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GOVERNOR

ENERGY AND ENVIRONMENT CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION

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Rebecca Goodman
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November 12, 2024

Denisse Diaz, Director
Air and Radiation Division
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street
Atlanta, Georgia 30303-8960

Dear Ms. Diaz:

The Kentucky Division for Air Quality (Division) respectfully submits this addendum to the 2023 Annual Ambient Air Monitoring Network Plan, originally submitted to the U.S. Environmental Protection Agency (EPA) on June 30, 2023. The Division made the addendum available for public inspection and comment from April 29, 2024, through May 29, 2024, on the Division's website. A public notice detailing the comment process and the location of the addendum was mailed electronically to interested individuals or agencies on the Division's regulatory notification list.

The Division received comments from one entity during the 30-day public comment period. The comments received and the associated responses can be found at the end of the addendum. The addendum details the relocation of three sites: Owensboro Primary (21-059-0005), Elizabethtown (21-093-0006), and Jackson Purchase (21-145-1024).

The Owensboro Primary site, located in Daviess County, had to be shut down on August 7, 2023, due to land development. The Division is currently waiting on electrical installation and inspection for the new site on the property of Meadow Lands Elementary School, located at 3500 Hayden Road, Owensboro, KY. Procurement of proper building certification for the shelter has held off site establishment.

The Elizabethtown site had to be relocated due to land development. The Division has relocated the site to Freeman Lake Park, 140 Freeman Lake Park Road, Elizabethtown, KY. The new site is also waiting on electrical installation and inspection.

The Jackson Purchase site, located in McCracken County, had to be shut down due to new property owners expanding their operation. The Division was fortunate in that we were able to

stay in operation until we had a new site secured. The Jackson Purchase site was shut down in December 2022 and began sampling at the new site in January 2023. The relocated Jackson Purchase site is Paducah Transit (21-145-1027) located at 920 Harrison Street, Paducah, KY. Paducah Transit was included in the 2023 Network Plan, but was never added to the 2022 Network Plan as an addendum. Paducah Transit is included to formally address the relocation.

All relocated sites will operate the same monitors as their previous counterparts and are located within three miles of their original locations. The Division requests linking the data between the Owensboro and Elizabethtown sites. The Division is currently evaluating the data between Jackson Purchase and Paducah Transit and does not request linking the two sites at this time.

The 2023 Annual Ambient Air Monitoring Network Plan and the addendum are available on the Division's website at <https://eec.ky.gov/Environmental-Protection/Air/Pages/Division-Reports.aspx>. If you have any questions about the network or this addendum, please contact Ms. Jenna Nall, Environmental Scientist, at (502) 782-7353.

Sincerely,



Recoverable Signature

X

Michael Kennedy

Signed by: Michael Kennedy

Michael Kennedy, Director
Kentucky Division for Air Quality

MK/jn

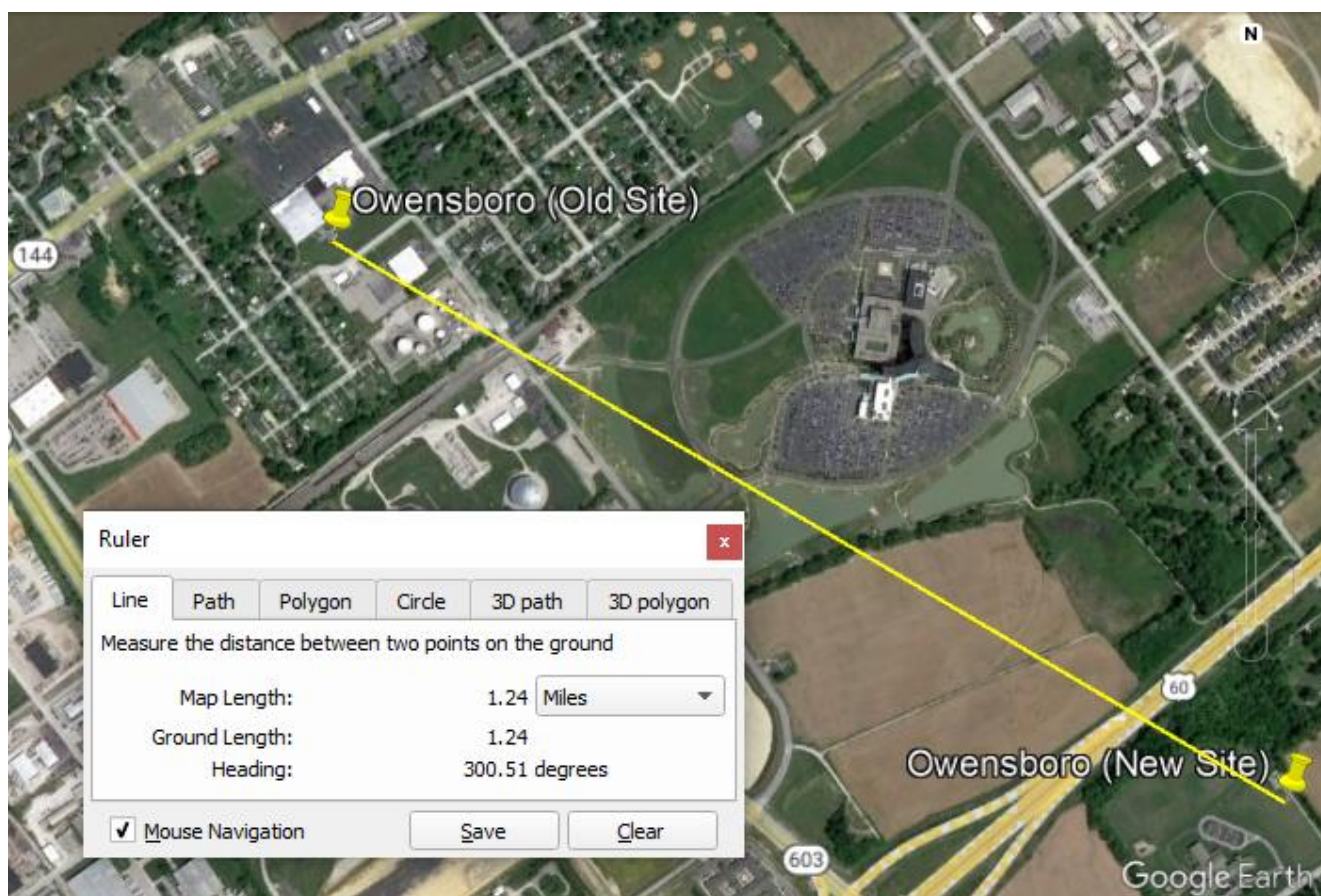
Electronic cc:

- Katy Lusky, USEPA Region IV
- Daniel Garver, USEPA Region IV
- Ryan Brown, USEPA Region IV
- Katherine Meiser, USEPA Region IV
- Anthony Bedel, USEPA Region IV
- Rickard Toomey, Mammoth Cave NP
- Billy DeWitt, LMAPCD
- Bryan Paris, LMAPCD
- Rick Shewekah, KDAQ
- Wayne Bray, KDAQ

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Owensboro Primary (21-059-0005), located in Davies County, has to be relocated due to the property being developed. The Kentucky Division for Air Quality (KDAQ) is currently working on securing the paperwork needed to relocate the site on the grounds of Meadow Lands Elementary School, located at 3500 Hayden Road, Owensboro, KY. Due to the expedited property development at Owensboro Primary and the new site's approval being delayed, Owensboro Primary had to be shut down on August 7, 2023.

The new site is approximately 1.24 miles southeast of the old site. The new site will continue to monitor ozone, sulfur dioxide, nitrogen dioxide, and PM_{2.5}. Since the two locations are in close proximity and will be monitoring the same pollutants, KDAQ requests linking the data.



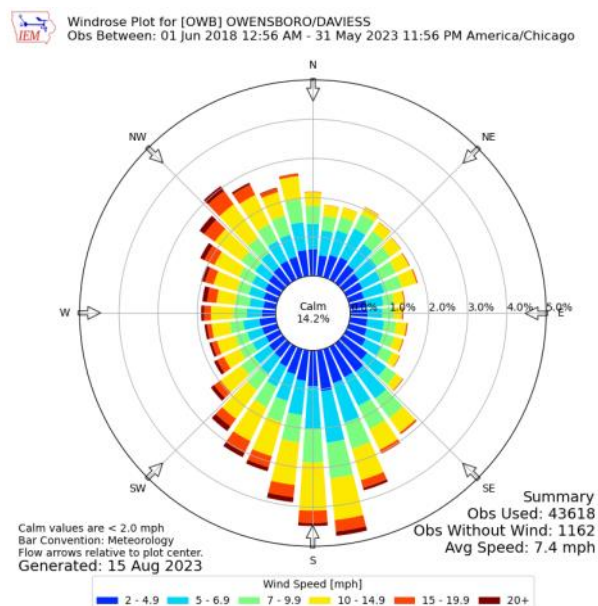
Google Earth image showing the distance and direction between the old and new Owensboro sites.

Kentucky Annual Ambient Air Monitoring Network Plan 2023 Addendum



Google Earth image showing the proposed site location on the grounds of Meadow Lands Elementary School.

The proposed station location is represented by the red rectangle in the above Google Earth image. The inlets will be roughly 16 m from the gravel driveway, 22 m from the tree line east of the site, and 130 m from Hayden Road. There are two rows of trees. The closest row of trees are roughly 7 m in height. The back row has trees that range up to 15 m in height but are 30 m or more away from the proposed shelter location. The closest road is Hayden Road, at 130m, with an annual average daily traffic of 1,612. US-60 is 277m away with an annual average daily traffic count of 16,283. A cellular tower is located north of the site and the Meadow Lands School building is southwest. A wind rose for the Owensboro/Davies County area was created using Iowa Environmental Mesonet (IEM) custom wind roses. It shows a predominantly south southeast wind direction.



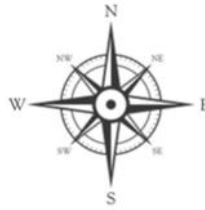
Wind rose obtained from https://www.mesonet.agron.iastate.edu/sites/dyn_windrose.phtml?station=OWB&network=KY_ASOS

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Proposed site relocation for Owensboro Primary (21-059-0005):
Meadow Lands Elementary School, 3500 Hayden Rd, Owensboro, KY 42303



Approximate
Cardinal
Direction



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CSA/MSA: Owensboro, KY MSA

401 KAR 50:020 Air Quality Region: Evansville-Owensboro-Henderson Interstate (077)

Site Name: Meadow Lands (Owensboro)

AQS Site ID: 21-059-0015

Location: Meadow Lands Elementary School, 3500 Hayden Rd, Owensboro, KY 42303

County: Daviess

GPS Coordinates: 37.7716709, -87.0558193 (NAD 83)

Date Established: TBD

Inspection Date: TBD

Inspection By: TBD

Site Approval Status: TBD



Due to land development plans, Owensboro Primary (21-059-0005) has to be relocated. KDAQ is currently working on establishing the new site. The monitoring site will be a stationary equipment shelter located on the grounds of Meadow Lands Elementary School in Owensboro, Kentucky. Meadow Lands is approximately 1.24 miles southeast of Owensboro Primary. The new site will retain all monitors and designations from the Owensboro Primary site.

Monitoring Objective:

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards; to detect emergency pollution levels of criteria pollutants for activation of emergency control procedures. While not required for the CBSA, the site also provide levels of pollutants for daily index reporting.

Monitors				
Monitor Type	Inlet Height (meters)	Designation	Analysis Method	Frequency of Sampling
AEM Nitrogen Dioxide (NO ₂ , NO, NO _x)	TBD	SLAMS EPISODE	Chemiluminescence	Continuously
AEM Ozone	TBD	SLAMS EPISODE AQI	UV Photometry	Continuously March 1 – October 31
FEM PM _{2.5} Continuous	TBD	SLAMS EPISODE AQI	Broadband Spectroscopy	Continuously
AEM Sulfur Dioxide	TBD	SLAMS EPISODE	UV Fluorescence	Continuously

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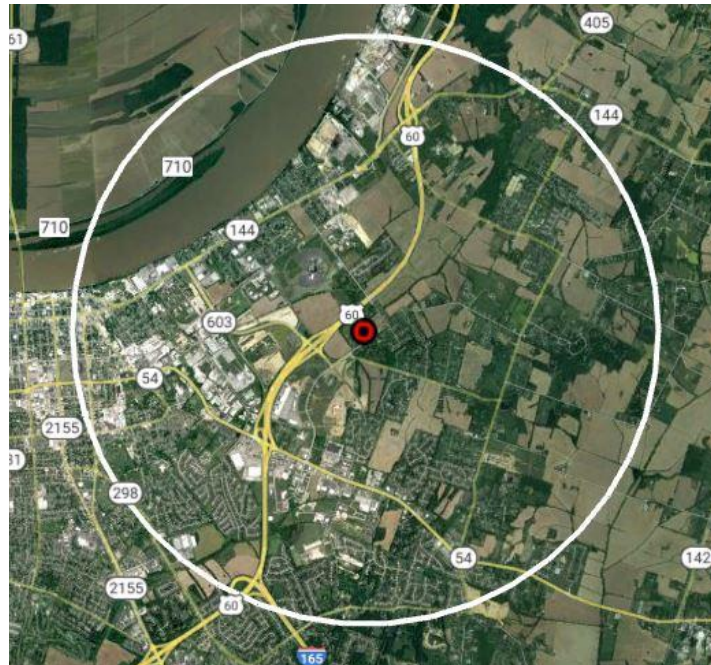
Quality Assurance Status:

All Quality Assurance procedures will be implemented in accordance with 40 CFR 58, Appendix A.

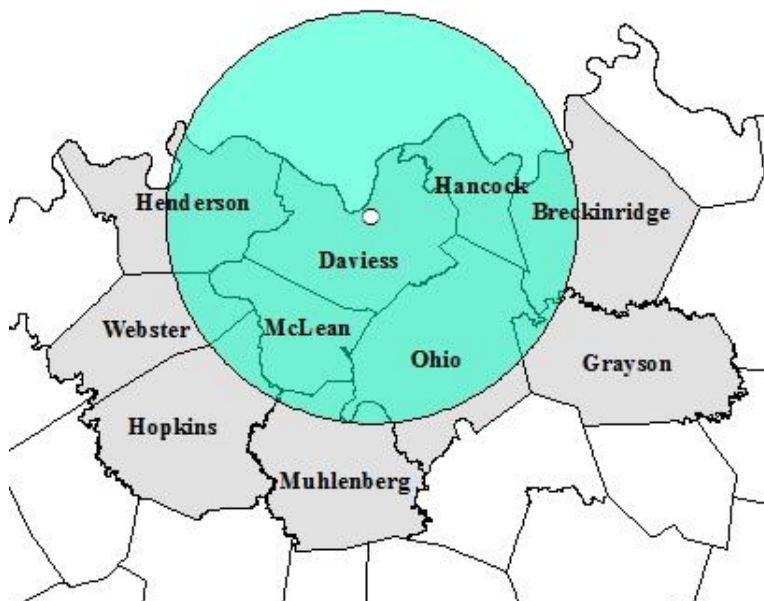
Area Representativeness:

This site will represent population exposure on a neighborhood scale for particulates, ozone, and sulfur dioxide. This site will also represent population exposure on an urban scale for nitrogen dioxide.

Neighborhood Scale: Ozone, Sulfur Dioxide, Particulates



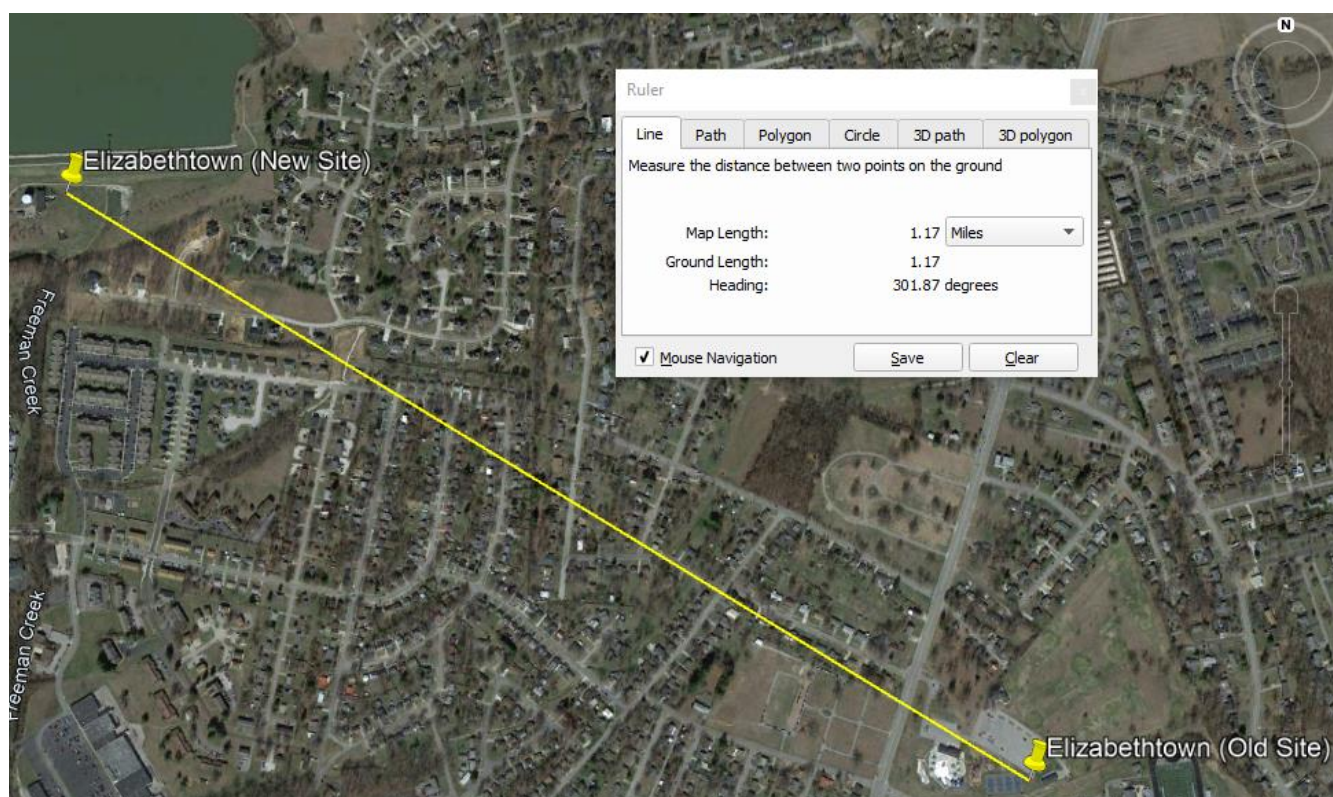
Urban Scale: Nitrogen Dioxide



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Elizabethtown (21-093-0006), located in Hardin County, has to be relocated due to new development on the property. KDAQ has been working with Elizabethtown Parks and Recreation on relocating the air monitoring site. The site will move from American Legion Park to Freeman Lake.

The new site is approximately 1.17 miles northwest of the old site. The new site will continue to monitor ozone and PM_{2.5} (continuous and intermittent). Since the two locations are in close proximity and will be monitoring the same pollutants, KDAQ requests linking the data.



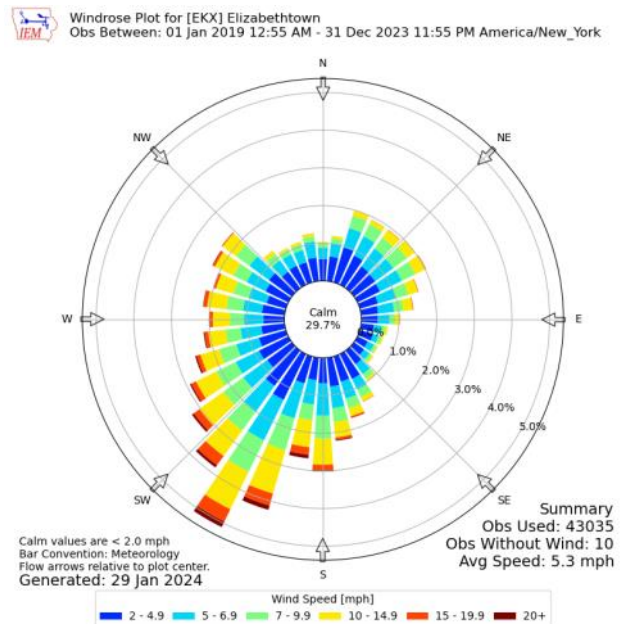
Google Earth image showing the distance and direction between the old and new Elizabethtown sites.

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Google Earth image showing the proposed site location on the grounds of Freeman Lake Park.

The proposed station location is represented by the red square in the above Google Earth image. The north side of the fence will be 15.8m from the gravel drive, which has restricted vehicle access. From the center point of the site, the closest structure is 4.6m in height and 17.2m in distance. The building is 8.6m in height and 36.2m in distance. The cylindrical building is 16m in height and 58m in distance. The dam, north of the site, is roughly 10m in height and 55m away. The closest road is a cul-de-sac, Freeman Lake Road (182m). The closest major road is North Dixie Highway at 525m with an annual average daily traffic count of 17,394. A wind rose for Elizabethtown was created using Iowa Environmental Mesonet (IEM) custom wind roses. It shows a predominantly southwest wind direction.



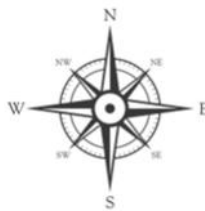
Wind rose obtained from https://www.mesonet.agron.iastate.edu/sites/dyn_windrose.phtml?station=EKX&network=KY_ASOS

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Proposed site relocation for Elizabethtown (21-093-0006):
Freeman Lake Park, 140 Freeman Lake Park Road, Elizabethtown, KY, 42701



Approximate
Cardinal
Direction



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CSA/MSA: Louisville/Jefferson County - Elizabethtown, KY-IN CSA; Elizabethtown, KY MSA
401 KAR 50:020 Air Quality Region: North Central Kentucky Interstate (104)

Site Name: Freeman Lake

AQS Site ID: 21-093-0007

Location: Freeman Lake Park, 140 Freeman Lake Park Road, Elizabethtown, KY, 42701

County: Hardin

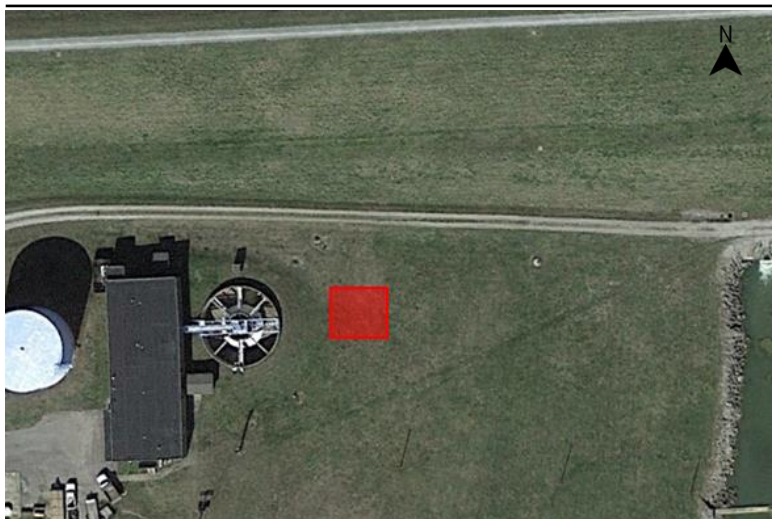
GPS Coordinates: 37.7145134, -85.8708227 (NAD 83)

Date Established: TBD

Inspection Date: TBD

Inspection By: TBD

Site Approval Status: TBD



Due to land development, the Elizabethtown site (21-093-0006) is being relocated to Freeman Lake Park. The new location is at the southside of the lake, near a water treatment plant that is no longer in operation. The Freeman Lake site is approximately 1.17 miles northwest of the Elizabethtown site. The new site will retain all monitors and designations from the current Elizabethtown site.

Monitoring Objective:

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards.

Monitors				
Monitor Type	Inlet Height (meters)	Designation	Analysis Method	Frequency of Sampling
AEM Ozone	TBD	SLAMS AQI Maximum O ₃	UV Photometry	Continuously March 1 – October 31
FEM PM _{2.5} Continuous	TBD	SLAMS AQI	Broadband Spectroscopy	Continuously
Collocated FRM PM _{2.5}	TBD	SLAMS	Gravimetric	24-hours every sixth day

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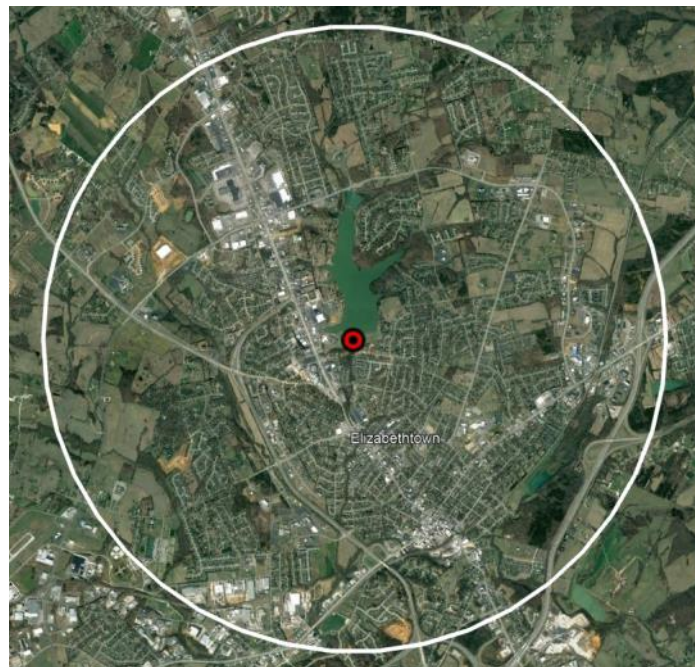
Quality Assurance Status:

All Quality Assurance procedures will be implemented in accordance with 40 CFR 58, Appendix A.

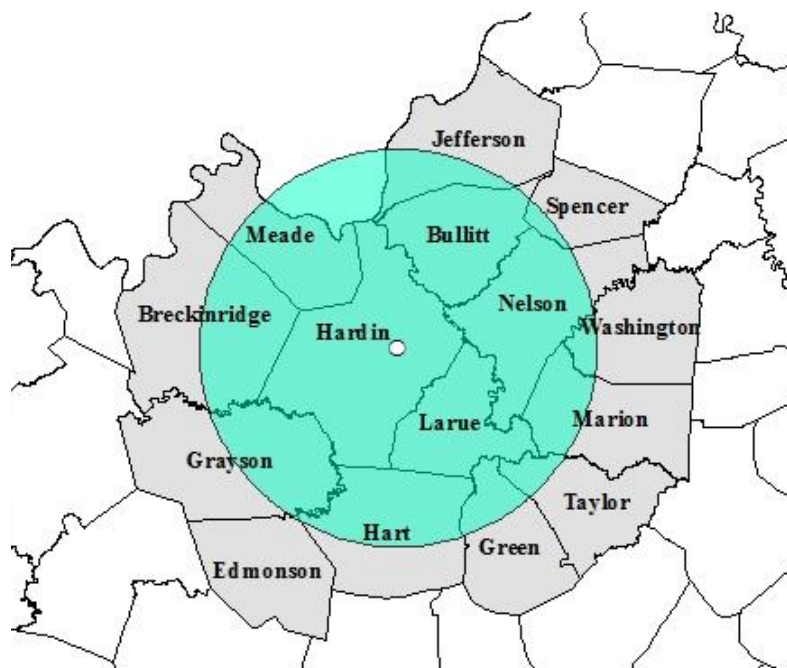
Area Representativeness:

This site will represent population exposure on a neighborhood scale for particulates and population exposure on an urban scale for ozone.

Neighborhood Scale: Particulates



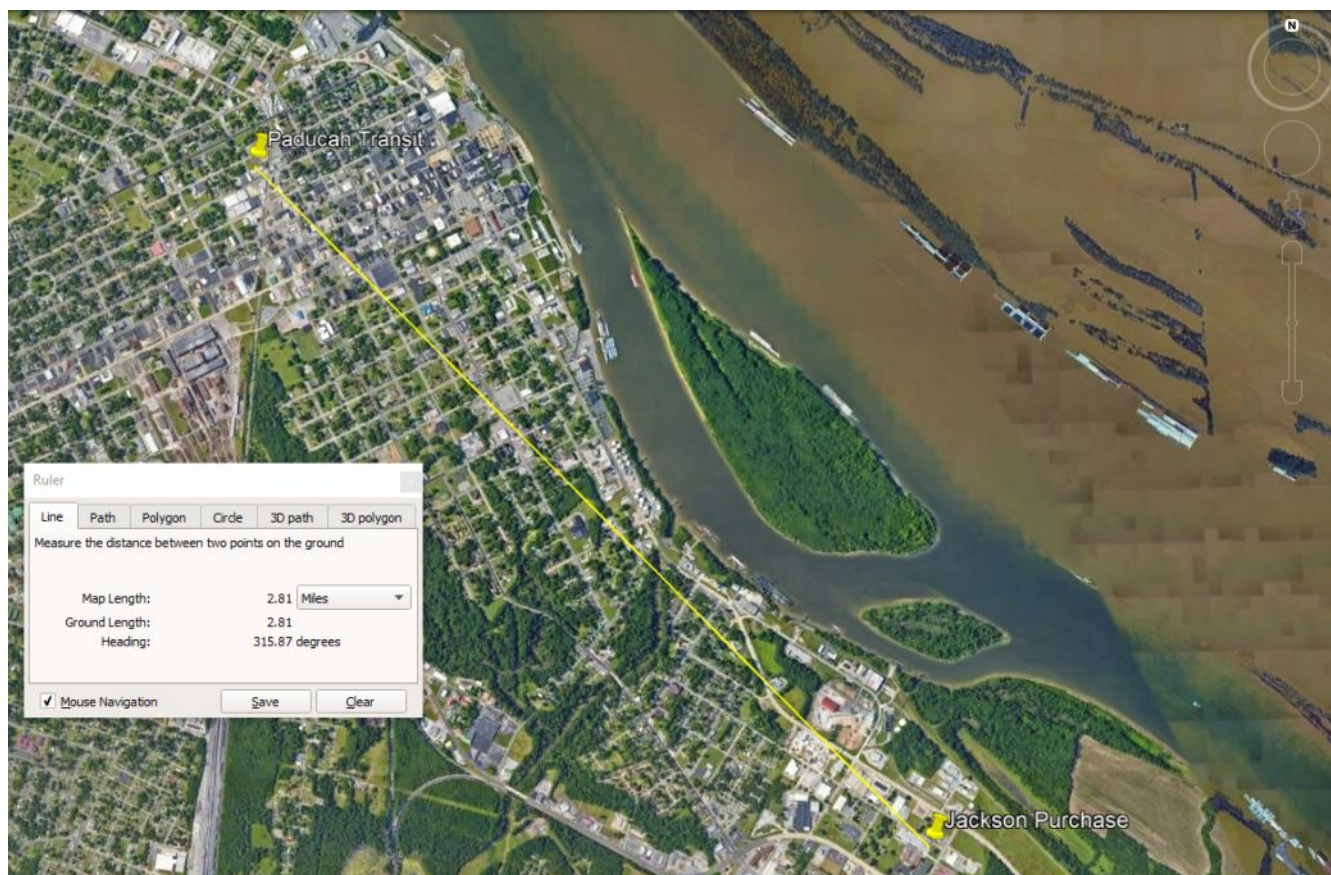
Urban Scale: Ozone



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Jackson Purchase (21-145-1024), located in McCracken County, had to be relocated due to the new property owners expanding their operations. The KDAQ has relocated the site on the grounds of The Paducah Area Transit System (PATs) on 920 Harrison Street, Paducah, KY. Sampling was shut down in December 2022 at Jackson Purchase and began in January 2023 at Paducah Transit. Paducah Transit was included in the 2023 Network Plan, but was never added to the 2022 Network Plan as an addendum. Paducah Transit is included in this 2023 addendum to formally address the relocation.

Paducah Transit is approximately 2.81 miles northwest of Jackson Purchase. Paducah Transit continues to monitor ozone, sulfur dioxide, nitrogen dioxide, and PM_{2.5}. KDAQ is currently evaluating the data between Jackson Purchase and Paducah Transit and does not request linking the two sites at this time.



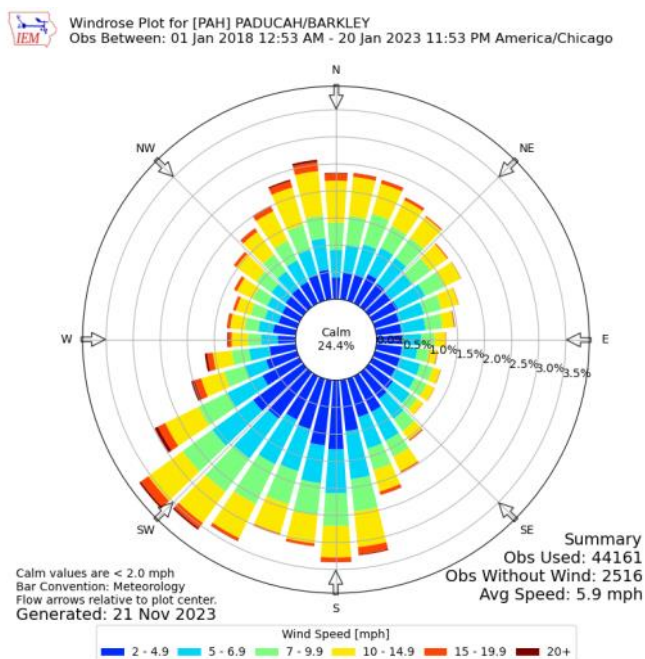
Google Earth image showing the distance and direction between the Jackson Purchase and Paducah Transit sites.

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Google Earth image of Paducah Transit.

Paducah Transit is shown in the Google Earth image above. The closest road is North 10th Street, approximately 30m from the samplers. The closest tree is approximately 54m from the monitors and 17.7m tall. The closest road with a traffic count is Martin Luther King Jr. Drive, approximately 170m away, with an annual average daily traffic of 4,854. A wind rose for the Paducah area was created using Iowa Environmental Mesonet (IEM) custom wind roses. It shows a predominantly southwest wind direction.



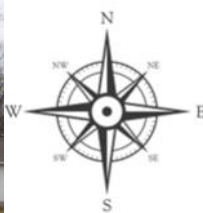
Wind rose obtained from https://www.mesonet.agron.iastate.edu/sites/dyn_windrose.phtml?station=PAH&network=KY_ASOS

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Site relocation for Jackson Purchase (21-145-1024):
920 Harrison Street, Paducah, KY 42001



Approximate
Cardinal
Direction



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CSA/MSA: Paducah-Mayfield, KY-IL CSA; Paducah, KY-IL MSA
401 KAR 50:020 Air Quality Region: Paducah-Cairo Interstate (072)

Site Name: Paducah Transit

AQS Site ID: 21-145-1027

Location: 920 Harrison Street, Paducah, KY 42001

County: McCracken

GPS Coordinates: 37.08727, -88.60801 (NAD 83)

Date Established: January 10, 2023

Inspection Date: November 16, 2023

Inspection By: Jenna Nall and Lisa Hicks

Site Approval Status: Site and monitors meet design criteria for the monitoring network.



The monitoring site is a stationary equipment shelter located on the grounds of Paducah Area Transit System in Paducah, Kentucky. The sample inlets are 30 meters from the nearest road. The site meets the requirements established by 40 CFR 58, Appendices A, C, D, E, and G. This site was formally Jackson Purchase (21-145-1024). The property owners were expanding operations and the site had to be relocated as quickly as possible. Paducah Transit is 2.81 miles NW of the Jackson Purchase site.

Monitoring Objective:

The monitoring objectives are to determine compliance with National Ambient Air Quality Standards and to detect elevated pollutant levels for activation of emergency control procedures for nitrogen dioxide, ozone, and sulfur dioxide. While not required for the CBSA, the site also provides pollutant levels for daily air quality index reporting.

Monitors				
Monitor Type	Inlet Height (meters)	Designation	Analysis Method	Frequency of Sampling
AEM Nitrogen Dioxide (NO ₂ , NO, NO _x)	4.26	SLAMS EPISODE	Chemiluminescence	Continuously
AEM Sulfur Dioxide	4.27	SLAMS EPISODE	UV Fluorescence	Continuously
FEM PM _{2.5} Continuous	4.8	SLAMS AQI	Broadband Spectroscopy	Continuously
AEM Ozone	4.12	SLAMS AQI EPISODE	UV Photometry	Continuously March 1-October 31

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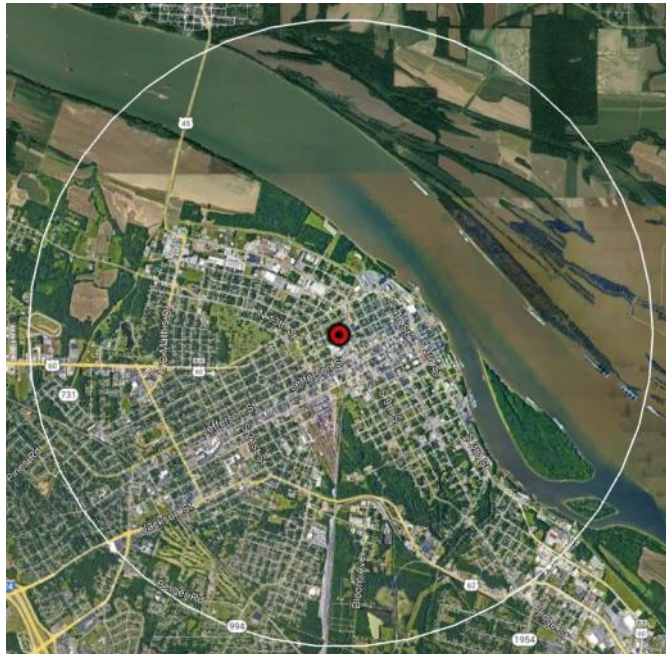
Quality Assurance Status:

All Quality Assurance procedures have been implemented in accordance with 40 CFR 58, Appendix A.

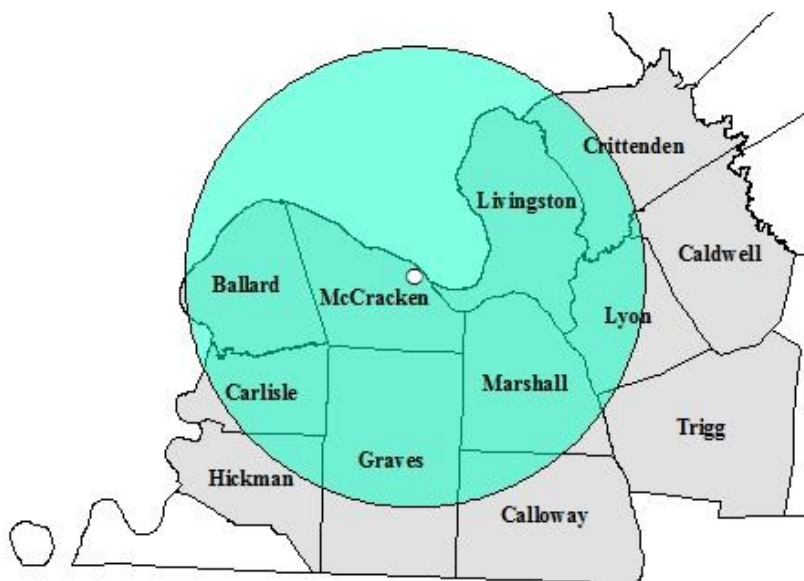
Area Representativeness:

This site represents population exposure on a neighborhood scale for ozone, particulates, and sulfur dioxide. This site also represents population exposure on an urban scale for nitrogen dioxide.

Neighborhood Scale: Ozone, Particulates, Sulfur Dioxide



Urban Scale: Nitrogen Dioxide



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KENTUCKY DIVISION FOR AIR QUALITY AMBIENT AIR MONITORING NETWORK ADDENDUM Comments Received May 29, 2024

Energy and Environment Cabinet Department for Environmental Protection Division for Air Quality

A public comment period on the KENTUCKY DIVISION FOR AIR QUALITY AMBIENT AIR MONITORING NETWORK PLAN 2023 ADDENDUM was held from April 29, 2024 to May 29, 2024.

The following group submitted comments regarding the addendum during the public comment period:

-Kentucky Resources Council

Comments

(1) Comment: Proposed modifications to the monitoring network occurred without sufficient public notice and EPA approval

The proposed “addendum” to the annual monitoring network plan notes three changes to the monitoring network, only one of which is even potentially adequately publicly-noticed, or has the possibility of receiving required EPA approval.

As noted in the public notice for this action, 40 C.F.R. Part 58 contains provisions for public review and comment, and review by the Environmental Protection Agency (“EPA”) Regional Administrator of the state’s annual monitoring network plan. The annual monitoring network plan is required to contain specific information, including any proposed changes. Further requirements are listed for changes “that impact the location of a violating PM_{2.5} monitor,” including the process for obtaining public comment. Annual monitoring network plans that propose changes to the network require approval from the EPA Administrator.

The Proposed Modification to the Kentucky Annual Ambient Air Monitoring Network Plan 2023, include: (1) shutting down of the Owensboro Primary monitor, to be replaced by an as-yet to be installed replacement; (2) replacement of the Jackson Purchase site with the Paducah Transit site; and (3) relocation of the Elizabethtown site at a future date.

The Proposed Modification notes that the Owensboro Primary site shut down last August, and the proposed new site has not begun operation yet, and no timeline for beginning operation is given. The original 2023 annual monitoring network plan, dated June 29, 2023 (just over a month before the location shut down), stated that the Owensboro Primary site “must be moved soon” but that a new site had not been secured yet.

The Proposed Modification states the switch of the Jackson Purchase site to the Paducah Transit site occurred in December 2022 - January 2023, and was later noted in the June 29, 2023 Annual Monitoring Network Plan, but had not previously been included in the 2022 annual monitoring network plan. It is unclear, therefore, if the proposed modification here is intended to be to the 2022 annual monitoring network plan, or the 2023 annual monitoring network plan.

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Finally, while the Elizabethtown site has yet to move, no timeline for relocation is given. For this site alone, therefore, it appears the public notice given may comply with the requirements of federal regulations, it is unclear. It is also unclear whether sufficient time is being given to the Regional Administrator to approve the change.

With regard to the other changes, it is clear that insufficient public notice was given, as the closures and the relocation of the Paducah site have *already occurred*. The single note in the original 2023 annual network plan regarding the future relocation to an unknown site at an unknown time of the Owensboro Primary site certainly does not constitute sufficient notice of “proposal[] to remove or move a monitoring station within a period of 18 months following plan submittal.”

Finally, while none of the monitors in this addendum were violating based on the most recent complete design values available at this time, the Owensboro Primary monitor was directly *at* the recently-revised fine particulate matter national ambient air quality standard (NAAQS), of $9.0 \mu\text{g}/\text{m}^3$, and so could easily have been violating if left in place. In fact, although incomplete, the annual mean for 2023, *excluding exceptional events*, was $9.9 \mu\text{g}/\text{m}^3$, which would have made the monitor violating.

The Division must public notice modifications to the Commonwealth’s monitoring network *before* they occur in the future, and must also better plan so that modifications required in the next 18 months can be noticed in the annual update to the monitoring network plan.

Response: The Kentucky Division for Air Quality (Division) acknowledges the comment. First, the Division would like to state that at this time, no property where the ambient air monitoring stations are located are owned by the Division. Many have been operational in the same location for decades, and the Division is grateful for the use and longevity of these properties for the ambient air monitoring shelters.

The Division did not own the property where the Owensboro Primary (21-059-0005) site was located and had no plans to leave. As stated in the Kentucky Annual Ambient Air Monitoring Network Plan 2023, “Owensboro Primary (21-059-0005) will have to be relocated soon due to development of the property. A new location has not been obtained.” At the time of publication, a new location was in the works but not secured, and the Division did not have a set date on when the property would have to be vacated. It is impossible to give the required 18 months warning, as established by 40 CFR 58.10(b), for unplanned relocations. It is also impossible to give a timeline as there are multiple steps in the process to relocate a site, dependent on many factors and can be held up by unforeseen circumstances. The day Division representatives met with the Owensboro Primary property owner to initially talk about the move is the same day a potential new location was found.

The current 2023 design value for Owensboro Primary is $8.8 \mu\text{g}/\text{m}^3$. The data from Owensboro Primary will be linked with the new site, making past data usable going forward. The Division wants to state that Meadow Lands is 1.24 miles from the Owensboro Primary site and is confident that the data will be representative of not only the area, but of data collected previously. As stated above, the Division had no choice but to terminate the Owensboro Primary site and are still waiting on factors beyond the Division’s control to initiate the new site.

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The Division has been hampered by newly imposed building code requirements for shelters and cannot establish the site until all requirements have been met. The downtime has been unacceptable, and the Division is working on establishing a compliance pathway that meets both federal regulations and state building codes in a timely manner. The Division is working as expeditiously as possible to establish this site.

Similar to Owensboro Primary, Jackson Purchase (21-145-1024) had to be moved due to expanding operations on the property, which the Division did not own. The site was fortunate to continue operating until it could be relocated. At the time of the Kentucky Annual Ambient Air Monitoring Network Plan 2022, Division representatives were still looking for a suitable replacement site. The property owners allowed the Division to operate Jackson Purchase until a new location had been secured. Once a new location was found, the site had to be moved as quickly as possible. Fortunately, the moving process was relatively short and the new site, Paducah Transit (21-145-1027), was operational in January 2023. An addendum was not put out for the 2022 Network Plan. This failure was identified by EPA and asked that it be included with Owensboro Primary. The Division apologizes for this oversight and any confusion surrounding Jackson Purchase and Paducah Transit.

Elizabethtown (21-093-0006), is similar to the sites above in that the Division was forced to relocate due to land development. As of the final publishing of this addendum, the Elizabethtown site has been taken offline for removal. The site went offline on June 3, 2024. A new location at Freeman Lake is currently being prepared for electrical installation. Even though the site is nearly operational, it is still impossible to give an accurate timeline as the Division is waiting on factors that are out of its control, including inspections and electrical work. The Division wants to see the new site operational as soon as possible, but it could still be several weeks before the site is fully established.

(2) Comment: The closure of the Owensboro Primary site violates the requirements of 40 C.F.R. Part 58 or requirements of the Kentucky State Implementation Plan

As noted above, the Owensboro Primary site was shut down in August of 2023, leaving the area without a monitor for going on 10 months and counting. Aside from the required public notice and notice to the EPA Regional Administrator noted above, this leaves the Commonwealth in violation of several provisions of the federal regulations, and also several of its own State Implementation Plans (SIPs).

Federal regulations lay out a number of requirements for states' ambient air monitoring network design, requiring minimum numbers of monitors and location and operation. Furthermore, commitment to continued operation of an adequate monitoring network is a requirement of SIPs generally.

The Owensboro Primary monitor fulfilled a number of the requirements of EPA regulations for an adequate ambient air monitoring network. It operated continuous PM_{2.5}, SO₂, NO₂, and ozone monitoring devices to meet the requirements of 40 C.F.R. pt. 58, and appendices A, C, D, E, and G. Without its operation over the past year, the Commonwealth should be presumed to be out of compliance with these requirements during that time. Furthermore, the Division has relied on its annual monitoring network plans over several SIP submissions now to meet requirements for operation of monitors and collection and analysis of ambient air data. The unapproved changes and complete closure of a site without a replacement means the

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Commonwealth's SIP is not being complied with, and further calls into question the reliability of future SIP submissions relying on the Division's annual monitoring network plans.

Finally, the lack of a replacement monitor for the Owensboro Primary site at this critical juncture, as a new PM_{2.5} NAAQS has just been adopted, and the site was on the brink of nonattainment, is greatly concerning, and calls into question the designation process for the area, which would have otherwise relied on data that is now not available.

The Division must ensure reopening of a replacement monitoring site for the Owensboro Primary site as expeditiously as possible. Further, in the future, the Division must also better plan so that modifications required in the next 18 months can not only be noticed in the annual update to the monitoring network plan, but made prior to the required closure of sites to ensure that the citizens of the Commonwealth are aware of the what's in the air that they are breathing.

Response: The Division acknowledges the comment and would like to defer to and restate parts of the response to Comment 1.

The Division has taken all actions required to move the ambient air monitoring sites as expeditiously as practicable. If the commenter believes the Division is in violation of the State Implementation Plan (SIP), then the appropriate avenue for addressing such a matter is with EPA and the subsequent issuance of a SIP Call. The Division points out that the timing of such an action would likely result in the monitoring location being functional prior to the finalization of such an action.

As previously stated, the Division did not have any plans to leave any of the three sites. The sites were asked to be removed by the respective property-owners due to planned development. Again, the Division is thankful for the cooperation of the landowners during the chaotic time of relocation. If the Division had any choice in these matters, the sites would never move and would continue to remain in operation. The Division understands the importance of the air monitoring stations, not just for compliance to the National Ambient Air Quality Standards (NAAQS) and the SIP, but for the protection and wellbeing of the citizens in the Commonwealth.

If there are issues with the initial designation status recommendations for the PM_{2.5} NAAQS made by the Division or final designation status made by EPA, the Division encourages the commenter to address those as part of that process.



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May 29, 2024

Ms. Jenna Nall,
Environmental Scientist Advisor,
Division for Air Quality

Via email to jenna.nall@ky.gov

Subject: Modification/Addendum to the 2023 Annual Monitoring Network Plan

Ms. Nall:

Thank you for the opportunity to comment on the Modification/Addendum to the 2023 Annual Monitoring Network Plan. Please find below the comments of Kentucky Resources Council, Inc. (KRC).

KRC is a statewide public-interest environmental law and advocacy organization. We work to protect Kentucky's natural resources, promote policies for healthy communities, and assure that those who pollute our land, air, or water are held to account. Our members and constituents live and work—and their children play and attend school—in areas potentially impacted by this proposal. We hope you will take into consideration the comments below during your evaluation.

Regards,

Byron L. Gary
Program Attorney

1. Proposed modifications to the monitoring network occurred without sufficient public notice and EPA approval

The proposed “addendum” to the annual monitoring network plan notes three changes to the monitoring network, only one of which is even potentially adequately publicly-noticed, or has the possibility of receiving required EPA approval.

As noted in the public notice for this action, 40 C.F.R. Part 58 contains provisions for public review and comment, and review by the Environmental Protection Agency (“EPA”) Regional Administrator of the state’s annual monitoring network plan.¹ The annual monitoring network plan is required to contain specific information, including any proposed changes.² Further requirements are listed for changes “that impact the location of a violating PM_{2.5} monitor,” including the process for obtaining public comment.³ Annual monitoring network plans that propose changes to the network require approval from the EPA Administrator.⁴

The Proposed Modification to the Kentucky Annual Ambient Air Monitoring Network Plan 2023,⁵ include: (1) shutting down of the Owensboro Primary monitor, to be replaced by an as-yet to be installed replacement; (2) replacement of the Jackson Purchase site with the Paducah Transit site; and (3) relocation of the Elizabethtown site at a future date.

The Proposed Modification notes that the Owensboro Primary site shut down last August, and the proposed new site has not begun operation yet, and no timeline for beginning operation is given. The original 2023 annual monitoring network plan, dated June 29,

¹ Notice of Public Comment Period, Kentucky Division for Air Quality, Ambient Air Monitoring Network Addendum (Apr. 29, 2024) (“Public Notice”); 40 C.F.R. § 58.10(a)(1).

² 40 C.F.R. § 58.10(b)(5).

³ 40 C.F.R. § 58.10(c).

⁴ 40 C.F.R. § 58.10(a)(2). *See also* 40 C.F.R. § 58.14(b): “...modifications must be reviewed and approved by the Regional Administrator. Each monitoring network may make or be required to make changes between the 5-year assessment periods, including for example, site relocations The State, or where appropriate local, agency shall provide written communication describing the network changes to the Regional Administrator for review and approval as these changes are identified.”

⁵ Kentucky Annual Ambient Air Monitoring Network Plan 2023 Addendum, *attached to* letter from Michael Kennedy, Director, Kentucky Division for Air Quality, to Sarah C. Taft, Ph.D., Acting Director, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4 (Apr. 29, 2024) (“Proposed Modification”) (neither the letter nor attached “addendum” are labeled draft or proposed in the documents, but as they were posted on the Division’s Public Notices webpage subsequent to a Notice of Public Comment Period it is presumed that they are not final and have not yet been submitted to EPA. Further, while labeled alternately an addendum (in the letter and heading of the document) or modification (in the body), these comments term it a modification, as there does not appear to be a process for “addendums” in the requirements for an annual monitoring network plan and the document appears to contain a number of changes rather than additions).

2023 (just over a month before the location shut down), stated that the Owensboro Primary site “must be moved soon” but that a new site had not been secured yet.⁶

The Proposed Modification states the switch of the Jackson Purchase site to the Paducah Transit site occurred in December 2022 - January 2023, and was later noted in the June 29, 2023 Annual Monitoring Network Plan, but had not previously been included in the 2022 annual monitoring network plan. It is unclear, therefore, if the proposed modification here is intended to be to the 2022 annual monitoring network plan, or the 2023 annual monitoring network plan.

Finally, while the Elizabethtown site has yet to move, no timeline for relocation is given. For this site alone, therefore, it appears the public notice given may comply with the requirements of federal regulations, it is unclear. It is also unclear whether sufficient time is being given to the Regional Administrator to approve the change.⁷

With regard to the other changes, it is clear that insufficient public notice was given, as the closures and the relocation of the Paducah site have *already occurred*. The single note in the original 2023 annual network plan regarding the future relocation to an unknown site at an unknown time of the Owensboro Primary site certainly does not constitute sufficient notice of “proposal[] to remove or move a monitoring station within a period of 18 months following plan submittal.”

Finally, while none of the monitors in this addendum were violating based on the most recent complete design values available at this time, the Owensboro Primary monitor was directly *at* the recently-revised fine particulate matter national ambient air quality standard (NAAQS), of $9.0 \mu\text{g}/\text{m}^3$, and so could easily have been violating if left in place.⁸ In fact, although incomplete, the annual mean for 2023, *excluding exceptional events*, was $9.9 \mu\text{g}/\text{m}^3$, which would have made the monitor violating.⁹

The Division must public notice modifications to the Commonwealth’s monitoring network *before* they occur in the future, and must also better plan so that modifications required in the next 18 months can be noticed in the annual update to the monitoring network plan.

⁶ Kentucky Annual Ambient Air Monitoring Network Plan 2023 (Jun. 29, 2023) at 86.

⁷ 40 C.F.R. § 58.10(a)(2) gives the Regional Administrator up to 120 days to approve or disapprove a plan that proposes modifications.

⁸ EPA, PM_{2.5} Design Values, 2022 spreadsheet (May 24, 2023), *available at* https://www.epa.gov/system/files/documents/2023-05/PM25_DesignValues_2020_2022_FINAL_05_23_23.xlsx. The 2020-2022 Annual Design Value ($\mu\text{g}/\text{m}^3$) for the site is listed as 9.0. *Compare with* 40 C.F.R. § 50.20(b). The site also does not appear to have a valid design value for the three prior design value periods.

⁹ See EPA, Outdoor Air Quality Data, Monitor Values Report for the Owensboro, KY CBSA, *available at* <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>, retrieved May 29, 2024 .

2. The closure of the Owensboro Primary site violates the requirements of 40 C.F.R. Part 58 or requirements of the Kentucky State Implementation Plan

As noted above, the Owensboro Primary site was shut down in August of 2023, leaving the area without a monitor for going on 10 months and counting. Aside from the required public notice and notice to the EPA Regional Administrator noted above, this leaves the Commonwealth in violation of several provisions of the federal regulations, and also several of its own State Implementation Plans (SIPs).

Federal regulations lay out a number of requirements for states' ambient air monitoring network design, requiring minimum numbers of monitors and location and operation.¹⁰ Furthermore, commitment to continued operation of an adequate monitoring network is a requirement of SIPs generally.¹¹

The Owensboro Primary monitor fulfilled a number of the requirements of EPA regulations for an adequate ambient air monitoring network. It operated continuous PM_{2.5}, SO₂, NO₂, and ozone monitoring devices to meet the requirements of 40 C.F.R. pt. 58, and appendices A, C, D, E, and G.¹² Without its operation over the past year, the Commonwealth should be presumed to be out of compliance with these requirements during that time. Furthermore, the Division has relied on its annual monitoring network plans over several SIP submissions now to meet requirements for operation of monitors and collection and analysis of ambient air data.¹³ The unapproved changes and complete closure of a site without a replacement means the Commonwealth's SIP is not being complied with, and further calls into question the reliability of future SIP submissions relying on the Division's annual monitoring network plans.

Finally, the lack of a replacement monitor for the Owensboro Primary site at this critical juncture, as a new PM_{2.5} NAAQS has just been adopted, and the site was on the brink of nonattainment, is greatly concerning, and calls into question the designation process for the area, which would have otherwise relied on data that is now not available.¹⁴

The Division must ensure reopening of a replacement monitoring site for the Owensboro Primary site as expeditiously as possible. Further, in the future, the Division must also

¹⁰ See, generally, 40 C.F.R. pt. 58, subpt. B and Appendix D.

¹¹ See Clean Air Act, Section 110(a)(2)(B), 42 U.S.C. § 7410(a)(2)(B).

¹² Kentucky Annual Ambient Air Monitoring Network Plan 2023 (Jun. 29, 2023) at 86.

¹³ See, e.g., Final Infrastructure State Implementation Plan: 2015 Ozone National Ambient Air Quality Standards (Jan. 2019) at 14; Section 110(a) Infrastructure SIP submittal for the 2012 PM_{2.5} NAAQS (Feb. 8, 2016) at 9.

¹⁴ See Memorandum from Joseph Goffman, Assistant Administrator, Office of Air and Radiation, EPA, to Regional Administrators, Regions 1-10, Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard (Feb. 7, 2024), *available at* https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-designations-memo_2.7.2024_-jg-signed.pdf.

better plan so that modifications required in the next 18 months can not only be noticed in the annual update to the monitoring network plan, but made prior to the required closure of sites to ensure that the citizens of the Commonwealth are aware of the what's in the air that they are breathing.