appendix D in the monitoring plan. This analysis has also been available since its completion to members of the public upon request."	The EPA appreciates ADEM's inclusion of the SO_2 modeling analysis in the final Network Plan and concurs that the analysis shows compliance with the 2010 1-hour SO2 NAAQS.

The EPA is committed to working with ADEM to continue to evaluate air quality concerns in Africatown and other areas with environmental justice concerns[3], and to address disproportionate and adverse human health, environmental, and other cumulative impacts, including climate change, on communities with environmental justice concerns. The EPA is available to discuss how ADEM plans to address these considerations through the air monitoring network design process, including but not limited to:

1. Considering environmental justice when relocating existing air monitoring sites.
2. Adding additional SLAMS or SPM sites to the network in areas with environmental justice concerns or relocating existing sites to these areas.
3. Conducting air quality modeling for the specific pollutants raised by commenters to further characterize air quality in areas with environmental justice concerns, to assist in evaluating whether the current monitoring network is optimally designed.

In particular, the EPA will discuss with ADEM how it intends to address the public comments received that raise environmental justice concerns and request air monitoring in the Africatown community. For example, the EPA would be willing to approve a network modification such as relocating the existing Chickasaw O_3, $PM_{2.5}$, and SO_2 monitoring site (AQS ID: 01-097-0003) to a location in Africatown. In the EPA's analysis, a site located in Africatown could have the same monitoring objective (population exposure) and scale of representativeness (neighborhood scale) as the existing Chickasaw site, and so a relocation could satisfy the existing network requirements while also providing air quality data in a community with environmental justice concerns.

Any additional characterization or network changes resulting from this process should be submitted in the 2024 Network Plan or in an addendum to the 2023 Network Plan and made available for public comment as required by 40 CFR §58.10(a)(1). The EPA has several upcoming Inflation Reduction Act (IRA) grant programs under which ADEM can request funding to assist with these activities. The EPA

[3] Executive Order 14096 of April 21, 2023, Revitalizing Our Nation's Commitment to Environmental Justice for All, Section 2(b) *Definitions*. 88 FR 25251, 25252 (Apr. 26, 2023).

plans to make direct, noncompetitive Clean Air Act grant awards to state, local, and tribal air agencies using a portion of funds available under IRA sections 60105(a-c):

- 60105(a) *Fenceline Monitoring*: $117,500,000 "to deploy, integrate, support, and maintain fenceline air monitoring, screening air monitoring, national air toxics trends stations, and other air toxics and community monitoring."
- 60105(b) *Multipollutant Monitoring Stations*: $50,000,000: "(A) to expand the national ambient air quality monitoring network with new multipollutant monitoring stations; and (B) to replace, repair, operate, and maintain existing monitors."
- 60105(c) *Air Quality Sensors in Low-Income and Disadvantaged Communities*: $3,000,000 "to deploy, integrate, and operate air quality sensors in low-income and disadvantaged communities."

The EPA is also committed to working directly with communities. The EPA Region 4 is developing a PM sensor loan program. This loan program empowers the public to gain knowledge to drive positive change and improve public health by collecting PM sensor data. These data could be used to provide supplemental information to the existing regulatory monitoring network, or to characterize near-source $PM_{2.5}$ emissions in communities. The EPA Region 4 has also received IRA funding for mobile monitoring and is working to design and build a Geospatial Measurement of Air Pollution (GMAP) vehicle that can be deployed to communities and near air pollution sources starting in late 2024 or in 2025.

The EPA is also providing funding to communities under the Environmental and Climate Justice Grants (ECJ) program, created by the IRA and contained in Section 138 of the Clean Air Act. This program is providing approximately:

- $2 Billion for ECJ Community Change grants, and
- An additional $200 million available for technical assistance to the grantees.

The following entities are eligible to apply for these grants:

- A community based non-profit organization (CBO)
- A partnership of CBOs
- A partnership between a CBO and tribe, local government, or institution of higher education

The ECJ Community Change grants may be used for:

- Community-led air and other pollution monitoring, prevention, and remediation, and investments in low- and zero-emission and resilient technologies and related infrastructure and workforce development that help reduce greenhouse gas emissions and other air pollutants;
- Mitigating climate and health risks from urban heat islands, extreme heat, wood heater emissions, and wildfire events;
- Climate resiliency and adaptation;
- Reducing indoor toxics and indoor air pollution; or

- Facilitating engagement of disadvantaged communities in state and federal advisory groups, workshops, rulemakings, and other public processes.

More information about these grants, including how to apply, and informational presentations and videos can be found at the EPA's Environmental Justice Grants, Funding, and Technical Assistance website.

The submitted Network Plan meets the public comment requirements of 40 CFR § 58.10. The EPA Region 4 Administrator reserves the authorities provided by 40 CFR Part 58, Appendix D to require additional SLAMS monitoring for specific pollutants.

Operating Schedules
40 CFR § 58.12

The monitoring network proposed in the Network Plan meets the required operating schedules for all continuous analyzers and all manual Pb, PM_{10}, $PM_{2.5,}$ and $PM_{2.5}$ Speciation Trends Network (STN) monitors.

Air Quality Index (AQI) Reporting
40 CFR § 58.50

AQI reporting is required for MSAs with populations of 350,000 or more. Four MSAs in the state of Alabama meet this criterion: Birmingham, Huntsville, Mobile, and Montgomery. The Network Plan indicates that an AQI is being reported in each of these MSAs, as well as in Phenix City. Thus, the state is meeting its AQI reporting requirements.

National Core (NCore) Monitoring Network
40 CFR Part 58, Appendix D, Section 3.0

A requirement that each state operate at least one NCore site is found in 40 CFR Part 58, Appendix D, Section 3. The NCore site must measure, at a minimum, $PM_{2.5}$ particle mass using continuous and integrated/filter-based samplers, speciated $PM_{2.5}$, $PM_{10\text{-}2.5}$ particle mass, O_3, SO_2, CO, NO/NO_y, wind speed, wind direction, relative humidity, and ambient temperature. This section requires each state to operate at least one NCore site. States may delegate this requirement to a local agency. This requirement is delegated to the JCDH, which maintains and operates the NCore site in the state and submits a separate Network Plan to the EPA.

Table 5. NCore Monitoring Sites

CBSA	AQS IDs	Site Name	Requirement Met (Y/N)
Birmingham-Hoover, AL MSA	01-073-0023	North Birmingham NCore[1]	Y

[1] Site operated by the JCDH

The NCore monitoring network described in the Network Plan meets the minimum requirements of 40 CFR Part 58.

O_3 Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.1 and Table D-2

Ambient air monitoring network design criteria for O_3 are found in 40 CFR Part 58, Appendix D, Section 4.1. This section requires a state, and where appropriate, local agencies, to operate O_3 sites for various locations depending upon area size and typical peak concentrations. Table 6 summarizes the minimum O_3 monitoring requirements for Alabama CBSAs.

Table 6. O_3 Design Criteria – Minimum Required SLAMS Monitors

MSA	# of Minimum Required SLAMS Monitors	# of SLAMS Monitors	AQS IDs (Site Name) of SLAMS Monitors	Requirement Met (Y/N)
Anniston-Oxford-Jacksonville, AL	0	0	N/A	Y
Auburn-Opelika, AL	0	0	N/A	Y
Birmingham-Hoover, AL	2	6	01-117-0004 (Helena) 01-073-1010 (Leeds)[1] 01-073-1005 (McAdory)[1] 01-073-0023 (NCore)[1] 01-073-2003 (Wylam)[1] 01-073-6002 (Tarrant)[1]	Y
Columbus, GA-AL	1	2	01-113-0003 (Phenix City) 13-215-0008 (Columbus-Airport)[2]	Y
Daphne-Fairhope-Foley, AL	0	1	01-003-0010 (Fairhope)	Y
Decatur, AL	1	1	01-103-0011 (Decatur)	Y
Dothan, AL	0	0	N/A	Y
Florence-Muscle Shoals, AL	0	0	N/A	Y
Gadsden, AL	1	1	01-055-0010 (Gadsden Community College)[4]	Y
Huntsville, AL	2	2	01-089-0014 (Old Airport)[3] 01-089-0022 (Capshaw)[3]	Y
Mobile, AL	1	2	01-097-0003 (Chickasaw) 01-097-2005 (Bay Road)	Y
Montgomery, AL	1	2	01-051-0004 (Wetumpka) 01-101-1002 (MOMS)	Y
Tuscaloosa, AL	1	1	01-125-0011 (Duncanville Middle School)	Y
N/A – Sumter County, AL	0	1	01-119-0003 (Ward)	Y

[1] Monitors operated by the JCDH.
[2] Monitors operated by the Georgia Environmental Protection Division (GA EPD).
[3] Monitors operated by the HDNREM.
[4] This monitor is approved to relocate from the Southside site (AQS ID: 01-055-0011)

In the Network Plan, ADEM proposes to relocate the Southside SLAMS O_3 site (AQS ID: 01-055-0011) in the Gadsden, AL CBSA to the Gadsden Community College site (AQS ID: 01-055-0010) and consolidate the O_3 and $PM_{2.5}$ monitors in the CBSA at the site. This network modification was originally proposed in an addendum to the 2022 Network Plan submitted on April 5, 2023, but some of the information required by 40 CFR § 58.10(b) was not yet finalized. This change is proposed to consolidate resources

because a new monitoring shelter funded under the American Rescue Plan is being installed at the Gadsden Community College site. The shelter at the Southside site is old and in need of replacement, and the new shelter at Gadsden Community College can accommodate the existing $PM_{2.5}$ monitor as well as the relocated O_3 monitor from the Southside site. The EPA concurs with ADEM's assessment that the Gadsden Community College site is more urban and closer to the city of Gadsden than the Southside site, and that it is located in an area with greater population density. The O_3 monitor will retain the same monitoring objective (highest concentration) and spatial scale (neighborhood scale) after relocation to the Gadsden Community College site. Therefore, this relocation is approved.

The proposed O_3 monitoring network described in the Network Plan meets the minimum requirements of 40 CFR Part 58 in all areas.

CO Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.2

Ambient air monitoring network design criteria for CO are found in 40 CFR Part 58, Appendix D, Section 4.2. This section requires CBSAs with populations over one million to operate one CO monitor collocated with a near-road NO_2 monitor. Only the Birmingham-Hoover, AL CBSA meets the threshold for having a CO monitor and the JCDH operates the required monitor.

Table 7. CO Design Criteria – Minimum Required SLAMS Near-Road Monitors

CBSA	# of Minimum Required Near-road Monitors	# of Near-road Monitors	AQS IDs (Site Name) of Existing Near-road Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-073-2059 (Arkadelphia)[1]	Y

[1] Monitor operated by the JCDH.

The Regional Administrator required monitoring for CO are found in 40 CFR Part 58, Appendix D Section 4.2.2. The section states, "[t]he Regional Administrators, in collaboration with states, may require additional CO monitors above the minimum number of monitors required in 4.2.1." The Regional Administrator has not identified any required CO monitor for Alabama to date.

Table 8. CO Design Criteria – Minimum Required SLAMS RA-Required Monitors

CBSA	# of Minimum RA- Required Monitors	# of RA-Required Monitors in Plan	AQS IDs (Site Name) of RA-Required Monitor(s) in Plan	Requirement Met (Y/N)
None	0	0	None	Y

The proposed CO monitoring network described in the Network Plan meets the minimum requirements of 40 CFR Part 58.

NO_2 Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.3

Ambient air monitoring network design criteria for NO_2 are found in 40 CFR Part 58, Appendix D, Section 4.3. Three types of NO_2 monitoring are required: near-road, area-wide, and Regional Administrator. These types of NO_2 monitoring are described in Sections 4.3.2, 4.3.3, and 4.3.4, respectively. The JCDH operates the one near-road NO_2 monitor in the Birmingham-Hoover, AL CBSA (see Table 9).

Table 9. NO_2 Design Criteria - Minimum Required SLAMS Near-Road Monitors

CBSA	# of Minimum Required Near-Road Monitors	# of Near-Road Monitors	AQS IDs (Site Name) of Existing Near-Road Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-073-2059 (Arkadelphia)[1]	Y

[1] Monitor operated by the JCDH.

This section states there must be one monitoring station in each CBSA with a population of 1,000,000 or more persons to monitor a location of expected highest NO_2 concentrations representing the neighborhood or larger spatial scales. As identified in Table 10, one area-wide NO_2 monitor is required in the Birmingham-Hoover, AL CBSA. This monitor is located at the NCore site in Jefferson County and operated by the JCDH.

Table 10. NO_2 Design Criteria - Minimum Required SLAMS Area-Wide Monitors

CBSA	# Minimum Required Area-Wide Monitors	# Area-Wide Monitors	AQS IDs (Site Name) of Area-Wide Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-073-0023 (North Birmingham)[1]	Y

[1] Monitor operated by the JCDH.

Ambient air monitoring network design criteria for Regional Administrator-required NO_2 monitoring, often referred to as RA-40 monitoring, are found in 40 CFR Part 58, Appendix D, Section 4.3.4. Under these provisions, Regional Administrators must require a minimum of 40 additional NO_2 monitoring stations nationwide, with a primary focus on siting these monitors in locations to protect susceptible and vulnerable populations. The full list of NO_2 monitors identified by the EPA's Regional Administrators can be found on the EPA's website at http://www.epa.gov/ttnamti1/svpop.html. The Regional Administrator has not identified any required NO_2 monitor for Alabama to date.

Table 11. NO_2 Design Criteria - Minimum Required SLAMS RA-40 Monitors

CBSA	# of Minimum Required RA-40 Monitors	# of RA-40 Monitors in Plan	AQS IDs (Site Name) of RA-40 Monitors in Plan	Requirement Met (Y/N)
None	0	0	N/A	Y

The NO_2 monitoring network described by the ADEM in its Network Plan meets the minimum requirements of 40 CFR Part 58.

SO_2 Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.4

Ambient air monitoring network design criteria for SO_2 are found in 40 CFR Part 58, Appendix D, Section 4.4. This section requires that a population weighted emissions index (PWEI) be calculated by states for each CBSA. As a result, the SO_2 monitoring site(s) required in each CBSA will satisfy minimum monitoring requirements if the monitor(s) is sited within the boundaries of the parent CBSA and is of the following site types: population exposure, maximum concentration, source-oriented, general background, or regional transport. An SO_2 monitor at an NCore station may satisfy minimum monitoring requirements if it is located within a CBSA with minimally required monitors consistent with Appendix D, Section 4.4.

Based upon PWEIs calculated using the latest population estimates and 2020 National Emissions Inventory (NEI) data, the minimum numbers of monitors required for the CBSAs in Alabama are summarized in Table 12.

Table 12. SO_2 Design Criteria – Minimum Required SLAMS PWEI Monitors

CBSA	2022 Population Estimate	2020 NEI Emissions (Tons per year)	PWEI	# of Minimum Required PWEI SO_2 Monitors	# of SO_2 SLAMS Monitors	Site Names (AQS IDs) of Existing SO_2 Monitors in Plan	Requirement Met (Y/N)
Birmingham-Hoover, AL	1,116,857	12,683	14,166	1	3	01-073-0023 (North Birmingham)[1] 01-073-2003 (Wylam)[1] 01-117-9001 (L'hoist, Montevallo Plant DRR)	Y
Mobile, AL	426,533	4,235	1,806	0	1	01-097-0003 (Chickasaw)	Y

[1] Monitors operated by the JCDH.

In response to the 2022 Network Plan, the EPA did not approve the SO_2 network and required additional characterization of SO_2 concentrations near Alabama Power Plant Barry. A public comment received on the 2021 Network Plan requested monitoring of SO_2 around Plant Barry to assess compliance with the SO_2 national ambient air quality standards (NAAQS). This comment referenced SO_2 air quality modeling performed around Plant Barry that indicated modeled exceedances of the 1-hour SO_2 NAAQS near the plant and raised environmental justice concerns in the surrounding communities. To adequately characterize the SO_2 concentrations around Plant Barry and make a determination on whether to approve or disapprove the SO_2 monitoring network, the EPA required that, in an addendum to the 2021 Network Plan or in the 2023 Network Plan, the ADEM provide either:

1. An SO_2 air quality modeling analysis that demonstrates attainment of the 1-hour SO_2 NAAQS following the procedures outlined in the EPA's *SO_2 NAAQS Designations Modeling Technical*

Assistance Document[4] and the EPA's Guideline on Air Quality Models found in 40 CFR Part 51, Appendix W; or,

2. A proposal to install an SO_2 State or Local Air Monitoring Station (SLAMS) in the area of expected maximum 1-hour SO_2 concentration near Plant Barry, that follows the procedures for installing a monitor outlined in the EPA's *Source-Oriented Sulfur Dioxide (SO_2) Monitoring Technical Assistance Document.*[5]

The ADEM agreed to conduct an additional modeling analysis to characterize SO_2 concentrations in the area. On April 18, 2022, ADEM provided updated emissions data from Plant Barry and the nearby Akzo Nobel facility to the EPA. Following review of this information, the EPA requested that ADEM provide an updated AERMOD modeling analysis using the current emissions data. On June 21, 2022, ADEM submitted a draft updated modeling analysis. The EPA reviewed the draft modeling and provided comments to ADEM on July 14, 2022. The EPA received a response to comments and revised modeling from ADEM on July 26, 2022. In a public comment submitted on the draft 2023 Network Plan, the EPA required that ADEM include the final SO_2 air modeling analysis in its 2023 Network Plan, as the EPA required in its response to the 2022 Network Plan on November 2, 2022. In response to the EPA comment, ADEM included a link to the final SO_2 air modeling analysis in the final 2023 Network Plan.

The EPA has reviewed the final SO_2 modeling analysis and ADEM's responses to EPA's prior comments on the modeling and has determined that the modeling analysis was performed in a manner consistent with the EPA *SO_2 NAAQS Designations Modeling Technical Assistance Document*[4]. The modeling shows a maximum 1-hour SO_2 concentration of 61.5 ppb, which is below the 2010 1-hour SO_2 NAAQS of 75 ppb. The modeling shows that SO_2 concentrations in the entire area are expected to be below the 1-hour SO_2 NAAQS. Based on this analysis, the EPA concurs that the existing SO_2 monitoring network is adequate to meet the required monitoring objectives of 40 CFR Part 58, and additional SO_2 monitoring is not required at this time.

The proposed SO_2 monitoring network described in the Network Plan meets all the minimum requirements of 40 CFR Part 58 and is approved.

Regional Administrator Required SO_2 Monitoring
40 CFR Part 58, Appendix D, Section 4.4.3

The Regional Administrator may require additional SO_2 monitoring stations above the minimum number of monitors required in 40 CFR Part 58, Appendix D, Section 4.4.2, where the minimum monitoring requirements are not sufficient to meet monitoring objectives. 40 CFR Part 58, Appendix D, Section 4.4.3 states:

[4] SO_2 NAAQS Designations Modeling Technical Assistance Document, August 2016 Draft. U.S. EPA Office of Air and Radiation, Office of Air Quality Planning and Standards, Air Quality Assessment Division. https://www.epa.gov/sites/default/files/2016-06/documents/so2modelingtad.pdf

[5] Source-Oriented Sulfur Dioxide (SO_2) Monitoring Technical Assistance Document, February 2016 Draft. U.S. EPA Office of Air and Radiation, Office of Air Quality Planning and Standards, Air Quality Assessment Division. https://www.epa.gov/sites/default/files/2016-06/documents/so2monitoringtad.pdf

"The Regional Administrator may require additional SO_2 monitoring stations above the minimum number of monitors required in 4.4.2 of this part, where the minimum monitoring requirements are not sufficient to meet monitoring objectives. The Regional Administrator may require, at his/her discretion, additional monitors in situations where an area has the potential to have concentrations that may violate or contribute to the violation of the NAAQS, in areas impacted by sources which are not conducive to modeling, or in locations with susceptible and vulnerable populations, which are not monitored under the minimum monitoring provisions described above. The Regional Administrator and the responsible State or local air monitoring agency shall work together to design and/or maintain the most appropriate SO_2 network to provide sufficient data to meet monitoring objectives."

As discussed in the previous section, the SO_2 modeling analysis submitted in the Network Plan that shows that SO_2 concentrations in the entire area around Plant Barry are expected to be below the 1-hour SO_2 NAAQS. Based on this analysis, the EPA concurs that the existing SO_2 monitoring network is adequate to meet the required monitoring objectives of 40 CFR Part 58, and the EPA is not requiring additional SO_2 monitoring at this time.

Table 13. SO_2 Design Criteria – Minimum Required SLAMS RA Monitors

CBSA	# of Minimum RA-Required Monitors	# of RA-Required Monitors in Plan	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
None	0	0	None	N/A[1]

[1] Based on the SO_2 modeling analysis submitted in the 2023 Network Plan, which shows modeled concentrations below the 1-hour SO_2 NAAQS, the EPA is not requiring additional SO_2 monitoring.

Pb Monitoring Requirements
40 CFR Part 58, Appendix A, Section 3.4
40 CFR Part 58, Appendix D, Section 4.5

The monitoring requirements for Pb found at 40 CFR Part 58, Appendix D, Section 4.5 require that at a minimum, there must be one source-oriented SLAMS site located to measure the maximum Pb concentration in ambient air resulting from each non-airport Pb source which emits 0.50 or more tons per year and from each airport which emits 1.0 or more tons per year. Only one non-airport Pb source in Alabama emits above 0.50 tons per year of Pb: Sanders Lead in Troy, AL (see Table 15). No airport Pb source in Alabama emits 1.0 or more tons per year.

Table 15. Pb Design Criteria – Minimum Required SLAMS Source-Oriented Monitors

Source Name	CBSA	Pb Emissions in 2020 NEI (tpy)	# of Minimum Required Source-oriented Monitors	# of Source-oriented SLAMS Monitors in Plan	AQS IDs (site name) of Existing Source-oriented SLAMS Monitors in Plan	Requirement Met (Y/N)
Sanders Lead	Troy, AL	0.61	1[1]	1	01-109-0003 (Troy Lead)	Y

[1] Pb monitoring is required near this source by the area's 2008 Pb NAAQS maintenance plan.

Based on a review of the 2020 NEI, the EPA identified an additional source with reported Pb emissions above 0.50 tons per year of Pb. Fort Novosel (formerly Fort Rucker) in Dale County, AL reported 0.70 tons of Pb emissions in the 2020 NEI. However, after further discussions with the source, ADEM determined that the emissions estimate was incorrect and that the correct emissions estimate of lead is 4.47 pounds per year (0.002 tons per year). The EPA reviewed additional information submitted by ADEM and concurs with this revised emissions estimate. The EPA is working with ADEM to correct this error in the 2020 NEI. Since the EPA concurs that the actual emissions from Fort Novosel are below 0.50 tons per year, Pb monitoring is not required near the source.

The Pb collocation requirements are found in 40 CFR Part 58, Appendix A, 3.4.4. Those requirements include that: 15 percent of the primary monitors are collocated and have at least one collocated quality control monitor (if the total number of monitors is less than three). These collocation requirements are assessed at the primary quality assurance organization (PQAO) level. The ADEM operates the one required collocated Pb monitor at its Troy Lead site (see Table 16).

Table 16. Pb Design Criteria – Minimum Required Collocated Monitors

PQAO	# of Minimum Required Collocated Monitors	# of Existing Collocated Monitors	AQS IDs (Site Name) of Collocated Monitoring Sites in Plan	Requirement Met (Y/N)
ADEM	1	1	01-109-0003 (Troy Lead)	Y

The proposed Pb monitoring network described in the Network Plan meets all the minimum requirements of 40 CFR Part 58.

PM_{10} Monitoring Requirements
40 CFR Part 58, Appendix A, Section 3.3
40 CFR Part 58, Appendix D, Section 4.6 and Table D-4

Ambient air monitoring network design criteria for PM_{10} are found in 40 CFR Part 58, Appendix D, Section 4.6. Table D-4. This section indicates the approximate number of PM_{10} stations required in MSAs with populations exceeding 100,000 to characterize national and regional PM_{10} air quality trends and geographical patterns. The PM_{10} monitoring requirements for each MSA in Alabama are summarized in the table below.

Table 17. PM_{10} Design Criteria – Minimum Required SLAMS Monitors

MSA	# of Minimum Required SLAMS Monitors	# of SLAMS Monitors in Plan	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
Birmingham-Hoover, AL	2-4	4	01-073-1010 (Leeds)[1] 01-073-0023 (North Birmingham)[1] 01-073-6002 (Tarrant)[1] 01-073-2003 (Wylam)[1]	Y
Huntsville, AL	1-2	3	01-089-0002 (Pulaski Pike)[2] 01-089-0004 (South Parkway)[2] 01-089-0014 (Old Airport)[2]	Y
Montgomery, AL	0-1	1	01-101-1002 (MOMS)	Y
Mobile, AL	0-1	0	None[3]	Y

MSA	# of Minimum Required SLAMS Monitors	# of SLAMS Monitors in Plan	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
Columbus, GA-AL	0-1	0	None	Y
Montgomery, AL	0-1	0	None	Y
Tuscaloosa, AL	0-1	0	None	Y

[1] Monitors operated by the JCDH.
[2] Monitors operated by the HDNREM.
[3] ADEM proposed to establish SPM PM_{10} monitors at the Seals Park site (AQS ID: 01-097-8001) in the community near the Mobile Coal Terminals, in response to community concerns and complaints. After three years of complete data are collected, the EPA will use this data to evaluate the appropriateness of the PM_{10} network design for the Mobile, AL MSA.

The PM_{10} collocation requirements for manual methods found in 40 CFR Part 58, Appendix A, Section 3.3.4. Those requirements include that: 15 percent of each network of manual PM_{10} methods (at least one site) must be collocated, and the sites with collocated monitors should be among those measuring annual mean concentrations in the highest 25 percent of the network. These collocation requirements are assessed at the PQAO level. The one required PM_{10} collocated monitor is located at the MOMS site.

Table 18. PM_{10} Design Criteria – Minimum Required Collocated Monitors

PQAO	# of Minimum Required Collocated Monitors	# of Existing Collocated Monitors	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
ADEM	1	1	01-101-1002 (MOMS)	Y

For the last several years, public commenters have requested PM_{10} monitoring in Mobile due to concerns about fugitive dust emissions from coal loading and unloading activities at the Port of Mobile (since the 2016 Network Plan). Monitoring had previously been conducted in other areas of Mobile and at the fenceline of the coal terminals, but not in the communities closest to the largest sources of coal dust emissions. This historical monitoring had shown PM_{10} NAAQS violations at a fenceline monitor near the coal terminal (AQS ID: 01-097-0030) and had shown PM_{10} concentrations below the NAAQS in other areas farther away from the coal terminals.

In the Network Plan, ADEM proposes the new Seals Park site (AQS ID: 01-097-8001) to characterize the maximum PM_{10} concentrations in the community near the Port of Mobile coal terminals. The state proposes that the source-oriented site operate SPM manual PM_{10} and continuous PM_{10} monitors, and an SPM mini-vol sampler for particle composition analysis. This network modification was originally proposed in an addendum to the 2022 Network Plan submitted on April 5, 2023, but some of the information required by 40 CFR § 58.10(b) was not yet finalized. The EPA appreciates ADEM's efforts to establish monitoring in this area in response to community concerns and provided additional grant funding to ADEM to support this monitoring.

The EPA notes that the Seals Park PM_{10} monitors are proposed as SPMs; however, the monitors will operate for at least three years, be comparable to the PM_{10} NAAQS, and will meet the requirements of 40 CFR Part 58 for NAAQS monitoring. Public commenters requested that the PM_{10} monitors be reclassified as SLAMS, and the EPA requested in its response to the 2022 Network Plan that the

monitors be classified as SLAMS. Since ADEM has committed to operate the monitors for at least three years to evaluate NAAQS compliance, the EPA accepts ADEM's proposal to classify the monitors as SPMs. After three complete years of data are collected, the EPA will use this data to evaluate the appropriateness of the PM_{10} network design for the Mobile, AL MSA. If the PM_{10} data show ambient concentrations exceeding 80 percent of the PM_{10} NAAQS, then a minimum SLAMS requirement would apply to the MSA under 40 CFR Part 58, Appendix D, Table D-4.

The proposed PM_{10} monitoring network described in the Network Plan meets the minimum requirements of 40 CFR Part 58.

$PM_{2.5}$ Monitoring Requirements
40 CFR Part 58, Appendix A, Section 3.2.3
40 CFR Part 58, Appendix D, Section 4.7 and Table D-5

Ambient air monitoring network design criteria for $PM_{2.5}$ are found in 40 CFR Part 58, Appendix D, Section 4.7. This section requires that the state and, where applicable, local agencies operate the minimum number of required $PM_{2.5}$ SLAMS sites listed in Appendix D, Table D-5. The $PM_{2.5}$ monitoring requirements for each MSA in Alabama are summarized in the table below.

Table 19. $PM_{2.5}$ Design Criteria – Minimum Required SLAMS Monitors

MSA	# of Minimum Required SLAMS Monitors	# of $PM_{2.5}$ SLAMS Monitors	AQS IDs (Site Name) of $PM_{2.5}$ SLAMS Monitors	Requirement Met (Y/N)
Anniston-Oxford-Jacksonville, AL	0	0	N/A	Y
Auburn-Opelika, AL	0	0	N/A	Y
Birmingham-Hoover, AL	2	5	01-073-0023 (North Birmingham)[1] 01-073-1005 (McAdory)[1] 01-073-1010 (Leeds)[1] 01-073-2003 (Wylam)[1] 01-073-2059 (Near-road)[1]	Y
Columbus, GA-AL	0	3	01-113-0003 (Phenix City) 13-151-0008 (Columbus-Airport)[2] 13-151-0012 (Columbus-Baker)[2]	Y
Daphne-Fairhope-Foley, AL	0	1	01-003-0010 (Fairhope)	Y
Decatur, AL	0	1	01-103-0011 (Decatur)	Y
Dothan, AL	0	0	N/A	Y
Florence-Muscle Shoals, AL	0	0	N/A	Y
Gadsden, AL	0	1	01-055-0010 (Gadsden Community College)	Y
Huntsville, AL	1	1	01-089-0014 (Old Airport)[3]	Y
Mobile, AL	0	1	01-097-0003 (Chickasaw)	Y
Montgomery, AL	0	1	01-101-1002 (MOMS)	Y
Tuscaloosa, AL	0	1	01-125-0011 (Duncanville Middle School)	Y

[1] Monitors operated by the JCDH.

[2] Monitors operated by the GA EPD.
[3] Monitors operated by the HDNREM.

Forty (40) CFR Part 58, Appendix A, Section 3.2.3 states that 15 percent of each network of manual $PM_{2.5}$ methods (at least one site) must be collocated. Forty (40) CFR Part 58, Appendix A, Section 3.2.3.1 states that for each distinct monitoring method designation (FRM or FEM) that a PQAO is using for a primary monitor, the PQAO must have 15 percent of the primary monitors of each method designation collocated; and have at least one collocated quality control monitor. The first collocated monitor must be a designated FRM monitor. Section 3.2.3.2 states that for each primary monitor designated as an FEM used by the PQAO, 50 percent of the monitors designated for collocation (or the first if only one collocation is necessary) shall be collocated with an FRM quality control monitor and 50 percent of the monitors shall be collocated with a monitor having the same method designation as the FEM primary monitor. ADEM is required to have two collocated $PM_{2.5}$ monitors, and it operates them at its MOMS and Phenix City sites.

Table 20. $PM_{2.5}$ Design Criteria – Minimum Required Collocated Monitors

PQAO	Method	AQS Method Code	# of Primary $PM_{2.5}$ Monitors	# of Minimum Required Collocated $PM_{2.5}$ Monitors	# of Collocated $PM_{2.5}$ Monitors	Site Names (AQS IDs) of Collocated $PM_{2.5}$ Sites	Requirement Met (Y/N)
ADEM	Thermo 2025i	145	1	1	1	01-113-0003 (Phenix City) (FRM-FRM)	Y
ADEM	Met One BAM 1022	209	9	1	1	01-101-1002 (MOMS) (FEM-FRM)	Y

The proposed $PM_{2.5}$ monitoring network described in the Network Plan meets the minimum requirements of 40 CFR Part 58.

$PM_{2.5}$ Near-Road Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.7.1(b)(2)

Regulatory requirements in 40 CFR Part 58, Appendix D, 4.7.1(b)(2) require that in CBSAs with populations of 1,000,000 or more persons, at least one $PM_{2.5}$ monitor is to be collocated at a near-road NO_2 station. $PM_{2.5}$ near-road monitoring was required in the Birmingham-Hoover CBSA by January 1, 2017, and has been established by the JCDH.

Table 21. $PM_{2.5}$ Design Criteria - Minimum Required SLAMS Near-Road Monitors

CBSA	# of Minimum Required Near-Road Monitors	# Near-Road Monitors	AQS IDs (Site Name) of Existing Near-Road Monitors	Requirement Met (Y/N)
Birmingham-Hoover, AL	1	1	01-073-2059 (Arkadelphia)[1]	Y

[1] Monitors operated by the JCDH.

The proposed near-road $PM_{2.5}$ monitoring network described in the Network Plan meets all design criteria of 40 CFR Part 58.

$PM_{2.5}$ Continuous Monitoring Requirements
40 CFR Part 58, Appendix D, Section 4.7.2

Regulatory requirements for continuous $PM_{2.5}$ monitoring require that the state, or where appropriate local, agencies operate continuous $PM_{2.5}$ analyzers equal to at least one-half (round up) the minimum required sites listed in Appendix D, Table D–5. The continuous $PM_{2.5}$ monitoring requirements for each MSA in Alabama are summarized in the table below.

Table 22. $PM_{2.5}$ Design Criteria – Minimum Required Continuous Monitors

MSA	# of Minimum Required Continuous $PM_{2.5}$ Monitors	# of Continuous $PM_{2.5}$ Monitors	AQS IDs (Site Name) of Existing Continuous Monitors	Requirement Met (Y/N)
Anniston-Oxford-Jacksonville, AL	0	0	N/A	Y
Auburn-Opelika, AL	0	0	N/A	Y
Birmingham-Hoover, AL	1	4	01-073-1010 (Leeds)[1] 01-073-1005 (McAdory)[1] 01-073-0023 (North Birmingham)[1] 01-073-2003 (Wylam)[1]	Y
Columbus, GA-AL	0	2	13-151-0008 (Columbus-Airport)[2] 13-151-0012 (Columbus-Baker)[2]	Y
Daphne-Fairhope-Foley, AL	0	1	01-003-0010 (Fairhope)	Y
Decatur, AL	0	1	01-103-0011 (Decatur)	Y
Dothan, AL	0	0	N/A	Y
Florence-Muscle Shoals, AL	0	0	N/A	Y
Gadsden, AL	0	1	01-055-0010 (Gadsden Community College)	Y
Huntsville, AL	1	1	01-089-0014 (Old Airport)[3]	Y
Mobile, AL	0	1	01-097-0003 (Chickasaw)	Y
Montgomery, AL	0	1	01-101-1002 (MOMS)	Y
Tuscaloosa, AL	0	1	01-125-0011 (Duncanville Middle School)	Y

[1] Monitors operated by the JCDH.
[2] Monitors operated by the GA EPD.
[3] Monitors operated by the HDNREM.

At least one required continuous analyzer in each MSA must be collocated with one of the required FRM/FEM/Approved Regional Method (ARM) monitors, unless at least one of the required FRM/FEM/ARM monitors is itself a continuous FEM or ARM monitor in which case no collocation requirement applies.

These minimum continuous $PM_{2.5}$ monitoring requirements are being met by the ADEM. Also, the continuous $PM_{2.5}$ collocation requirements are being met in all MSAs. The continuous $PM_{2.5}$ monitoring network described in the Network Plan meets the minimum requirements of 40 CFR Part 58.

$PM_{2.5}$ Background and Transport Sites
40 CFR Part 58, Appendix D, Section 4.7.3

Monitoring requirements in 40 CFR Part 58, Appendix D, Section 4.7.3 state that each state shall install and operate at least one $PM_{2.5}$ site to monitor for regional background and at least one $PM_{2.5}$ site to monitor for regional transport. The ADEM exceeds the $PM_{2.5}$ background monitor requirement by operating two monitors and meets the $PM_{2.5}$ transport monitor requirement by operating one monitor (see Table 23).

Table 23. $PM_{2.5}$ Regional Background and Transport Monitors

Requirement	# of Minimum Required Monitors	# of Monitors in Plan	AQS IDs (Site Name) of Existing SLAMS Monitors in Plan	Requirement Met (Y/N)
Background	1	2	01-049-1003 (Crossville) 01-119-0003 (Ward)	Y
Transport	1	1	01-027-0001 (Ashland)	Y

The ADEM meets the requirements of 40 CFR Part 58 for background and transport sites.

$PM_{2.5}$ Chemical Speciation Network (CSN)
40 CFR Part 58, Appendix D, Section 4.7.4

Monitoring requirements in 40 CFR Part 58, Appendix D, Section 4.7.4 state that each state shall conduct chemical speciation monitoring and analyses at sites designated to be part of the $PM_{2.5}$ Speciation Trends Network (STN). The selection and modification of these STN sites must be approved by the Administrator. The $PM_{2.5}$ CSN includes STN stations and supplemental speciation stations that provide chemical species data of fine particulate. The ADEM operates one CSN site at its Phenix City site.

Table 24. $PM_{2.5}$ Chemical Speciation Network

CBSA	AQS IDs (Site Name) of CSN Monitor in Plan
Columbus, GA-AL	01-113-0001 (Phenix City)
Birmingham, AL	01-073-0023 (North Birmingham)[1] 01-073-2003 (Wylam)[1]

[1] These monitors are maintained and operated by the JCDH.

The operation of the ADEM's CSN monitor in Phenix City is consistent with the most recent CSN review completed by the EPA.

Photochemical Assessment Monitoring Stations (PAMS)
40 CFR Part 58, Appendix D, Section 5.0

With the promulgation of a new O_3 NAAQS on October 1, 2015, the EPA finalized changes to the PAMS requirements. The EPA extended the implementation date an additional two years from the initial implementation date of June 1, 2019. This extension was needed to provide all agencies the funding and equipment necessary to implement the program. This requirement for Alabama is being met in Jefferson County by the JCDH, which operates the required PAMS measurements at the North

Birmingham NCore site (AQS ID: 01-073-0023). The EPA will continue to work with the JCDH to address the implementation challenges of this new monitoring program. The PAMS monitoring requirement is being met in the state.

Non-SLAMS Monitoring

The Network Plan also includes the following non-SLAMS monitoring summarized in the table below. These monitors include criteria pollutant monitors that are comparable to the NAAQS and designated as special purpose by ADEM, and federal monitors operated by the EPA, the National Park Service, or the U.S. Forest Service.

Table 25. Non-SLAMS Monitors

CBSA	Pollutant	Monitor Type	AQS ID and Site Name of Non-SLAMS Monitor in Plan
Mobile, AL	PM_{10}, PM_{10} speciation	SPM	01-097-8001 – Seals Park
Fort Payne, AL	O_3	EPA	01-049-9991 – Sand Mountain CASTNET
Decatur, AL	Visibility	IMPROVE	01-079-0002 – Sipsey
Birmingham-Hoover, AL	Visibility	IMPROVE	01-073-0023 – North Birmingham

Areas with Environmental Justice Concerns

Among other things, E.O. 14096 directs federal agencies to seek out and encourage the involvement of persons and communities potentially affected by providing timely opportunities for members of the public to share information or concerns and participate in decision-making processes, ensuring that agencies offer or provide information in a manner that provides meaningful access to individuals with limited English proficiency, individuals with disabilities, and communities or groups of people who are potentially affected and who are not regular participants in Federal decision-making.[6] While the EO does not impose new requirements on states, the EPA encourages states to adopt public comment and engagement practices that are sufficiently inclusive to inform all potentially impacted communities.

The EPA acknowledges public comments on ADEM's consideration of environmental justice impacts and concerns regarding the sufficiency of ADEM's process to undertake meaningful consideration of the air monitoring needs of EJ communities. Commenters assert that ADEM's general practice is to screen all monitoring sites for environmental justice impacts using EPA's EJScreen mapping tool[7], and that this screening alone is insufficient to achieve meaningful involvement. Commenters also request that ADEM "engage its existing Community Engagement program to hold public meetings throughout EJ communities in the state to determine their air pollution concerns and discuss options for monitoring ambient air pollution in EJ communities to address those concerns." The EPA's regulations at 40 CFR § 58.10 require that states provide an opportunity for public comment on their draft annual monitoring network plans.

[6] E.O. 14096 *supra* note 2 at 25254, Section 3(a)(vii).
[7] United States Environmental Protection Agency. 2023, version 2.2. EJScreen. www.epa.gov/ejscreen.

While ADEM's public involvement process meets this regulatory requirement (with its submittal of supplemental responses to comments as requested by the EPA), going forward, the EPA strongly encourages the state to conduct a more robust public engagement process to ensure potentially affected communities have an appropriate opportunity to participate in decisions about a proposed activity that will affect their health and environment. For future Network Plans, including next year's plan, the EPA recommends that ADEM strive to ensure notices for public comment are made available 1) in the predominant language(s) of the potentially impacted communities, and 2) in more than one location that is easily accessible to the public and individuals with disabilities (e.g., libraries, community centers, etc).

The EPA recognizes that the Network Plan submitted in 2023 meets the federal regulatory requirements outlined at 40 CFR §58.10 and Appendices A through E (with the exceptions noted in above sections), including consideration of areas with susceptible and vulnerable populations. For future plans, including next year's, we encourage ADEM to continue to identify and evaluate areas with environmental justice concerns related to ambient air monitoring. ADEM notes that "all sites were screened for environmental justice metrics using EPA's EJ Screen: Environmental Justice Screening and Mapping Tool." However, ADEM does not address which factors it relied on in its air monitoring network design decisions or how weight was apportioned to each. Where possible, ADEM should include additional detail as to the discussion of environmental justice considerations taken into account and related to the ambient air quality network. This would support transparency in the decision-making process and provide the impacted communities and their representatives with the information needed to meaningfully participate.

American Rescue Plan (ARP) – Direct Award

The ADEM received funding in 2022 under the ARP to upgrade the existing ambient air monitoring network. As a recipient of these ARP direct award grants, the ADEM initiated procurement requests for equipment purchases and began installation of equipment once received. Remaining equipment will be purchased before the end of the grant period unless an extension is approved. The table below indicates the receipt and installation status of equipment funded under these grants. Quarterly progress reports and final reports will be submitted within 120 days of the applicable project end date. Prior to the collection of environmental information, including air monitoring data, agencies must have a quality assurance project plan (QAPP) in place that has been approved by EPA. The QAPP, which should cover all pollutants and monitoring methods not already covered in an approved QAPP, to be submitted to the EPA for approval 180 days prior to the planned collection of environmental information. At this time, the ADEM has approved QAPPs in place for the equipment funded below.

Table 26. ARP Monitoring Equipment Upgrades

Agency	AQS Site ID (Location)	Equipment Descriptions	Installed
ADEM	01-027-0001 (Ashland) 01-097-0003 (Chickasaw) 01-049-1003 (Crosville) 01-055-0010 (Gadsden) 01-125-0011 (Duncanville) 01-003-0010 (Fairhope) 01-101-1002 (Montgomery) 01-119-0003 (Ward)	8 - Met One BAM-1022 $PM_{2.5}$ continuous FEMs	All Met One BAM-1022s have been received, calibrated, and tested. Deployment of these new BAM-1022s was completed by December 31, 2022.

Agency	AQS Site ID (Location)	Equipment Descriptions	Installed
	Supports all sites	4 - Alicat FP-25 Flow Device	Received February 7, 2023
	01-097-0003 (Chickasaw) 01-101-1002 (Montgomery)	2 - Teledyne API T703 O_3 Calibrator	February 21, 2023 February 16, 2023
	01-055-0010 (Gadsden) 01-119-0003 (Ward)	2 – CAS Air Monitoring Shelters	To be determined

Inflation Reduction Act – Clean Air Act Section 103 Direct Award

The ADEM will receive funding in 2023 under Section 60105(f) of the Inflation Reduction Act, which provides for "grants and other activities authorized under subsections (a) through (c) of section 103 and section 105 of the Clean Air Act." The CAA Section 103 statutory authority for this action specifically authorizes "the coordination and acceleration of, research, investigations, experiments, demonstrations, surveys, and studies relating to the causes, effects (including health and welfare effects), extent, prevention, and control of air pollution." ADEM has elected to use this funding to purchase software to modernize its permitting, compliance, and inventory processes. No air monitoring activities are being conducted under this grant. Progress reports will be submitted as well as a final progress report within 120 days of the applicable project end date.

Memoranda of Agreement (MOA) with Neighboring States
40 CFR Part 58, Appendix D, 2(e)

The ADEM does not have an MOA with neighboring states to address minimum monitoring requirements. ADEM meets all the minimum requirements independently outside of the local agency jurisdictions (in which the JCDH and the HDNREM meet the minimum requirements).

Monitoring Siting Criteria and Site Assessments
40 CFR Part 58, Appendix E

In reference to the Network Plan, 40 CFR Part 58.10(a)(1) states:

> "The plan shall include a statement of whether the operation of each monitor meets the requirements of appendices A, C, D, and E of this part, where applicable. The Regional Administrator may require additional information in support of this statement."

Site descriptions and assessment information were included in this year's network plan. The EPA appreciates ADEM's inclusion of this information in the Network Plan.

O_3 Site Data Combination for Long-term Trends and Design Value Calculations
40 CFR Part 50 Appendix U, Section 2(c)

Forty (40) CFR Part 50, Appendix U, Section 2(c) allows for combination of data from two nearby sites for long-term O_3 trends and design value calculations:

> "In certain circumstances, including but not limited to site closures or relocations, data from two nearby sites may be combined into a single site data record for the purpose of calculating a

valid design value. The appropriate Regional Administrator may approve such combinations after taking into consideration factors such as distance between sites, spatial and temporal patterns in air quality, local emissions and meteorology, jurisdictional boundaries, and terrain features."

The EPA approves the relocated site(s) listed in the table below to use a combined data record for the purpose of design value calculations.

Table 27: Approved Site Combined Data Records

MSA	Pollutant	Old Site ID	New Site ID	Comment
Tuscaloosa, AL	O_3	01-125-0010	01-125-0011	Approved in AQS with a cutover date of January 1, 2023.

The data from the following relocated sites have been previously approved to use a combined data record for the purpose of design value calculations.

Table 28: Previously Approved Site Combined Data Records

MSA	Pollutant	Old Site ID	New Site ID	Comment
Montgomery, AL	O_3	01-051-0003	01-051-0004	Approved in AQS with a cutover date of January 1, 2018.
Columbus, GA-AL (Phenix City)	O_3	01-113-0002	01-113-0003	Approved in AQS with a cutover date of March 1, 2018.
	$PM_{2.5}$	01-113-0001		Approved in AQS with a cutover date of September 30, 2016.

Attachment B

LANCE R. LEFLEUR
DIRECTOR

KAY IVEY
GOVERNOR

Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

July 3, 2024

Ramsey Sprague President, MEJAC ramsey@MEJACoalition.org

Jilisa Milton Director, GASP jmilton@gaspgroup.org

Jaclyn Brass Southern Environmental Law Center jbrass@selcal.org

Thank you for your comments on the Alabama Air Monitoring 2024 Network Plan.

The response to these comments is attached and will be included along with your comments in the Network Plan submitted to EPA for approval.

Sincerely,

Ronald W. Gore, Chief

Air Division

ADEM

RWG/lwb

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

Response to Comments on

State of Alabama Ambient Air Monitoring 2024 Network Plan

1. **It is recommended that ADEM expand its monitoring network.**

   ADEM's monitoring network meets and exceeds the number of monitors required by EPA's rules. The location and number of monitors in place have been developed over years of monitoring and studying levels of air pollutants in Alabama. ADEM does not have additional resources to expand the monitoring network. All supplementary EPA grant funding received in the recent past has been utilized to make repairs to the existing monitoring sites to maintain the capabilities that we currently have. If EPA were to provide funding for additional sites, that funding provides only for the equipment and installation costs for new sites. Long-term funding to operate new sites would have to be provided by ADEM. Those resources are not available.

2. **ADEM should undertake an environmental justice review of its network**

   Our monitoring network has been set up to meet the minimum requirements of EPA. This involves monitoring in the worst case situations, which generally includes the most populated locations. Over 60% of the existing monitors are in EJ areas. An EJ analysis of the existing network was provided in the 2023 monitoring plan. No changes to the monitoring are proposed, other than the move to the Africatown site.

3. **ADEM should move forward with the relocation of the monitor to Africatown as soon as possible.**

   ADEM is prepared to move forward with the activities to locate a suitable site for the Africatown monitoring. However, the grant funding from EPA has not been allocated at this time. As soon as these funds are made available, we will begin the process of selecting a suitable site.

4. **Monitoring at the Africatown site should be expanded to include additional pollutants: VOC and Hazardous Air Pollutants.**

   See response to Comment #1.

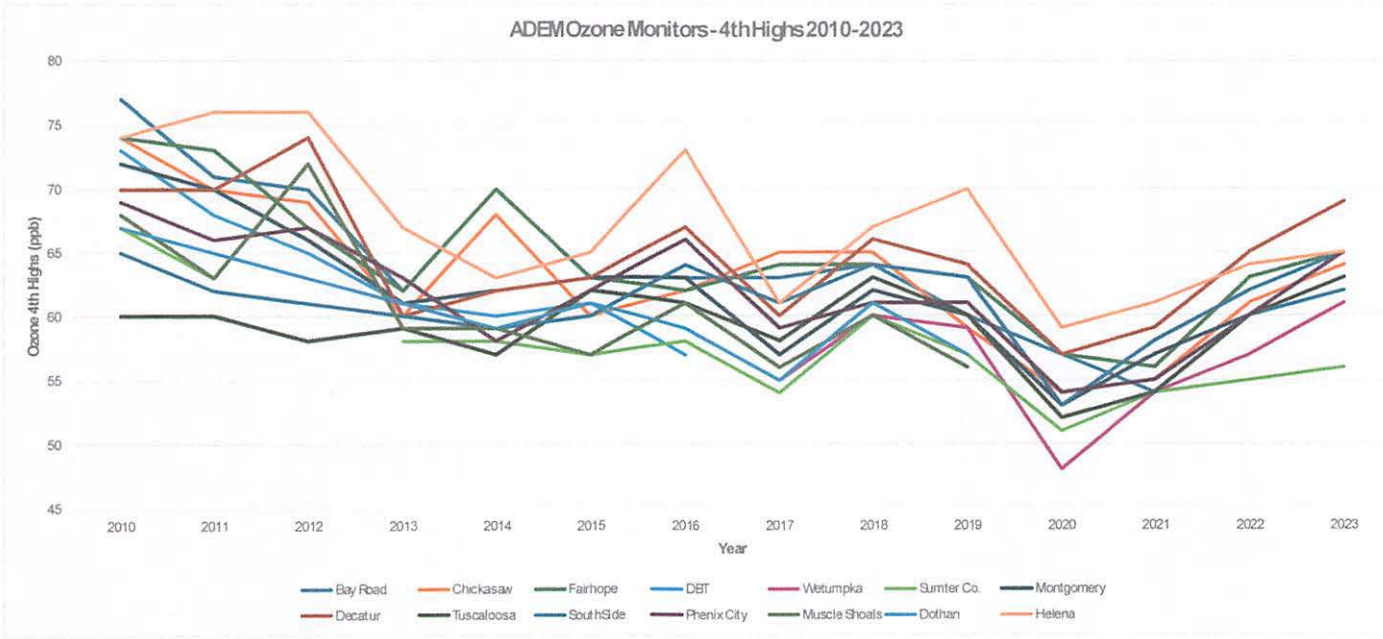
5. **Explain the issues with the humidity at the existing ozone monitors at Chickasaw and Fairhope which require the addition of Nafion dryers.**

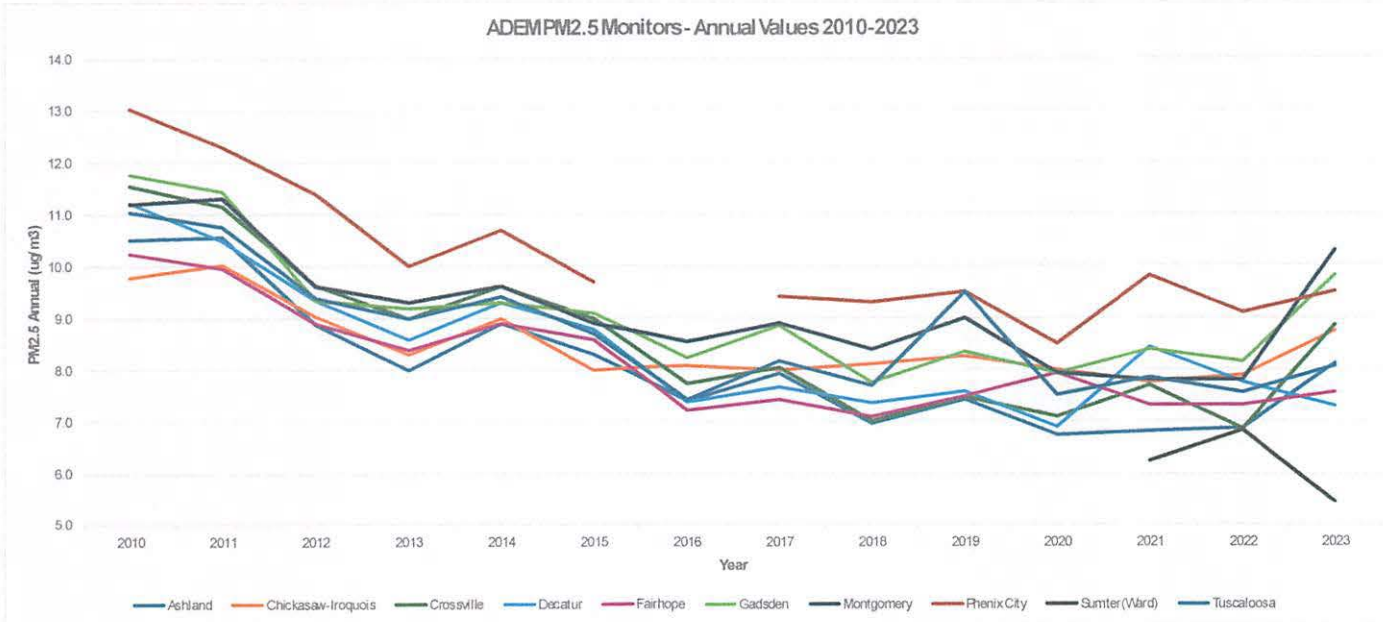
   Adding Nafion dryers to the monitors in Mobile and Baldwin Counties is a proactive measure, rather than a reactive measure. In 2021, EPA approved a request to add Nafion dryers to the sampling line. However, it was cost prohibitive to retrofit a current analyzer with the Nafion dryer and low priority since data loss attributed to moisture was very low. All

monitors in the area consistently met their completeness and quality assurance requirements. The IRA grant affords ADEM the opportunity to upgrade these monitors to include the Nafion dryers without taking away resources from other parts of the network and thus reducing or eliminating future potential water vapor issues.

6. **ADEM should analyze and address the root causes of statewide increases in PM2.5 and Ozone and adequately monitor as needed.**

   While we can see how the commenter could perceive that there has been an increase in ozone and PM2.5 at monitors in the past year, we would point out that over a longer period of time concentrations have been consistently decreasing. The main driver in the reduction in the preceding period can be explained by the drop in concentrations nationwide due to COVID in 2020 and 2021. PM2.5 concentrations do show some increase in 2023, which is largely due to wildfires in Canada and the Pacific Northwest.


ADEM Ozone Monitors - 4th Highs 2010-2023
Ozone 4th Highs (ppb)
80
75
70
65
60
55
50
45
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Bay Road
Chickasaw
Fairhope
DBT
Wetumpka
Sumter Co.
Montgomery
Decatur
Tuscaloosa
SouthSide
Phenix City
Muscle Shoals
Dothan
Helena


ADEM PM2.5 Monitors - Annual Values 2010-2023
PM2.5 Annual (ug/m3)
14.0
13.0
12.0
11.0
10.0
9.0
8.0
7.0
6.0
5.0
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
Year
Ashland
Chickasaw-Iroquois
Crossville
Decatur
Fairhope
Gadsden
Montgomery
Phenix City
Sumter (Ward)
Tuscaloosa