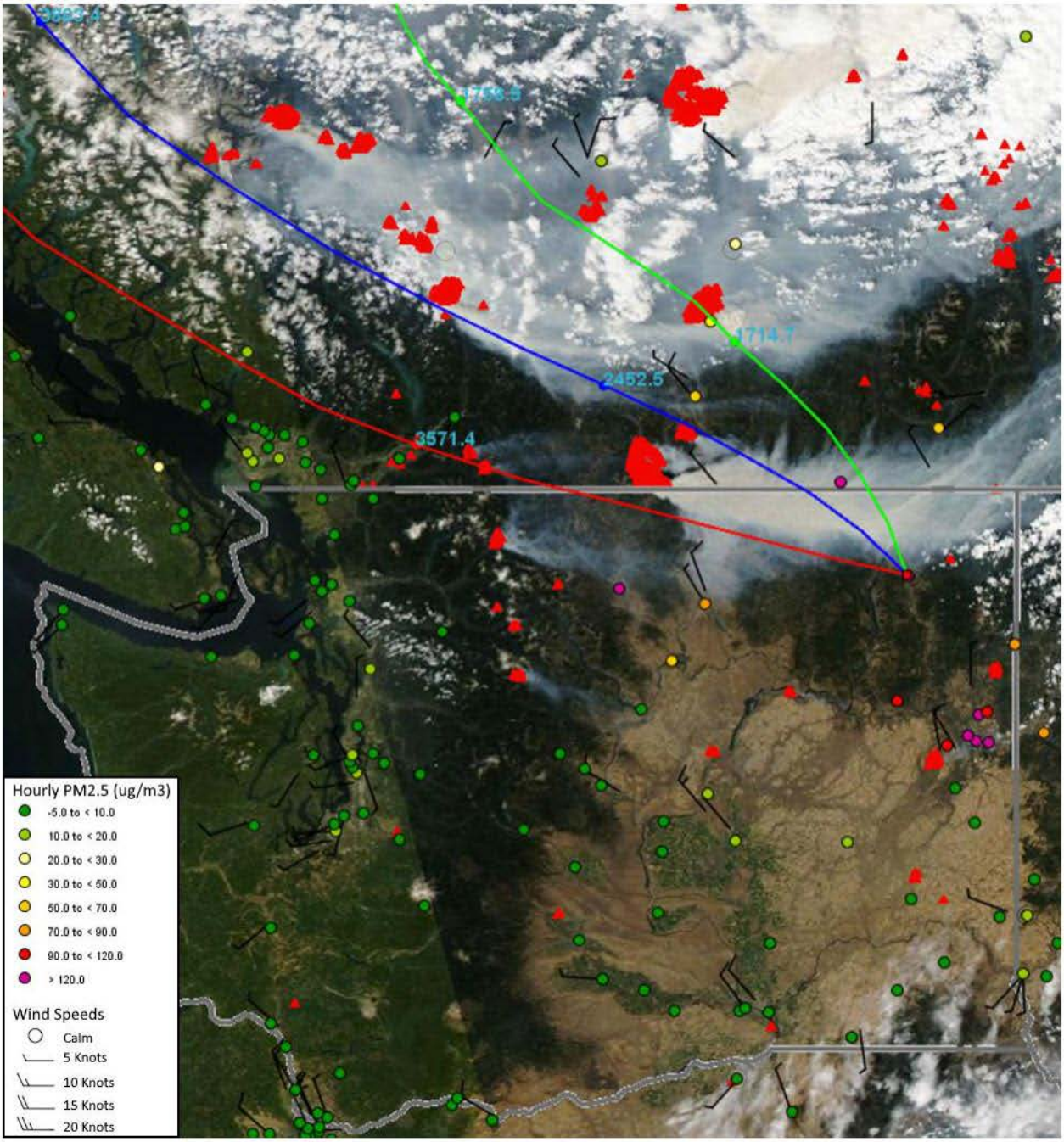


Figure A-7. HYSPLIT back trajectories on August 18, 2023 for Colville.

24-hour back-trajectories were initiated at 500 (green), 1500 (blue), and 3000 (red) meter starting heights. The trajectories, wind barbs, and $PM_{2.5}$ monitors shown are for 8 pm PST, when concentrations were highest that day. Blue labels along trajectories are heights above ground level in meters. The background layer is Aqua/MODIS imagery (~2 pm LT). HMS-detected hot-spots are shown as red triangles.

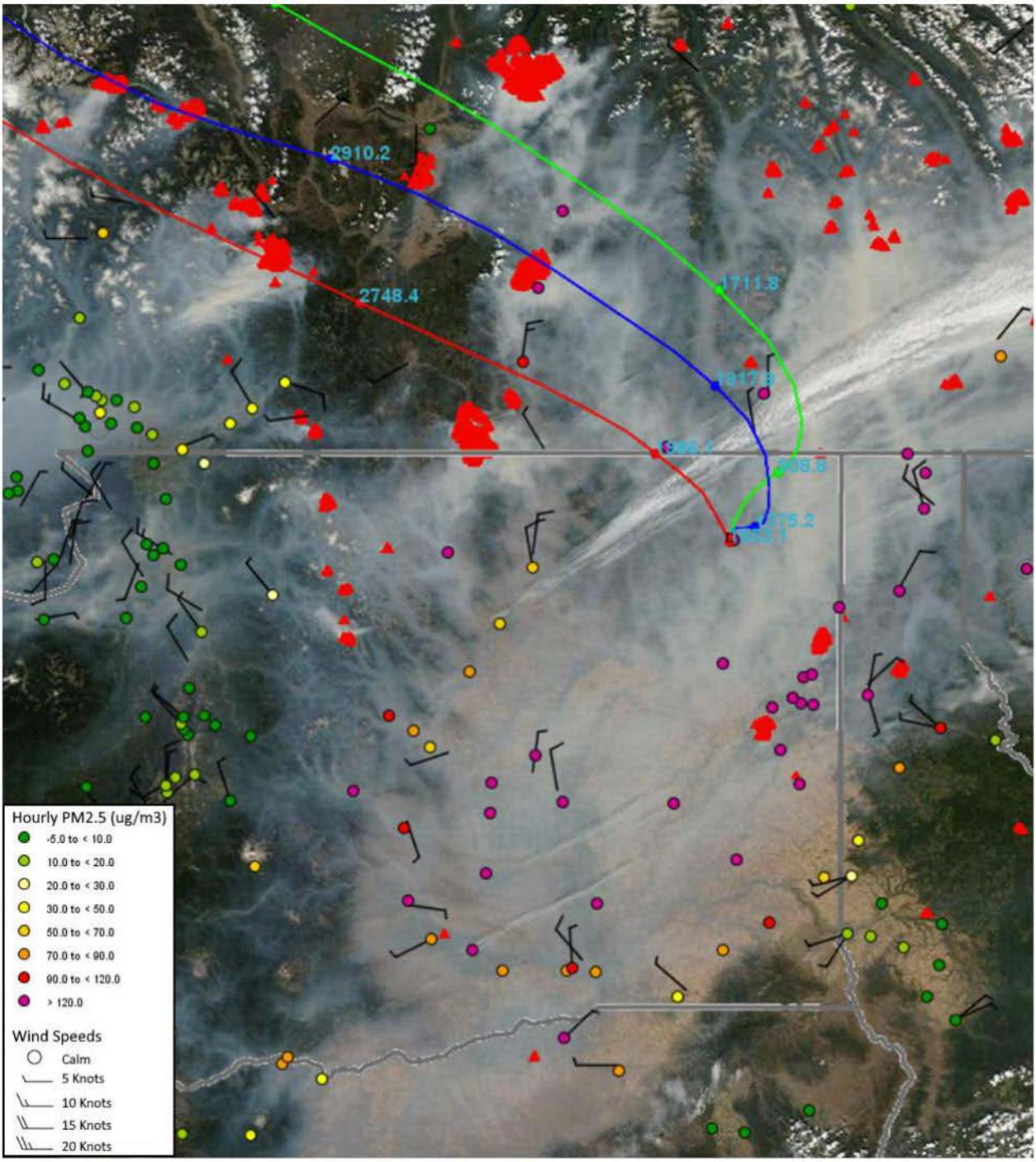


Figure A-8. HYSPLIT back trajectories on August 19, 2023 for Colville.

24-hour back-trajectories were initiated at 500 (green), 1000 (blue), and 1500 (red) meter starting heights. The trajectories, wind barbs, and $PM_{2.5}$ monitors shown are for 4 am PST, when concentrations were highest that day. Blue labels along trajectories are heights above ground level in meters. The background layer is Aqua/MODIS imagery (~2 pm LT). HMS-detected hot-spots are shown as red triangles.

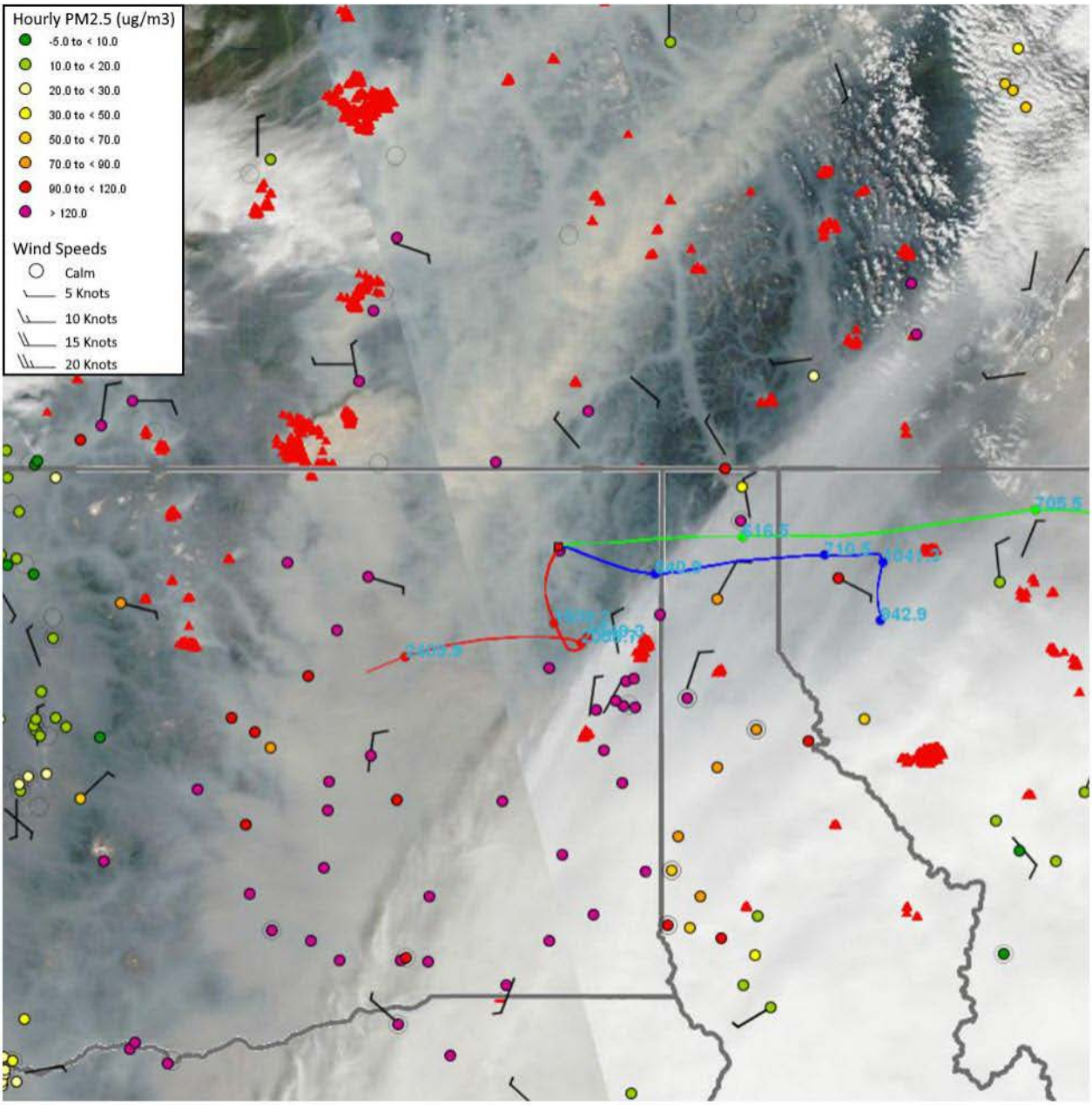


Figure A-9. HYSPLIT back trajectories on August 20, 2023 for Colville.

24-hour back-trajectories were initiated at 500 (green), 1200 (blue), and 1900 (red) meter starting heights. The trajectories, wind barbs, and $PM_{2.5}$ monitors shown are for 4 am PST, when concentrations were highest that day. Blue labels along trajectories are heights above ground level in meters. The background layer is Aqua/MODIS imagery (~2 pm LT). HMS-detected hot-spots are shown as red triangles.

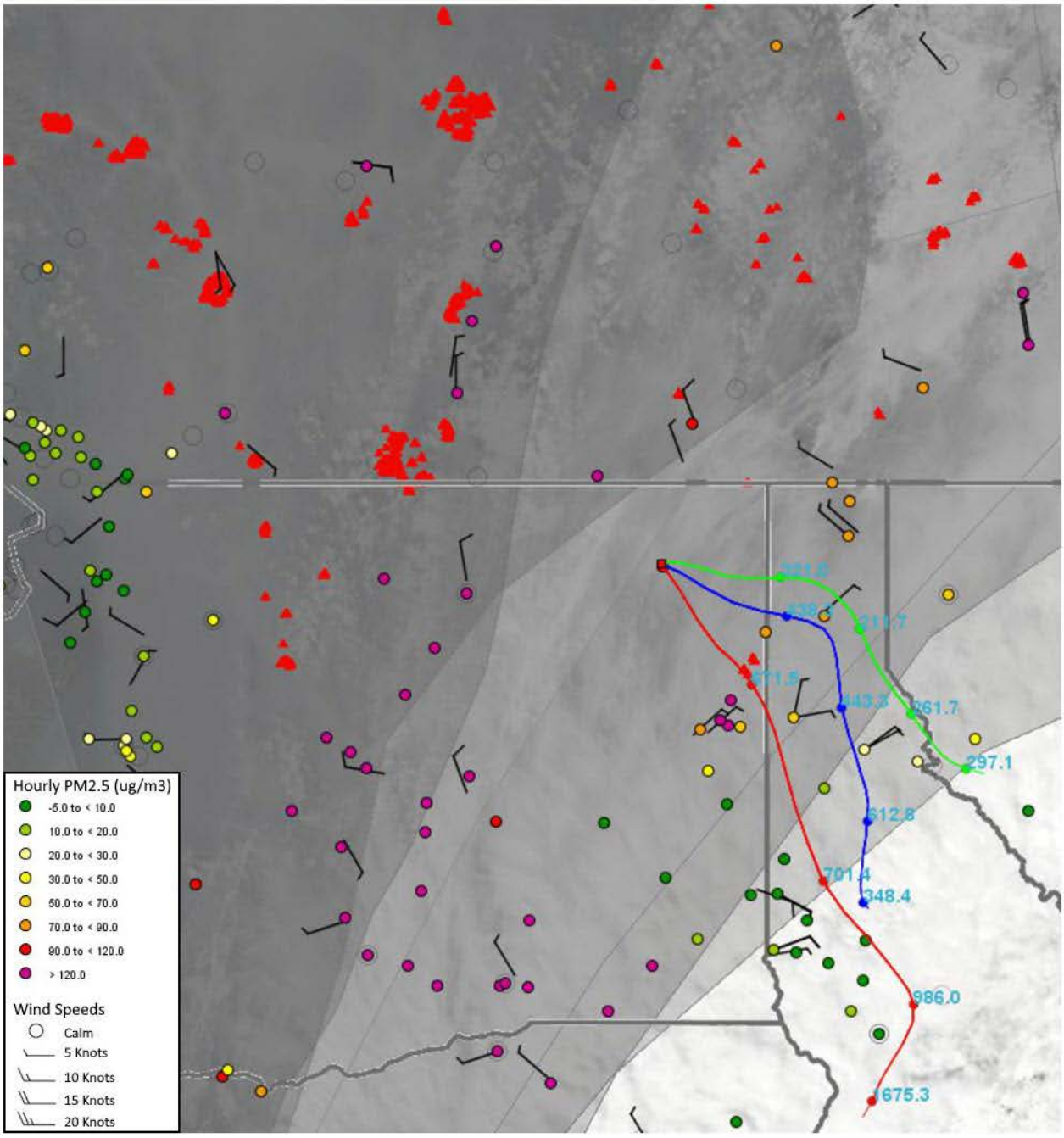


Figure A-10. HYSPLIT back trajectories on August 21, 2023 for Colville.

24-hour back-trajectories were initiated at 200 (green), 500 (blue), and 1000 (red) meter starting heights. The trajectories, wind barbs, and $PM_{2.5}$ monitors shown are for 9 am PST, when concentrations were highest that day. Blue labels along trajectories are heights above ground level in meters. The background layer is Aqua/MODIS imagery (~2 pm LT) with the HMS smoke polygon overlay. HMS-detected hot-spots are shown as red triangles.

Alternative source hypotheses

Alternative source hypotheses are an important element of the clear causal relationship demonstration. These hypotheses consider alternative sources that could cause large $PM_{2.5}$ concentrations on the days requested for exclusion, such as, prescribed burning, agricultural burning, residential wood combustion, outdoor open burning, and vehicle emissions.

Temperatures were warm during the wildfire event, thus residential wood combustion for home heating would not have contributed to large $PM_{2.5}$ concentrations. In general, the measured values during the exceedance period are well above the normal historical concentrations (see Historical Fluctuations below), thus routine anthropogenic sources (e.g. residential wood combustion, vehicles, industry, etc.) were not the cause of high $PM_{2.5}$ concentrations. DNR did not approve any prescribed burns in the region due to a fire-safety burn ban. Ecology did not approve any agricultural burns during the wildfire events.

There were no reported episodic events such as high wind dust storms, prescribed burning, or agricultural burning. Thus, Ecology concludes that the alternative hypotheses discussed above were unlikely to have impacted the monitors during the wildfire event. The smoke that caused large $PM_{2.5}$ concentrations came from regional fires within Washington, British Columbia and Idaho.

Comparison to Historical Fluctuations

To support the clear causal relationship requirement of the EER, the event-influenced concentrations at Colville were compared to historical concentrations. Evidence supports the conclusion that $PM_{2.5}$ concentrations at the monitor on the flagged days were elevated due to wildfire smoke.

The most recent 5 years of monitored concentrations at Colville, shown below, indicate that $PM_{2.5}$ remains below 15 $\mu g/m^3$ during the spring and summer months, with larger concentrations related to wildfire events. Concentrations go up slightly in the fall and winter, usually due to residential wood combustion and cold-weather inversions in the valley.

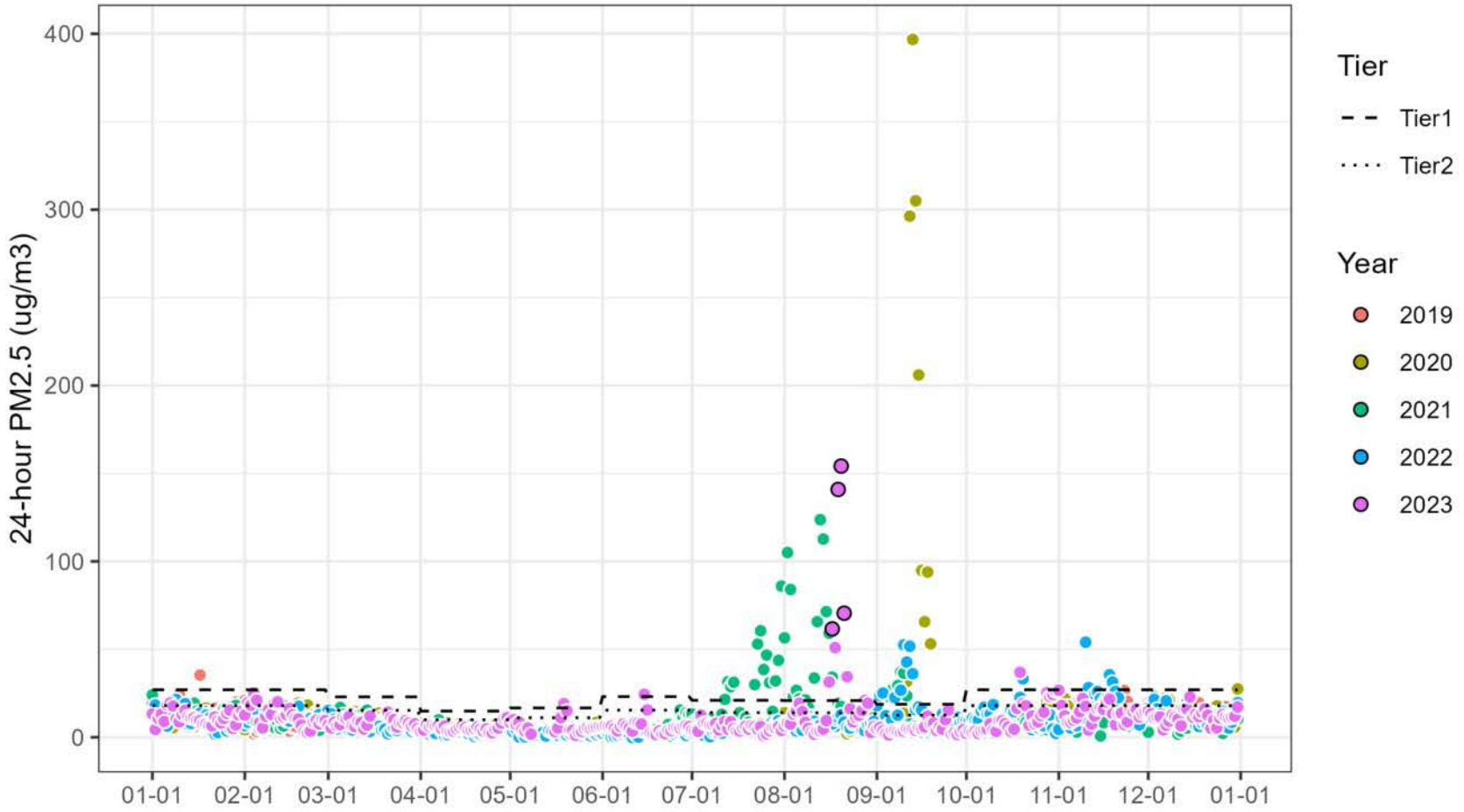


Figure A-11. Colville 24-hour $PM_{2.5}$ for the most recent 5 years.

Tiering thresholds are shown as dashed lines. Days requested for exclusion in 2023 are shown as pink circles with black outlines.

Not Reasonably Controllable or Preventable

This EER element requires a demonstration that the event was neither reasonably controllable nor preventable, and this requirement has been met for wildfire events (40 CFR 50.14(b)(4)). Ecology presents sufficient evidence in this demonstration showing the source of the event was indeed wildfires. Ecology contends that the events of August 2023 at the Colville E 1st St monitor were not reasonably controllable or preventable.

Natural Event or Human Activity Unlikely to Recur

The EER requires that agencies must document that the identified source of an exceptional event is either a natural event (NE) or a human activity unlikely to recur at the same location (HAURL) such as to affect the monitors in question again. EPA's 2016 Exceptional Events rule indicates that if an agency has adequately demonstrated that the source is a natural event or, if not natural, is a human activity unlikely recur at the same location and that there is a clear causal relationship between the identified source(s) and the affected monitor, then the HAURL/Natural Event criterion is also satisfied.

During August 2023, weather conditions in the Pacific Northwest quickly spread any fire that started or was already burning. The data included in the Conceptual Model and Clear Causal Relationship Sections demonstrate the clear causal relationship between the source of the smoke and monitor data for each day that Ecology requests concurrence. Thus, the NE/HAUR criterion is satisfied.

Mitigation

The EER requires states to take appropriate and reasonable actions to protect public health from exceedances or violations of the NAAQS (40CFR 51.930). Ecology presents evidence of prompt public notification of the event, public education so that individuals could make behavioral changes to reduce exposure to unhealthy air, and implementation of appropriate measures to protect public health from the impacts of exceptional events.

State, county, and local jurisdictions provide primary fire protection on public and private lands. The Washington State Department of Natural Resources (DNR) is the primary wildfire fighting force[25] and author of the Washington State Wildland Fire Protection 10-Year Strategic Plan.[26] Primary fire program duties on federal lands are the responsibility of the Bureau of Land Management, Bureau of Indian Affairs, National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and other federal partners.[27] The U.S. Fire Administration works with county and local fire departments and state forestry programs are represented by the National

[25] www.dnr.wa.gov/FightingFire
[26] www.dnr.wa.gov/publications/rp_wildfire_strategic_plan.pdf
[27] www.fs.usda.gov/managing-land/fire/partners/federal

Association of State Foresters. As partners, fire teams work together on fire management issues such as safety and planning, science, preparedness, operations, strategy development, logistics, intelligence, and emergency response. Control of large wildland fires is coordinated under the National Interagency Fire Center (NIFC). The NIFC Interagency Standards for Fire and Fire Aviation Operations (Red Book) defines the National Response Framework, National Incident Management System, and fire incident command organization.[28]

Washington State agencies (ECY, DNR, local CAAs, DOH, L&I) coordinate with the US Forest Service, EPA, and the National Weather Service to alert the public about dangerous smoke levels through social media, news releases, air quality alerts, and wildfire smoke forecasting.

Public Notification

Air quality notifications

Ecology Air Quality Program provides notification of wildfire smoke events to the public through Air Quality Alert messages distributed by the National Weather Service. Ecology coordinated with NWS to issue Air Quality Alert messages for Stevens County (and other areas) along with health information from August 17 to August 23. Air Quality Alerts were also in effect for other nearby parts of Washington on August 15 and 16. Iowa State University provides archives of all NWS text products, including the Air Quality Alerts served by the NWS Spokane office in August 2023. [29]

Washington's air monitoring network webpage[30] contains current air quality conditions and a link to 5-day smoke forecasts. The webpage features a map of air quality data for monitoring sites in the state. Each color-coded monitor shows the most recent NowCast AQI.

The Washington Smoke Blog provides current air quality conditions and fire information by displaying the fire.airnow.gov map with a 5-day smoke forecast overlay. Additional information is posted to the blog by state and federal agencies. Local smoke outlooks are also available on the blog, as provided by USFS Air Resource Advisors.[31] Ecology and DNR posted statewide smoke updates to the blog on August 1, 3, 7, 13, 15, 17, 18, 19, 21, 24, and 31.[32]

Ecology also posted daily on the Agency Twitter and Facebook with smoke updates, forecasts, trends, air quality conditions, etc. during the wildfire smoke season.

Flagging and initial notification

Ecology properly documented the exceedances of the annual $PM_{2.5}$NAAQS at the Colville monitor for August 2023. Ecology flagged the data with informational flags (i-flag) in EPA's AQS

[28] www.nifc.gov/standards
[29] mesonet.agron.iastate.edu/wx/afos/p.php?pil=AQAOTX&e=202308171454
[30] ecology.wa.gov/AirQualityWA
[31] outlooks.airfire.org/outlook
[32] wasmoke.blogspot.com/2023/08/

in May 2023 to notify EPA that wildfire events caused exceedances. Ecology discussed flagging of these $PM_{2.5}$exceedances in AQS during the regular meetings between Ecology and EPA Region 10 in May 2024. Since then, Ecology and EPA Region 10 staff engaged in regular communication, discussed regulatory significance, and that Ecology would submit this exceptional event demonstration. Ecology notified EPA of its intent to submit this demonstration during multiple regular meetings since May 2024. Through these actions, Ecology met the initial notification requirement.

Public involvement and public comments

Ecology held a public comment period on the proposed area designation recommendation and exceptional events demonstrations from November 8, 2024, through December 13, 2024. During this 36-day public comment period, the public had an opportunity to review and comment on the draft designation recommendation letter, exceptional events demonstration for 2023 $PM_{2.5}$ exceedances due to wildfires at the Colville E 1st St monitor, and report of 2021 days flagged for wildfire smoke impacts. Ecology held a virtual public hearing on these documents on December 10, 2024.

Ecology notified the public about the comment period and hearing in the following ways:

- Web Site – Ecology posted notice to the Ecology webpage and Ecology's Public Involvement Calendar.
- Email Distribution List – Ecology sent out notice via the Air Quality Rules and SIP updates listserv

Ecology provided the following ways for the public to submit comments on the proposal:

- Online
- At the virtual public hearing on December 10, 2024
- Postal Mail: Caitlin Cannon, Air Quality Program, Washington State Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600

Ecology received 4 comments. Our response is below. The transcription of verbal testimony recorded at the public hearing has been edited to remove filler words such as "um" for ease of reading. The original transcription can be obtained through public records request.

Comment 1

Eli Loftis with the Okanogan Conservation District submitted the following comment:

Yes, thank you, my name is Eli Loftis, E-L-I L-O-F-T-I-S. I am the wildfire and community resiliency lead planner for the Okanogan Conservation District leading and managing the conservation district wildfire, forestry, and air quality programs. I am here to speak to express the Conservation District's support for the recommendation that Ecology is providing to the

EPA. Air quality is a significant issue for Okanogan County. We are the largest county in the state with one of the least densely populated with only about 8 people per square mile. We struggle with air quality severely due to multiple point sources of $PM_{2.5}$ and PM_{10} but also due to significant wildfire events. We agree with Ecology that the 2024 data will most likely show that we are hopefully within attainment of these new federal standards. We have been a major part of the air quality and fire resiliency efforts here in our community for many years, leading community chipping events in collaboration with our other Okanogan River Airshed Partnership members which includes the Confederated Tribes of the Colville Reservation, Okanogan County Solid Waste and many others including Clean Air Methow which is a part of the Methow Valley Citizens Council. As stated, we fully support these recommendations and strongly hope that EPA accepts them as a nonattainment declaration will have a disproportionate negative impact on some of our most vulnerable citizens and other members of our community and cause a significant regulatory burden which is unnecessary for a community of this size and area. Thank you.

Ecology's Response: Thank you for your support of our draft recommendation. Ecology recognizes the dedicated work of many organizations in Okanogan County through the Okanogan River Airshed Partnership to reduce $PM_{2.5}$ exposure and protect public health.

Comment 2

Isabelle Spohn submitted the following comment:

Thank you Isabelle I-S-A-B-E-L-L-E Spohn S-P-O-H-N. I live in the Methow Valley and have a great interest in air quality. I fully support making a more stringent standard. We need to protect our health. Regarding the recommendation I will submit further testimony after I have seen the documents that you presented but at this point I would like to advocate for deciding after the data is in exactly whether or not we are in compliance. Thank you.

Ecology's Response: Thank you for your comment. Ecology's recommendation is based on certified air quality data from 2021-2023, along with a preliminary analysis of 2024 data. The 2024 data will be complete and certified by the time EPA announces their designation decision scheduled for early 2026. EPA expects to make their final decision based on three years of certified air quality data from 2022-2024.

Comment 3

Anna Jones with the Methow Valley Citizens Council submitted the following comment:

To Whom This May Concern at the EPA,

I am writing as the Program Manager for Clean Air Methow regarding the EPA's

potential designation of Omak, WA, as a nonattainment area under the revised PM2.5 National Ambient Air Quality Standards (NAAQS). This designation carries significant implications for public health, economic development, and environmental management across the region.

While the Omak monitor provides valuable data, it is essential to consider the broader context of air quality across geographic boundaries. The Methow Valley's air quality is shaped by distinct factors, including seasonal wildfire smoke and weather patterns that differ significantly from those in Omak. Misrepresenting these conditions could result in unnecessary regulatory burdens on communities already actively working to improve air quality.

I urge the County Commissioners to advocate for the EPA to rely on the most recent, high-quality data and to consider localized conditions and exceptional events, such as wildfire impacts, in its decision-making process. As noted in Ecology's draft recommendations, exceptional events have been flagged in the region, and their exclusion is vital to ensuring a fair assessment of air quality data.

Clean Air Methow remains committed to proactive measures that protect air quality, and we encourage the EPA to focus regulatory efforts on areas with the most acute challenges. Ensuring accurate, science-based designations will not only protect public health but also maintain community trust and foster collaborative air quality solutions.

I welcome the opportunity to discuss this issue further or provide additional context if needed. Please feel free to contact me at 509-997-0888x6 or annam@mvcitizens.org.

Sincerely,

Anna Jones
PO Box 774
Program Manager, Clean Air Methow
Twisp, WA 98856
www.mvcitizens.org
509 997-0888

Ecology's Response: Thank you for your comment. Ecology recognizes that Okanogan County is very large and has diverse terrain that creates multiple airsheds. Ecology supports a network of multiple $PM_{2.5}$ monitoring sites in Okanogan County in order to accurately characterize air quality in these distinct airsheds. At this time we are recommending attainment for all of Washington, but if EPA were to disagree we would recommend a boundary smaller than the county. In the past the EPA has agreed with Washington State recommendations for nonattainment area boundaries smaller than a county.

Comment 4

Isabelle Spohn submitted the following comment:

Thank you for your work on behalf of the public.

First, I am in total agreement with the EPA's strengthening of the primary annual PM 2.5 standard from 12 µg/m3 to 9 µg/m3. Doing what we can to protect the health of not only humans, but also wildlife, in these challenging times of changing climate is of great importance.

I'm a full-time resident and registered voter in Okanogan County, having lived here since 1978. Although I'm concerned with Air Quality in the entire county, my primary concern is for the Methow Valley because I live here. My concern also stems from our very sensitive air shed, which is subject to the frequent inversions typical of a high mountain valley, particularly during the winter. And in the upper Methow, these inversions can be as low as the roof of a home, with woodsmoke smoke sometimes entering homes in the neighborhood through closed windows. Although PM2.5 from wildfire is largely not controllable by humans, we can control to some degree the human impacts during other times of the year that contribute to the annual average.

I do agree with noting and considering exceptional events such as wildfires in your calculations regarding attainment/nonattainment issues.

The Omak Monitor: Boundaries of Attainment areas

I have read in the enclosed documents that "Consideration of geography or topography can provide additional information relevant to defining non attainment area boundaries. The EPA recommends that analyses examine the physical features of the land that might define the air shed and, therefore, affect the formation and distribution of PM2.5 concentrations over an area. Mountains or other physical features may influence the fate and transport of emissions and PM2.5 concentrations. Additional analyses may consider topographical features that cause local stagnation episodes via inversions."

However, I have also read that "The EPA recommends that the boundaries of attainment/unclassifiable areas generally not be smaller than a county."

First, we need to consider that Okanogan County is larger than 3 of the smallest states in the USA. This fact alone should indicate that special consideration of the boundaries of attainment areas in this county is appropriate. In addition, our county includes numerous air sheds, water sheds, and various ecosystems from shrub-steppe to high mountains and valleys - all of which create various and differing impacts upon meteorology and air quality.

In the case of the Omak monitor and any questions arising from its data, I contend that the Methow Valley and the Okanogan Valley are two discreet, adjacent air sheds and water sheds with very different topography and populations. They are separated by the Okanogan Range. The Methow has high mountains and is narrow and winding, creating a challenging situation for modeling and collection of data especially during winter when inversions are more severe and

wood stoves are in use. Omak and the Okanogan Valley, on the other hand, is more subject to the impacts of a larger human environment. Both, of course, are affected unpredictably and often separately by PM 2.5 from wildfire.

In deciding issues of attainment/non-attainment, these two valleys should be considered separately for the above reasons.

In respect to any necessary use of baseline data, I suggest that WDOE/EPA review the air quality studies (including monitoring and computer modeling) conducted by the EPA in order to comply with Regional Forester Jeff Sirmon's 7/05/84 Record of Decision addressing the Early Winters Winter Sports Study in regards to air quality (focusing especially upon woodstove and fireplace usage at the proposed resort.) Accurate baselines are especially important due to the potential impacts upon the adjacent Pasayten and Sawtooth Wilderness areas (Class 1air) - particularly if PSD increments are an issue in future applications.

Public Input and Advertisement of Opportunities to Comment

Thank you especially for the very useful documents that were provided for this comment period. However, should WDOE/EPA desire any substantial amount of public input from the Omak or Okanogan County areas, I would suggest advertising hearings in a manner that would encourage this input. The general populace is not accustomed to regularly viewing the website of WDOE in case there are statewide issues to which they would want to respond. A good practice would be to advertise such a hearing in the county's newspaper of record (Currently the Omak Chronicle, sometimes the Methow Valley News - on a year-to-year basis) so that the general populace would be aware. It could include reference to the WDOE website for details. I only became aware of this opportunity to comment because I listened in (over Zoom) to a recent Okanogan County Commissioners' meeting.

Thanks once again for your attention to public health and the environment in Washington State.

Sincerely yours,

Isabelle Spohn

509-997-4425

Ecology's response: Thank you for your comment. Ecology agrees that the Methow and Okanogan River Valleys represent different airsheds. Ecology supports a network of multiple $PM_{2.5}$ monitoring sites in Okanogan County in order to accurately characterize air quality in these distinct airsheds. At this time we are recommending attainment for all of Washington, but if EPA were to disagree we would recommend a boundary smaller than the county. In the past the EPA has agreed with Washington State recommendations for nonattainment area boundaries smaller than a county.

Ecology was not able to access the referenced studies in the time available, however the Washington State Air Quality Monitoring Network aligns with EPA's guidelines for $PM_{2.5}$

monitoring found in 40 C.F.R. parts 50, 53, and 58[33]. Available monitoring technology has evolved significantly since the referenced Record of Decision. EPA maintains a complete data record of $PM_{2.5}$ monitoring data submitted by Ecology since $PM_{2.5}$ monitoring began in the late 1990s, which can provide any necessary baseline data for analysis of $PM_{2.5}$ trends.

Thank you for your feedback on our public notice process. We will take this into consideration for future public notices.

Changes to document based on public comment

No changes were made to this document after the public comment period and public hearing.

Summary

With the weight of evidence discussed in this report, Ecology has shown that the fires in Washington, Idaho, and British Columbia impacted the Colville E 1st St monitor in August of 2023. Ecology therefore requests EPA's concurrence for 4 days to be flagged: 8/17/2023 (RF), 8/19/2023 (RF and RT), 8/20/2023 (RF and RT), and 8/21/2023 (RF and RT). Ecology requests that these values not be used to calculate the relevant design values for the 2024 $PM_{2.5}$ NAAQS revision designation cycle.

Ecology has also submitted data for 8/18/2023 which does not currently have regulatory significance to qualify for exclusion in case this day becomes regulatorily significant in the future.

[33] https://www.ecfr.gov/current/title-40/chapter-I

Appendix B. 2021 Days Flagged for Wildfire Smoke Impacts

Executive Summary

The Washington State Department of Ecology (Ecology) found that air quality monitoring sites located in Yakima and Stevens Counties were impacted by smoke from wildfires in 2021. The smoke caused brief exceedances of the 2024 annual national ambient air quality standard for fine particles ($PM_{2.5}$ NAAQS).

Ecology's recommendation of attainment for Yakima and Stevens Counties is based on Ecology's assessment of exceptional events for 2021, 2022, and 2023. Ecology submitted initial notification for 2021 smoke-impacted days on July 30, 2024. Ecology believes that the 2021 exceedance days in August and September at the Yakama 4th Ave and Toppenish Ward Rd monitors and in July, August, and September at the Colville E 1st St monitor were likely influenced by wildfire smoke to a degree that might otherwise trigger regulatory significance. However, Ecology has not submitted formal exceptional events demonstrations for such events because Ecology does not anticipate that events in 2021 will have regulatory significance as indicated in the EPA's memorandum, *Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard*[34], issued on February 7, 2024. In the unlikely circumstance that events in 2021 are determined to have regulatory significance for final designations decisions for the 2024 revised primary annual $PM_{2.5}$ NAAQS, Ecology will work with the EPA to provide additional information consistent with the requirements of the EPA's Exceptional Events Rule[35].

[34] https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-designations-memo_2.7.2024-_-jg-signed.pdf
[35] https://www.epa.gov/air-quality-analysis/federal-register-notice-final-revisions-exceptional-events-rule

Introduction

Ecology recognizes that wildfire smoke-impacted exceedances of the 2024 annual $PM_{2.5}$ (fine particulate matter) National Ambient Air Quality Standards (NAAQS) in 2021 at the Yakima 4th Ave monitor, Toppenish Ward Rd monitor, and Colville E 1st St monitor. Ecology does not anticipate that these events will have regulatory significance; however, further information is provided on these days below.

Yakima 4th Ave

The 2021 annual mean concentration at Yakima-4th Ave (AQS ID: 530770009) for Ecology's designation recommendation was calculated by excluding the following wildfire smoke-impacted days in descending order until the resulting mean was below 9.05 ug/m3.

Date	Daily $PM_{2.5}$ ($\mu g/m^3$)	Qualifier Flags	Request Exclusion from the regulatory decision?	Resulting Annual Mean (ug/m3)
8/13/2021	134.3	IT	No	10.68
8/24/2021	99.0	IT	No	10.47
9/7/2021	88.6	IT	No	10.28
8/19/2021	86.0	IT	No	10.10
9/10/2021	81.7	IT	No	9.92
9/9/2021	80.9	IT	No	9.74
9/2/2021	78.2	IT	No	9.57
8/20/2021	69.4	IT	No	9.42
8/14/2021	69.0	IT	No	9.26
8/25/2021	67.6	IT	No	9.11
8/17/2021	64.7	IT	No	8.96

Table B-4 Smoke impacted days at Yakima - 4th Ave

Toppenish Ward Rd

The 2021 annual mean concentration at Toppenish-Ward Rd (Yakama Nation, AQS ID: 530770015) was calculated by excluding the following wildfire smoke-impacted days in descending order until the resulting mean was below 9.05 ug/m3.

Date	Daily $PM_{2.5}$ ($\mu g/m^3$)	Qualifier Flags	Request Exclusion from the regulatory decision?	Resulting Annual Mean (ug/m3)
8/13/2021	104.4	IT	No	11.29
8/20/2021	92.5	IT	No	11.09

Date	Daily $PM_{2.5}$ ($\mu g/m^3$)	Qualifier Flags	Request Exclusion from the regulatory decision?	Resulting Annual Mean (ug/m3)
8/14/2021	90.8	IT	No	10.88
9/7/2021	86.3	IT	No	10.69
8/19/2021	68.5	IT	No	10.54
9/10/2021	65.8	IT	No	10.40
9/9/2021	65.1	IT	No	10.25
8/28/2021	62.7	IT	No	10.12
8/12/2021	57.4	IT	No	9.99
8/17/2021	53.0	IT	No	9.87
8/1/2021	50.2	IT	No	9.76
8/2/2021	47.0	IT	No	9.66
9/4/2021	43.9	IT	No	9.57
8/25/2021	42.4	IT	No	9.48
8/27/2021	41.5	IT	No	9.39
8/30/2021	41.5	IT	No	9.29
8/21/2021	40.9	IT	No	9.20
8/26/2021	39.9	IT	No	9.11
9/2/2021	38.3	IT	No	9.02

Table B-5 Smoke impacted days at Toppenish - Ward Rd

Colville E 1st St

The 2021 annual mean concentration at Colville-E 1st St (AQS ID: 530650005) was calculated by excluding the following wildfire smoke-impacted days in descending order until the resulting mean was below 9.05 ug/m3.

Date	Daily $PM_{2.5}$ ($\mu g/m^3$	Qualifier Flags	Request Exclusion from the regulatory decision?	Resulting Annual Mean (ug/m3)
8/13/2021	123.7	IT	No	11.12
8/14/2021	112.7	IT	No	10.86
8/2/2021	105	IT	No	10.62
7/31/2021	85.9	IT	No	10.43
8/3/2021	84	IT	No	10.24

Date	Daily $PM_{2.5}$ ($\mu g/m^3$	Qualifier Flags	Request Exclusion from the regulatory decision?	Resulting Annual Mean (ug/m3)
8/15/2021	71.4	IT	No	10.08
8/12/2021	65.7	IT	No	9.94
7/24/2021	60.5	IT	No	9.80
8/16/2021	59.2	IT	No	9.67
8/1/2021	56.5	IT	No	9.54
7/23/2021	53	IT	No	9.42
7/26/2021	46.7	IT	No	9.32
7/30/2021	43.7	IT	No	9.23
7/25/2021	38.5	IT	No	9.14
9/9/2021	37.1	IT	No	9.07
9/10/2021	36.4	IT	No	8.99

Table B-6 Smoke impacted days at Colville - E 1st St

Wildfire Flagging information for 2021

The Pacific Northwest experienced record temperatures during the summer of 2021, accompanied by several bouts of thunderstorms and lightning. The combination of hot/dry weather and lightning led to many large wildfires in British Columbia, Washington, Idaho, Oregon, and California, which caused excessive smoke in the region. During July, August and September of 2021, the State of Washington experienced significant wildfire smoke events, which resulted in exceedances of $PM_{2.5}$, PM10, and Ozone. Table B-4. below lists the wildfire events that caused smoke that impacted monitors in the State of Washington.

Name	Location	Discovery Date	Total Acres
Lick Creek fire (Dry Gulch)	Garfield/Asotin counties, WA	7/7/2021	80,421
Green Ridge fire	Columbia/Garfield counties, WA	7/7/2021	42,722
Snake River Complex	Nez Perce county, ID	7/7/2021	109,444
Cedar Creek fire	Mazama, WA	7/8/2021	55,572
Crazy Creek Gorge fire	Sicamous, BC	7/10/2021	10,850
Thomas Creek fire	Penticton, BC	7/11/2021	26,190
Chuweah Creek fire	Nespelem, WA	7/12/2021	36,752

Name	Location	Discovery Date	Total Acres
Summit Trail fire	Ferry county, WA	7/12/2021	49,329
Red Apple fire	Wenatchee, WA	7/13/2021	12,228
Dixie fire	Plumas county, CA	7/13/2021	963,309
WhiteRock Lake fire	Kelowna, BC	7/13/2021	201,350
Cub Creek 2 fire	Winthrop, WA	7/16/2021	70,186
Nk'Mip Creek fire	Osoyoos, BC	7/20/2021	47,780
Trestle Creek complex	Kaniksu NF, ID	7/20/2021	6,631
Walker Creek fire	Wauconda, WA	8/3/2021	23,331
Whitmore fire	Omak Lake, WA	8/3/2021	58,280
Hamilton fire	E. of Nespelem, WA	8/3/2021	1,207
Schneider Springs fire	Yakima county, WA	8/4/2021	101,633
Muckamuck fire	Conconully, WA	8/4/2021	13,298
Chickadee Creek fire	Loomis, WA	8/4/2021	5,854
Spur fire	Wauconda, WA	8/5/2021	12,596
Bulldog Mountain	Boyds, WA	8/5/2021	6,209
Mack Mountain	Boyds, WA	8/5/2021	1,234
TwentyFive Mile fire	Lake Chelan, WA	8/15/2021	21,380

Table B-7 2021 Wildfire information

Satellite Images

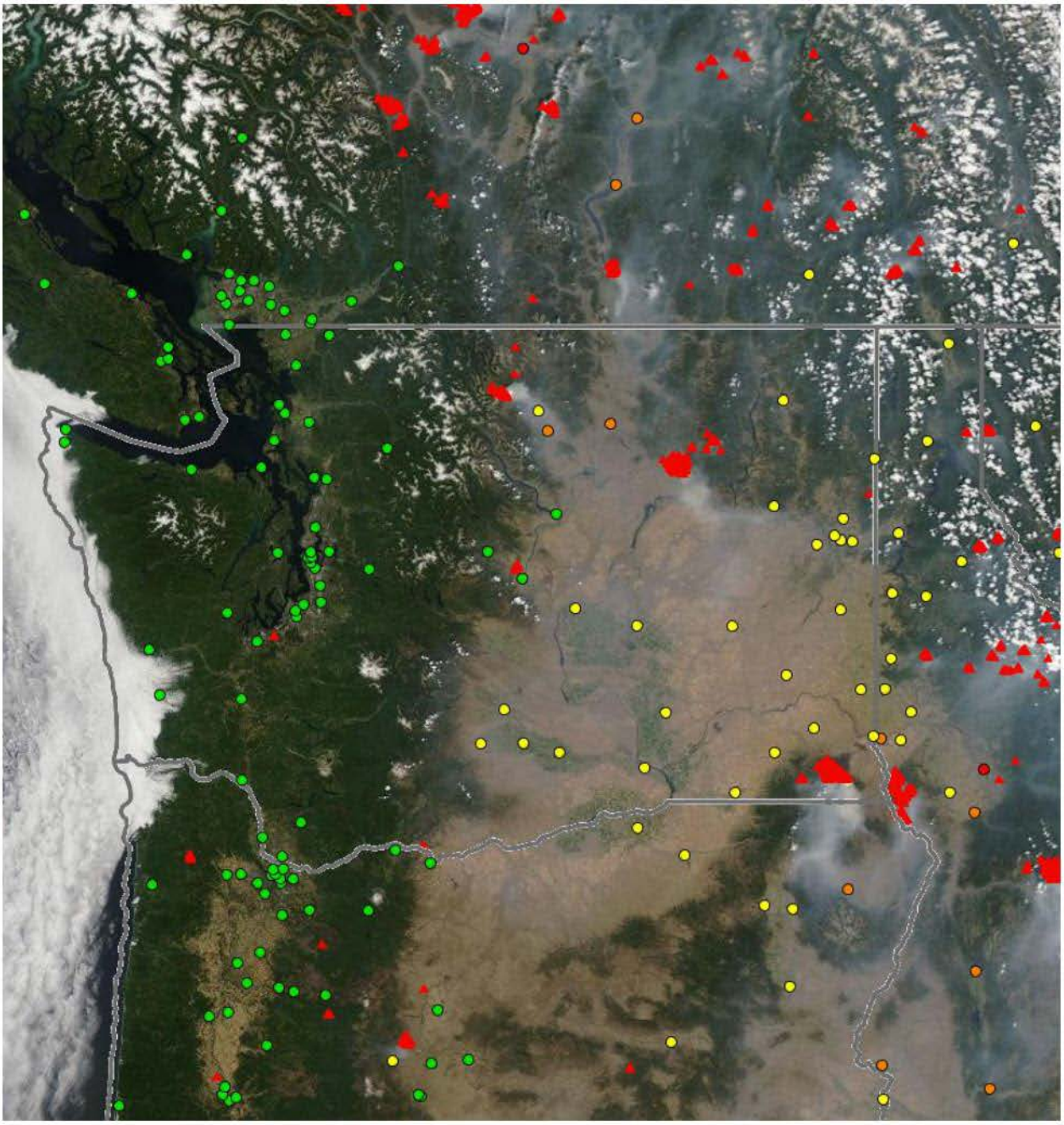


Figure B-12 July 13, 2021 – MODIS/Aqua Image overlayed with HMS hot spots (red triangles) and 24-hour $PM_{2.5}$ observed at monitors.

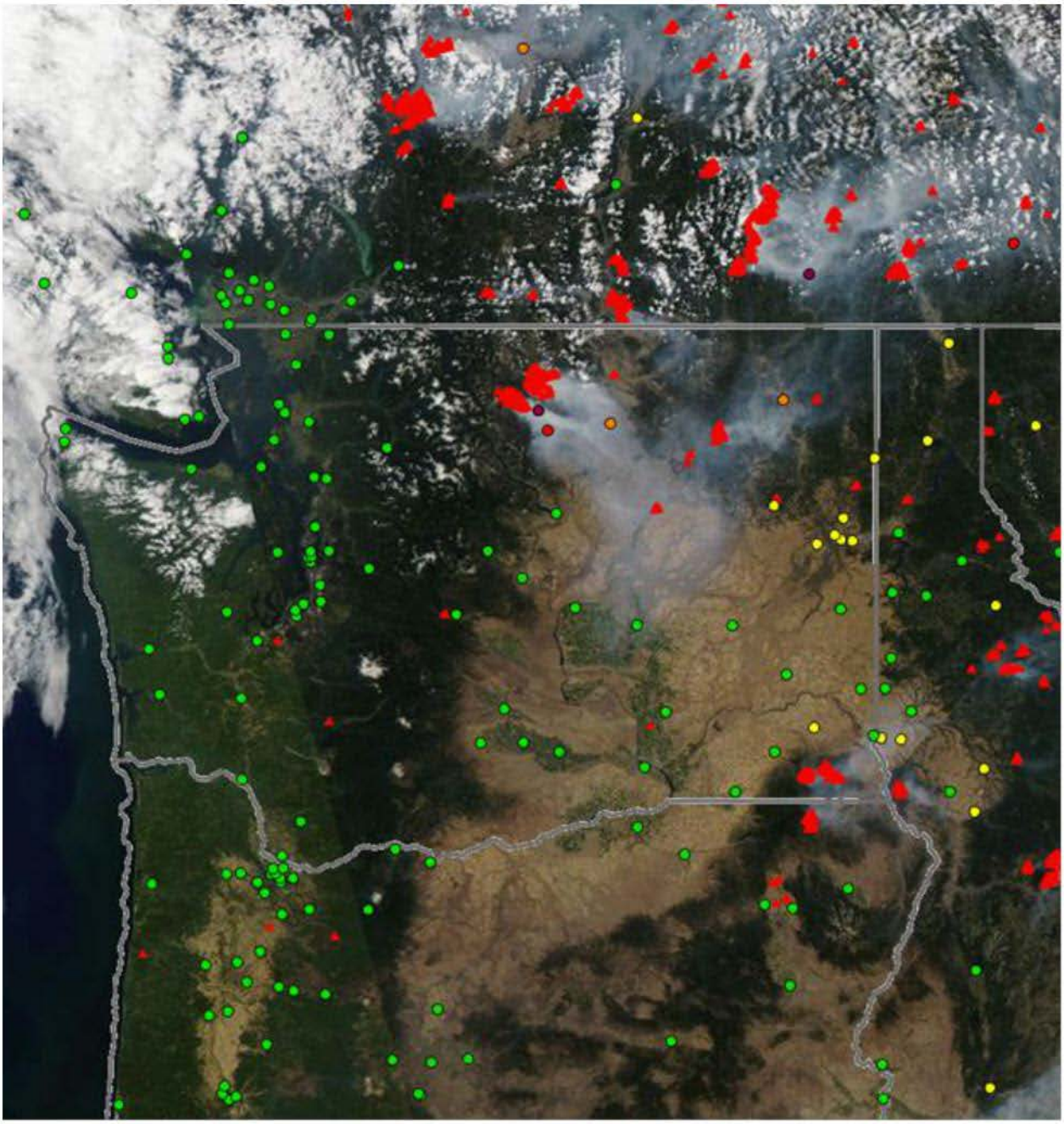


Figure B-13 July 23, 2021 – MODIS/Aqua Image overlayed with HMS hot spots (red triangles) and 24-hour $PM_{2.5}$ observed at monitors.

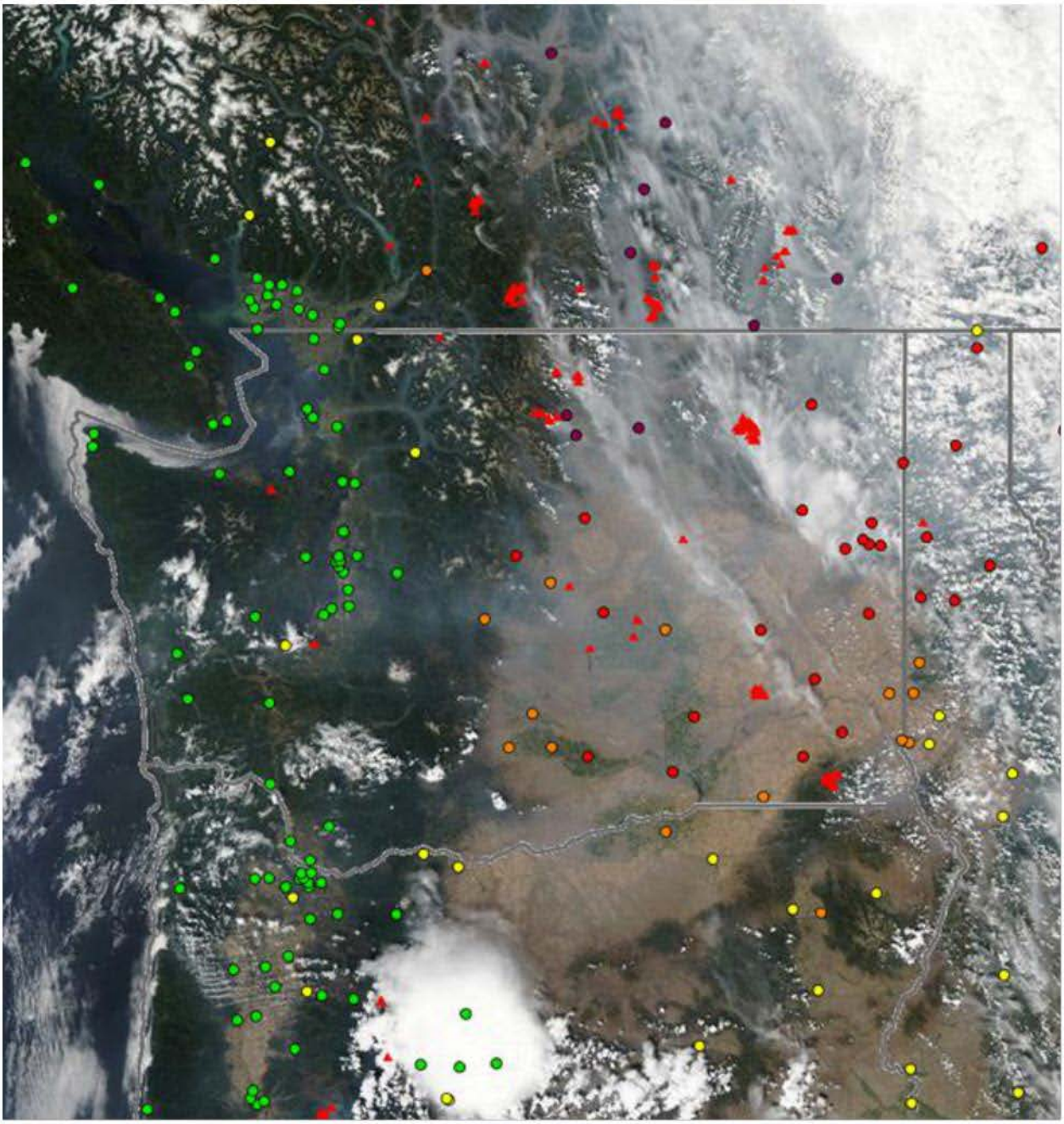


Figure B-14 August 2, 2021 – MODIS/Aqua Image overlayed with HMS hot spots (red triangles) and 24-hour $PM_{2.5}$ observed at monitors.

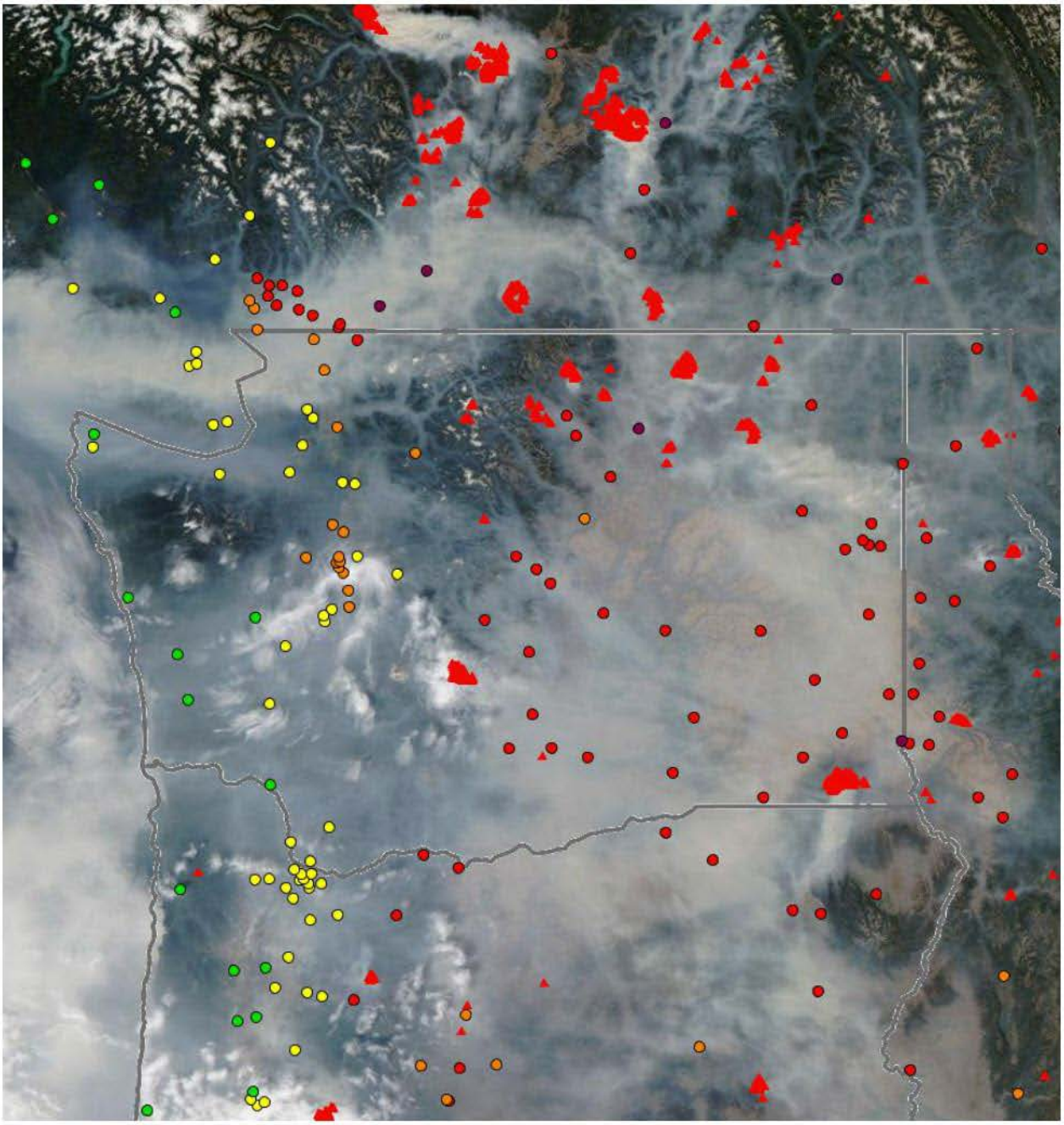


Figure B-15 August 13, 2021 – MODIS/Aqua Image overlayed with HMS hot spots (red triangles) and 24-hour $PM_{2.5}$ observed at monitors.

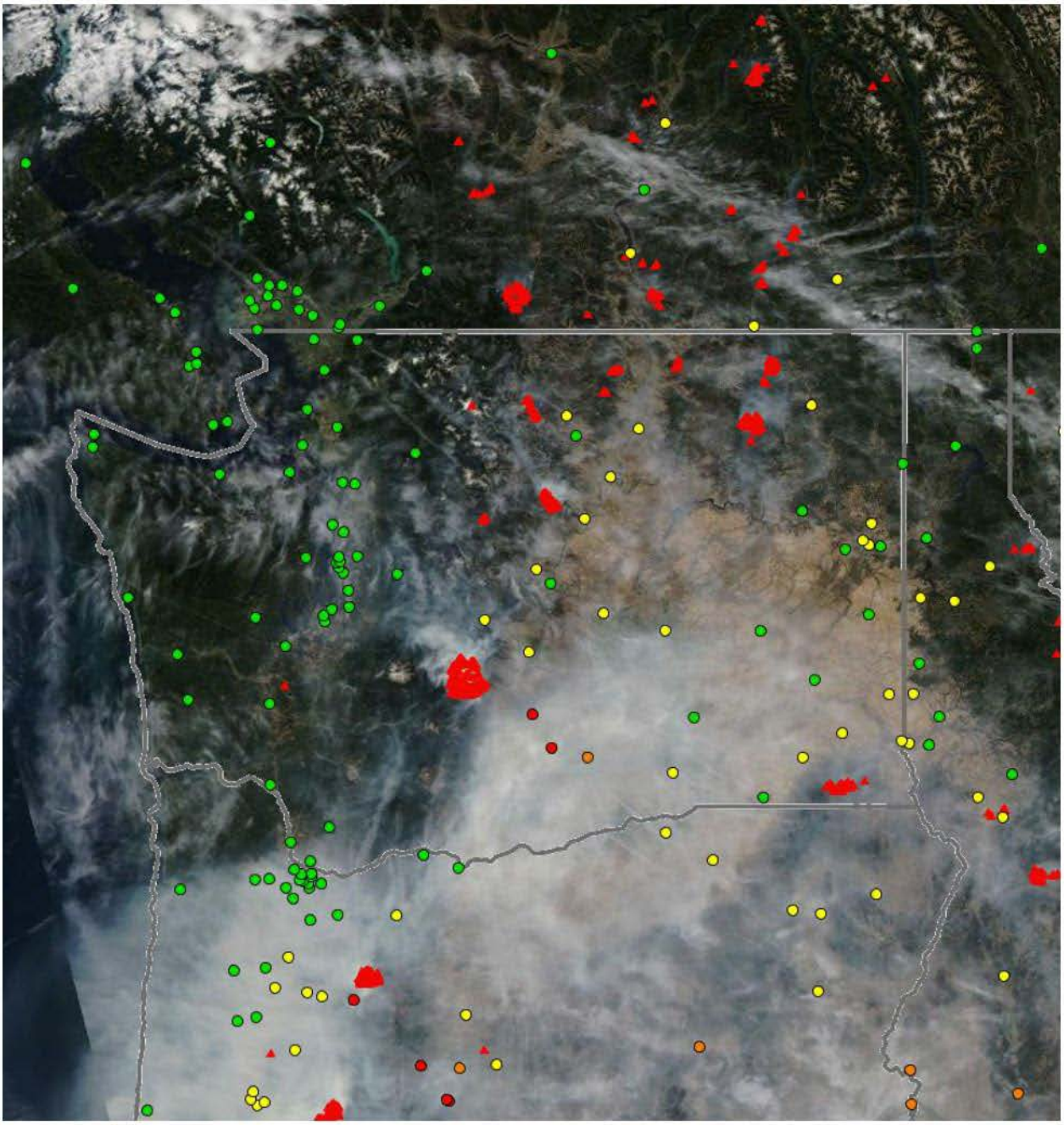


Figure B-16 September 7, 2021 – MODIS/Aqua Image overlayed with HMS hot spots (red triangles) and 24-hour $PM_{2.5}$ observed at monitors.

Summary

The information in this report demonstrates that wildfire smoke-influenced monitor concentrations in 2021. Ecology does not anticipate that these days will have regulatory significance for area designations for the 2024 annual $PM_{2.5}$ NAAQS. This information has been provided to give context to Ecology's recommendations for this designation decision.

If these events do become regulatorily significant Ecology will submit further information demonstrating that these days meet the requirements of the Exceptional Events Rule.

Appendix C. Signed Designation Recommendation Letter and Enclosure

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

February 7, 2025

Dan Opalski, Acting Regional Administrator
U.S. Environmental Protection Agency, Region 10
1200 Sixth Ave, Suite 155
Seattle, WA 98101

RE: Area designations for the 2024 $PM_{2.5}$ National Ambient Air Quality Standard

Dear Acting Regional Administrator Opalski:

On behalf of the Governor, I am submitting the State of Washington's recommendations for air quality area designations for the revised fine particulate matter ($PM_{2.5}$) national ambient air quality standard. The U.S. Environmental Protection Agency strengthened the primary annual $PM_{2.5}$ standard to protect public health on February 7, 2024. The revision of the standard from 12 µg/m³ to 9 µg/m³ triggered a designation process outlined in EPA's *Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard*[1] memorandum. The designation process laid out in section 107(d) of the Clean Air Act[2] provides states with the opportunity to make recommendations to EPA on designations within one year after the revision of the standard.

The Washington State Department of Ecology developed these recommendations from the most recent certified air quality monitoring data (2021–2023) available from $PM_{2.5}$ Federal Reference Method (FRM) and Federal Equivalent Method (FEM) monitors. Ecology also considered preliminary 2024 data because EPA expects to make final designation decisions based on the 2022–2024 monitor data. A summary "Recommended Designations for the annual $PM_{2.5}$ Standard" is enclosed.

Ecology recommends all counties in the state be designated as attainment/unclassifiable for the $PM_{2.5}$ standard with the exception of Omak, Washington, which we tentatively recommend be designated as attainment based on preliminary analysis of 2024 monitor data. Ecology recommendations do not apply to tribal lands, which follow a separate designation process with EPA. Several monitors located on tribal lands are close enough to non-tribal lands that we have included recommendations for these tribal land adjacent areas. In the case of Omak,

[1] https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-designations-memo_2.7.2024-_-jg-signed.pdf
[2] https://www.govinfo.gov/content/pkg/USCODE-2013-title42/html/USCODE-2013-title42-chap85-subchapI-partA-sec7407.htm

Washington, a tribal monitor is representing both tribal and non-tribal lands in the same city. Further information on Omak is included below.

RECOMMENDED DESIGNATIONS

Attainment

Monitors in Clark, King, Kitsap, Kittitas, Pierce, Skagit, Snohomish, Spokane, Stevens, Whatcom, and Yakima counties meet the $PM_{2.5}$ standard. We are recommending these areas be designated attainment.

Ecology's recommendation of attainment for Stevens and Yakima counties is based on our assessment of exceptional events for 2021 and 2023. Ecology submitted initial notification to EPA for 2023 exceptional events days on July 30, 2024, for the wildfire influenced days from August 17–21 of 2023 at the Colville-E 1st St monitor. Ecology believes that the 2021 exceedance days in August and September at the Yakima 4th Ave and the Toppenish Ward Rd monitors[3] and in July, August, and September at the Colville E 1st St monitor were likely influenced by wildfire smoke to a degree that might otherwise trigger regulatory significance. However, Ecology has not submitted formal exceptional events demonstrations for such events because Ecology does not anticipate that events in 2021 will have regulatory significance as indicated in the EPA's memorandum, *Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard*[4], issued on February 7, 2024. In the unlikely circumstance that events in 2021 are determined to have regulatory significance for final designations decisions for the 2024 revised primary annual $PM_{2.5}$ NAAQS, Ecology will work with EPA to provide additional information consistent with the requirements of the *EPA's Exceptional Events Rule*[5].

Further information on 2021 events can be found in the attached document "2021 Days Flagged for Wildfire Smoke Impacts."

The other counties in Washington State (Asotin, Benton, Chelan, Clallam, Columbia, Cowlitz, Douglas, Ferry, Franklin, Garfield, Grant, Grays Harbor, Island, Jefferson, Klickitat, Lewis, Lincoln, Mason, Pacific, Pend Oreille, San Juan, Skamania, Stevens, Thurston, Wahkiakum, Walla Walla, and Whitman) do not have regulatory $PM_{2.5}$ monitors. $PM_{2.5}$ is monitored in these areas by non-regulatory monitors due to consistently low values. Ecology recommends a designation of attainment/unclassifiable for these areas.

Tentative Attainment

The Omak monitor, located in Okanogan County and operated by the Confederated Tribes of the Colville Reservation Office of Environmental Trust with support from EPA and Ecology,

[3] **The Toppenish Ward Rd monitor is operated by the Yakama Nation, Ecology includes this information because it is representative of nearby non-tribal areas**
[4] https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-designations-memo_2.7.2024-_-jg-signed.pdf
[5] https://www.epa.gov/air-quality-analysis/federal-register-notice-final-revisions-exceptional-events-rule

represents a community spanning tribal and non-tribal lands. Because this monitor is a tribal monitor, EPA Region 10 is preparing Exceptional Events Demonstrations to exclude wildfire impacted data for this monitor from the designation decision.

Ecology recognizes that if EPA were to exclude wildfire influenced data from the 2021–2023 data set the Design Value for this monitor will still be very slightly above the new $PM_{2.5}$ standard. However, preliminary data analysis indicates that this monitor is likely to be in attainment of the new standard for the 2022–2024 data set that EPA intends to use for the final regulatory decision, in accordance with EPA's initial area designations memo listed above.

There are no major permitted sources of $PM_{2.5}$ in the Omak area. Significant non-regulatory work has been done in the region by the Okanogan River Airshed Partnership and others to reduce $PM_{2.5}$ emissions. This work has included woodstove changeout programs, green waste collection, and wood chipping. These programs address the most significant human-caused sources of $PM_{2.5}$ emissions in the county per the 2020 Emissions inventory[6] for Okanogan County.

Due to the low preliminary monitor values available for 2024, as well as the strong history of non-regulatory work addressing local $PM_{2.5}$ sources, Ecology believes this area is likely to meet the new $PM_{2.5}$ standard when EPA considers the 2022–2024 data set for its final designation decision. Ecology encourages EPA to make its final decision based on the most recent monitor data.

If the Omak monitor does not meet the new standard once all 2024 data is available in early 2025 Ecology intends to submit a boundary designation recommendation.

Thank you for your consideration of our recommendations. Please contact Kathy Taylor or her staff at 360-584-5104 or Kathy.Taylor@ecy.wa.gov if you have questions.

Sincerely,

Casey D. Sixkiller
Director

Enclosure

cc: Kathy Taylor, Ecology

[6] https://www.epa.gov/air-emissions-inventories/2020-national-emissions-inventory-nei-data

Recommended Designations for the 2024 annual PM2.5 Standard

The United States Environmental Protection Agency (EPA) revised the annual federal health-based standard for fine particulate matter ($PM_{2.5}$) in the ambient air to 9 micrograms per cubic meter ($\mu g/m^3$) in February 2024 to improve protection of public health. $PM_{2.5}$ refers to particulates with an aerometric diameter of 2.5 microns or less. Compliance with the $PM_{2.5}$ standard is evaluated over a three-year period by taking the mean or average of each year's mean monitored values. A design value of 9.05 $\mu g/m^3$ or higher is a violation of the annual $PM_{2.5}$ standard.

Site Site Number	County	2021 Mean ($\mu g/m^3$)	2022 Mean ($\mu g/m^3$)	2023 Mean ($\mu g/m^3$)	2021–2023 Design Value ($\mu g/m^3$)	Designation Recommendation
Vancouver – NE 84th Ave	Clark	5.65	7.70	6.39	6.6	Attainment
Seattle- 10th & Weller	King	6.53	10.53	7.85	8.3	Attainment
Seattle – Duwamish	King	6.64	8.78	7.74	7.7	Attainment
Seattle – Beacon Hill	King	4.35	7.01	6.02	5.8	Attainment
Bremerton – Spruce Ave	Kitsap	5.20	6.36	4.90	5.5	Attainment
Ellensburg – Ruby St	Kittitas	6.27	7.06	6.48	6.6	Attainment
Omak – 8th Ave (Confederated Tribes of the Colville Nation)	Okanogan	14.88	10.28	11.79	12.3	*** See narrative below
Tacoma – S 36th St	Pierce	6.64	8.34	6.43	7.1	Attainment
Tacoma – L St	Pierce	6.10	8.70	7.17	7.3	Attainment
Anacortes – 202 O Ave	Skagit	4.77*	5.63	5.27	5.2*	Attainment
Darrington – Fir St	Snohomish	5.56	12.16	4.22	7.3	Attainment
Marysville – 7th Ave	Snohomish	7.01	9.11	8.45	8.2	Attainment
Spokane Valley – E Broadway Ave	Spokane	8.99	7.73	7.71	8.1	Attainment
Colville – E 1st St	Stevens	8.99**	8.92	9.03**	9.0**	Attainment
Bellingham – Pacific St	Whatcom	4.02	6.09*	4.96	5.0*	Attainment
Yakima – 4th Ave	Yakima	8.96**	9.13	8.79	9.0**	Attainment
Toppenish – Ward Rd (Yakama Nation)	Yakima	9.02**	9.37**	8.51**	9.0**	Attainment

* Sites with one asterisk do not meet the minimum data completeness requirement of 50 percent data capture per calendar quarter for determination of a valid design value with the substitution tests described in 40 C.F.R. Part 50 Appendix N 4.1 (c).

**Exceptional events due to wildfires were excluded from calculations. In 2021, days flagged in AQS with wildfire-related informational flags ("IT" or "IF") were excluded in descending order until the resulting 2021 annual mean was below 9.05 ug/m3, as shown on each site's corresponding table. In 2022 and 2023, days for which Ecology or EPA Region 10 submitted exceptional events demonstrations were excluded from calculations.

***Exceptional events due to wildfires can only be excluded from design value calculations when they have regulatory significance or impact a regulatory decision. Because the 2023 design value for the Omak monitor would still be very slightly above the 2024 $PM_{2.5}$ standard even with exceptional events excluded, these events can't be excluded from the 2023 design value. Ecology anticipates that these events will have regulatory significance for the 2024 design value EPA will use to make its final designation decision

The following monitors are excluded from this list because they were either established or discontinued during the 2021–2023 period and therefore have no creditable samples in at least one calendar quarter from 2021–2023. All sites listed below are located in counties where at least one other monitor recorded a valid 2021–2023 design value that Ecology used to determine the designation recommendation for that county. All network modifications listed below were made with approval of the EPA Regional Administrator following the requirements described in 40 C.F.R. Part 58.14, "System modification."

Site Site Number	County	Monitor History
Tukwila Allentown 530330069	King	Site established in April 2021.
Kent-James & Central 530332004	King	Site discontinued in June 2023.
Tacoma-Alexander Ave 530530031	Pierce	Site established in January 2022.
Spokane-Augusta Ave 530630021	Spokane	Site discontinued in March 2021.
Sunnyside-S 16th St 530770005	Yakima	Site established in April 2023.

Appendix D. Public Notice Material

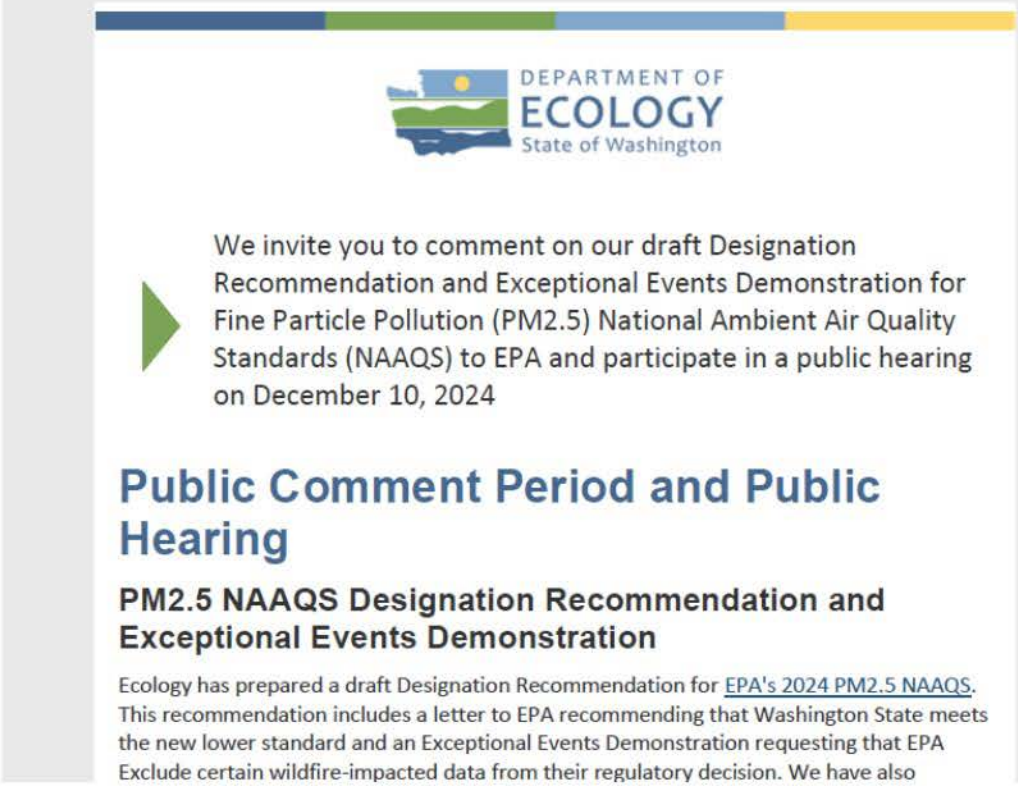
Cannon, Caitlin (ECY)

From: Washington Department of Ecology <waecy@public.govdelivery.com>
Sent: Friday, November 8, 2024 9:56 AM
To: Cannon, Caitlin (ECY)
Subject: Courtesy Copy: Washington SIP: Comment on draft PM2.5 NAAQS Designation Recommendation and Exceptional Events Demonstration and participate in a public hearing

This is a courtesy copy of an email bulletin sent by Caitlin Cannon.

This bulletin was sent to the following groups of people:

Subscribers of ECY-AQ-RULE-AND-SIP-UPDATES (1494 recipients)



prepared a report on wildfire impacted data from 2021 which is not eligible for an Exceptional Events Demonstration.

These documents are available for public review through December 13, 2024 at the following locations:

- **Online:**
  - Designation Recommendation Letter
  - Exceptional Events Demonstration for Colville E 1st St Monitor
  - Wildfire Smoke Impacted Days 2021
- **Printed copy available upon request**

Why is this important?

In February 2024, EPA lowered the PM2.5 Annual Primary NAAQS from 12 micrograms per cubic meter ($\mu g/m^3$) to 9 $\mu g/m^3$ to better protect human health. After EPA lowers a NAAQS, they designate all areas in the country as either in "attainment" of the standard, in "nonattainment" of the standard, or as "unclassifiable" due to insufficient air quality data. Any areas of Washington that may be designated as nonattainment as a result of the new standard will be required to be brought into attainment through a revision to the State Implementation Plan (SIP). Before EPA finalizes the designations, Ecology must submit a Designation Recommendation to EPA, which is due by February 2025.

PM2.5 is a common air pollutant that comes from human sources, including residential wood heating and vehicle exhaust, as well as natural sources, especially wildfires. EPA allows air quality data impacted by natural events that cannot be reasonably controlled (notably, wildfire) to be excluded from their designation decision through an Exceptional Event Demonstration. This process does not remove the data from the record, it merely excludes the data from the regulatory decision.

Learn More

- National Ambient Air Quality Standards
- The Designation Process
- Exceptional Events
- PM2.5 Nationally
- PM2.5 in Washington State
- Washington's State Implementation Plan (SIP)

Send us your comments by December 13, 2024

Please send us your written comments by December 13, 2024.

Comment or View Comments Online

Submit or View Comments

Comment By Mail

Caitlin Cannon, Air Quality Program, P.O. Box 47600, Olympia, WA 98504-7600

Mailed comments must be postmarked by December 13, 2024.

Join us for a virtual Public Information Session

November 20, 2024 from Noon to 1:30 PM

Register

Participate in a virtual Public Hearing on this recommendation

December 10th, 2024 at 4:00 PM

Register

ADA Accommodations

To request accommodations and services to support your participation in the document review or the virtual hearing contact Ecology at (360) 407-6831 or ecyadacoordinator@ecy.wa.gov. Persons with impaired hearing may call Washington Relay Service at 711. Persons with a speech disability may call TTY at 800-833-6384.

Chinese

国家环境保护局降低了细颗粒物或 PM2.5 的国家环境空气质量标准。华盛顿州生态管理署正在向美国环保局提交一份关于华盛顿地区是否符合这一新标准的建议。

对此建议的评论截止日期为December 13, 2024

公开听证会日期：December 10, 2024

如需了解更多信息，或要求口译员请致电 Caitlin Cannon 360-489-4046

Korean

환경보호청(EPA)은 미세먼지(PM2.5)에 대한 국가 대기질 기준을 낮췄습니다. 주 환경부는 워싱턴 지역이 이 새로운 기준을 충족하는지 여부에 대한 권고안을 EPA에 제출하고 있습니다.

이 권장사항에 대한 의견은 December 13, 2024까지 제출해야 합니다.

공청회날짜: December 10, 2024

자세한 내용은Caitlin Cannon에게360-489-4046로 전화하여 통역을 요청하세요.

Spanish

La Agencia de Protección Ambiental (EPA, por sus siglas en inglés) ha reducido los Estándares Nacionales de Calidad del Aire Ambiental para partículas finas, o PM2.5. El Departamento de Ecología está presentando una recomendación a la EPA sobre si las áreas en Washington cumplen con este estándar nuevo.

Comentarios sobre esta recomendación se aceptarán hasta: December 13, 2024

Audiencia Pública Fecha: December 10, 2024

Para más información, por favor llame a Caitlin Cannon al 360-489-4046 y solicite un intérprete.

Vietnamese

Cơ quan Bảo vệ Môi trường đã hạ Tiêu chuẩn Chất lượng Không khí Môi trường Quốc gia đối với các hạt mịn hoặc PM2.5. Bộ Môi Sinh đang đệ trình đề xuất lên EPA về việc liệu các khu vực của Washington có đáp ứng tiêu chuẩn mới này hay không.

Ý kiến về đề xuất này phải được nộp trước December 13, 2024

Buổi điều trần cho công chúng Ngày: December 10, 2024

Để biết thêm thông tin, vui lòng gọi cho Caitlin Cannon số 360-489-4046 và yêu cầu thông dịch viên.

Caitlin Cannon
Environmental Planner 3
caitlin.cannon@ecy.wa.gov
360-489-4046

Tony Evers

Office of the Governor | State of Wisconsin

January 24, 2025

Cheryl Newton
Acting Regional Administrator
U.S. Environmental Protection Agency (EPA) - Region 5
77 West Jackson Blvd.
Chicago, IL 60604-3507

Subject: Designation of 2024 Particulate Matter ($PM_{2.5}$) National Ambient Air Quality Standard (NAAQS) Areas in Wisconsin

Dear Acting Regional Administrator Newton:

On February 7, 2024, the EPA promulgated a revised primary annual $PM_{2.5}$ NAAQS, strengthening that standard from 12.0 micrograms per cubic meter ($\mu g/m^3$) to 9.0 $\mu g/m^3$. I am sending this letter in accordance with section 107(d)(1)(A) of the Clean Air Act, which requires the governor of each state to submit designation recommendations within one year from the date of promulgation of a new federal standard.

I am pleased to recommend that all counties in the State of Wisconsin, excluding tribal lands and territories, be designated as "attainment" for the 2024 $PM_{2.5}$ NAAQS. This recommendation is based on certified air monitoring data collected by the Wisconsin Department of Natural Resources (DNR) from 2021 to 2023. This data shows attainment of the 2024 $PM_{2.5}$ NAAQS statewide, once specific measurements associated with the 2023 Canadian wildfires have been considered by the EPA, as allowed by the act.[i] Preliminary monitoring data from 2024 also shows continued statewide attainment of the standard.

The tools and resources developed by the EPA to support the revised $PM_{2.5}$ NAAQS allowed Wisconsin to address some state-specific implementation challenges related to the new standard. In particular, the regulatory and technical products created to assist states to appropriately consider $PM_{2.5}$ contributions from wildfire smoke events were valuable. That said, allowing appropriate time for industries to prepare to implement the revised standard avoids risks to U.S. competitiveness, jobs, and expansions, including here in Wisconsin.

Thank you for the opportunity to submit the State of Wisconsin's recommendations on this important air quality matter. If you have any questions, please contact Gail Good, Director of the DNR Air Management Program, at (608) 219-2690.

Sincerely,

Tony Evers
Governor

cc: John Mooney, EPA Region 5
Karen Hyun, Secretary, DNR
Steven Little, Deputy Secretary, DNR
Bart Sponseller, Deputy Division Administrator – Environmental Management Division, DNR
Gail Good, Director, Air Management Program, DNR

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[i] The DNR submitted an exceptional event demonstration to EPA for these wildfires on November 22, 2024

west virginia department of environmental protection

Executive Office
601 57th Street, SE
Charleston, WV 25304

Harold D. Ward, Cabinet Secretary
dep.wv.gov

February 4, 2025

Ms. Catherine A. Libertz
Deputy Regional Administrator, Region 3
United States Environmental Protection Agency
1650 Arch Street
Philadelphia, PA 19103

Re: West Virginia Initial Designation Recommendations Under the 2024 Primary Annual $PM_{2.5}$ NAAQS

Dear Deputy Administrator Libertz:

On February 7, 2024, the Environmental Protection Agency (EPA) promulgated a revised primary annual 2.5-micron particulate matter national ambient air quality standard (2024 Primary Annual $PM_{2.5}$ NAAQS) [89 FR 16202][1]. With this action, the EPA strengthened the primary annual $PM_{2.5}$ standard from 12.0 micrograms per cubic meter ($\mu g/m^3$) to 9.0 $\mu g/m^3$. Also with this action, the EPA retained: (1) the existing primary 24-hour coarse particle (PM_{10}) NAAQS at 150 $\mu g/m^3$; (2) the existing primary 24-hour $PM_{2.5}$ NAAQS at 35 $\mu g/m^3$; and (3) all current secondary PM NAAQS. The EPA recommended states base their boundary and initial designation recommendations for the 2024 Annual $PM_{2.5}$ NAAQS using certified air quality monitoring data from full calendar years 2021 – 2023, which are the three most recent years of complete certified data currently available. After February 7, 2025, the EPA intends to base its initial designations on certified monitoring data for full calendar years 2022 – 2024[2]. The EPA made available to the public an internet-based interactive $PM_{2.5}$ Designations Mapping Tool[3] to assist states with initial designation boundaries and to determine monitor design values (DV).

In accordance with Section 107(d)(1)(A) of the Clean Air Act (CAA), the West Virginia Department of Environmental Protection (WVDEP) hereby submits on behalf of the State of West Virginia its initial designation recommendations for the 2024 Primary Annual $PM_{2.5}$ NAAQS. Per the EPA's guidance and in the form of the revised Primary Annual PM2.5 NAAQS calculated from the three-year average DV, the three most recent years of available quality-assured monitoring data available from 2021 through 2023 were used to establish its attainment designation recommendations for West Virginia. Attachment 1 lists WVDEP's designation recommendations for each of the 55 counties in West Virginia. Attachment 2 is a table of $PM_{2.5}$ monitors operated by the WVDEP throughout West Virginia with three or more years of quality-assured data, with quarterly and annual means for each monitor for each of the calendar years 2021 – 2023, and the corresponding DV. Attachment 3 consists of concentration plots for each monitor listed in Attachment 2 for calendar years 2021 – 2023[4].

[1] https://www.govinfo.gov/content/pkg/FR-2024-03-06/pdf/2024-02637.pdf
[2] https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-designations-memo_2.7.2024-_-jg-signed.pdf
[3] https://www.arcgis.com/apps/mapviewer/index.html?webmap=4a570076236d4878b0e135ce11cfc0f1
[4] https://www.epa.gov/outdoor-air-quality-data/air-data-concentration-plot

The WVDEP operates West Virginia's $PM_{2.5}$ ambient air monitor network per an EPA-approved annual network plan (ANP) as described in the *2024 Ambient Air Monitoring Annual Network Plan and SO_2 Data Requirement Rule Annual Report*.[5] The WVDEP ambient air monitor network includes thirteen (13) $PM_{2.5}$ federal reference monitors (FRM) located near high population density centers, within eight core-based statistical areas (CBSA) throughout West Virginia. Twelve (12) of the $PM_{2.5}$ monitoring sites meet data completeness criteria over 2021 – 2023 for NAAQS determination, and these are illustrated in Attachment 2; these 12 monitoring sites are used in this initial designation. The Charleston NCore (Dixie Street, 54-039-0020) monitoring site DV calculations combine data generated from an FRM and data generated by a co-located continuous monitor for days the FRM does not collect data. The Fairmont monitor (54-049-00006) is not used in this initial designation because the site did not meet data completeness in 2021 due to restricted access related to COVID safety measures. However, the Fairmont monitor is attaining the 2024 Primary Annual $PM_{2.5}$ NAAQS with an 11 quarter DV of 7.8 $\mu g/m^3$.

On December 2, 2024, in accordance with EPA's Exceptional Events Rule [40 CFR 50.14(c)(3)], the WVDEP submitted the *Exceptional Events Demonstration for an Exceedance of the 2024 Annual $PM_{2.5}$ NAAQS at Martinsburg, West Virginia on June 29, 2023 Due to Smoke from Canadian Wildfires* (Martinsburg Exceptional Events Demonstration) to the EPA SPeCS for Exceptional Events system for the EPA's review and approval. In the Martinsburg Exceptional Events Demonstration, the WVDEP requested the EPA concur with exclusion of the regulatorily significant $PM_{2.5}$ tier one data point of 83.8 $\mu g/m^3$ measured at the Martinsburg monitor (54-003-0003) on June 29, 2023 from the Martinsburg DV calculation. Martinsburg is located in the Hagerstown-Martinsburg, MD-WV CBSA. The result of the exclusion of this single data point from a set of 339 points is considerable and reduces the Martinsburg monitor DV from the non-attaining value of 9.1 $\mu g/m^3$ to the attaining value of 8.9 $\mu g/m^3$. This is more than 2.5% of the inclusive DV and demonstrates the severity of the extremely unusual smoke concentrations transported from the historical Canadian wildfires thousands of miles distant. Therefore, the DV listed in the $PM_{2.5}$ monitor table of Attachment 2 for the Martinsburg monitor does not include the June 29, 2023 data point in its calculation. The daily mean concentration plots of Attachment 3 also illustrate the significant $PM_{2.5}$ spikes the West Virginia monitors measured during the late spring and early summer of 2023 attributable to the historic Canadian wildfires against a backdrop of consistently attaining and downward trending $PM_{2.5}$ concentrations throughout the state.

The WVDEP respectfully requests the EPA review and concur with the West Virginia 2024 Primary Annual $PM_{2.5}$ NAAQS initial attainment designation recommendation that all counties within the state of West Virginia should be classified as "attainment/unclassifiable". The WVDEP further respectfully requests the EPA expeditiously approve the associated supporting Martinsburg Exceptional Events Demonstration. Should the EPA have any questions or require additional information concerning this designation recommendation, please contact Laura Crowder of the WVDEP at (304) 414-1253 or at Laura.M.Crowder@wv.gov. Thank you for your consideration and prompt attention to this request.

Sincerely,

Harold D. Ward
Cabinet Secretary

Attachments

[5] https://dep.wv.gov/daq/air-monitoring/Documents/2024%20Ambient%20Air%20Monitoring%20Network%20Plan.pdf

Attachment 1

State of West Virginia
2024 Primary Annual $PM_{2.5}$ National Ambient Air Quality Standards
Area Designation Recommendations

February 2025

Designated Area	Recommended Designation Status	Designated Area	Recommended Designation Status
Barbour County	Attainment/ Unclassifiable	Mineral County	Attainment/ Unclassifiable
Berkeley County	Attainment/ Unclassifiable	Mingo County	Attainment/ Unclassifiable
Boone County	Attainment/ Unclassifiable	Monongalia County	Attainment/ Unclassifiable
Braxton County	Attainment/ Unclassifiable	Monroe County	Attainment/ Unclassifiable
Brooke County	Attainment/ Unclassifiable	Morgan County	Attainment/ Unclassifiable
Cabell County	Attainment/ Unclassifiable	Nicholas County	Attainment/ Unclassifiable
Calhoun County	Attainment/ Unclassifiable	Ohio County	Attainment/ Unclassifiable
Clay County	Attainment/ Unclassifiable	Pendelton County	Attainment/ Unclassifiable
Doddridge County	Attainment/ Unclassifiable	Pleasants County	Attainment/ Unclassifiable
Fayette County	Attainment/ Unclassifiable	Pocahontas County	Attainment/ Unclassifiable
Gilmer County	Attainment/ Unclassifiable	Preston County	Attainment/ Unclassifiable
Grant County	Attainment/ Unclassifiable	Putnam County	Attainment/ Unclassifiable
Greenbrier County	Attainment/ Unclassifiable	Raleigh County	Attainment/ Unclassifiable
Hampshire County	Attainment/ Unclassifiable	Randolph County	Attainment/ Unclassifiable
Hancock County	Attainment/ Unclassifiable	Ritchie County	Attainment/ Unclassifiable
Hardy County	Attainment/ Unclassifiable	Roane County	Attainment/ Unclassifiable
Harrison County	Attainment/ Unclassifiable	Summers County	Attainment/ Unclassifiable
Jackson County	Attainment/ Unclassifiable	Taylor County	Attainment/ Unclassifiable
Jefferson County	Attainment/ Unclassifiable	Tucker County	Attainment/ Unclassifiable
Kanawha County	Attainment/ Unclassifiable	Tyler County	Attainment/ Unclassifiable
Lewis County	Attainment/ Unclassifiable	Upshur County	Attainment/ Unclassifiable
Lincoln County	Attainment/ Unclassifiable	Wayne County	Attainment/ Unclassifiable
Logan County	Attainment/ Unclassifiable	Webster County	Attainment/ Unclassifiable
Marion County	Attainment/ Unclassifiable	Wetzel County	Attainment/ Unclassifiable
Marshall County	Attainment/ Unclassifiable	Wirt County	Attainment/ Unclassifiable
Mason County	Attainment/ Unclassifiable	Wood County	Attainment/ Unclassifiable
McDowell County	Attainment/ Unclassifiable	Wyoming County	Attainment/ Unclassifiable
Mercer County	Attainment/ Unclassifiable		

Attachment 2

West Virginia Design Value Summary by Monitor for the 2024 Primary Annual $PM_{2.5}$ NAAQS

February 2025

$PM_{2.5}$ Monitoring Site			2021					2022					2023					2021-2023 Design Value
Monitor ID	Monitor County	Monitor Name	Q1	Q2	Q3	Q4	Annual Mean	Q1	Q2	Q3	Q4	Annual Mean	Q1	Q2	Q3	Q4	Annual Mean	
54-029-0009	Hancock	Weirton - Summit Circle	9.2	9.2	10.5	6.7	**8.9**	7.8	7.8	7.6	6.5	**7.4**	7.0	12.0	8.8	6.1	**8.5**	**8.3**
54-009-0011	Brooke	Weirton - Marland Heights Elementary	9.3	9.6	10.4	7.0	**9.1**	7.9	7.1	7.7	6.3	**7.2**	7.0	12.3	9.1	6.6	**8.8**	**8.4**
54-009-0005	Brooke	Follansbee - Mahan Lane	10.5	10.0	10.9	7.2	**9.7**	8.9	7.4	7.7	6.5	**7.6**	7.3	12.1	9.1	6.4	**8.7**	**8.7**
54-069-0010	Ohio	Wheeling - Warwood Water Plant	9.2	8.5	10.4	6.3	**8.6**	7.8	7.1	7.7	6.9	**7.4**	7.5	12.3	9.1	6.5	**8.9**	**8.3**
54-051-1002	Marshall	Moundsville - National Guard Armory	11.2	8.1	10.2	7.2	**9.2**	9.6	7.5	7.7	8.5	**8.3**	8.1	12.0	8.9	7.6	**9.1**	**8.9**
54-061-0003	Monongalia	Morgantown - Airport	7.5	8.0	10.6	4.8	**7.7**	7.3	7.5	7.8	5.5	**7.0**	6.5	11.9	9.2	5.6	**8.3**	**7.7**
54-033-0003	Harrison	Clarksburg - Washington Irving Jr. High School	7.3	7.8	9.2	5.3	**7.4**	6.6	7.3	6.8	6.1	**6.7**	6.2	12.5	8.4	6.3	**8.4**	**7.5**
54-107-1002	Wood	Vienna - Neale Elementary School	8.1	7.8	10.1	5.7	**7.9**	8.2	7.2	7.6	6.7	**7.4**	7.0	11.7	9.6	7.4	**8.9**	**8.1**
54-011-0007	Cabell	Huntington - 1313 4th Street	8.2	7.4	9.9	5.8	**7.8**	6.9	6.8	7.1	6.5	**6.8**	6.2	10.7	9.3	6.6	**8.2**	**7.6**
54-039-0020	Kanawha	Charleston - Dixie Street (NCore)	8.3	8.0	10.0	6.4	**8.2**	8.0	7.8	6.6	6.0	**7.1**	6.2	10.0	7.6	7.2	**7.7**	**7.7**
54-039-1005	Kanawha	South Charleston - Public Library	8.1	8.2	9.9	6.4	**8.2**	7.7	7.4	7.6	6.6	**7.3**	7.1	11.5	9.0	7.8	**8.8**	**8.1**
54-003-0003	Berkeley	Martinsburg - Ball Field[6]	9.7	7.5	9.4	8.5	**8.8**	9.0	7.4	7.8	8.7	**8.2**	8.7	10.7	8.8	10.3	**9.6**	**8.9**

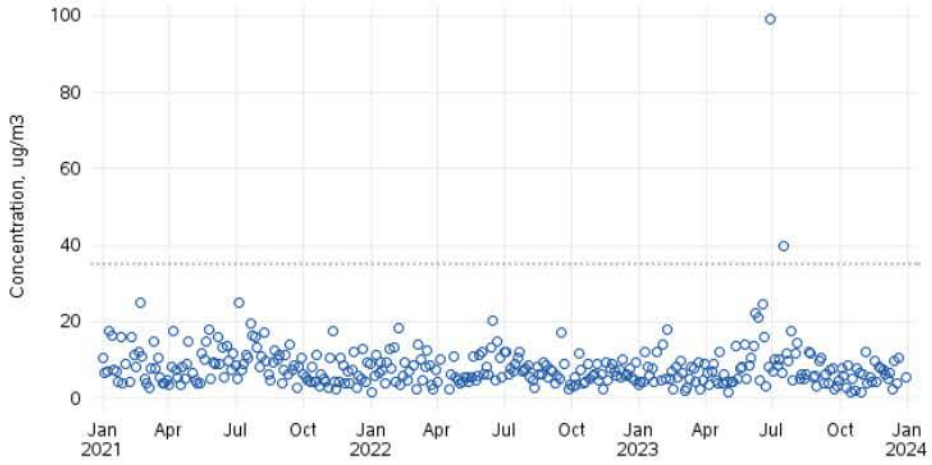
[6] The Martinsburg monitor 2023Q2 mean, 2023 annual mean, and 2021-2023 design value do not include the regulatorily significant exceptional event related tier one data point of June 29, 2023.

Attachment 3

West Virginia Daily Mean $PM_{2.5}$ Monitor Concentration Plots
Calendar Years 2021 – 2023

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

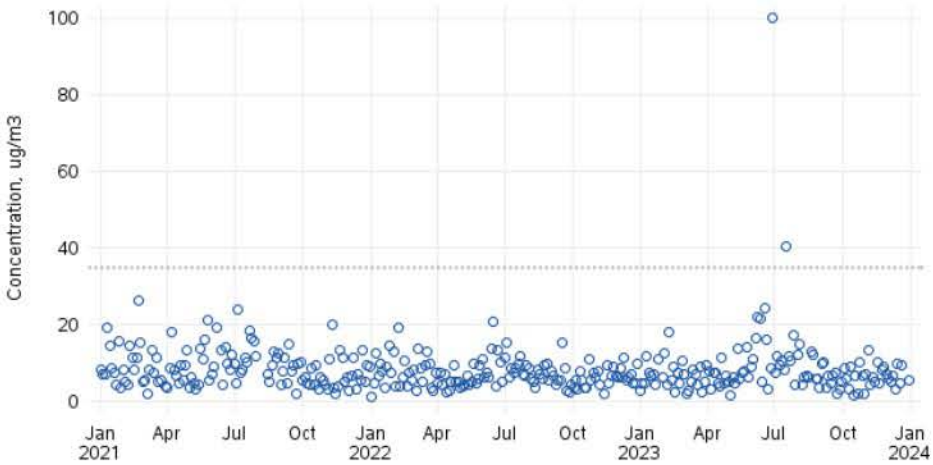
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Weirton-Steubenville, WV-OH
County: Hancock
State: West Virginia
AQS Site ID: 540290009, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

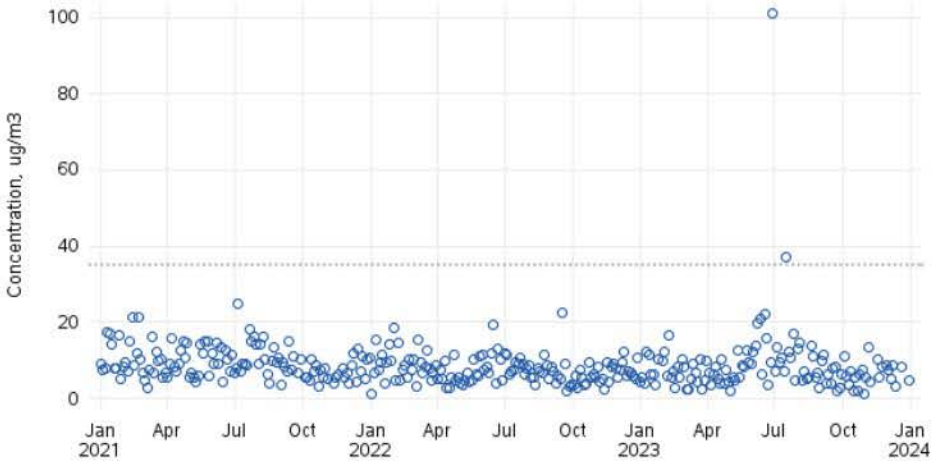
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Weirton-Steubenville, WV-OH
County: Brooke
State: West Virginia
AQS Site ID: 540090011, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 15, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

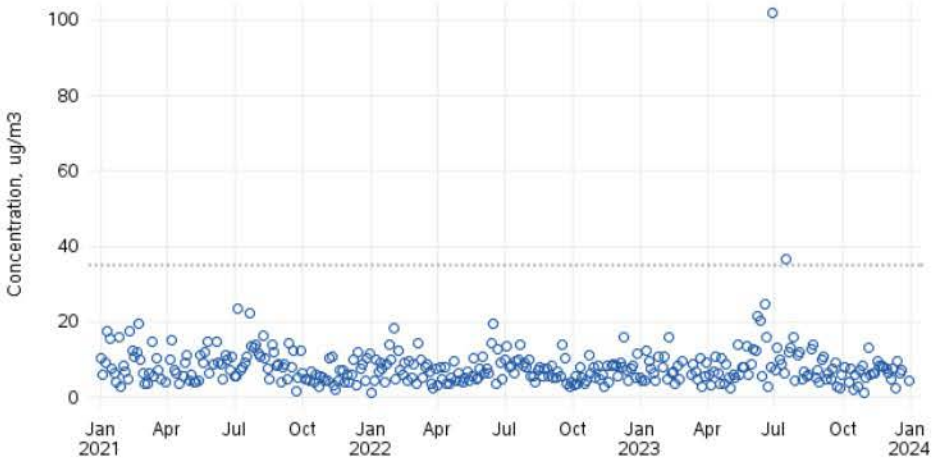
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Weirton-Steubenville, WV-OH
County: Brooke
State: West Virginia
AQS Site ID: 540090005, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 15, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

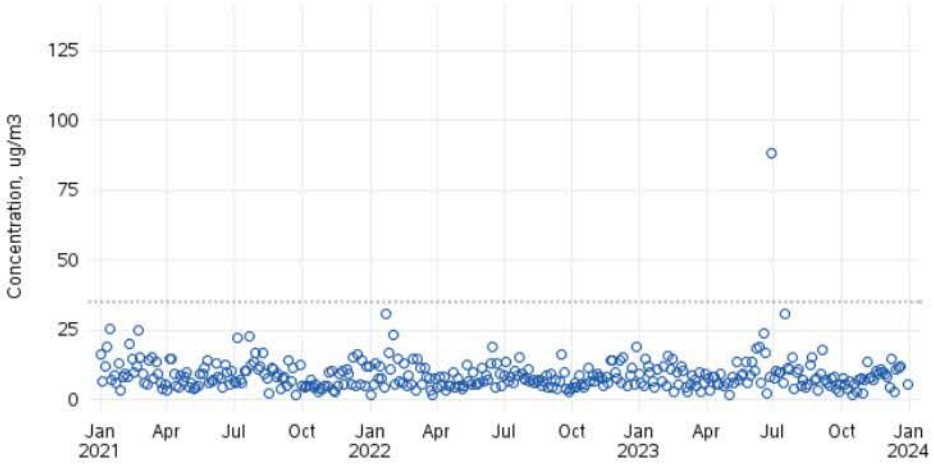
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Wheeling, WV-OH
County: Ohio
State: West Virginia
AQS Site ID: 540690010, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

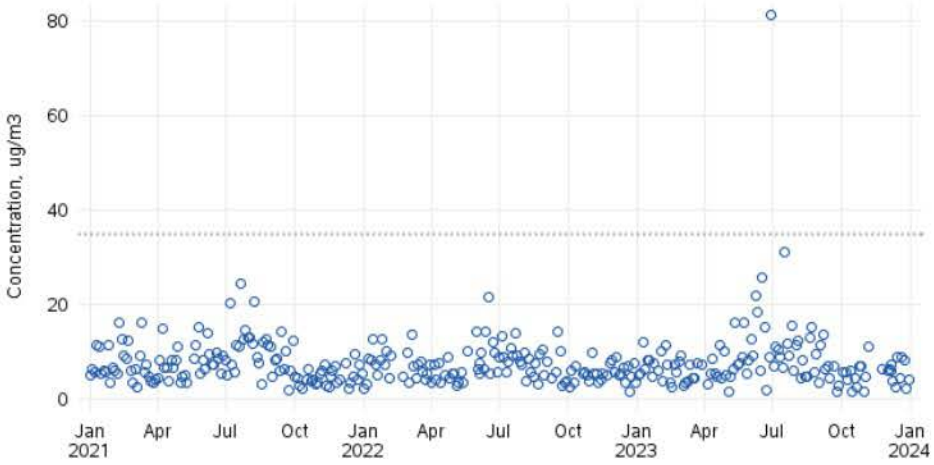
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Wheeling, WV-OH
County: Marshall
State: West Virginia
AQS Site ID: 540511002, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

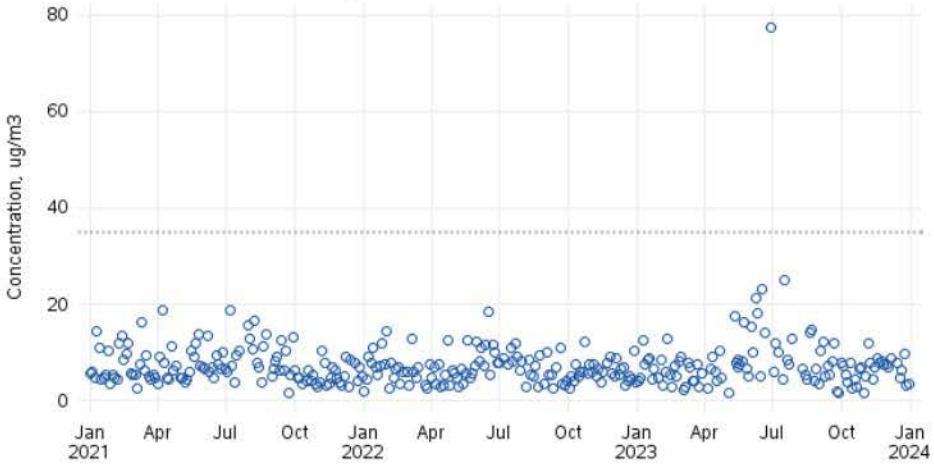
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Morgantown, WV
County: Monongalia
State: West Virginia
AQS Site ID: 540610003, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

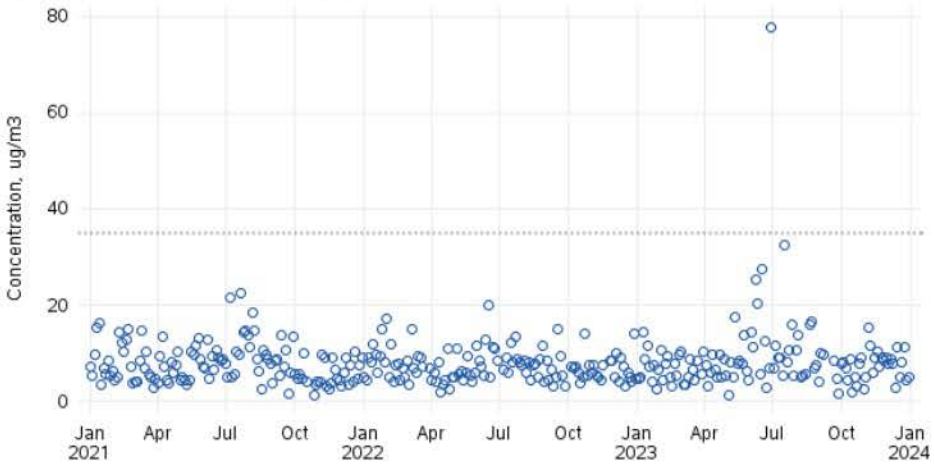
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Clarksburg, WV
County: Harrison
State: West Virginia
AQS Site ID: 540330003, poc 1
Local Site Name: WASHINGTON IRVING JUNIOR HIGH SCHOOL



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

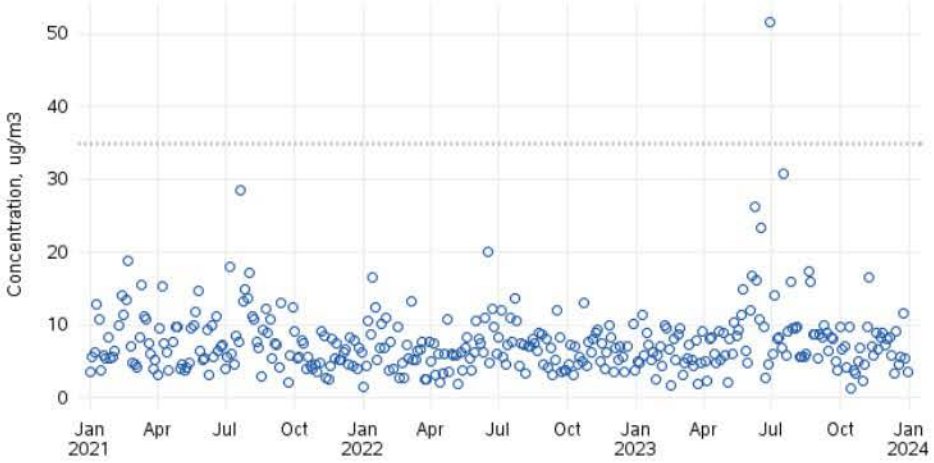
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Parkersburg-Vienna, WV
County: Wood
State: West Virginia
AQS Site ID: 541071002, poc 1
Local Site Name: Neale Elementary School



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

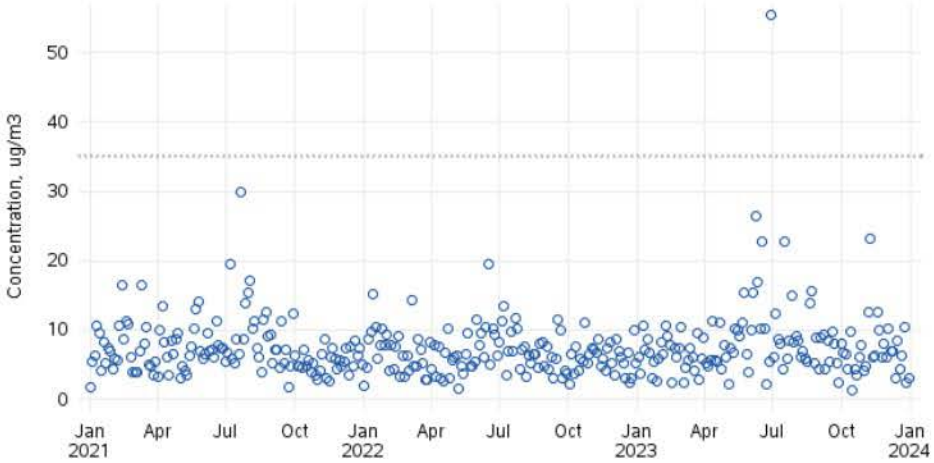
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Huntington-Ashland, WV-KY-OH
County: Cabell
State: West Virginia
AQS Site ID: 540110007, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 15, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

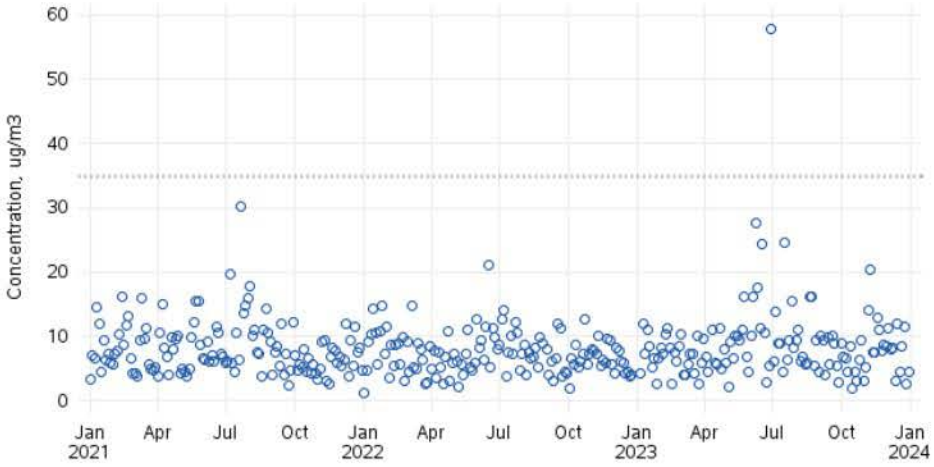
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Charleston, WV
County: Kanawha
State: West Virginia
AQS Site ID: 540390020, poc 1
Local Site Name: Dixie St.



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

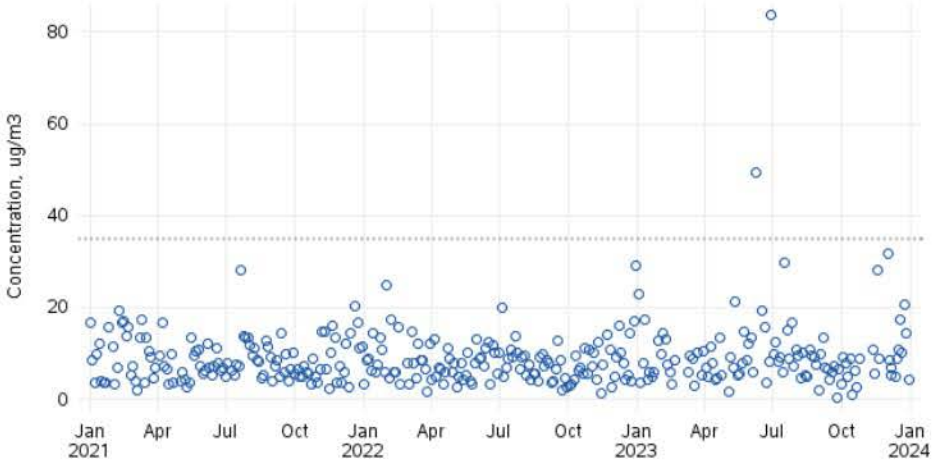
Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Charleston, WV
County: Kanawha
State: West Virginia
AQS Site ID: 540391005, poc 1
Local Site Name:



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 17, 2025

Daily Mean PM2.5 Concentrations from 01/01/21 to 12/31/23

Parameter: PM2.5 – Local Conditions (Applicable standard is 35 ug/m3)
CBSA: Hagerstown-Martinsburg, MD-WV
County: Berkeley
State: West Virginia
AQS Site ID: 540030003, poc 1
Local Site Name: MARTINSBURG BALL FIELD



Source: U.S. EPA AirData <https://www.epa.gov/air-data>
Generated: January 15, 2025

February 6, 2025

Mark Smith, Deputy Regional Administrator
U.S. Environmental Protection Agency, Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Dear Mr. Smith,

In accordance with Section 107(d)(1) of the Clean Air Act, I recommend designating all of the listed regions (Attachment I) in Wyoming as Attainment/Unclassifiable under the primary annual fine particulate matter ($PM_{2.5}$) National Ambient Air Quality Standards that became effective May 6, 2024 ("Reconsideration of the National Ambient Air Quality Standards for Particulate Matter," 89 FR 16202).

The State used the last three years of $PM_{2.5}$ monitoring data (2021-2023) to make attainment recommendations. The results and supporting data are listed in Attachments I and II. In assembling this report, the State used guidance issued by EPA on Feb. 7, 2024 in a memorandum from Joseph Goffman, Assistant Administrator, Office of Air and Radiation, entitled "Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard" to determine appropriate state boundary designations.

The State has submitted "Initial Notification of Potential Exceptional Events" and flagged the data in EPA's Air Quality System (AQS), as per 40 CFR § 50.14(c)(2)(i), as a result of elevated $PM_{2.5}$ concentrations monitored during the most recent three years (2021-2023) of data collection. The State of Wyoming flagged 37 exceptional events within the data used in this designation and is submitting exceptional event demonstrations. All 37 exceptional events during the 2021-2023 period that the State of Wyoming evaluated occurred due to wildfire impacts. A list of all 37 exceptional events demonstrations, the dates they occurred, the locations of the ambient monitors where the data was recorded, the exceedance concentrations, etc., are included as Attachment III.

200 WEST 24TH STREET
CHEYENNE, WY 82002-0010

MARK GORDON
GOVERNOR OF WYOMING

307.777.7434 · GOVERNOR@WYO.GOV
HTTP://GOVERNOR.WYO.GOV

Portions of the listed regions are under the jurisdiction of Tribal authorities. I understand that Tribal designations will be made separately from State designations.

If you have any questions concerning the details of this recommendation, please feel free to contact:

Nancy Vehr, Administrator
Wyoming Department of Environmental Quality
Air Quality Division
200 West 17th St.
Cheyenne, WY 82002
307-777-7391
nancy.vehr@wyo.gov

Sincerely,

Mark Gordon
Governor

MG:nr:kh

Attachments (3):
Attachment I (pg.3) Initial designations of nonattainment, attainment, or unclassifiable areas for Wyoming for the 2024 Revised $PM_{2.5}$ National Ambient Air Quality Standards
Attachment II (pg. 5) $PM_{2.5}$ Monitored Data Summary 2021-2023
Attachment III (pg. 7) Exceptional Events Demonstrations 2021-2023

cc: Todd Parfitt, Director, Wyoming Department of Environmental Quality

ATTACHMENT I

Initial designations of nonattainment, attainment, or unclassifiable areas for Wyoming for the 2024 Revised $PM_{2.5}$ National Ambient Air Quality Standards

The State of Wyoming used guidance issued by EPA on February 7, 2024 entitled "Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard" in determining boundaries for State designations. The guidance suggests using $PM_{2.5}$ monitored data and five factors to create nonattainment boundaries. EPA gave the option of flagging PM2.5 data affected by exceptional events during the last three years (2021-2023). The State of Wyoming flagged 37 exceptional events during this period; those events are detailed in Attachment III. Based on this guidance, the State requests designation of the regions listed as Attainment/Unclassifiable for the annual $PM_{2.5}$ standard.

Region	Annual $PM_{2.5}$ NAAQS Designation
Albany County	Attainment/Unclassifiable
Big Horn County	Attainment/Unclassifiable
Campbell County	Attainment/Unclassifiable
Carbon County	Attainment/Unclassifiable
Converse County	Attainment/Unclassifiable
Crook County	Attainment/Unclassifiable
Fremont County	Attainment/Unclassifiable
Goshen County	Attainment/Unclassifiable
Hot Springs County	Attainment/Unclassifiable
Johnson County	Attainment/Unclassifiable
Laramie County	Attainment/Unclassifiable
Lincoln County	Attainment/Unclassifiable
Natrona County	Attainment/Unclassifiable
Niobrara County	Attainment/Unclassifiable
Park County	Attainment/Unclassifiable
Platte County	Attainment/Unclassifiable
Sheridan County	Attainment/Unclassifiable
Sublette County	Attainment/Unclassifiable
Sweetwater County	Attainment/Unclassifiable
Teton County	Attainment/Unclassifiable
Uinta County	Attainment/Unclassifiable
Washakie County	Attainment/Unclassifiable
Weston County	Attainment/Unclassifiable
City of Casper	Attainment/Unclassifiable
City of Cheyenne	Attainment/Unclassifiable
City of Cody	Attainment/Unclassifiable
City of Evanston	Attainment/Unclassifiable
City of Gillette	Attainment/Unclassifiable
City of Jackson	Attainment/Unclassifiable

200 WEST 24TH STREET
CHEYENNE, WY 82002-0010

MARK GORDON
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Region	Annual $PM_{2.5}$ NAAQS Designation
City of Lander	Attainment/Unclassifiable
City of Laramie	Attainment/Unclassifiable
City of Riverton	Attainment/Unclassifiable
City of Rock Springs	Attainment/Unclassifiable
City of Sheridan	Attainment/Unclassifiable

Table 1. Wyoming's Initial Area Designations for the 2024 Revised $PM_{2.5}$ NAAQS

200 WEST 24TH STREET
CHEYENNE, WY 82002-0010

MARK GORDON
GOVERNOR OF WYOMING

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ATTACHMENT II

$PM_{2.5}$ Monitored Data Summary 2021-2023

The primary annual $PM_{2.5}$ standard is met when the three-year average of the annual arithmetic mean concentration, as determined in accordance with 40 CFR Part 50, Appendix N, is less than or equal to 9 $\mu g/m^3$. The secondary annual $PM_{2.5}$ standard is met when the three-year average of the annual arithmetic mean concentration, as determined in accordance with 40 CFR Part 50, Appendix N, is less than or equal to 15 $\mu g/m^3$. The following table presents data collected from 2021-2023 that have met the data collection requirements presented in Appendix N. All $PM_{2.5}$ monitoring sites listed collected three full years of data. Wyoming presents its Annual Design Value calculations in two formats: one dataset that includes exceedances that occurred due to Exceptional Events, and another that excludes Exceptional Event-based exceedances.

AQS Site ID	Site Name	County	2021-2023 Annual Design Value with Exceedances ($\mu g/m^3$)	2021-2023 Annual Design Value without Exceedances ($\mu g/m^3$)
56-001-0012	Laramie SLAMS (continuous only)[1]	Albany	3.4	3.4
56-005-0012	Gillette SLAMS[2]	Campbell	6.4	5.8
56-013-0099	South Pass	Fremont	2.0	2.0
56-013-1003	Lander SLAMS[3]	Fremont	6.9	6.8
56-021-0100	Cheyenne NCore (continuous only)	Laramie	5.3	5.2
56-021-0100	Cheyenne NCore (filter-based only)	Laramie	3.9	3.9

[1] Filter-based monitoring at the old Laramie SLAMS location on Ivinson was not included as it ended on February 24, 2021. Continuous monitoring at the new Laramie SLAMS commenced on August 4, 2021

[2] This station never had filter-based $PM_{2.5}$ monitoring. Continuous monitoring at Gillette SLAMS commenced on June 22, 2021

[3] Filter-based monitoring at Lander SLAMS ended on February 27, 2021. Continuous monitoring commenced on June 3, 2021

AQS Site ID	Site Name	County	2021-2023 Annual Design Value with Exceedances ($\mu g/m^3$)	2021-2023 Annual Design Value without Exceedances ($\mu g/m^3$)
56-025-0100	Casper Gaseous	Natrona	3.7	3.6
56-029-0001	Cody SLAMS[4]	Park	4.5	4.5
56-033-0002	Sheridan Police Station SLAMS[5]	Sheridan	6.7	6.5
56-035-0101	Pinedale Gaseous	Sublette	3.7	3.6
56-037-0007	Rock Springs SLAMS[6]	Sweetwater	5.0	4.9
56-039-1006	Jackson SLAMS[7]	Teton	3.1	2.9

Table 2. $PM_{2.5}$ Annual Design Values from 2021-2023 at AQD Monitoring Stations

*Data presented in Table 1 have been fully validated by the AQD and certified by EPA Region 8 per 40 CFR Part 58.15.

[4] Filter-based monitoring at Cody SLAMS ended on September 30, 2021. Continuous monitoring commenced on November 9, 2021

[5] Filter-based monitoring at Sheridan Police Station SLAMS ended on September 29, 2021. Continuous monitoring commenced on October 20, 2021

[6] Filter-based monitoring at Rock Springs SLAMS ended on July 29, 2020. Continuous monitoring at Rock Springs SLAMS commenced on June 2, 2021

[7] Filter-based monitoring at Jackson SLAMS ended on February 21, 2021. Continuous monitoring commenced on February 25, 2021

200 WEST 24TH STREET
CHEYENNE, WY 82002-0010

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ATTACHMENT III

Exceptional Events Demonstrations 2021-2023

The State has submitted "Initial Notification of Potential Exceptional Events" and flagged the data in EPA's Air Quality System (AQS), as per 40 CFR § 50.14(c)(2)(i), as a result of elevated $PM_{2.5}$ concentrations monitored during the most recent three years (2021-2023) of data collection. The State flagged 37 exceptional events that occurred during the timeframe of 2021-2023. The Wyoming Department of Environmental Quality – Air Quality Division has compiled exceptional events demonstrations for all 37 of these events and is submitting the demonstrations to EPA Region 8 for review and approval. All 37 events and their respective exceedances occurred as a result of wildfire impacts. The State of Wyoming did not flag any exceptional events for the calendar year of 2022. The following tables (Tables 3 and 4) provide an overview of the exceptional events demonstrations submitted by the State of Wyoming, including the Date of Event, the Type of Event, the EPA Air Quality System (AQS) Flag used, the AQS identification and Parameter Occurrence Code (POC) associated with the Monitor that recorded the exceedance, the Monitor Name, the Exceedance Concentration, and other relevant information.

Date of Event	Type of Event (high wind, volcano, wildfires /prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
7/26/2021	Wildfire	IT	56-005-1002 POC-3	Gillette SLAMS	35.6	Wildfire Exceptional Event Demonstration July-September 2021
7/26/2021	Wildfire	IT	56-035-0101 POC-1	Pinedale Gaseous	37.7	Wildfire Exceptional Event Demonstration July-September 2021
7/31/2021	Wildfire	IT	56-005-1002 POC-3	Gillette SLAMS	45.0	Wildfire Exceptional Event Demonstration

Date of Event	Type of Event (high wind, volcano, wildfires /prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
						July-September 2021
8/1/2021	Wildfire	IT	56-025-0100 POC-3	Casper Gaseous	35.9	Wildfire Exceptional Event Demonstration July-September 2021
8/6/2021	Wildfire	IT	56-023-0004 POC-3	Kemmerer Mobile	36.4	Wildfire Exceptional Event Demonstration July-September 2021
8/6/2021	Wildfire	IT	56-039-1006 POC-3	Jackson SLAMS	35.8	Wildfire Exceptional Event Demonstration July-September 2021
8/7/2021	Wildfire	IT	56-001-0011 POC-3	Laramie I-80 Mobile	42.3	Wildfire Exceptional Event Demonstration July-September 2021
8/7/2021	Wildfire	IT	56-021-0100 POC-3	Cheyenne NCore	38.2	Wildfire Exceptional Event Demonstration July-September 2021
8/7/2021	Wildfire	IT	56-023-0004 POC-3	Kemmerer Mobile	38.7	Wildfire Exceptional Event Demonstration

Date of Event	Type of Event (high wind, volcano, wildfires /prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
						July-September 2021
8/7/2021	Wildfire	IT	56-037-0007 POC-3	Rock Springs SLAMS	40.0	Wildfire Exceptional Event Demonstration July-September 2021
8/7/2021	Wildfire	IT	56-039-1006 POC-3	Jackson SLAMS	39.9	Wildfire Exceptional Event Demonstration July-September 2021
8/15/2021	Wildfire	IT	56-005-1002 POC-3	Gillette SLAMS	37.6	Wildfire Exceptional Event Demonstration July-September 2021
8/16/2021	Wildfire	IT	56-005-1002 POC-3	Gillette SLAMS	52.5	Wildfire Exceptional Event Demonstration July-September 2021
8/16/2021	Wildfire	IT	56-039-1006 POC-3	Jackson SLAMS	42.6	Wildfire Exceptional Event Demonstration July-September 2021
8/17/2021	Wildfire	IT	56-005-1002 POC-3	Gillette SLAMS	37.2	Wildfire Exceptional Event Demonstration

Date of Event	Type of Event (high wind, volcano, wildfires /prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
						July-September 2021
8/31/2021	Wildfire	IT	56-013-0004 POC-3	Riverton Mobile	49.7	Wildfire Exceptional Event Demonstration July-September 2021
8/31/2021	Wildfire	IT	56-013-0099 POC-1	South Pass	35.7	Wildfire Exceptional Event Demonstration July-September 2021
8/31/2021	Wildfire	IT	56-013-1003 POC-3	Lander SLAMS	51.8	Wildfire Exceptional Event Demonstration July-September 2021
8/31/2021	Wildfire	IT	56-025-0100 POC-3	Casper Gaseous	45.4	Wildfire Exceptional Event Demonstration July-September 2021
8/31/2021	Wildfire	IT	56-035-0101 POC-1	Pinedale Gaseous	47.3	Wildfire Exceptional Event Demonstration July-September 2021
8/31/2021	Wildfire	IT	56-039-1006 POC-3	Jackson SLAMS	38.3	Wildfire Exceptional Event Demonstration

Date of Event	Type of Event (high wind, volcano, wildfires /prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration ($\mu g/m^3$)	Notes (e.g. event name, links to other events)
						July-September 2021
9/7/2021	Wildfire	IT	56-035-0101 POC-1	Pinedale Gaseous	39.1	Wildfire Exceptional Event Demonstration July-September 2021
9/7/2021	Wildfire	IT	56-039-0101 POC-3	Jackson SLAMS	38.3	Wildfire Exceptional Event Demonstration July-September 2021

Table 3. CY 2021 $PM_{2.5}$ 24-Hour Exceedances Submitted to EPA Region 8 for Initial Notification

NOTE: *For CY 2022, the AQD did not submit any Initial Notification forms to EPA Region 8.*

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration (ug/m^3)	Notes (e.g. event name, links to other events)
5/18/2023	Wildfire	IF	56-005-1002 POC-3	Gillette SLAMS	53.8	Wildfire Exceptional Event Demonstration 2023 Wildfires
5/18/2023	Wildfire	IF	56-033-0002 POC-3	Sheridan Police	38.0	Wildfire Exceptional Event

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration (ug/m^3)	Notes (e.g. event name, links to other events)
				Station SLAMS		Demonstration 2023 Wildfires
5/19/2023	Wildfire	IF	56-025-0100 POC-3	Casper Gaseous	35.9	Wildfire Exceptional Event Demonstration 2023 Wildfires
5/19/2023	Wildfire	IF	56-021-0100 POC-3	Cheyenne NCore (BAM)	62.3	Wildfire Exceptional Event Demonstration 2023 Wildfires
5/19/2023	Wildfire	IF	56-001-0012 POC-3	Laramie SLAMS	48.0	Wildfire Exceptional Event Demonstration 2023 Wildfires
5/21/2023	Wildfire	IF	56-005-1002 POC-3	Gillette SLAMS	51.2	Wildfire Exceptional Event Demonstration 2023 Wildfires
5/21/2023	Wildfire	IF	56-033-0002 POC-3	Sheridan Police Station SLAMS	42.4	Wildfire Exceptional Event Demonstration 2023 Wildfires
5/22/2023	Wildfire	IF	56-005-1002 POC-3	Gillette SLAMS	40.3	Wildfire Exceptional Event Demonstration 2023 Wildfires

Date of Event	Type of Event (high wind, volcano, wildfires/prescribed fire, other)	AQS Flag	Monitor AQS ID (and POC)	Monitor Name	Exceedance Concentration (ug/m^3)	Notes (e.g. event name, links to other events)
7/15/2023	Wildfire	IF	56-005-1002 POC-3	Gillette SLAMS	36.4	Wildfire Exceptional Event Demonstration 2023 Wildfires
7/17/2023	Wildfire	IF	56-005-1002 POC-3	Gillette SLAMS	42.0	Wildfire Exceptional Event Demonstration 2023 Wildfires
9/5/2023	Wildfire	IF	56-005-1002 POC-3	Gillette SLAMS	91.9	Wildfire Exceptional Event Demonstration 2023 Wildfires
9/5/2023	Wildfire	IF	56-029-0001 POC-3	Cody SLAMS	44.1	Wildfire Exceptional Event Demonstration 2023 Wildfires
9/5/2023	Wildfire	IF	56-033-0002 POC-3	Sheridan Police Station SLAMS	89.4	Wildfire Exceptional Event Demonstration 2023 Wildfires
9/6/2023	Wildfire	IF	56-005-1002 POC-3	Gillette SLAMS	41.3	Wildfire Exceptional Event Demonstration 2023 Wildfires

Table 4. CY 2023 $PM_{2.5}$ 24-Hour Exceedances Submitted to EPA Region 8 for Initial Notification

Pennsylvania
Department of
Environmental Protection

April 15, 2025

Ms. Catherine Libertz
Acting Regional Administrator
U.S. Environmental Protection Agency, Region 3
Four Penn Center
1600 John F. Kennedy Blvd.
Philadelphia, PA 19103-2029

Dear Ms. Libertz:

Pursuant to Section 107 of the Clean Air Act (CAA)(42 U.S.C. § 7407), enclosed are the Commonwealth's designation recommendations pertinent to the revised primary annual National Ambient Air Quality Standard (NAAQS) for fine particulate matter less than 2.5 micrometers in diameter ($PM_{2.5}$).

On February 7, 2024, the U.S. Environmental Protection Agency (EPA) strengthened the primary annual 2024 $PM_{2.5}$ standard from 12 µg/m3 to 9.0 µg/m3 (9 FR 16202; March 06, 2024). EPA did not make changes to other particulate matter air quality standards that include the primary 24-hour $PM_{2.5}$ standard, the primary 24-hour PM_{10} standard, and the secondary $PM_{2.5}$ and PM_{10} standards.

The Commonwealth determined the recommended geographical boundaries for annual $PM_{2.5}$ "attainment," "nonattainment" and "unclassifiable/attainment" areas in accordance with EPA's February 7, 2024, guidance entitled, "Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard."

Prior to finalizing the designation recommendations, the Department of Environmental Protection (DEP or Department) provided public notice and a public comment period on the proposed designation recommendations. *See* 54 Pa. B. 8350 (December 21, 2024). Proof of public participation and a Comment/Response document addressing the public comments received is also enclosed.

The Department understands that EPA will provide notice of any modifications to the Commonwealth's recommendations at least 120 days prior to issuing final designations. The Department will comment on any proposed modifications to our recommendations, as appropriate and as authorized under Section 107 of the CAA. We look forward to collaborating with your staff during the development of the final revised primary annual $PM_{2.5}$ designations for this Commonwealth.

Thank you in advance for the expeditious processing of DEP's SIP revision and redesignation request. Should you have questions or need additional information, please contact Nick Lazor, Director, Bureau of Air Quality, by e-mail at nlazor@pa.gov or by telephone at (717) 772-3952.

The documents, including a signed copy of the transmittal letter, have been submitted to the EPA electronically through the EPA central data exchange (cdx) web portal, *State Planning electronic Collaboration System* (SPeCS) for SIPs.

Sincerely,

Jessica L Shirley

Jessica Shirley
Acting Secretary

Enclosure(s)

cc: Ms. Cristina Fernandez, EPA Region 3
Mr. Nick Lazor

Commonwealth of Pennsylvania

Pennsylvania
Department of
Environmental Protection

FINAL

DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD

MARCH 2025

Bureau of Air Quality
Pennsylvania Department of Environmental Protection
P.O. Box 8468
Harrisburg, PA 17105-8468
717-787-9495

www.pa.gov/agencies/dep

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Appendices

Appendix A

Appendix B: Supplementary Information - Maps and Figures

Appendix C

Acronyms and Terms

CAA	Clean Air Act
CBSA	Core Based Statistical Area
CSA	Combined Statistical Area
DEP	Department of Environmental Protection (Pennsylvania)
EPA	Environmental Protection Agency (United States)
FR	Federal Register
$\mu g/m^3$	Micrograms per cubic meter (of air)
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NEI	National Emissions Inventory
NH_3	Ammonia (chemical formula)
NO_X	Oxides of nitrogen
OMB	Office of Management and Budget (United States)
PM	Particulate matter
PM2.5	Particulate matter under 2.5 microns in size
PM10	Particulate matter under 10 microns in size
SIP	State Implementation Plan
SO_2	Sulfur dioxide (chemical formula)
USDOT	United States Department of Transportation
U.S.C.	United States Code
VOC	Volatile Organic Compounds

Purpose and Background

In this document, the Pennsylvania Department of Environmental Protection (DEP) is making recommendations to the U.S. Environmental Protection Agency (EPA) concerning the designation of attainment and nonattainment areas in Pennsylvania for the revised annual fine particulate matter NAAQS (89 FR 16202; March 06, 2024). DEP's designation recommendations are based on air quality monitoring data for 2021-2023 and other available information, including particulate-forming emissions, meteorology, geography, topography, jurisdictional boundaries and demographics. Since EPA anticipates making final designations in February 2026, using air quality monitoring data for 2022-2024, the DEP will continue to work with EPA during the process leading to EPA's promulgation of the final designations.

The EPA sets National Ambient Air Quality Standards (NAAQS) based on its review of existing scientific knowledge about the adverse health and welfare effects. Clean Air Act (CAA) Section 109(d) (42 U.S.C. § 7409(d)) requires EPA to review and update periodically, if necessary, every NAAQS to "protect public health with an adequate margin of safety" based on the latest, best-available science.

Prior to 1997, particulate standards had been based on total suspended particulates and then particles less than 10 micrometers in diameter (PM10). In 1997, EPA revised the NAAQS to reflect the growing body of scientific knowledge that links serious health effects to fine particles. On July 18, 1997, EPA promulgated two new fine particulate matter (PM2.5) standards – a primary annual average of 15 micrograms per cubic meter ($\mu g/m^3$), and a 24-hour daily average of 65 $\mu g/m^3$ (The PM10 standards were retained as an indicator for coarse PM; all areas of Pennsylvania meet this standard.). EPA designated attainment and nonattainment areas for the 1997 standards in December 2004 and published the designations in the *Federal Register* on January 5, 2005, effective on April 5, 2005 (70 FR 944).

On October 17, 2006, EPA published a revised 24-hour standard for PM2.5, lowering the standard from 65 $\mu g/m^3$ to 35 $\mu g/m^3$. EPA retained the primary annual standard for PM2.5 of 15 $\mu g/m^3$. EPA also retained the daily standard for PM10 of 150 $\mu g/m^3$ but revoked the annual standard of 50 $\mu g/m^3$ (No area in Pennsylvania violates the PM10 standard.). On November 13, 2009, EPA published the PM2.5 nonattainment areas designations for the 2006 PM2.5 standards, with an effective date of December 14, 2009 (74 FR 58688).

On December 14, 2012, EPA revised the PM2.5 NAAQS annual health-based standard (the "primary" standard), lowering the existing standard from 15 $\mu g/m^3$ to 12 $\mu g/m^3$, with an effective date of March 18, 2013 (78 FR 3086). EPA retained the PM2.5 24-hour standard of 35 $\mu g/m^3$, as well as the existing PM10 24-hour standard of 150 $\mu g/m^3$. EPA retained the secondary annual standard of 15 $\mu g/m^3$ and the secondary 24-hour standard of 35 $\mu g/m^3$, though EPA revised the form of the secondary annual standard to remove the option for spatial averaging to be consistent with the primary annual standard. EPA had proposed to set a separate secondary 24-hour standard for PM-related visibility effects, but after further review, determined that the existing 24-hour secondary standard of 35 $\mu g/m^3$ provides adequate protection of public welfare regarding visual air quality.

On February 7, 2024, EPA strengthened the Primary Annual 2024 PM2.5 standard from 12 $\mu g/m^3$ to 9.0 $\mu g/m^3$ (See 9 FR 16202; March 06, 2024). EPA did not make changes to other particulate matter air quality standards that include the primary 24-hour PM2.5 standard, the primary 24-hour PM10 standard, and the secondary PM2.5 and PM10 standards.

CAA Section 107(d) (42 U.S.C. § 7407(d)) indicates that states are required to submit designation recommendations to the EPA no later than one year after the EPA's promulgation of the new or revised

NAAQS. In accordance with the CAA, EPA will determine which areas meet the standards and will make initial attainment/nonattainment designations within two years after new or revised ambient air standards are issued.

1.1 Effects of Particulate Matter

Fine particles generally pose greater health risks than larger particles. Because of their small size (less than one-seventh the average width of a human hair), fine particles can lodge deeply into the lungs. Health studies have shown a significant association between exposure to PM2.5 and premature mortality. Studies have also linked exposure to PM2.5 with other significant health problems, including aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, increases in respiratory symptoms like coughing and difficult or painful breathing, chronic bronchitis, and certain cardiovascular problems such as heart attacks and cardiac arrhythmia. Individuals particularly sensitive to PM2.5 exposure include older adults, people with heart and lung disease, and children.

Fine particles are also a major cause of reduced visibility (haze) in certain parts of the United States, including many national parks. Fine particles cause visibility impairment by scattering and absorbing light before it reaches an observer. In the Eastern United States, haze has reduced the average visual range from approximately 90 miles in the absence of manmade pollution to 15 to 25 miles. Additionally, components of PM2.5, such as nitrates and sulfates, contribute to acid rain formation. Acid rain makes lakes, rivers, and streams unsuitable for many fish, and erodes buildings, historical monuments, and paint on cars. PM2.5 and its precursor (SO_2, NO_x, VOC and NH_3) pollutants can be transported long distances by wind and then settle on ground or water. This alters the nutrient balance in coastal waters and large river basins, contributing to fish kills and algae blooms in sensitive waterways, such as the Chesapeake Bay. The settling of PM2.5 also depletes the nutrients in soil, damages sensitive forests and farm crops, and affects the diversity of ecosystems. Soot, a type of PM2.5, stains and damages stone and other materials.

2.0. Designating Areas Process

Section 107 (d)(1)(B) of the CAA (42 U.S.C. § 7407(d)(1)(B)) requires EPA to designate areas after promulgating a new NAAQS. Following promulgation of new or revised air standards, Governors are given the opportunity to submit recommendations for attainment and nonattainment areas, supported by the most recent quality -assured monitoring data. EPA provides criteria for states' recommendations for designating areas.

Governors' designation recommendations for the revised 2024 primary annual PM2.5 standard must be submitted to EPA by February 07, 2025. EPA may make modifications and promulgate all or part of a Governor's recommendations. If EPA determines that a modification to the recommendation is necessary, EPA will notify the state no later than 120 days prior to promulgating the designations. This provides an opportunity for the state to work with EPA, if the state believes EPA's decisions are not appropriate.

This document contains Pennsylvania's designation recommendations for the revised 2024 Primary Annual PM2.5 health-based standard. The recommendations are based on 2021-2023 air quality monitoring data, because 2023 is the most recent full-year of quality-assured and quality-controlled data available. EPA is required to make final PM2.5 designations by February 2026. EPA's final designations will most likely be based on 2022-2024 air quality monitoring data.

Section 189(a)(2)(B) of the CAA (42 U.S.C. § 7513a(a)(2)(B)) requires that the PM2.5 attainment demonstration State Implementation Plan (SIP) revisions will be due to EPA in August 2027, 18 months after final designations are expected to be effective. As provided in Section 188(c)(1) of the CAA (42 U.S.C. § 7513(c)(1)), the attainment date for each nonattainment area classified moderate for the revised 2024 Primary Annual PM2.5 Standard shall be as met as expeditiously as practicable, but no later than the end of the sixth calendar year after the area was designated nonattainment, or by December 2032. EPA will initially classify all nonattainment areas as 'moderate' nonattainment areas, consistent with the CAA Section 188(a) (42 U.S.C. § 7513(a)).

2.1 Methodology

On February 7, 2024, EPA issued a guidance memorandum, "Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard"[1] (Designations Guidance). EPA explains in the Designations Guidance that nonattainment area boundaries will encompass the area(s) that violate(s) the standard and the nearby areas that contribute to the violations. EPA intends to begin its analysis of what areas contribute to a violating area by considering those counties in the entire metropolitan area (for instance, the Core Based Statistical Area (CBSA) or Combined Statistical Areas (CSA)) in which the violating monitor(s) is (are) located; and to evaluate any adjacent counties to the CBSA or CSA that have the potential to contribute to the violations. EPA explains that it does not presume that the CBSA or CSA constitutes the nonattainment area boundary, however. EPA describes criteria that states should examine when recommending nonattainment area boundaries. The factors include the following:

1 Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard, February 7, 2024 https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-designations-memo_2.7.2024-_-jg-signed.pdf

1.) Air quality data,
2.) Emissions and emissions related data,
3.) Meteorology
4.) Geography and topography
5.) Jurisdictional boundaries.

DEP used this Designations Guidance, as described below, when developing designation recommendations for the 2024 primary annual PM2.5 standard.

The DEP's approach provides continuity of existing air quality planning efforts in its recommendations for the 2024 Primary Annual PM2.5 standard, wherever appropriate.

In central and eastern Pennsylvania, previous designations generally followed county boundaries and, in part, the U.S. Office of Management and Budget's (OMB) boundaries for Metropolitan Statistical Areas (MSA) and CSAs. The OMB-defined areas are defined primarily by having a high degree of social and economic integration measured by commuting ties with outlying counties. In instances where EPA's designations did not follow these boundaries in the past, EPA tended to make the nonattainment area smaller than the MSA, CBSA or CSA. DEP's recommendations for the 2024 Primary Annual PM2.5 Standard use existing nonattainment area boundaries, where appropriate.

The DEP has also considered the five factors recommended by EPA in its Designations Guidance, and other sources of information relevant to PM2.5 designations. In some cases, an analysis of these factors suggested that one or more counties in the MSA, CBSA or CSA should be recommended as attainment or unclassifiable/nonattainment.

2.2 Public Participation

Requirements for a public participation process including a public hearing are set forth in Section 110(a)(2) of the CAA (42 U.S.C. § 7410(a)(2)), 40 CFR Section 51.102(d) and Section 7.5 of the Air Pollution Control Act, 35 P.S. § 4007.5. On December 21, 2024, the DEP provided notice of a public comment period, and of three scheduled public hearings on the proposed Designation Recommendations scheduled on January 21 and January 23, 2025 (54 Pa. B. 8350). Two public hearings were held on January 21 (Pittsburgh and Norristown). A third public hearing was held on January 23 (Harrisburg). DEP received comments from 24 individuals. Testimony was provided at the January 21, 2025, Pittsburgh hearing. DEP's responses are provided in an accompanying Comment and Response document.

3.0 Designation Recommendations for the 2024 Primary Annual PM2.5 Standard

DEP analyzed the data based on five factors detailed in the EPA Designation Guidance document[2]. Based on the analysis, DEP recommend the areas in Pennsylvania to be designated as Attainment, Nonattainment, or Unclassifiable/Attainment Areas. DEP's designation recommendations are detailed in the remaining subsections.

3.1 Attainment Areas

Of the 47 network monitors in Pennsylvania, 36 monitors in 32 counties did not show exceedances of the 2024 Primary Annual PM2.5 Standard. The design values for the 2024 Primary Annual PM2.5 Standard for each monitor in Pennsylvania attaining the standard are listed in Table 1 below. A design value for the 2023 Annual PM2.5 Standard is the 3-year average (in this case, 2021 to 2023) of the annual average concentration for each monitor. Sites with design values below 9.0 $\mu g/m^3$ are identified as attaining the 2024 Primary Annual PM2.5 Standard.

Table 1: 2023 Primary Annual PM2.5 Design Values for Monitors Attaining the 2024 Primary Annual PM2.5 Standard

AQS Site Code	Site	County	Design Value (in µg/m3)
42-117-4000	Tioga County	Tioga	5.6*
42-131-0010	Tunkhannock	Wyoming	5.7*
42-115-0215	New Milford	Susquehanna	5.9*
42-015-0011	Towanda	Bradford	6.4*
42-081-0419	Salladasburg	Lycoming	6.6*
42-051-0524	Uniontown	Fayette	6.9*
42-059-0002	Holbrook	Greene	6.9*
42-085-0100	Farrell	Mercer	7.0*
42-049-0003	Erie	Erie	7.1*
42-063-0004	Strongstown	Indiana	7.3
42-125-5001	Florence	Washington	7.4
42-003-0067	South Fayette	Allegheny	7.5
42-069-2006	Scranton	Lackawanna	7.5
42-027-0100	State College	Centre	7.6
42-129-0008	Greensburg	Westmoreland	7.6*
42-013-0801	Altoona	Blair	7.9
42-041-0101	Carlisle	Cumberland	7.9
42-003-1008	Harrison Township	Allegheny	8.1
42-029-0100	New Garden	Chester	8.1
42-091-0013	Norristown	Montgomery	8.1
42-005-0001	Kittanning	Armstrong	8.3
42-095-0025	Freemansburg	Northampton	8.3
42-003-3007	Clairton	Allegheny	8.4
42-011-0011	Reading Airport	Berks	8.4

[2] Internal Area Designation for the 2024 Revised Primary Annual Fine Particulate National Ambient Air Quality Standards, February 7, 2024

AQS Site Code	Site	County	Design Value (in µg/m3)
42-075-0101	Lebanon	Lebanon	8.4
42-077-0004	Allentown	Lehigh	8.4*
42-045-0002	Chester	Delaware	8.5
42-045-0109	Marcus Hook	Delaware	8.5*
42-101-0076	Montgomery	Philadelphia	8.5
42-001-0001	Arendtsville	Adams	8.7
42-003-0008	Lawrenceville	Allegheny	8.7
42-021-0011	Johnstown	Cambria	8.8
42-071-0007	Lancaster	Lancaster	8.8
42-101-0057	Fire Admin. Bldg.	Philadelphia	8.8*
42-007-0014	Beaver Falls	Beaver	8.9
42-125-0005	Charleroi	Washington	9.0

***The 2023 Primary Annual PM2.5 design value is not valid due to incomplete data periods.**

3.2 Nonattainment Areas

There are 11 monitors in five counties that exceed the 2024 Primary Annual PM2.5 Standard: the counties are Allegheny, Dauphin, Lancaster, Philadelphia, and York Counties. The design values for each monitor showing nonattainment of 2024 Primary PM2.5 Standard in Pennsylvania are listed in Table 2 below.

Table 2: 2023 Primary Annual PM2.5 Design Values for Monitors Exceeding the 2024 Primary Annual PM2.5 Standard

AQS Site Code	Site	County	Design Value (in µg/m^3)
42-003-0002	Avalon	Allegheny	9.2
42-101-0055	Ritner	Philadelphia	9.3
42-133-0008	York	York	9.3
42-003-1376	Parkway East	Allegheny	9.5
42-071-0012	Lancaster Downwind	Lancaster	9.5
42-101-0004	AMS Lab	Philadelphia	9.6*
42-101-0048	Northeast Waste	Philadelphia	9.7
42-043-0401	Harrisburg	Dauphin	9.8
42-003-1301	North Braddock	Allegheny	10.0
42-101-0075	Torresdale	Philadelphia	10.0
42-003-0064	Liberty	Allegheny	11.6

***The 2023 Primary Annual PM2.5 design value is not valid due to incomplete data periods.**

3.3 Unclassifiable/Attainment Areas

DEP submitted a 2023 Annual Ambient Air Quality Monitoring Network Plan (network plan) to EPA on November 27, 2023, in accordance with the regulatory requirements of 40 CFR Part 58 (relating to Standards for Ambient Air Quality Surveillance). As revised in March 2016, pursuant to 40 CFR Sections 58.10(a) and 58.10(b), network plans must include the following for existing and proposed monitoring sites:

- A statement of whether the operation of each monitor meets the requirements of 40 CFR Part 58, Appendices A, B, C, D, and E, where applicable;
- The Air Quality System (AQS) site identification number;
- The location, including street address and geographical coordinates;
- The sampling and analysis method(s) for each measured parameter;
- The operating schedules for each monitor;
- Any proposals to remove or move a monitoring station within a period of 18 months following plan submittal;
- The monitoring objective and spatial scale of representativeness for each monitor;
- The identification of any sites that are suitable and sites that are not suitable for comparison against the Annual PM2.5 NAAQS, as described in 40 CFR § 58.30;
- The Metropolitan Statistical Area (MSA), Core Based Statistical Area (CBSA), Combined Statistical Area (CSA), or other area represented by the monitor;
- The designation of lead monitors as source-oriented or non-source-oriented;
- Any lead monitor for which a waiver has been requested or granted by EPA to use Pb-PM10 monitoring in lieu of Pb-TSP monitoring; and
- The identification of NO_2 monitors as near-road, area-wide or vulnerable or susceptible population monitors in accordance with 40 CFR Appendix D, § 4.3 "Nitrogen Dioxide (NO_2) Design Criteria.

On March 7, 2024, EPA approved the network plan submitted by DEP on the basis that the network plan meets the requirements of 40 CFR Part 58.

At this time, DEP is recommending that all other counties in Pennsylvania that do not have ambient air monitoring data be designated as unclassifiable/attainment. Where monitors are not sited and operated in accordance with the regulatory requirements of 40 CFR Part 58, this recommendation reflects that there is no evidence of PM2.5 exceedances.

4.0 Discussion of Related Factors

As stated in the Initial Area Designations for the 2024 Revised Primary Annual Fine Particulate National Ambient Air Quality Standard Memo, J. Goffman, February 7, 2024, EPA recommends that states look at several factors in making their recommendations for the 2024 Primary Annual PM2.5 Standard designations. Attachment 3 of EPA's Designations Guidance[3] suggests using a five-factor approach, which includes the consideration of the following factors: (1) air quality data; (2) emission and emissions-related data; (3) meteorology; (4) geography and topography; and (5) jurisdictional boundaries. Using a weight-of-evidence approach ensures for practical boundaries and effective air quality management in determining which areas should be included or excluded. DEP has considered these factors and sources of information relevant to PM2.5 designations, and provides a general discussion of this information as follows:

4.1 Air Quality Data

DEP recommendations are based on the 2023 PM2.5 design values using the 2021, 2022 and 2023 monitored data. Table 1 lists these design values by monitor site, in ascending order of design value. Information pertaining to monitors with design values exceeding the 2024 Primary Annual PM2.5 Standard is identified in Table 2.

Monitors exceeding the Primary Annual PM2.5 Standard are in the southwest, eastern and southcentral areas of the Commonwealth; specifically, Allegheny, Dauphin, Lancaster, Philadelphia and York counties.

A map showing the 2023 Annual PM2.5 design values across Pennsylvania is attached in Appendix B, Figure B-1. The monitors exceeding the 9.0 μ g/m^3 standard are displayed in red (with rounding, design values of 9.05 are exceeding the standard). The DEP is recommending that all these areas be designated nonattainment for the 2024 Primary Annual PM2.5 standard.

4.2. Emissions and Emissions Related Data

4.2.1 Stationary (Point) & Area Sources

DEP prepares an emission inventory for all criteria pollutants from all sources (Point, area and mobile) every three years. Point source data is available every year; the most recent full inventory was for the year 2020 which was submitted to EPA for review and input for the 2020 National Emissions Inventory (NEI).

Since the latest available complete NEI is from 2020, DEP used and analyzed 2022-point source data from the Pennsylvania Air Information Management System (AIMS). This data is used to generate Figures B-2 through B-5 and Figures B-21 through B-24 as shown in Appendix B. Stationary point sources include manufacturing operations and power plants.

Figures B-6 through B-10 (Emission Density for Area Sources) in Appendix B show PM2.5 and PM2.5 precursor emissions per square mile, including emissions resulting from:

[3] Memorandum: "Initial Area Designations for the 2024 Revised Primary Annual Fine Particle National Ambient Air Quality Standard", February 7, 2024. https://www.epa.gov/system/files/documents/2024-02/pm-naaqs-designations-memo_2.7.2024-_-jg-signed.pdf

Area sources, which are the industrial, commercial, and residential sources too small or too numerous to be handled individually, such as commercial and residential open burning, architectural and industrial maintenance coatings application and clean-up, consumer product use, and vehicle refueling at service stations.

Emissions of NH_3 are primarily in the areas with high concentrations of agriculture, including areas of animal and crop operations. Emissions of the other PM2.5 precursors tend to be more concentrated in populated areas because of combustion sources.

4.2.2 On-Road & Non-Road Sources

Figures B-11 through B-15 in Appendix B show the on-road emission density by County for PM2.5 and PM2.5 precursors. Figures B-16 through B-20 in Appendix B show emission density for the non-road emission density by County for PM2.5 and PM2.5 precursors.

On-road sources include passenger cars and light-duty trucks, other trucks, buses and motorcycles. Non-road sources consist of a diverse collection of engines, including engines in outdoor power equipment, recreational vehicles, farm and construction machinery, lawn and garden equipment, industrial equipment, recreational marine vessels, commercial marine vessels, locomotives, ships, aircraft and many other such sources.

On-road and non-road emissions of NO_X, direct PM2.5 and VOC have been declining and will continue to do so, as national and state controls on new highway vehicles, non-road equipment and motor vehicle fuels come into effect, and older vehicles are replaced. Population, urbanization, traffic, commuting, and growth factors are the primary determinants of the OMB's designation of metropolitan and micropolitan statistical areas and were used extensively by Pennsylvania in its recommendations, and to a lesser extent, by EPA in its final designations, for the 1997 PM2.5 standard. For the 2006 24-hour standard, EPA explicitly stated that these area boundaries would no longer be presumed to define nonattainment areas. DEP, however, has emphasized continuity of planning for attainment of the 2024 Primary Annual PM2.5 standard. Consequently, DEP's recommended boundaries take these factors into account. Figure B-25 shows population density by county and Figure B-26 shows population growth between 2010 and 2020.

4.3 Meteorology, Geography, and Topography

Many regions across the Commonwealth have weather that is influenced by topography. There are many areas of river valleys and higher terrain across western Pennsylvania that influence the way wind flows across the region. Topography also enhances the strength of morning inversions when they form. Morning inversions are a key meteorological feature that contributes to higher daily levels of PM2.5 across a region. Various areas contend with the influences of the Appalachian Mountains, as well. The changes in local elevation become less drastic in

southcentral and southeastern portions of the Commonwealth. The Philadelphia area, by contrast, has relatively few topographic features that restrict airflow.

Wind direction and speed are important meteorological factors to consider. Wind can weaken or improve air quality conditions. Strong winds can transport PM emissions or their precursors regionally, while weak winds can lead to the accumulation of emissions on a local basis. Wind roses for the western and eastern portions of Pennsylvania are presented in Appendix C, Figures C-1-5.2 and Figure C-2.4.2, respectively.

DEP conducted meteorological, geographical and topographical analysis for the monitors in the recommended nonattainment areas. These analyses are contained in Appendix C (relating to Meteorological, Geographical and Topographical Analysis for Recommended Nonattainment Areas).

4.4 Jurisdictional Boundaries

DEP recommends the use of county boundaries because these are the same boundaries used by the Commonwealth's regional transportation planning organizations (which are also often economic planning organizations as well). Inventory data for nonpoint sources is also more accurate and available on the county level, which is useful in meeting the requirements in nonattainment areas for emission inventory information and for reasonable further progress (incremental emission reductions). While EPA does not presume that the CBSA or CSA should be the nonattainment boundary for the areas, EPA considers the CBSA or CSA as a reasonable starting point for analysis of what nearby areas may be contributing to the violation of the NAAQS at a given monitor. Having considered the relevant data, the Department is recommending that the boundaries of nonattainment areas associated with monitors violating the Annual PM2.5 Standard follow the county boundaries. In some cases, the nonattainment area is being recommended to be limited to one whole county, while in other cases the nonattainment areas are recommended as a small multi-county area combining two or three counties within a regional transportation planning organization.

4.4.1 Environmental Justice concerns

As part of the designation request, DEP considered the areas with overburdened communities with high PM concentration which were above the 2024 primary annual PM2.5 standard. DEP considered the possibility of environmental justice concerns in these areas using the EPA EJScreen tool described in EPA's PM NAAQS implementation guidance (80 FR 58010, 58136, August 24, 2016). As stated in this rule "The tool may help users identify areas with minority and / or low-income populations, potential environmental quality issues, a combination of environmental and demographic indicators that is greater than usual, and other factors that may be of interest".

DEP considered the vicinity of at-risk populations within the boundaries of designation request for each of the counties that are exceeding the 2024 Primary Annual PM2.5 Standard.

5.0 Discussion of Designation Recommendations

DEP is recommending the following nonattainment area designations for the 2024 Primary Annual PM2.5 Standard based upon air quality monitoring data for 2021-2023, the other information described above regarding the factors in EPA's Designations Guidance, and any additional information described below and in the applicable Appendix C. Each of the following descriptions for a recommended area references a corresponding Appendix C that contains a more detailed analysis of the recommended nonattainment area. An overview map of the recommended nonattainment areas with respect to all 67 counties in PA can be found in Appendix A.

5.1 Southwest Pennsylvania

Allegheny County Nonattainment Area: DEP recommends the nonattainment area for the 2024 Primary Annual PM2.5 Standard be limited to Allegheny County.

An analysis of the PM2.5 data monitored at the Liberty, North Braddock, Parkway East, and Avalon monitors in Allegheny County illustrate that these monitors see greater concentrations in the 9-27 $\mu g/m^3$ range than the regional concentrations in the same range. A further examination into the monitoring data demonstrates that the high concentrations are coming out of the southwest. These wind profiles travel over local point source emissions, further illustrating the local issue at the Liberty, North Braddock, Parkway East, and Avalon monitors. An analysis of the speciated data at ACHD's Lawrenceville and Liberty monitors and DEP's Florence, Greensburg, and Johnstown monitors illustrate the excess major constituents of PM2.5 emissions to be local in nature. The urban and localized excess is most evident in Allegheny County, which contributes to the violating design values.

The Liberty, North Braddock, Parkway East, and Avalon monitors in Allegheny County have a 2023 annual design value that exceeds the 2024 Primary Annual PM2.5 Standard. The other monitors in the Pittsburgh MSA, namely four monitors in Allegheny County (Lawrenceville, Clairton, Harrison, and South Fayette), two monitors in Washington County (Charleroi and Florence monitors), one monitor in Beaver County (Beaver Falls monitor) and one monitor in Armstrong County (Kittanning monitor) are monitoring attainment of the 2024 standard, are continuing to have a general decline in the annual average and are not contributing to excess emissions elsewhere.

Therefore, DEP is recommending Allegheny County be designated nonattainment for the 2024 Primary Annual PM2.5 Standard. A map of the nonattainment area is provided in Figure C-1.8. Details of the Allegheny County nonattainment area recommendation can be found in Appendix C-1.

5.2 Southeast Pennsylvania

Greater Philadelphia Nonattainment Area: DEP is recommending Delaware, Montgomery and Philadelphia Counties be designated as nonattainment for the 2024 Primary Annual PM2.5 Standard.

An analysis of the PM2.5 data monitored at the Torresdale, Northeast Waste, and Ritner monitors in Philadelphia County illustrates that these monitors measure greater concentrations in the 9-27 $\mu g/m^3$ than the regional concentrations in the same range. Looking further, the largest sources along the I-95 corridor continue southwest from Philadelphia County into Delaware County.

Most PM2.5, SO_2 precursor, NO_x precursor, and VOC precursor point and area source emissions are in Philadelphia, Delaware, and Montgomery Counties, with substantially less emissions in Chester and Bucks Counties. For example:

- The greatest VOC precursor point source emission density is in Delaware and Montgomery Counties.
- The greatest PM2.5, SO_2 precursor and NO_x precursor area source emission density is in Philadelphia County, followed by Delaware and Montgomery Counties.
- The greatest VOC precursor area source emission density is in Philadelphia County, followed by Delaware County.

Further meteorological examination demonstrates that the predominant winds travel northeast directly over local point sources towards these monitors. A comparison of the speciated data collected in the greater Philadelphia area and Arendtsville (background) monitors indicate PM2.5 constituent compounds attributable to industrial emission influences, and therefore are local in nature, during worst-case meteorological or poor dispersion conditions.

Therefore, DEP is recommending Delaware, Montgomery, and Philadelphia Counties in the Philadelphia-Camden-Wilmington, PA-NJ-DE-MD MSA in Pennsylvania (consisting of Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties) be designated nonattainment for the 2024 Primary Annual PM2.5 Standard. A map of the nonattainment area is provided in Figure C-2.7. Details of the Greater Philadelphia Nonattainment Area can be found in Appendix C-2.

5.3 Southcentral Pennsylvania

Harrisburg-Carlisle-York Nonattainment Area: DEP recommends Harrisburg-Carlisle-York area be designated as nonattainment for the 2024 Primary Annual PM2.5 Standard. This nonattainment area consists of Cumberland, Dauphin, and York Counties.

An analysis of the PM2.5 data monitored at the Harrisburg monitor in Dauphin County and the York monitor in York County illustrates that the Harrisburg and York monitors see greater concentrations in the 9-27 $\mu g/m^3$ range than the regional concentrations in the same range. A further examination into the monitoring data demonstrates that the predominant winds travel directly over local point sources, further illustrating the local issue at the Harrisburg and York monitors. There are multiple point sources clustered along the Cumberland/Dauphin County border. The Harrisburg monitor in Dauphin County and York monitor in York County have a 2023 annual design value that exceeds the 2024 Primary Annual PM2.5 Standard. The Lebanon monitor in Lebanon County has been monitoring in attainment of the 2024 standard for several years and is not contributing to excess emissions elsewhere.

Therefore, DEP is recommending the Harrisburg-Carlisle-York nonattainment area encompassing Cumberland, Dauphin, and York counties in Pennsylvania be designated nonattainment for the 2024 Primary Annual PM2.5 Standard. A map of the nonattainment area is provided in Figure C-3.5. Details of Harrisburg-Carlisle-York Nonattainment Areas can be found in Appendix C-3.

Lancaster County Nonattainment Area: DEP recommends Lancaster County be designated as a nonattainment area for the 2024 Primary Annual PM2.5 Standard.

An analysis of the PM2.5 data monitored at the Lancaster Downwind monitor in Lancaster County illustrates that the Lancaster Downwind monitor sees greater concentrations in the 9-27 $\mu g/m^3$ range than the regional concentrations in the same range. Lancaster County has the largest ammonia area source emission density (in tons per year per square mile) in Pennsylvania. A further examination into the monitoring data demonstrates that the high concentrations are coming out of two primary directions: northwesterly and easterly. These wind profiles travel over local farms, further illustrating the local issue at the Lancaster Downwind monitor. An analysis of the speciated data at the Lancaster Downwind and Arendtsville monitors illustrates the excess nitrate, ammonium, and organic and elemental carbon at the Lancaster Downwind monitor. The excess ammonium is likely a function of the high number of farms in the immediate vicinity of the Lancaster Downwind monitor. The excess ammonium, when in contact with excess nitrate, forms ammonium nitrate, a large constituent of PM2.5 during the cold season.

Therefore, DEP is recommending the Lancaster County nonattainment area encompassing Lancaster County in Pennsylvania be designated nonattainment for the 2024 Primary Annual PM2.5 Standard. A map of the final nonattainment area is provided in Figure C-4.8. Details of the Lancaster County Nonattainment Area can be found in Appendix C-4.

5.4 Recommended Attainment Areas

DEP recommends that EPA designate the following counties as attainment areas, as these counties have monitors showing attainment of the 2024 Primary Annual PM2.5 Standard and they are not contributing to nonattainment of the standard in another area: Adams, Armstrong, Beaver, Berks, Blair, Cambria, Centre, Chester, Indiana, Lackawanna, Lebanon, Northampton and Washington counties. Refer to Appendix A, Table A-1.

5.5 Recommended Unclassifiable/Attainment Areas

Areas that do not have monitors are defined as unclassifiable / attainment under Section 107(d) of the CAA (42 U.S.C. § 7407(d)). DEP recommends that EPA designate the counties set forth below as unclassifiable/attainment areas because they do not have monitors showing attainment or nonattainment of the 2024 Primary Annual PM2.5 Standard. Where monitors are not sited and operated in accordance with the regulatory requirements of 40 CFR Part 58, this designation reflects that there is no evidence of PM2.5 exceedances.

The recommended "unclassifiable/attainment areas" counties are provided as follows: Bedford, Bradford, Bucks, Butler, Cameron, Carbon, Clarion, Clearfield, Clinton, Columbia, Crawford, Elk, Erie, Fayette, Forest, Franklin, Fulton, Greene, Huntingdon, Jefferson, Juniata, Lawrence, Lehigh, Luzerne, Lycoming, McKean, Mercer, Mifflin, Monroe, Montour, Northumberland, Perry, Pike, Potter, Schuylkill, Snyder, Somerset, Sullivan, Susquehanna, Tioga, Union, Venango, Warren, Wayne, Westmoreland and Wyoming.

6.0 Conclusion

DEP is making recommendations to the EPA, on behalf of the Commonwealth, concerning the designation of attainment, unclassifiable/attainment, and nonattainment areas in Pennsylvania for the 2024 Primary Annual PM2.5 Standard. The designation recommendations are based on air quality monitoring data for 2021-2023 and other available information, including particulate-forming emissions, meteorology, geography, topography, jurisdictional boundaries and demographics.

DEP is recommending the following eight counties be classified nonattainment areas as previously discussed and described in Appendix C: Allegheny, Cumberland, Dauphin, Delaware, Lancaster, Montgomery, Philadelphia and York.

DEP is recommending that counties monitoring attainment of the 2024 Primary Annual PM2.5 Standard be designated as attainment, except Cumberland, Delaware, and Montgomery Counties. As previously discussed, these three counties are included in the recommended nonattainment areas due to possible emission impacts from these counties in Southcentral and Southeast Pennsylvania.

DEP is recommending that all other counties in Pennsylvania be designated as either attainment or unclassifiable/attainment. A complete breakdown of designation recommendations for Pennsylvania can be found in Appendix A, Table A-1.

APPENDIX A

Table A-1: Recommended Designations for the 2024 Annual $PM_{2.5}$ NAAQS for Pennsylvania

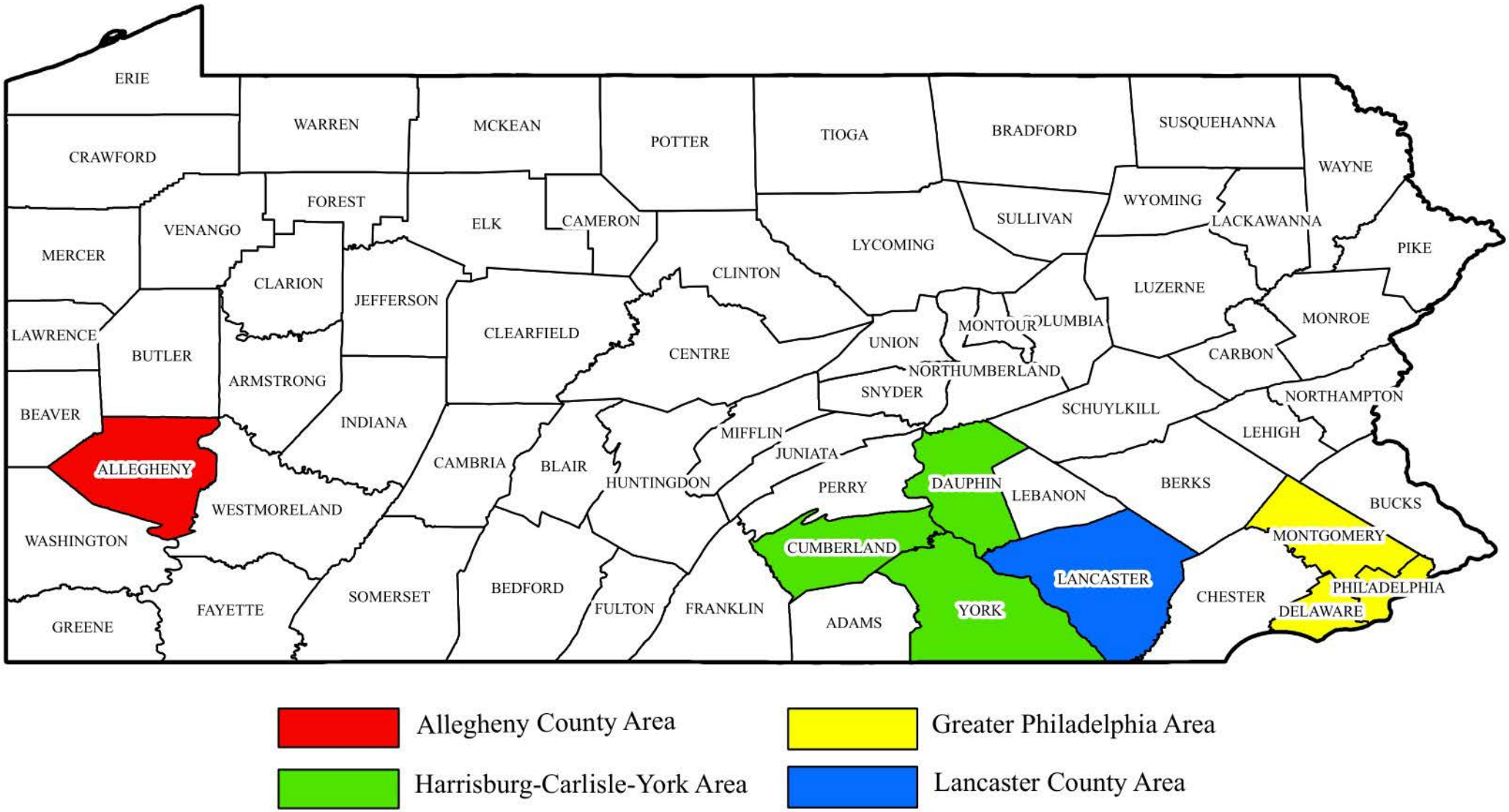
Figure A-1: Map of Recommended 2024 $PM_{2.5}$ Nonattainment Areas in Pennsylvania

Table A-1. RECOMMENDED DESIGNATIONS FOR THE 2024 ANNUAL $PM_{2.5}$ NAAQS FOR PENNSYLVANIA

Based on Five Factor Analysis, including 2021-2023 Air Quality Data

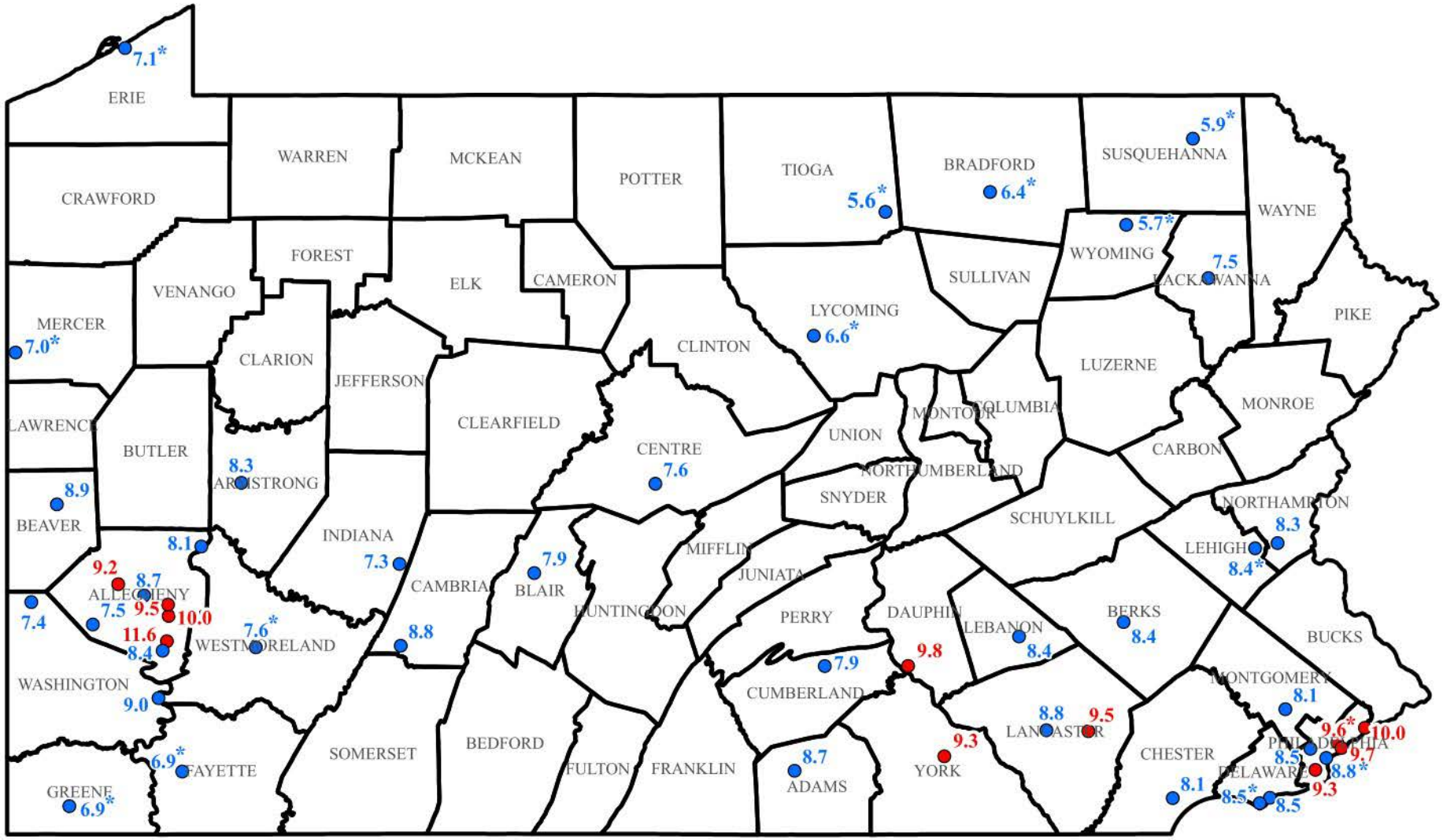
NONATTAINMENT	ATTAINMENT	UNCLASSIFIABLE/ATTAINMENT
Allegheny County Area	Adams County	Bedford County
Allegheny County	Armstrong County	Bradford County
	Beaver County	Butler County
Greater Philadelphia Area	Berks County	Bucks County
Delaware County	Blair County	Cameron County
Montgomery County	Cambria County	Carbon County
Philadelphia County	Centre County	Clarion County
	Chester County	Clearfield County
Harrisburg-Carlisle-York Area	Indiana County	Clinton County
Cumberland County	Lackawanna County	Columbia County
Dauphin County	Lebanon County	Crawford County
York County	Northampton County	Elk County
	Washington County	Erie County
Lancaster County Area		Fayette County
Lancaster County		Forest County
		Franklin County
		Fulton County
		Greene County
		Huntingdon County
		Jefferson County
		Juniata County
		Lawrence County
		Lehigh County
		Luzerne County
		Lycoming County
		McKean County
		Mercer County
		Mifflin County
		Monroe County
		Montour County
		Northumberland County
		Perry County
		Pike County
		Potter County
		Schuylkill County
		Snyder County
		Somerset County
		Sullivan County
		Susquehanna County
		Tioga County
		Union County
		Venango County
		Warren County
		Wayne County
		Westmoreland County
		Wyoming County

Figure A-1
Recommended Annual $PM_{2.5}$ Nonattainment Areas



APPENDIX B:
Supplementary Information

Figure B-1: 2023 Annual $PM_{2.5}$ Design Values



Appearing in Red - 2023 Annual $PM_{2.5}$ Design Values Above the Standard of 9.0 µg/m³

Appearing in Blue - 2023 Annual $PM_{2.5}$ Design Values At or Below the Standard of 9.0 µg/m³

Asterisk (*) appearing to the right of the design value means the data is incomplete during 3-year period.

Figure B-2: $PM_{2.5}$ Point Source Emission Density by County (tons per year per square mile) from 2022 PADEP Annual Inventory

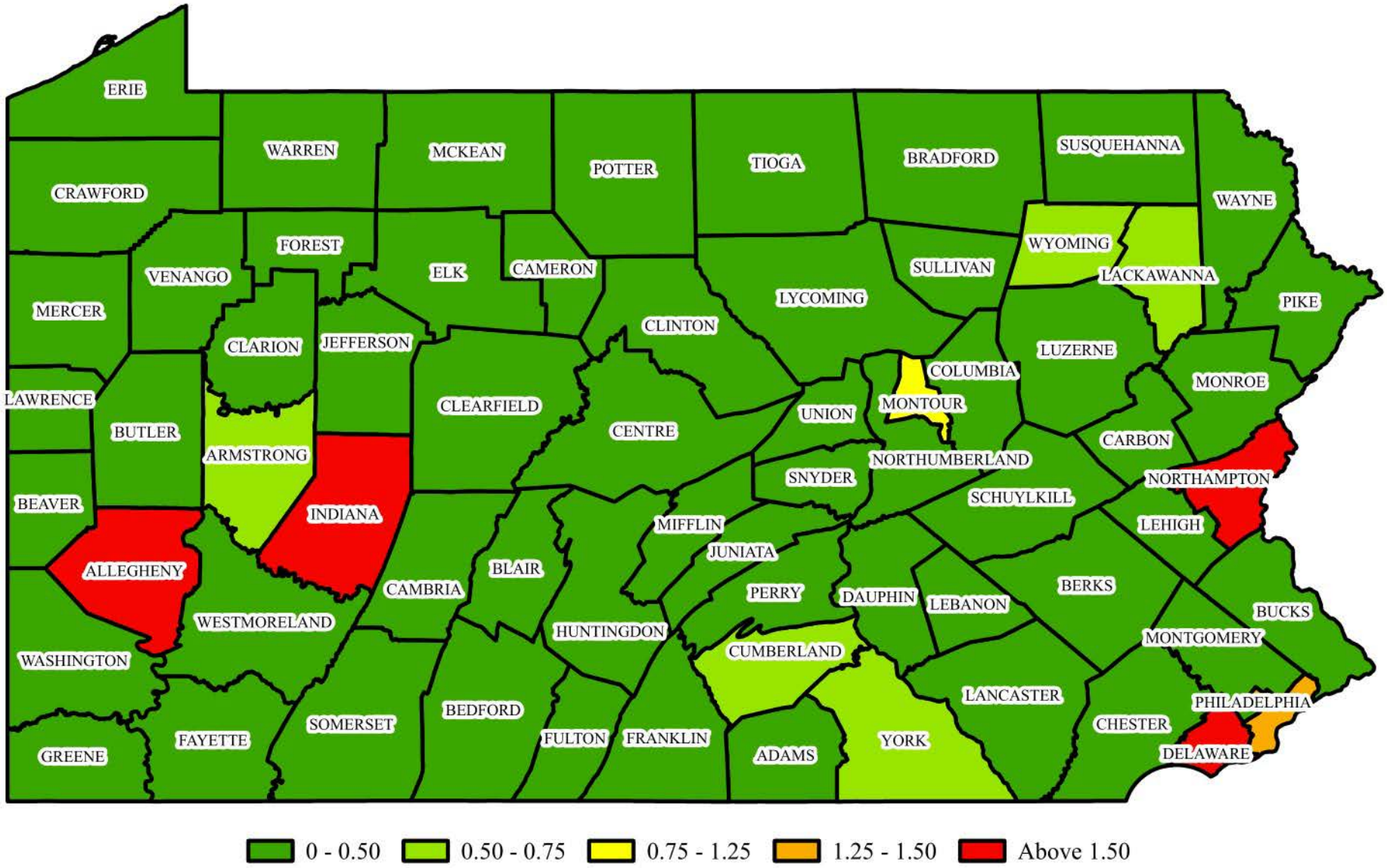


Figure B-3: SO_2 Point Source Emission Density by County (tons per year per square mile) from 2022 PADEP Annual Inventory

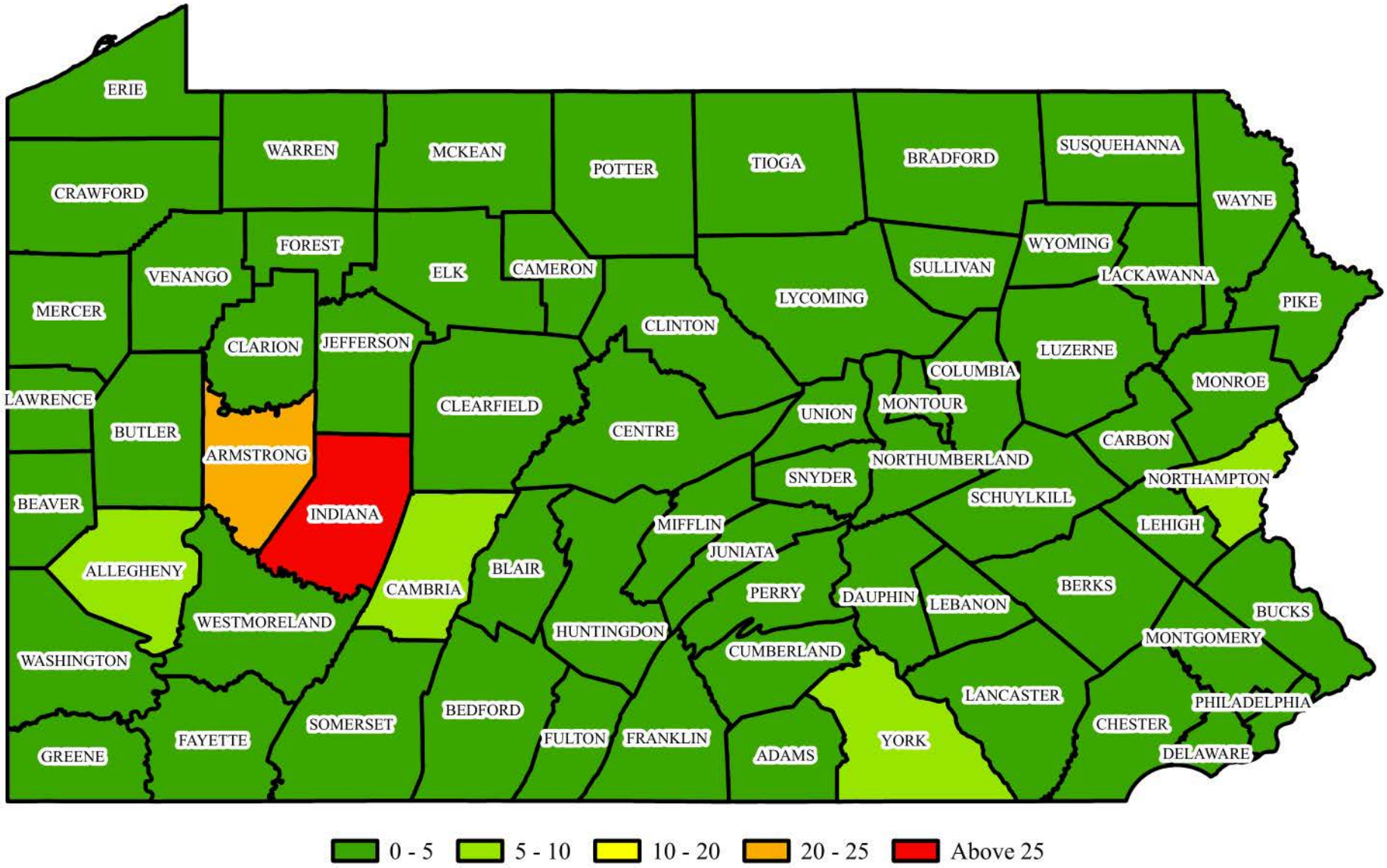


Figure B-4: NO_x Point Source Emission Density by County (tons per year per square mile) from 2022 PADEP Annual Inventory

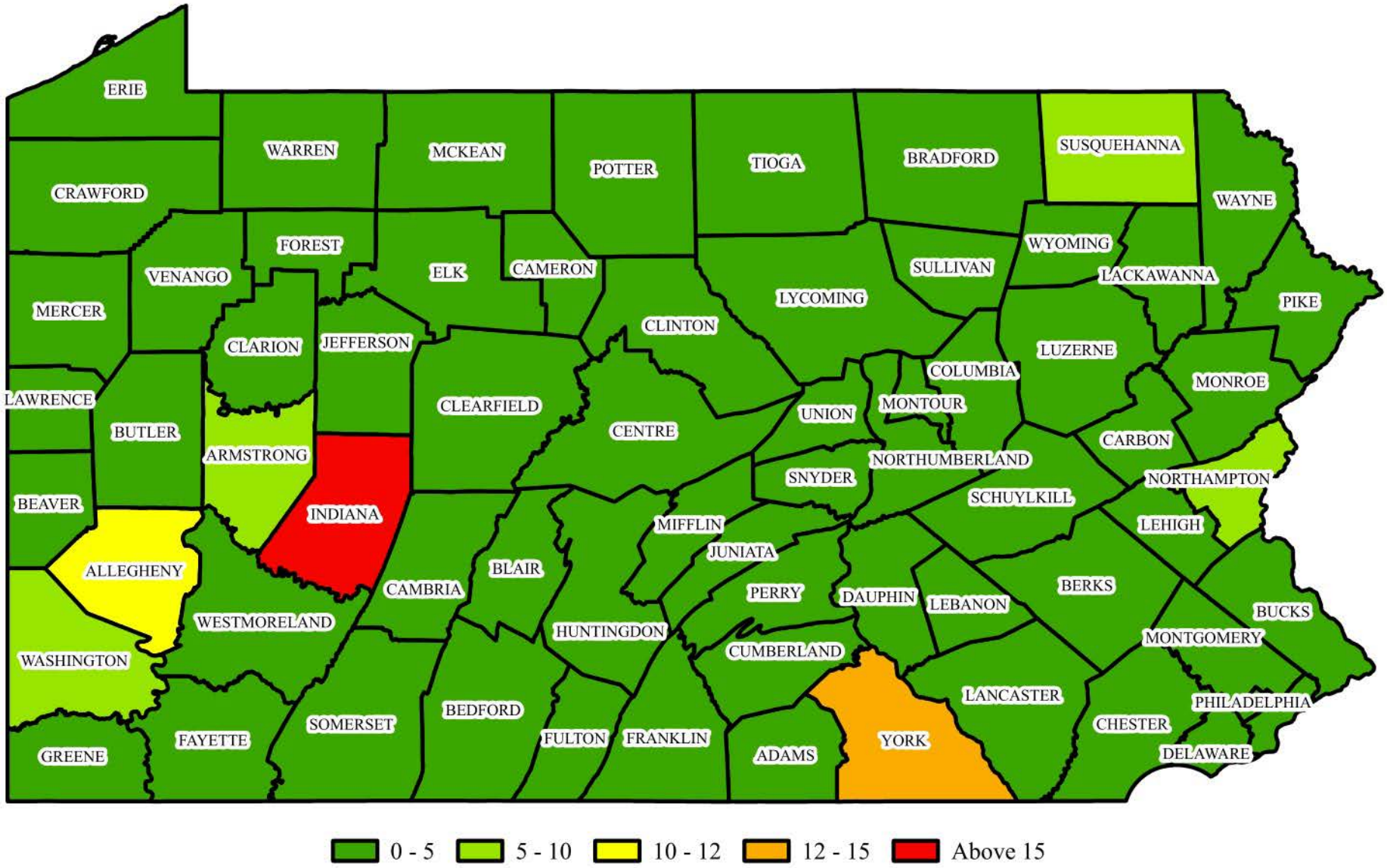


Figure B-5: VOC Point Source Emission Density by County (tons per year per square mile) from 2022 PADEP Annual Inventory

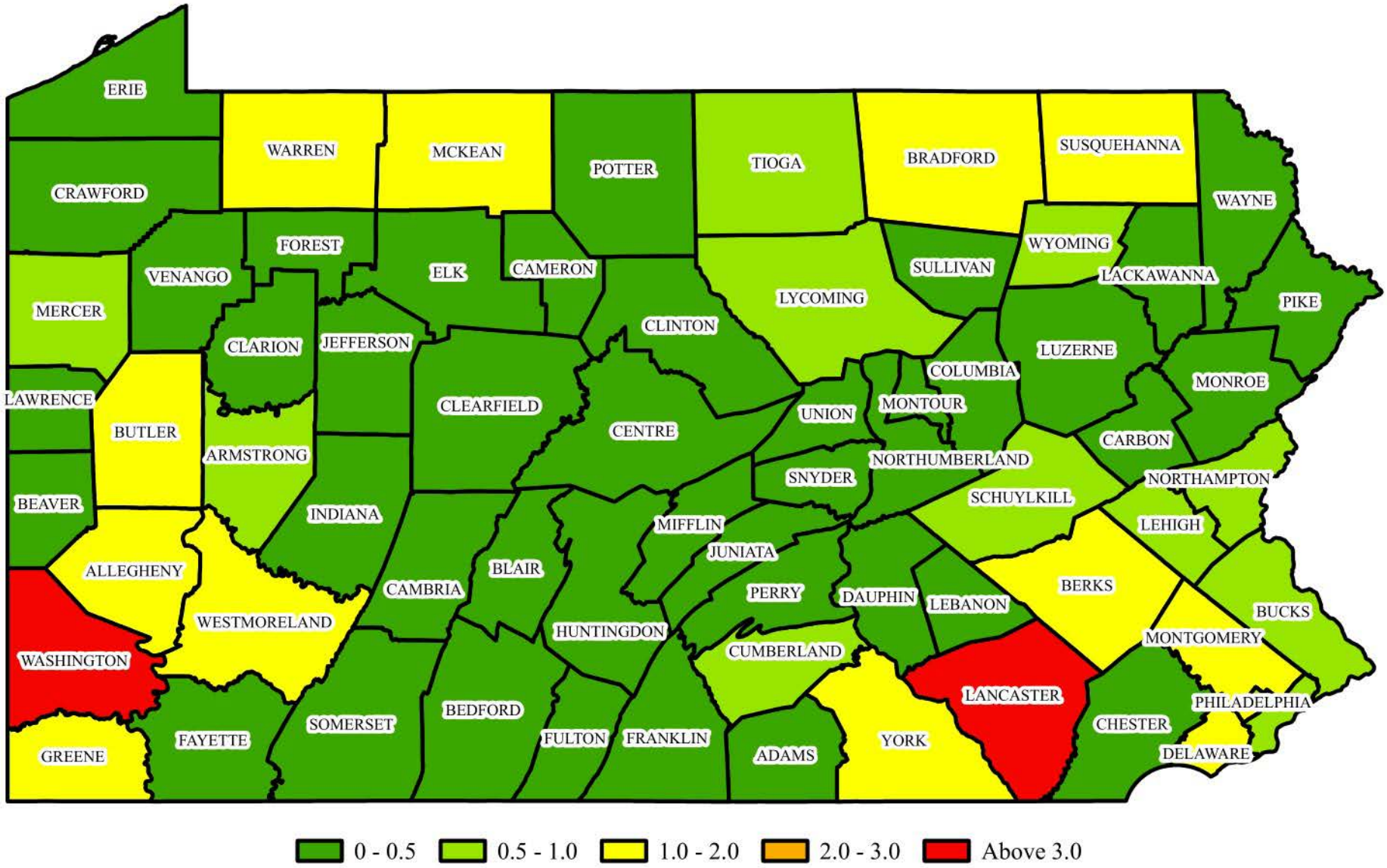


Figure B-6: $PM_{2.5}$ Area Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

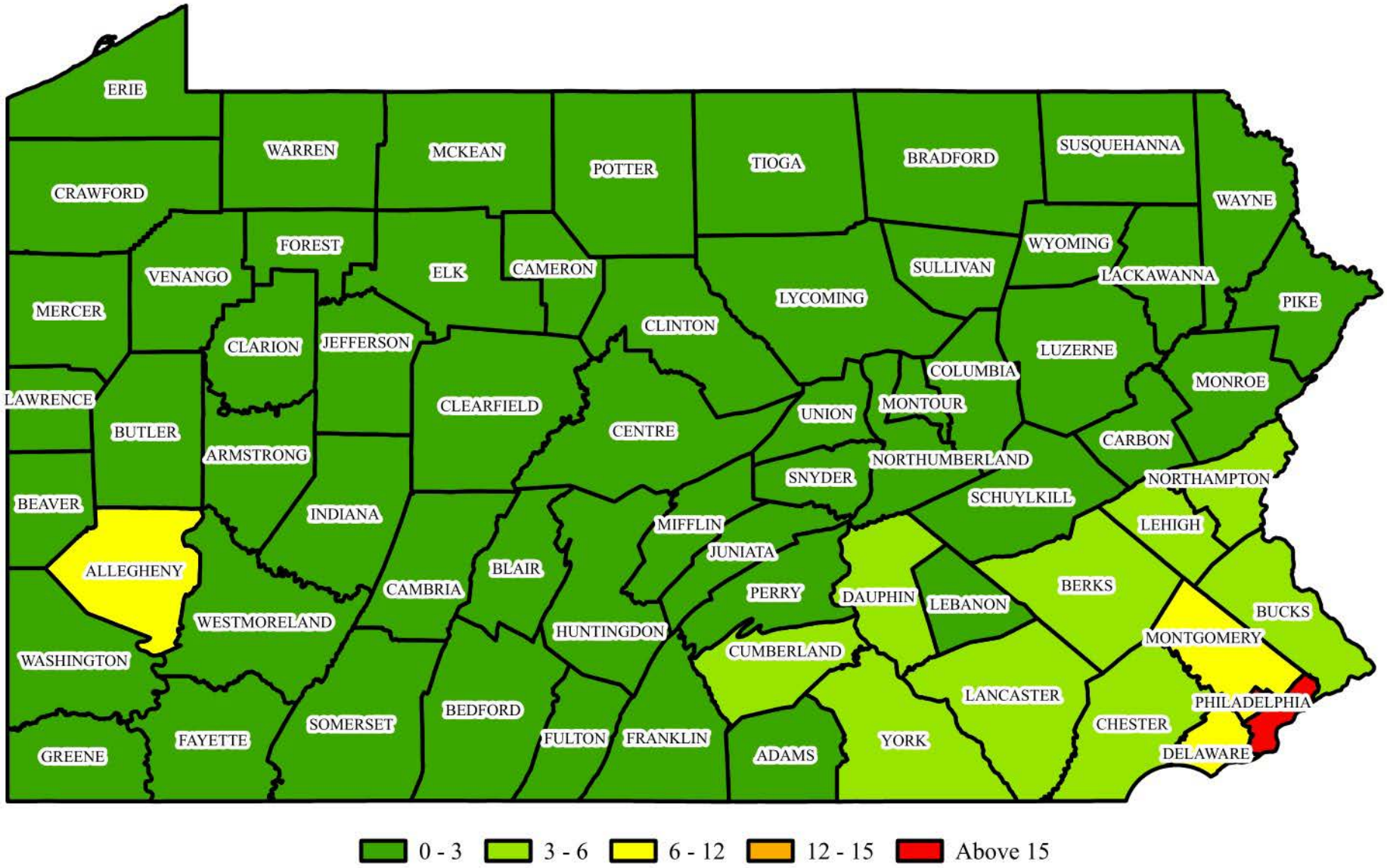


Figure B-7: SO_2 Area Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

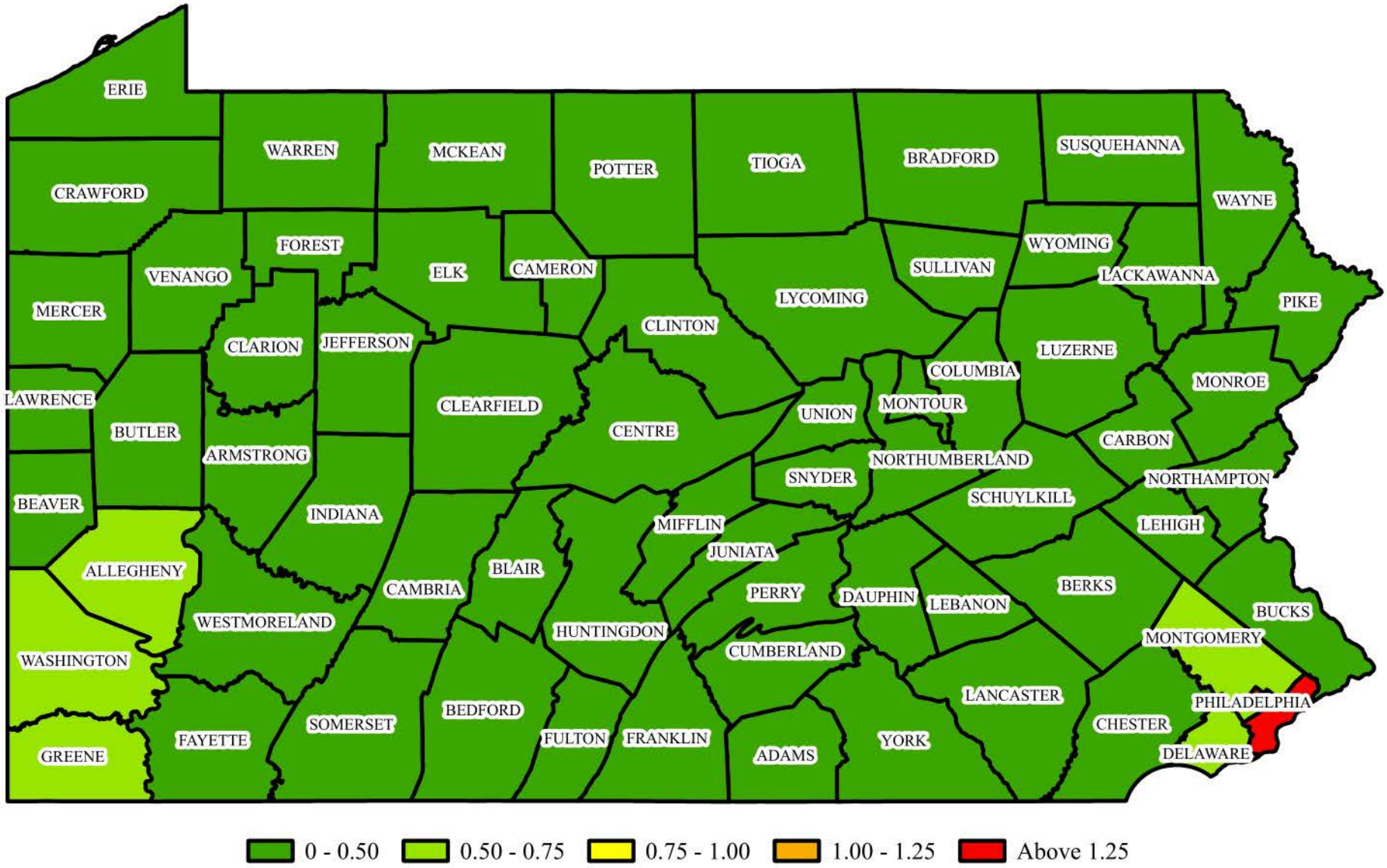


Figure B-8: NO_x Area Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

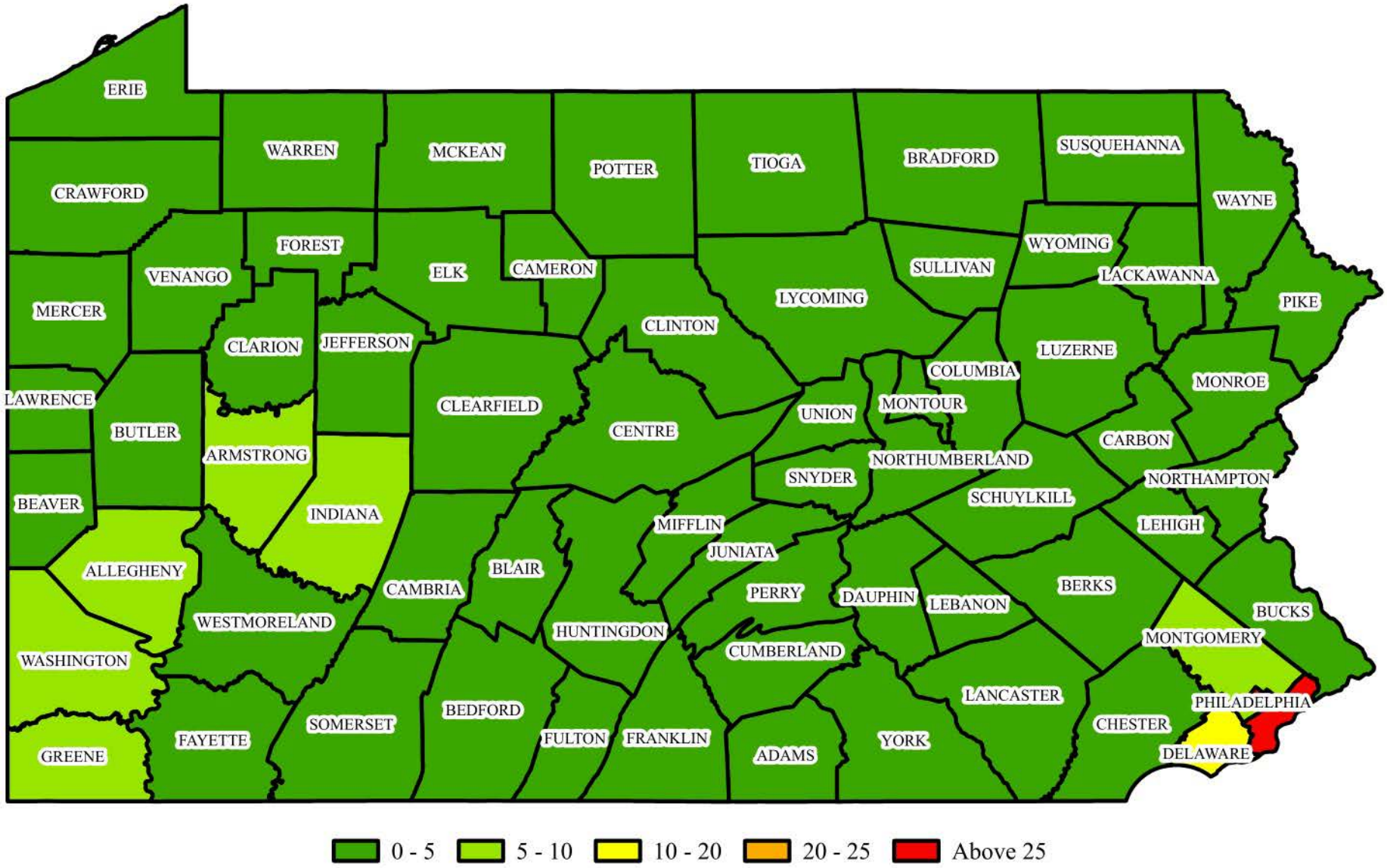


Figure B-9: VOC Area Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

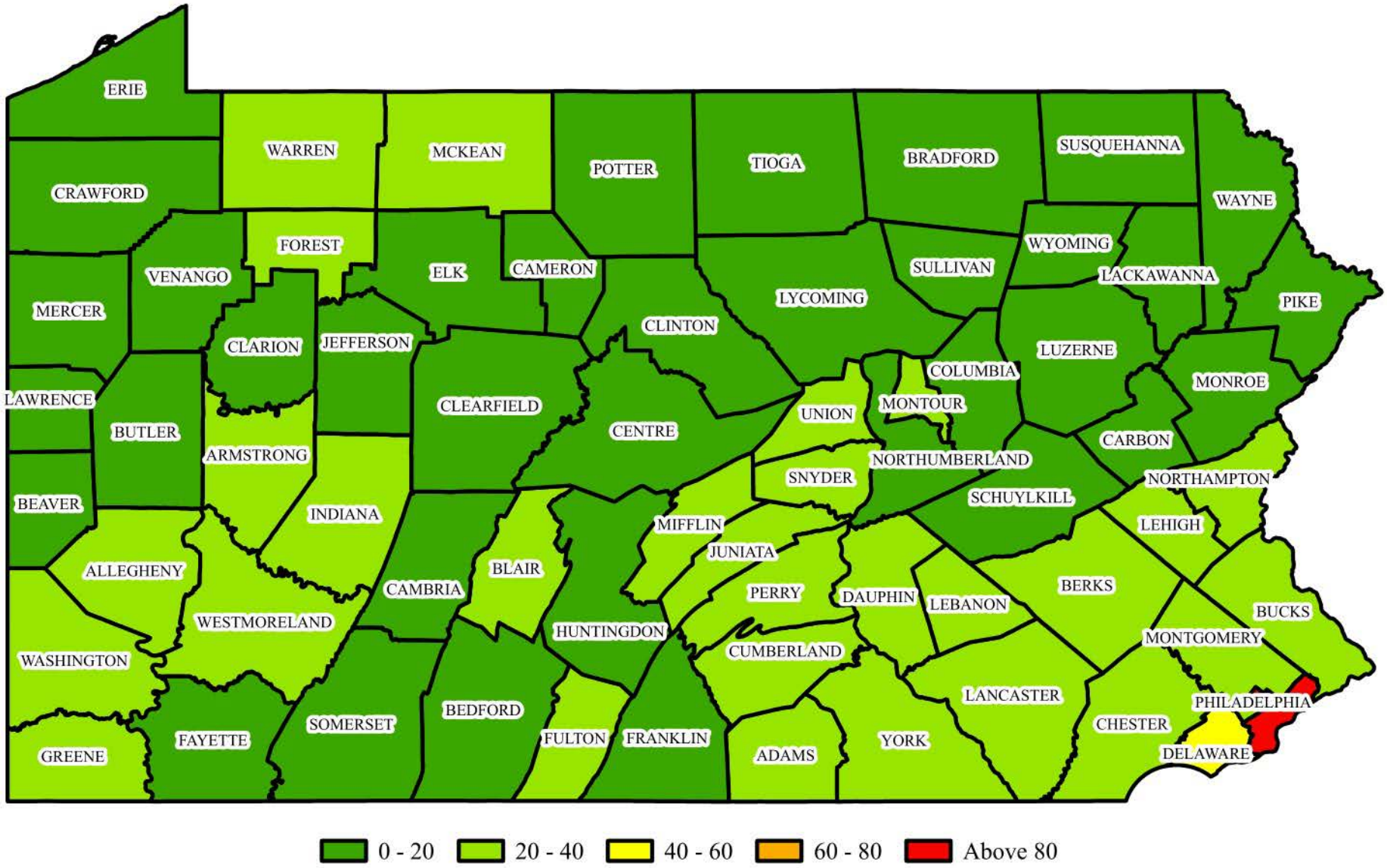


Figure B-10: NH_3 Area Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

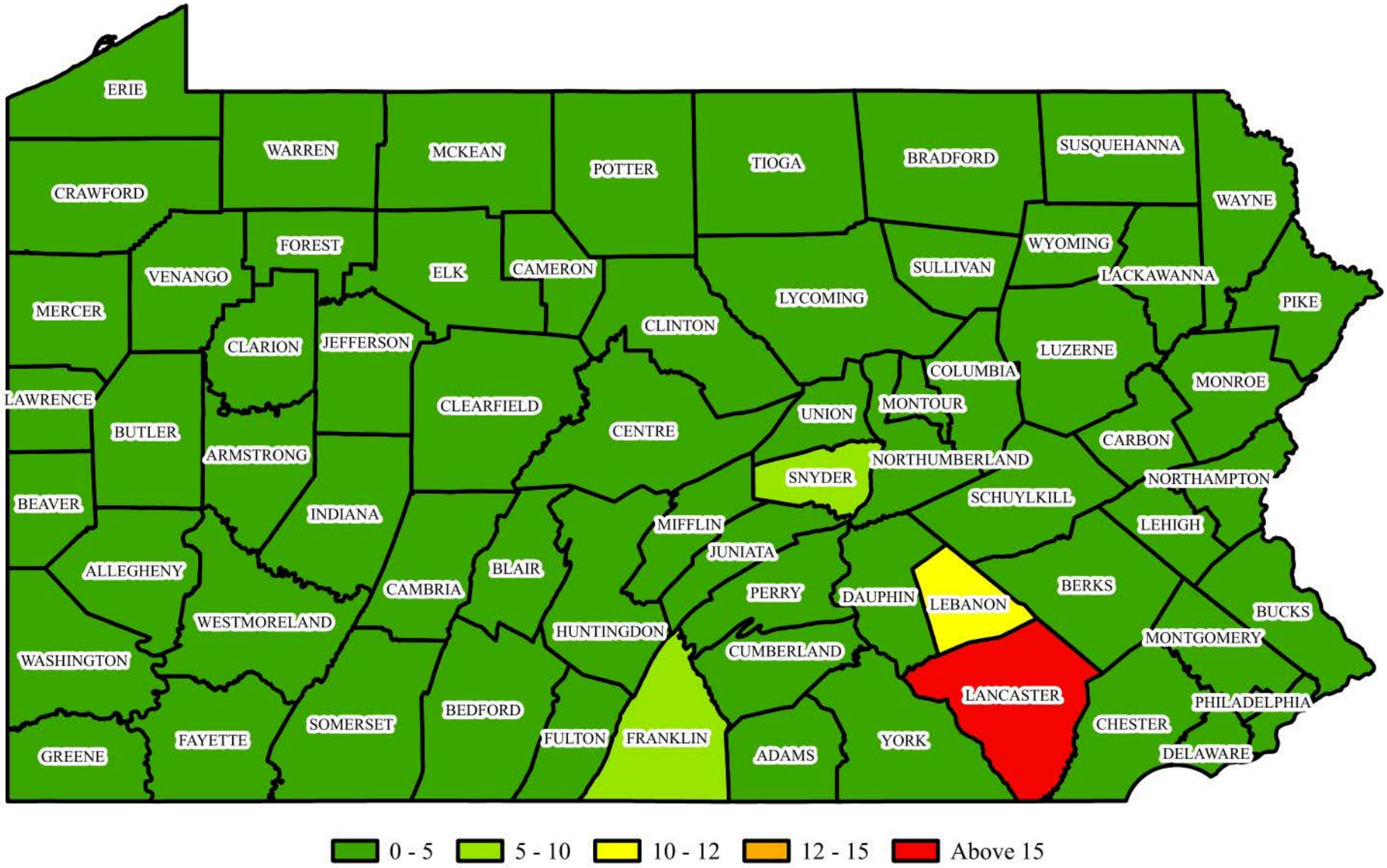


Figure B-11: $PM_{2.5}$ On-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

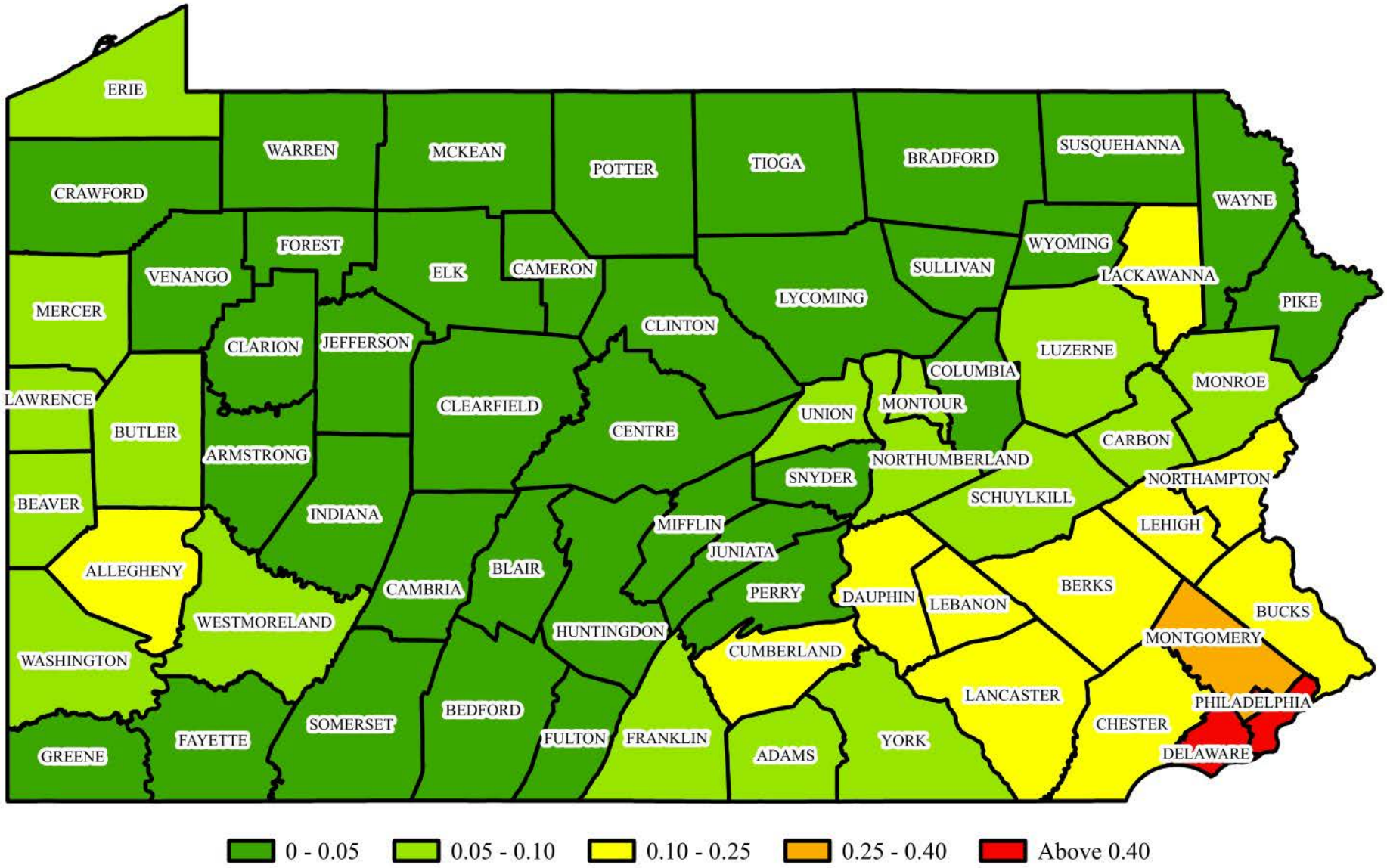


Figure B-12: SO_2 On-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

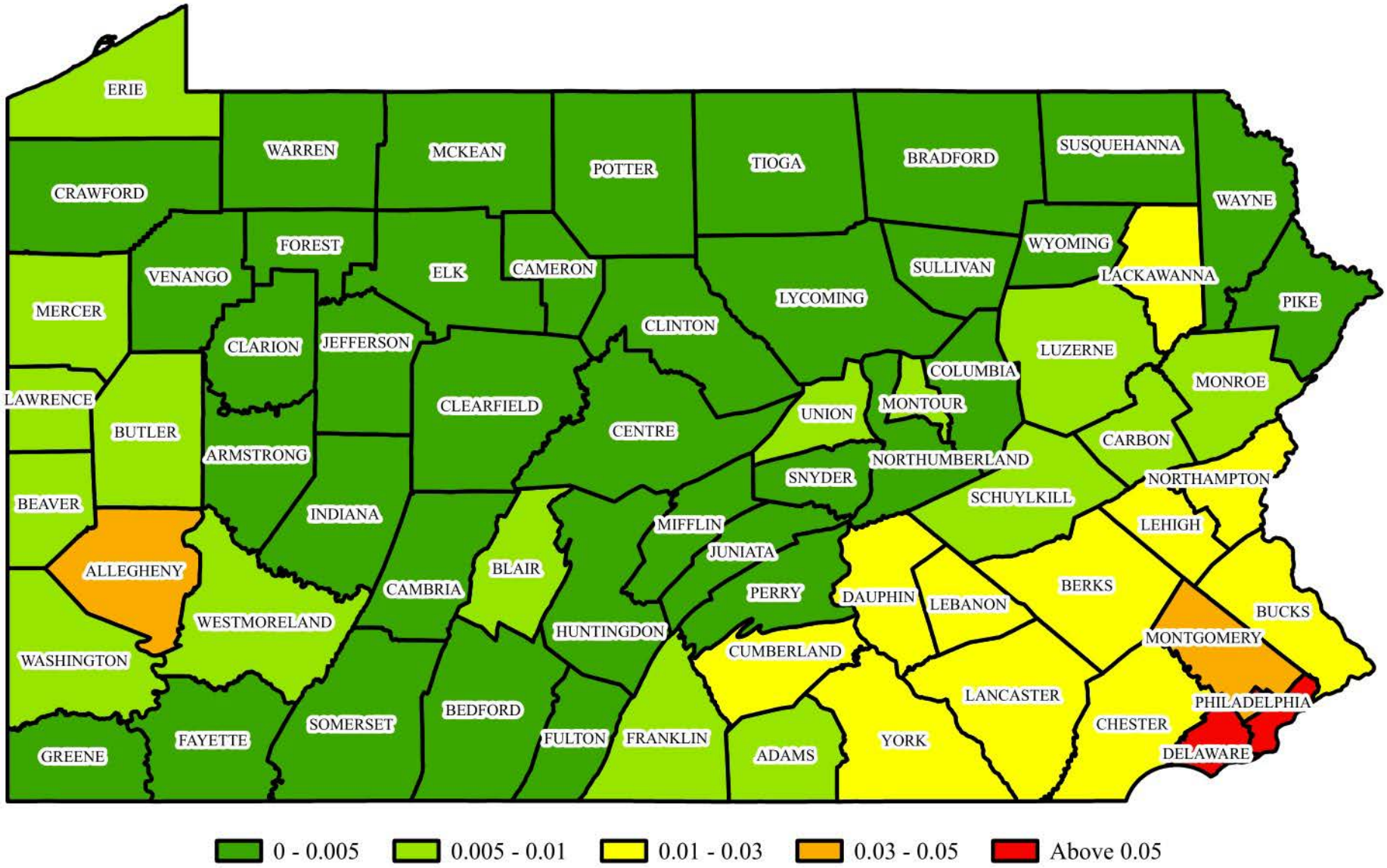


Figure B-13: NO_x On-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

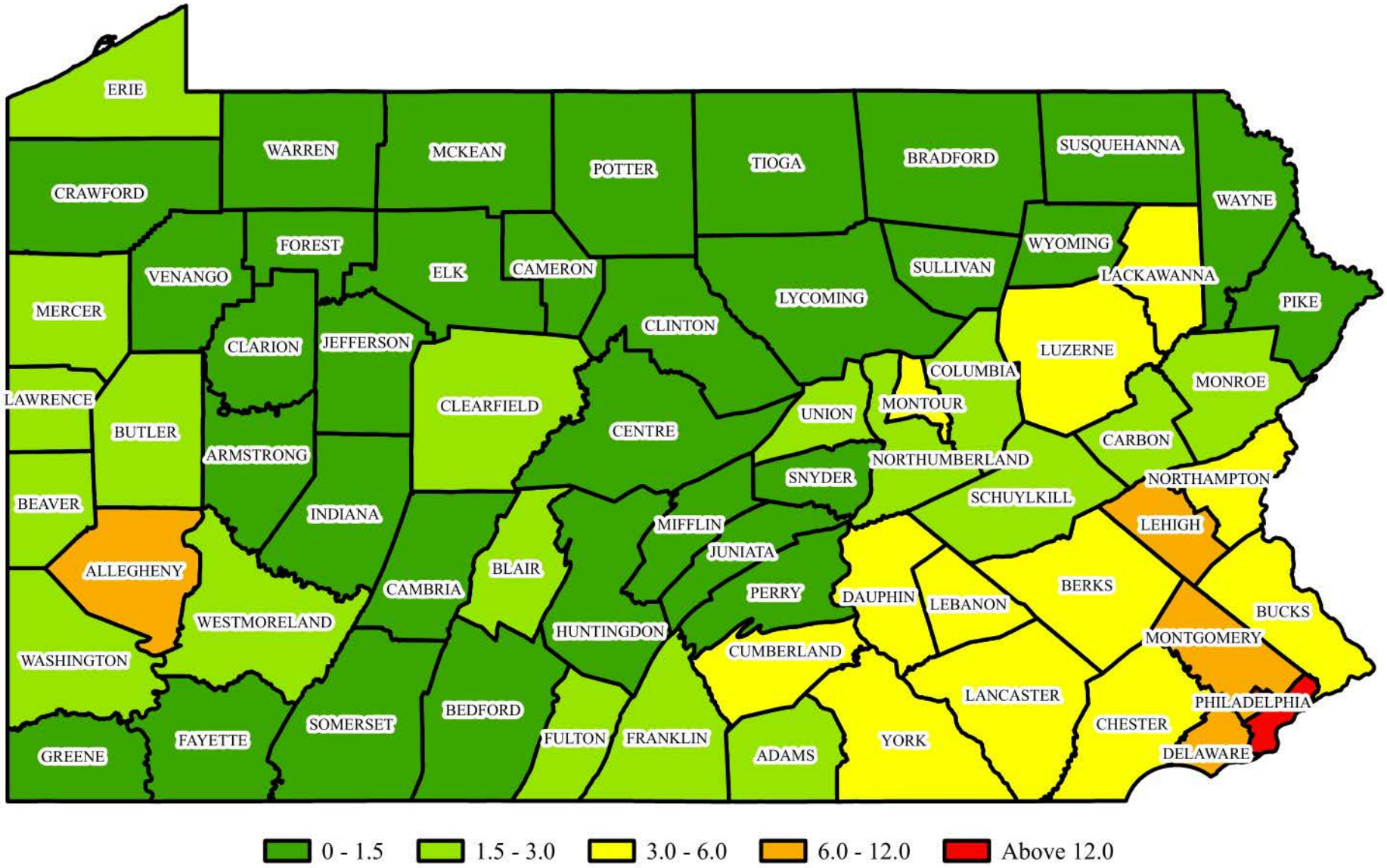


Figure B-14: VOC On-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

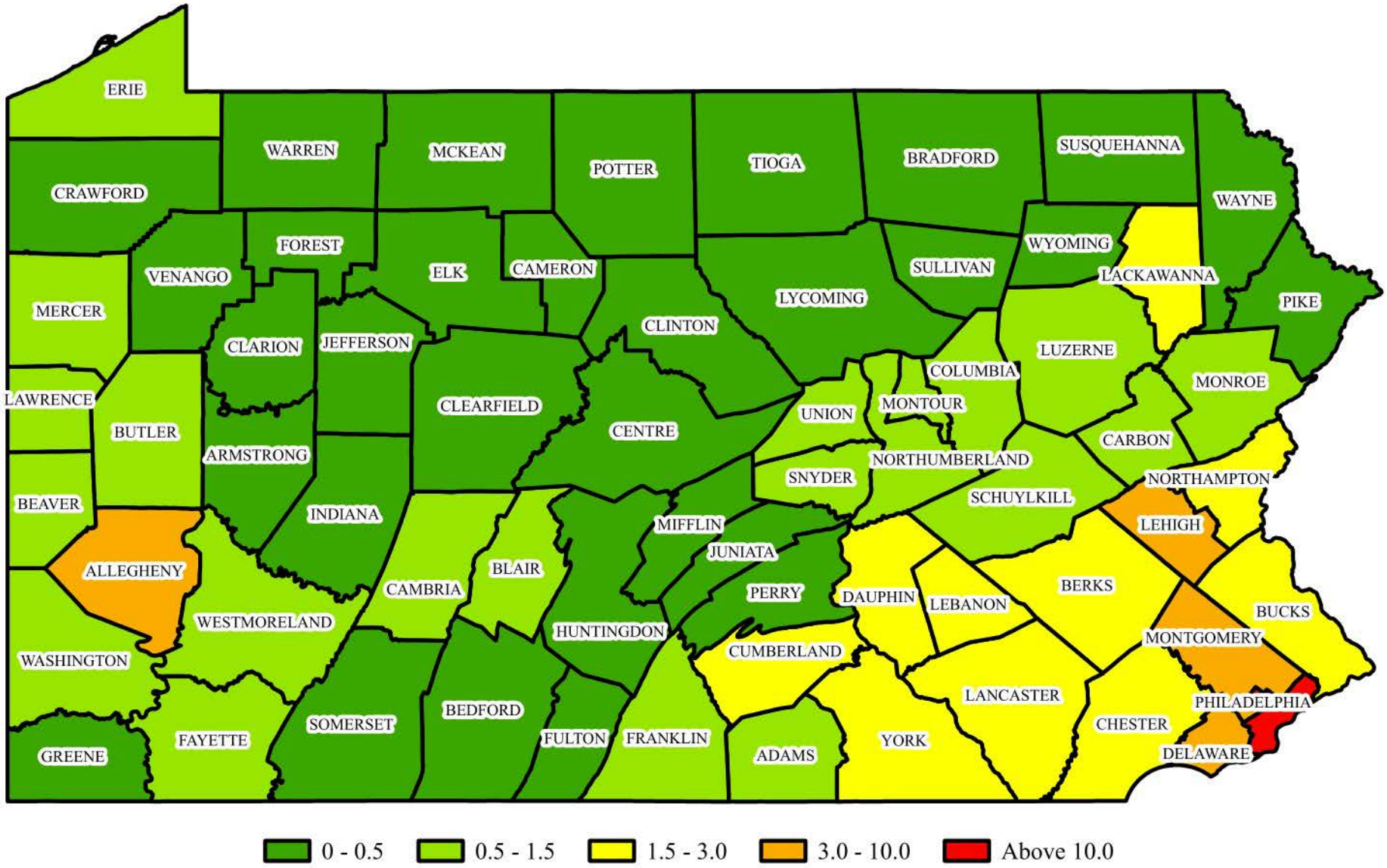


Figure B-15: NH_3 On-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

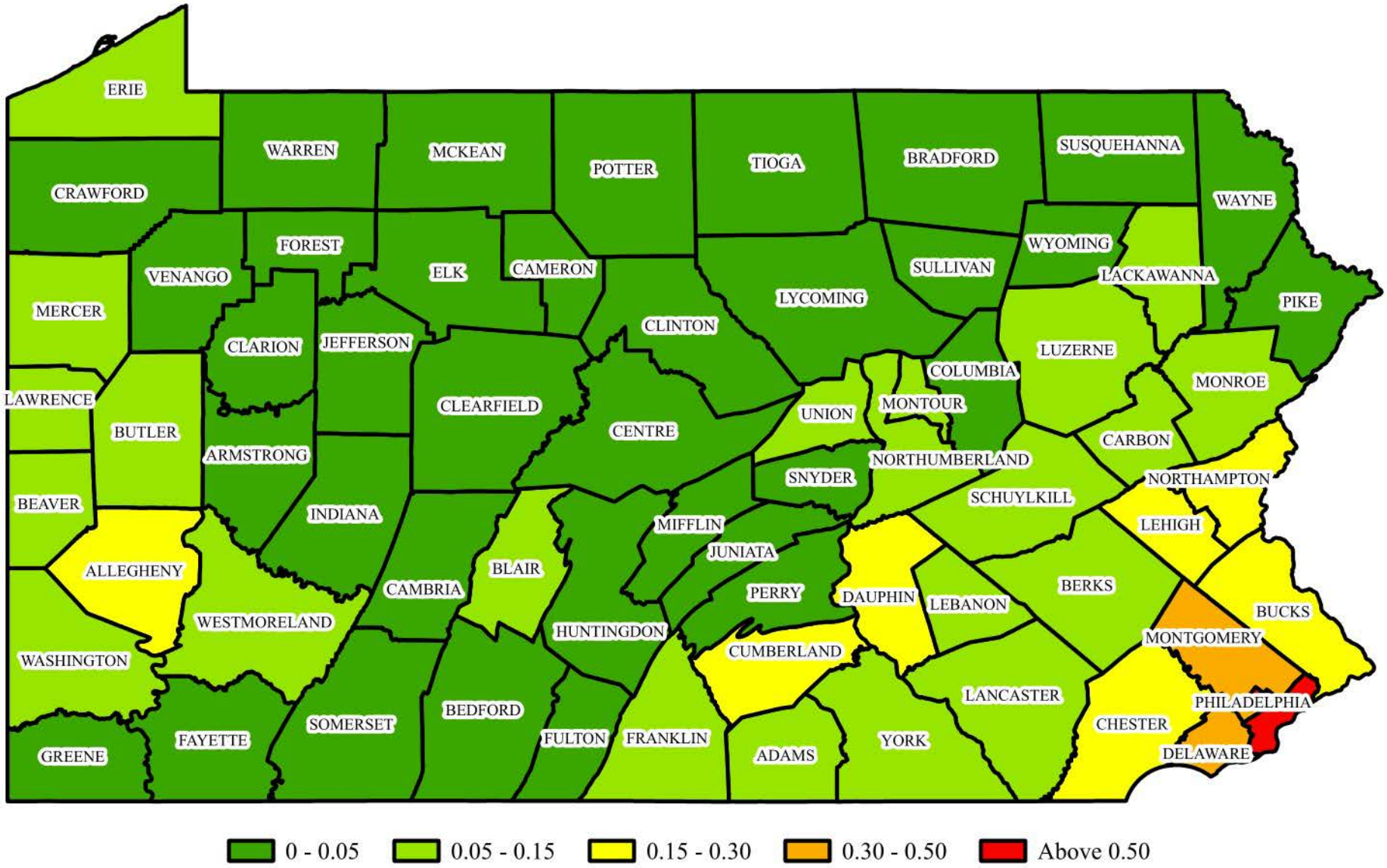


Figure B-16: $PM_{2.5}$ Non-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

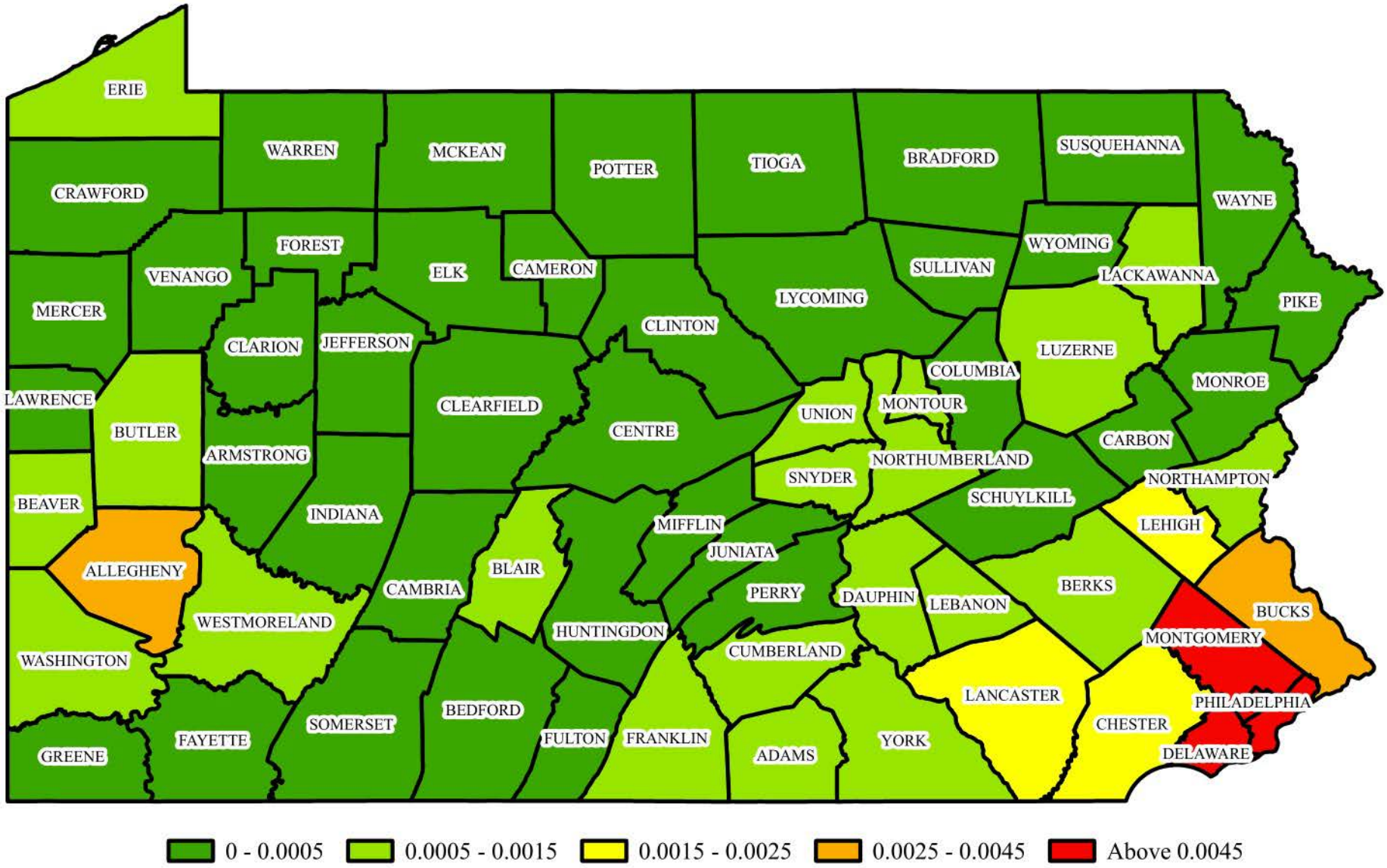


Figure B-17: SO_2 Non-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

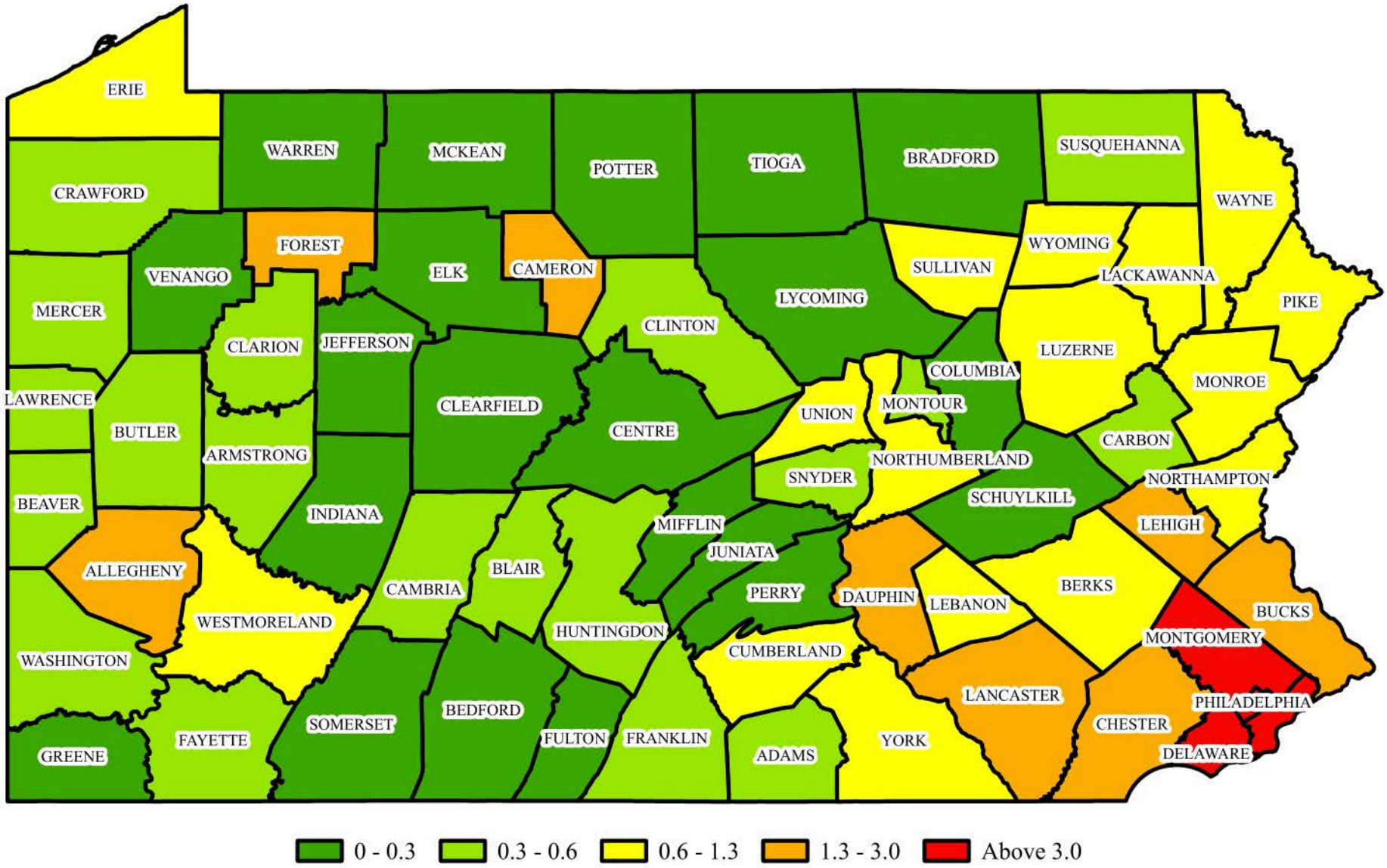


Figure B-18: NO_x Non-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

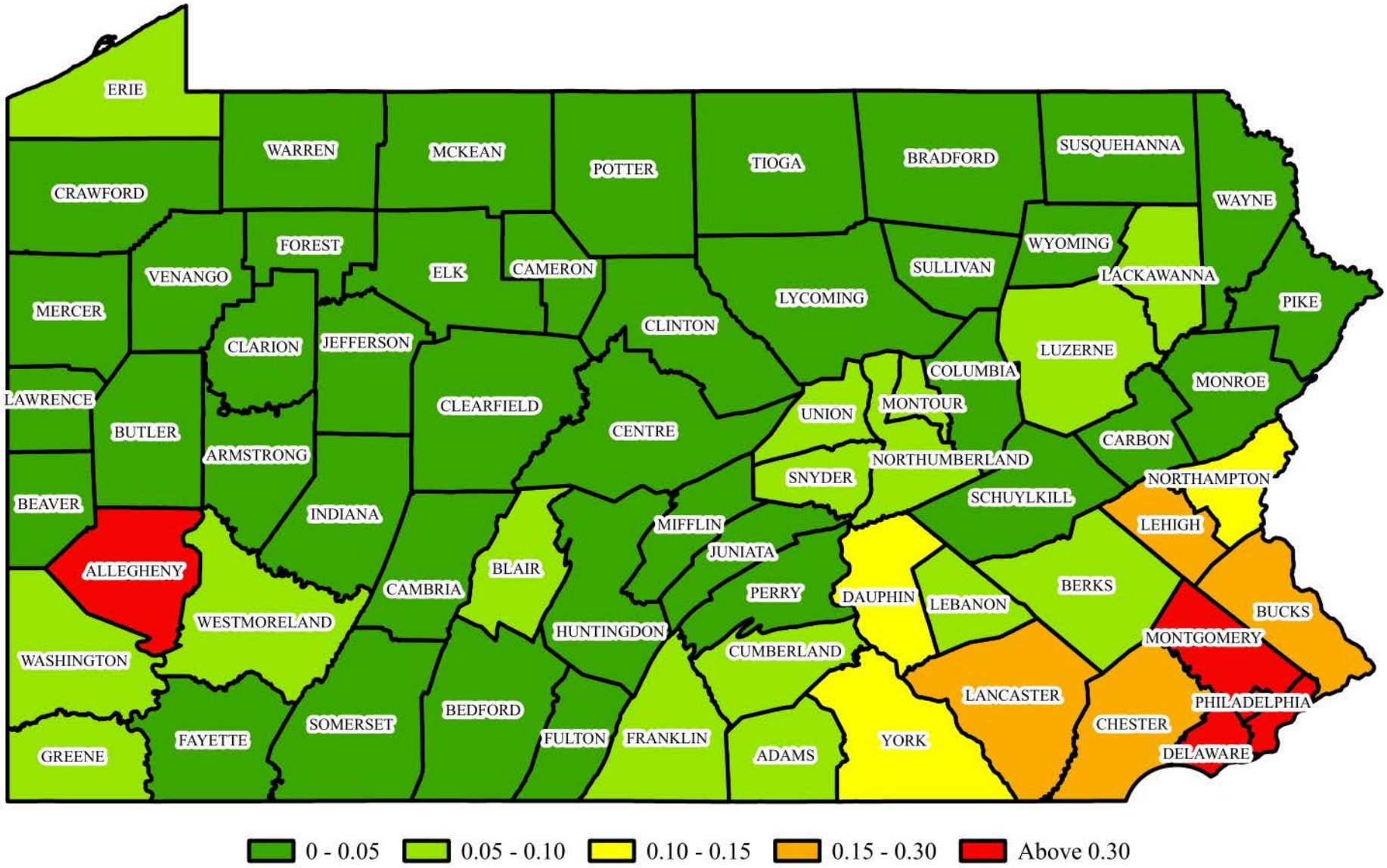


Figure B-19: VOC Non-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

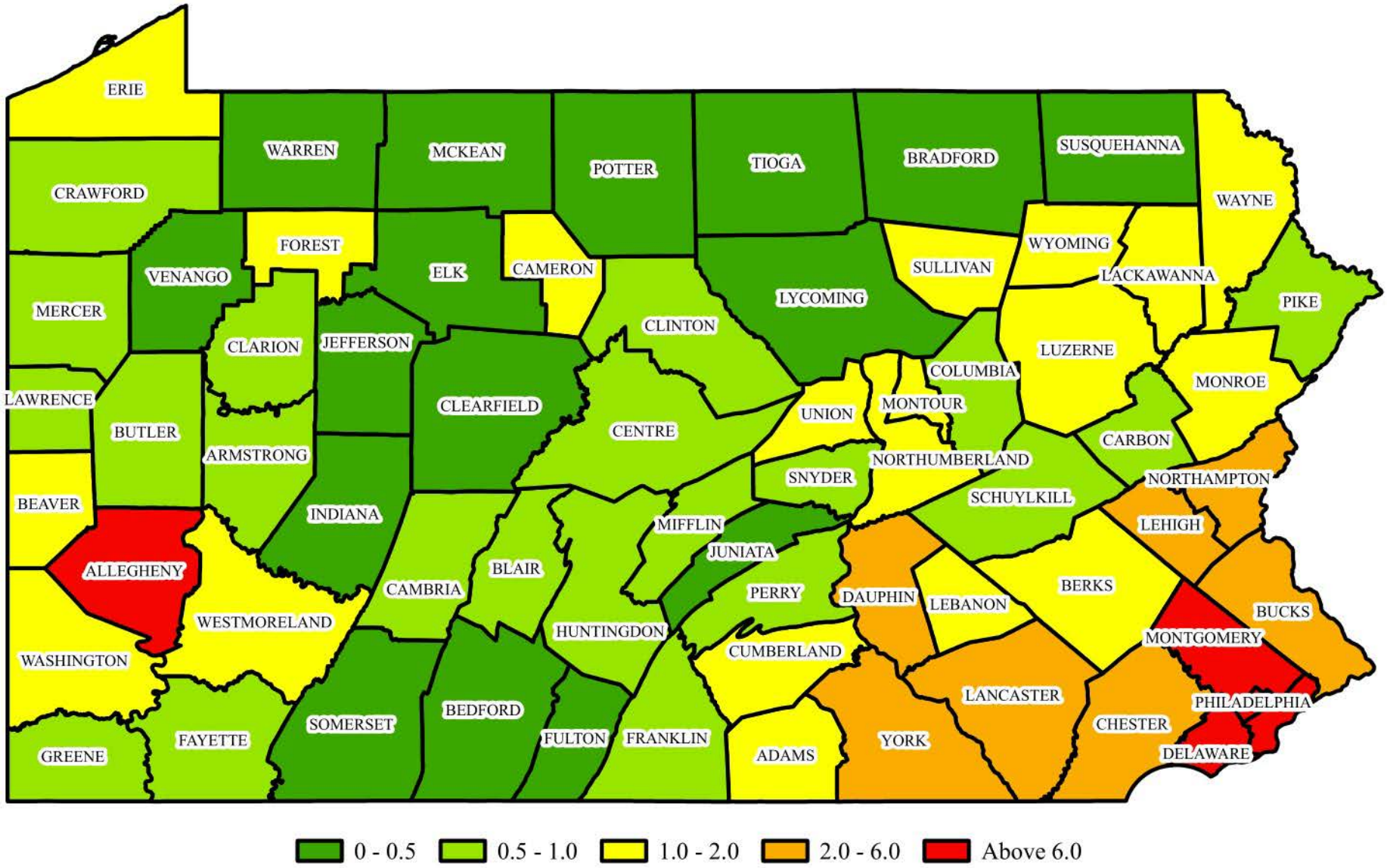


Figure B-20: NH_3 Non-Road Source Emission Density by County (tons per year per square mile) from 2020 National Emissions Inventory

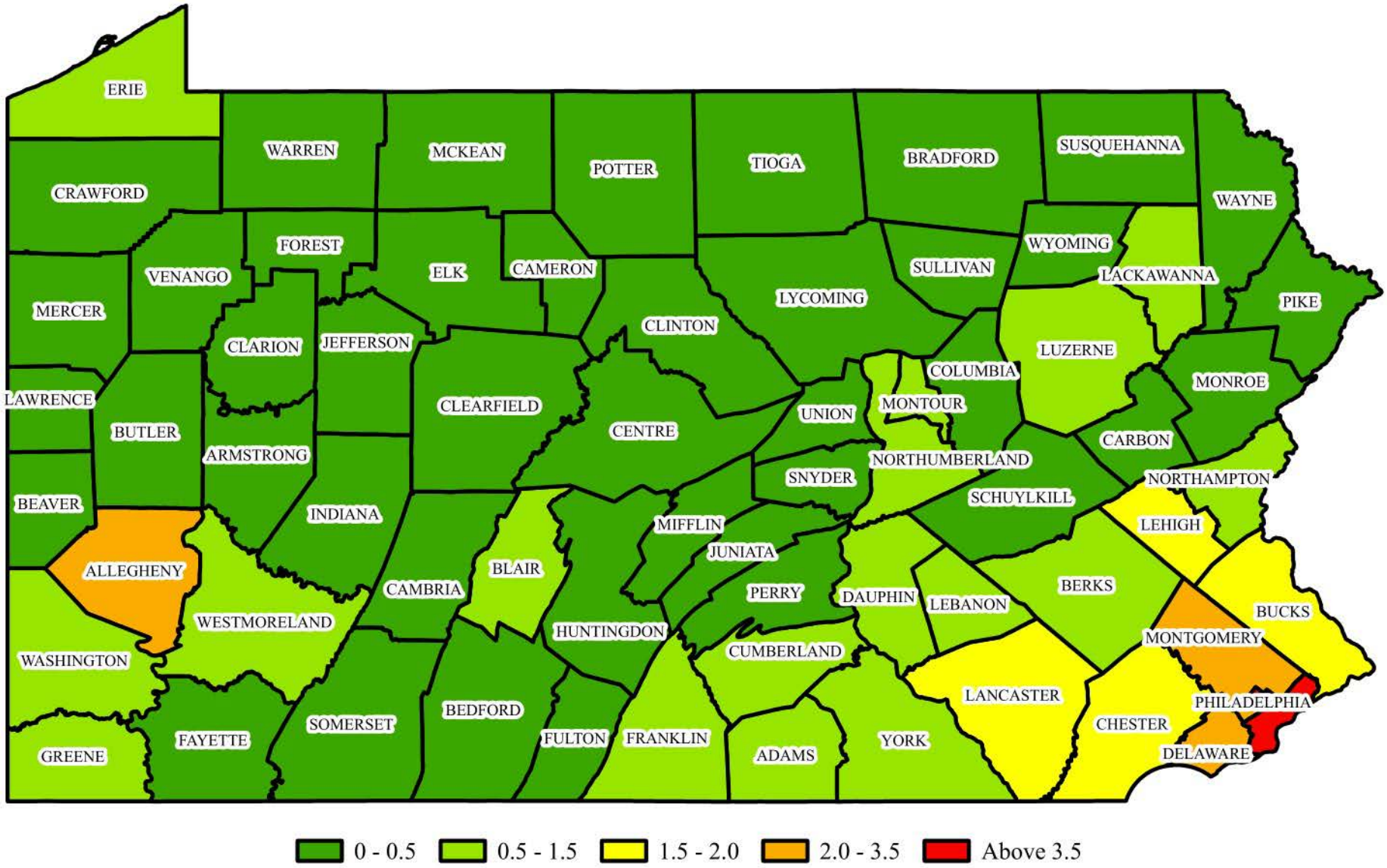


Figure B-21: $PM_{2.5}$ Point Source Emissions by Facility (tons per year) from 2022 PADEP Annual Inventory

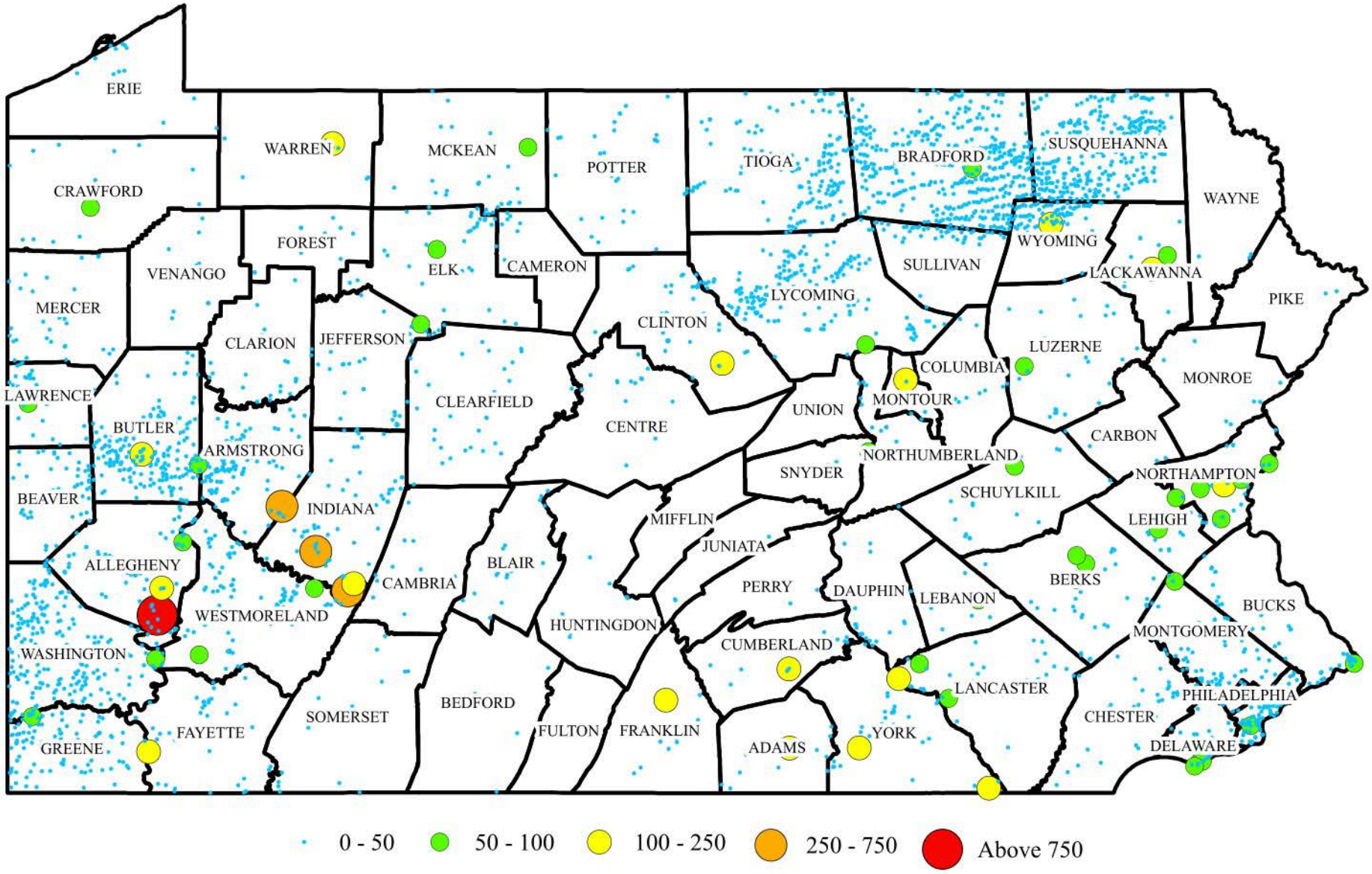


Figure B-22: SO_2 Point Source Emissions by Facility (tons per year) from 2022 PADEP Annual Inventory

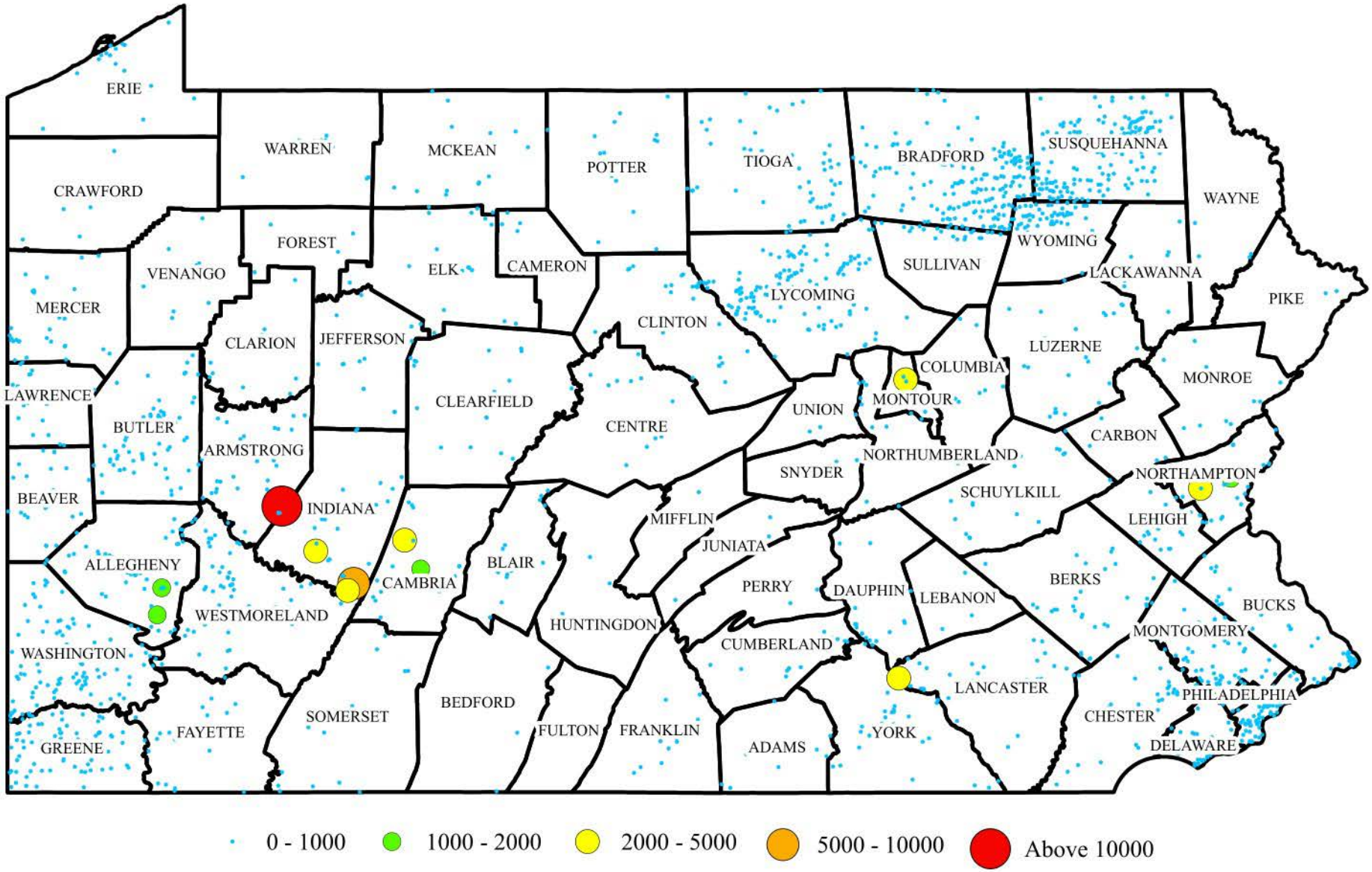


Figure B-23: NO_x Point Source Emissions by Facility (tons per year) from 2022 PADEP Annual Inventory

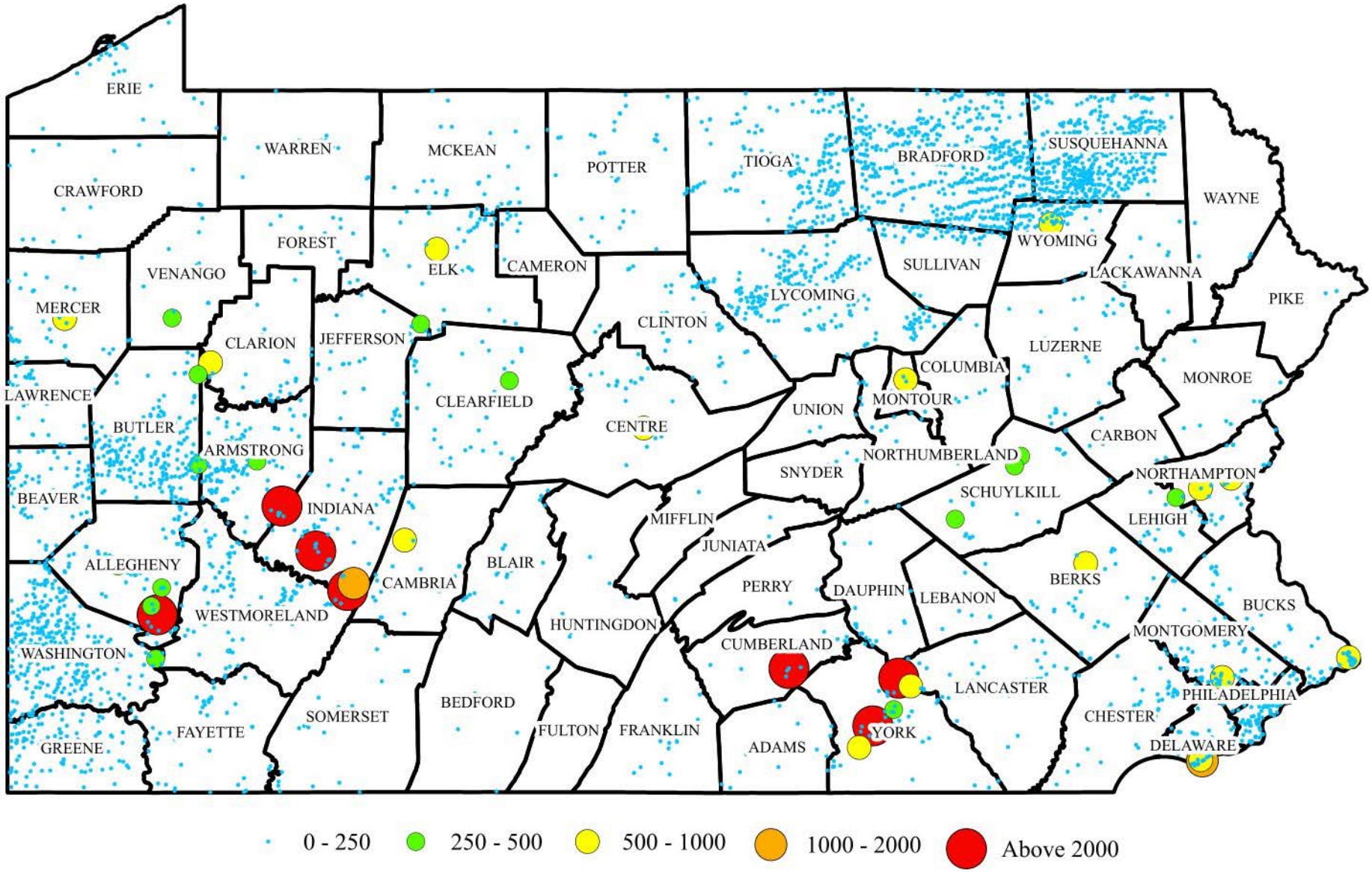


Figure B-24: VOC Point Source Emissions by Facility (tons per year) from 2022 PADEP Annual Inventory

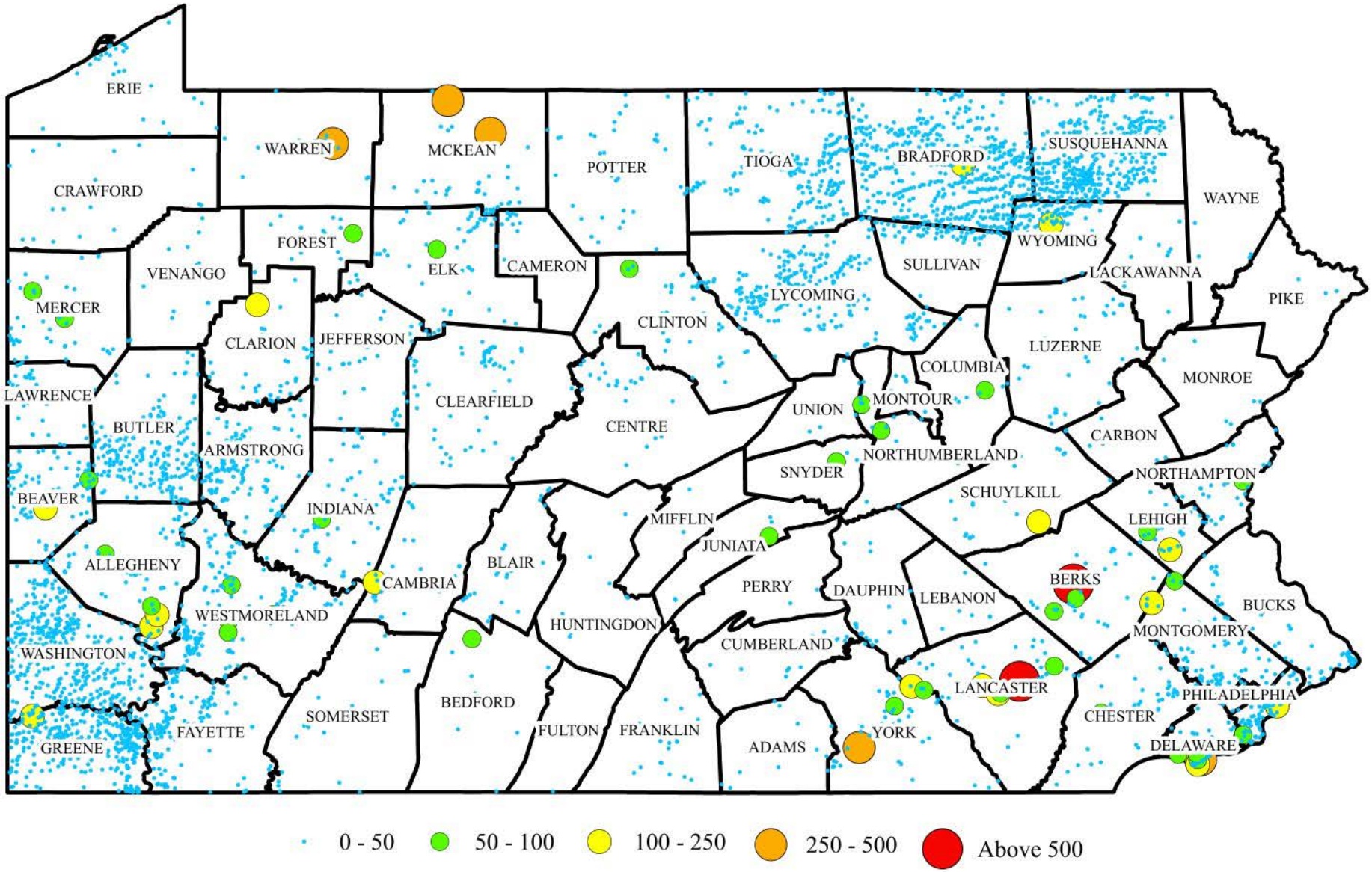


Figure B-25: Population Density by County (person per square mile) based on 2020 US Census Results

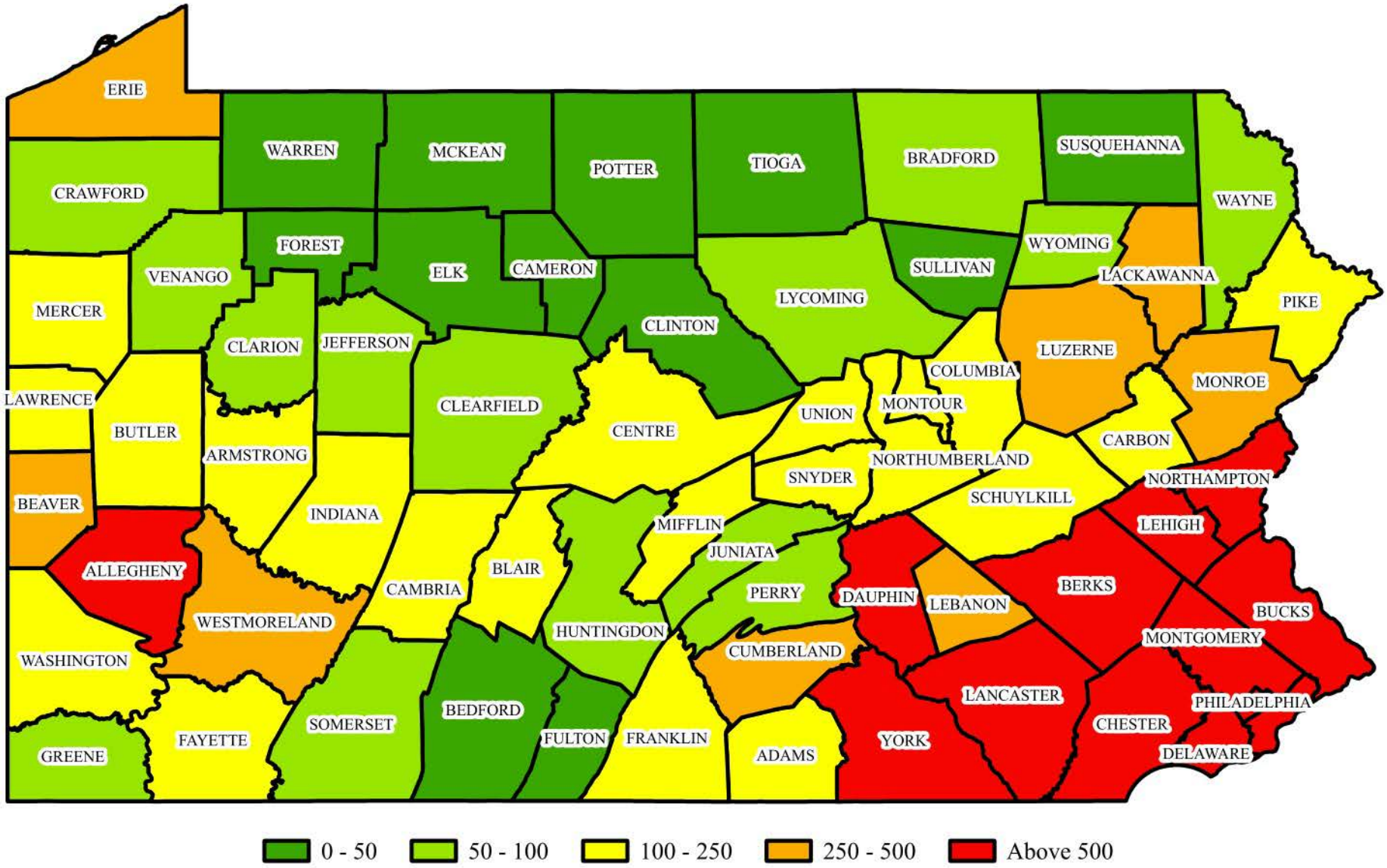


Figure B-26: Population Growth by County (% Change: Year 2020 - 2010) based on 2020 and 2010 US Census Results

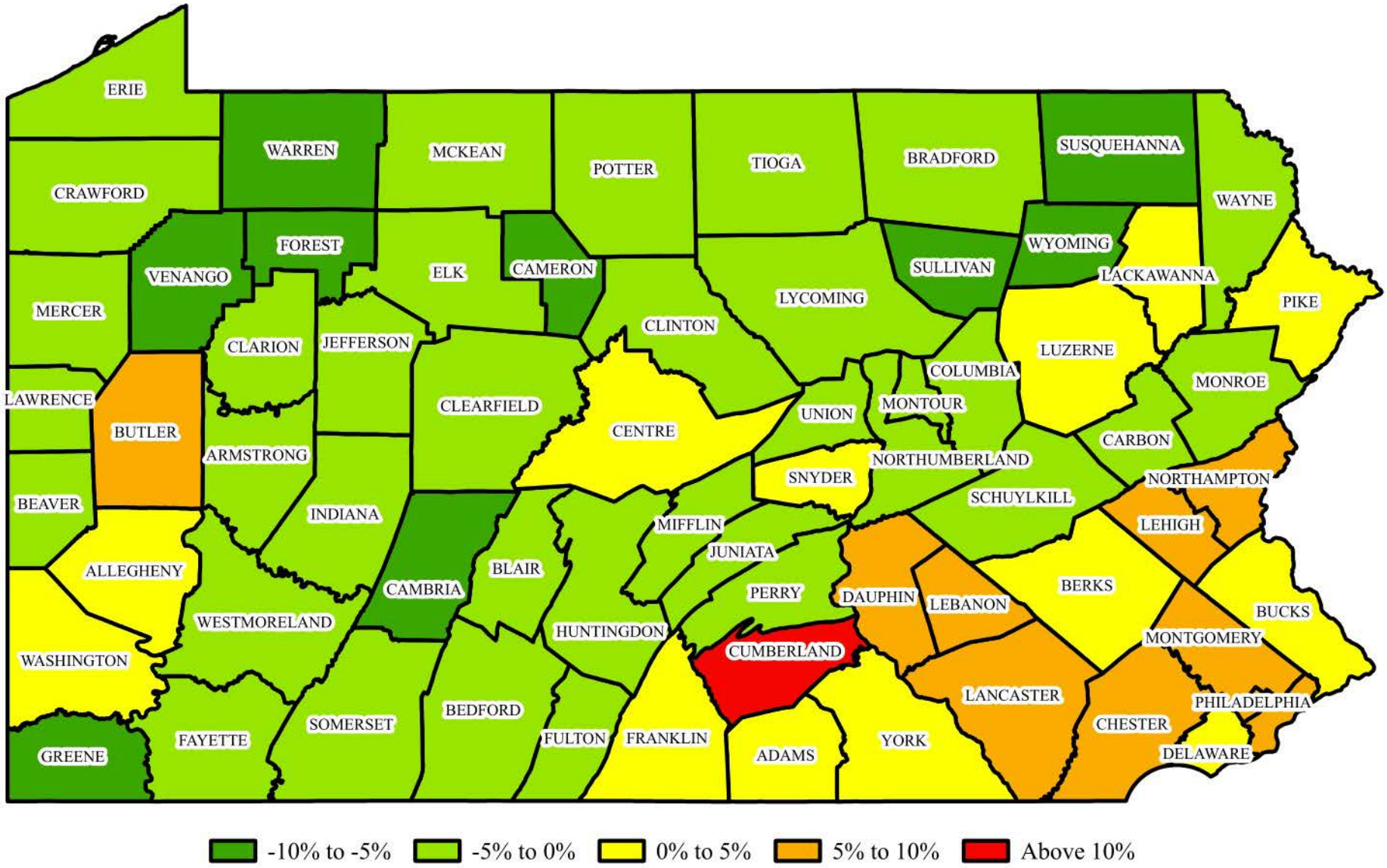


Figure B-27: Pennsylvania Air Basins Map

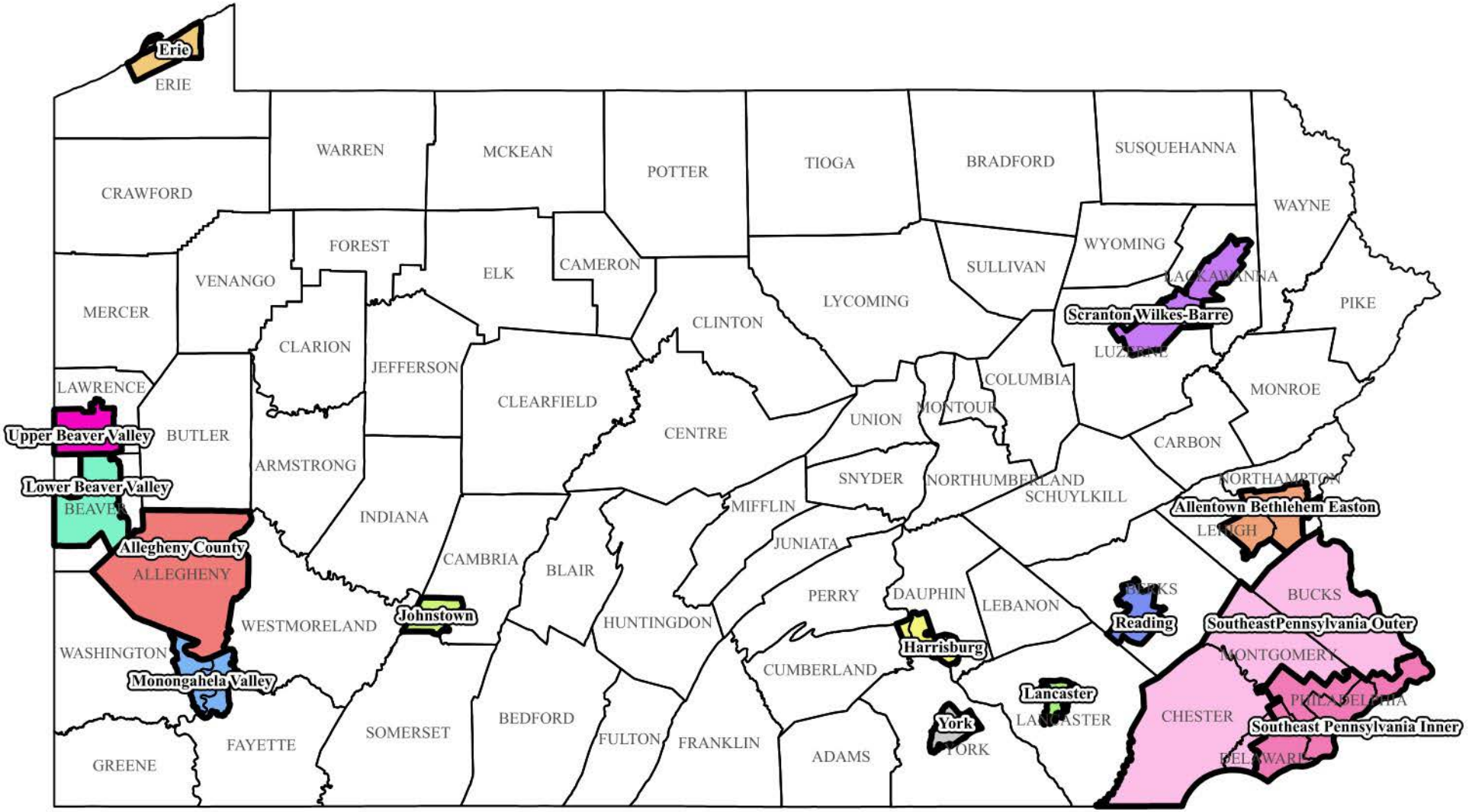
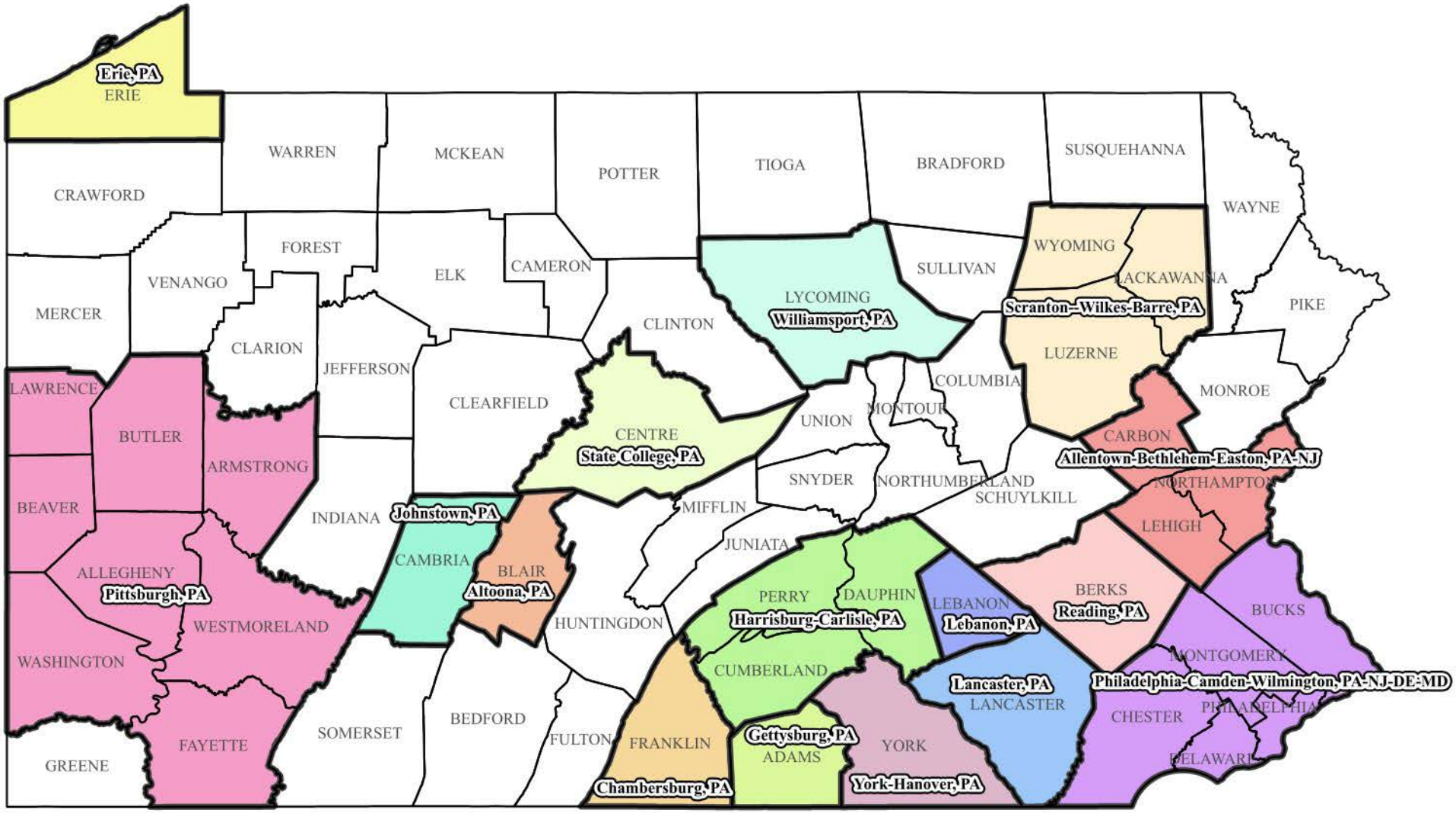


Figure B-28: Pennsylvania Metropolitan Statistical Areas



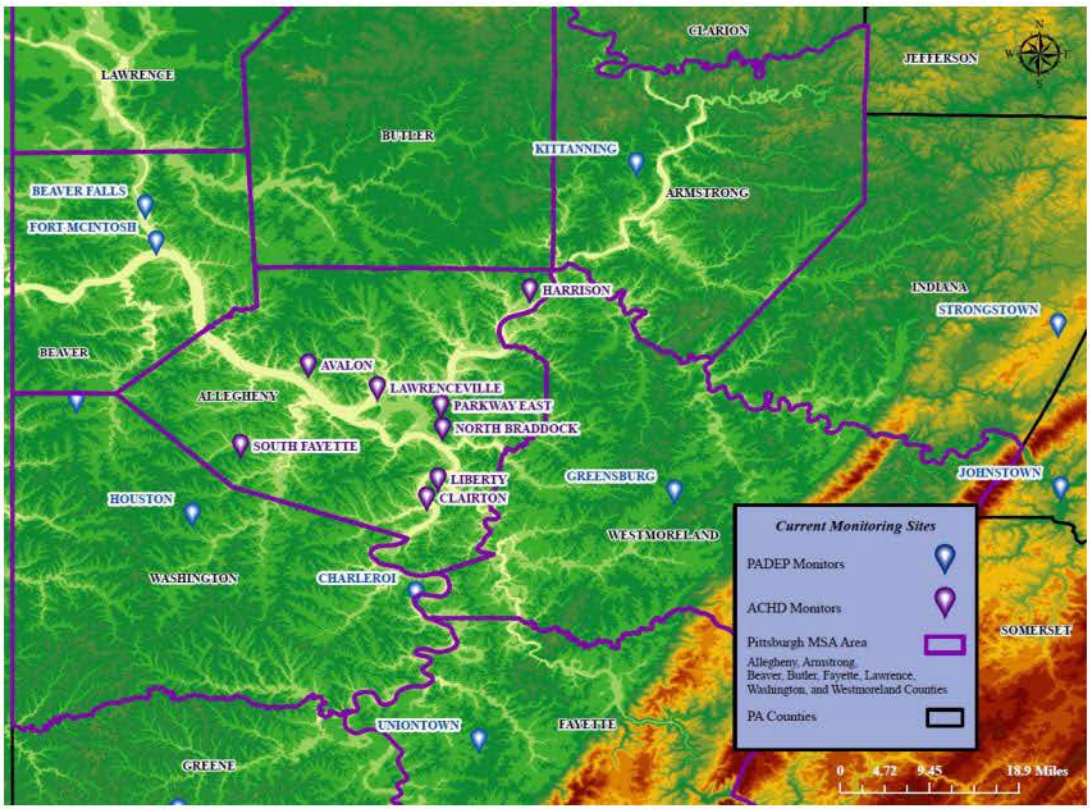
Appendix C-1
ALLEGHENY COUNTY AREA

PADEP reviewed the Pittsburgh Metropolitan Statistical Area (MSA) to determine its designation recommendations for the 2024 annual $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS). Based on the analysis below, PADEP recommends a nonattainment area limited to Allegheny County only and outlines the reason for recommending a nonattainment area identical to the area that EPA designated for the 2012 $PM_{2.5}$ standard. (Previously with the 1997 and 2006 NAAQS, Allegheny County was divided into two portions: a partial-county Liberty-Clairton area was made up of five municipalities in the Monongahela River Valley; the remainder of the county was part of the Pittsburgh-Beaver Valley area, which included a large portion of the Pittsburgh MSA.)

Analysis of the Ambient $PM_{2.5}$ Data – A Design Value Contribution Analysis

Based on EPA-certified 2023 $PM_{2.5}$ design values (EPA AQS AMP480 Report), four monitors in the Pittsburgh MSA (which includes the eight Pennsylvania counties of Allegheny, Armstrong, Beaver, Butler, Fayette, Lawrence, Washington, and Westmoreland) are violating the 2024 $PM_{2.5}$ annual standard of 9.0 µg/m³. The monitors and their design values are: Avalon (AQS ID# 42-003-0002) at 9.2 µg/m³ (in Allegheny County), Liberty (AQS ID# 42-003-0064) at 11.6 µg/m³ (in Allegheny County), North Braddock (AQS ID# 42-003-1301) at 10.0 µg/m³ (in Allegheny County), and Parkway East (AQS ID# 42-003-1376) at 9.5 µg/m³ (in Allegheny County). Figure C-1.1 is a map outlining the location of these monitors, along with monitors in attainment in the Pittsburgh MSA. Note: The Allegheny County Health Department (ACHD) operates the monitors within Allegheny County.

Figure C-1.1: Pittsburgh MSA $PM_{2.5}$ Monitoring Map



PADEP has completed a design value contribution analysis for all the $PM_{2.5}$ monitors in the Pittsburgh MSA with valid 2023 $PM_{2.5}$ design values. The analysis attempts to determine the daily contribution of $PM_{2.5}$ concentrations to the annual $PM_{2.5}$ design value. EPA-certified daily $PM_{2.5}$ measurements (EPA AQS AMP355 Report) were grouped into different $PM_{2.5}$ concentration ranges. An analysis of each range's contribution was then conducted to determine which measurements are contributing to the monitor's design value. Dates of these measurements were then further analyzed to determine if there are specific meteorological conditions or sources that are adversely impacting the monitor's design value.

Results from the design value contribution analysis for the Pittsburgh MSA are summarized in Table C-1.1. Ultimately, the type of contribution a given monitor's daily value had on the 3-year design value (by comparing this value to 9.0 $\mu g/m^3$) was determined. The daily value for each day a monitor measured $PM_{2.5}$ levels was placed in one of the ten categories.

For example, on January 1, 2021, the Liberty monitor's 24-hour $PM_{2.5}$ average was 6.1 $\mu g/m^3$. Since this value falls in the 4.5-9.0 $\mu g/m^3$ category in Table C-1.1, the calculated daily contribution to the design value was placed in this category. In the first quarter of 2021 (January 1 to March 31), the Liberty monitor recorded 90 measurements. PADEP determined that the January 1, 2021, contribution assessment to the 2023 design value was -0.002685 $\mu g/m^3$. The -0.002685 $\mu g/m^3$ was calculated by subtracting the standard of 9.0 $\mu g/m^3$ from the average daily value of 6.1 $\mu g/m^3$ and then dividing this by the number of measurements for the quarter (90) times 12 (there are a total of 12 quarters in a 3-year design value period). This type of analysis was completed for every day of measurements from January 1, 2021, through December 31, 2023. In Table C-1.1, the sum of the categorical breakdowns for the Liberty monitor equals 2.6273 $\mu g/m^3$, which demonstrates that the design value is 2.6273 $\mu g/m^3$ above the annual standard of 9.0 $\mu g/m^3$.

Figures C-1.2.1 – C-1.2.25 show the design value contribution and category breakdown for the twelve monitors and summary.

Table C-1.1: Pittsburgh MSA
2023 $PM_{2.5}$ Annual Design Value Contribution Analysis

Site Name	Site ID	Owner	0 - 4.5	4.5 - 9.0	9.0 - 13.5	13.5 - 18.0	18.0 - 22.5	22.5 - 27.0	27.0 - 31.5	31.5 - 36.0	36.0 - 40.5	40.5 - 45.0	SUM
Monitors Attaining 2024 $PM_{2.5}$ Standard													
Charleroi	421250005	PADEP	-0.7993	-1.1339	0.5072	0.6269	0.1879	0.2107	0.0404	0.0495	0.0557	0.3307	0.0757
Beaver Falls	420070014	PADEP	-0.9343	-1.0355	0.5608	0.5107	0.2841	0.1128	0.0922	0.0242	0.0573	0.2608	-0.0668
Lawrenceville	420030008	ACHD	-0.8803	-1.1624	0.4302	0.4795	0.2626	0.1672	0.0567	0.0689	0.0269	0.2712	-0.2794
Clairton	420033007	ACHD	-1.0901	-1.2130	0.4560	0.4906	0.3330	0.1001	0.0390	0.0242	0.0253	0.1879	-0.6470
Kittanning	420050001	PADEP	-1.0826	-1.3707	0.3896	0.4317	0.3422	0.1229	0.0710	0.0223	0.0612	0.2659	-0.7463
Harrison	420031008	ACHD	-1.2133	-1.1332	0.3513	0.4519	0.1177	0.1253	0.0000	0.0000	0.0784	0.2940	-0.9279
South Fayette	420030067	ACHD	-1.5362	-1.2389	0.3344	0.3360	0.0953	0.1251	0.0000	0.0000	0.0813	0.3032	-1.4999
Florence	421255001	PADEP	-1.5629	-1.3305	0.2446	0.3047	0.0924	0.0781	0.0821	0.0222	0.0000	0.3643	-1.7051
Monitors Not Attaining 2024 $PM_{2.5}$ Standard													
Liberty	420030064	ACHD	-0.9962	-0.7290	0.4544	0.8490	0.9134	0.8270	0.4627	0.3251	0.1119	0.4089	2.6273
North Braddock	420031301	ACHD	-0.7558	-0.9183	0.5470	0.8151	0.5896	0.2743	0.0961	0.0221	0.0550	0.2382	0.9632
Parkway East	420031376	ACHD	-0.6529	-1.0976	0.5289	0.6072	0.4040	0.2266	0.0569	0.0453	0.0256	0.3586	0.5026
Avalon	420030002	ACHD	-0.6304	-1.1238	0.4758	0.6588	0.2798	0.1135	0.0594	0.0460	0.0269	0.3005	0.2065
Pittsburgh MSA Average			-1.0401	-1.1317	0.4212	0.5424	0.3430	0.2160	0.0924	0.0576	0.0493	0.2993	-0.1506

Figure C-1.2.1: Liberty PM2.5 Design Value Contribution (µg/m3)

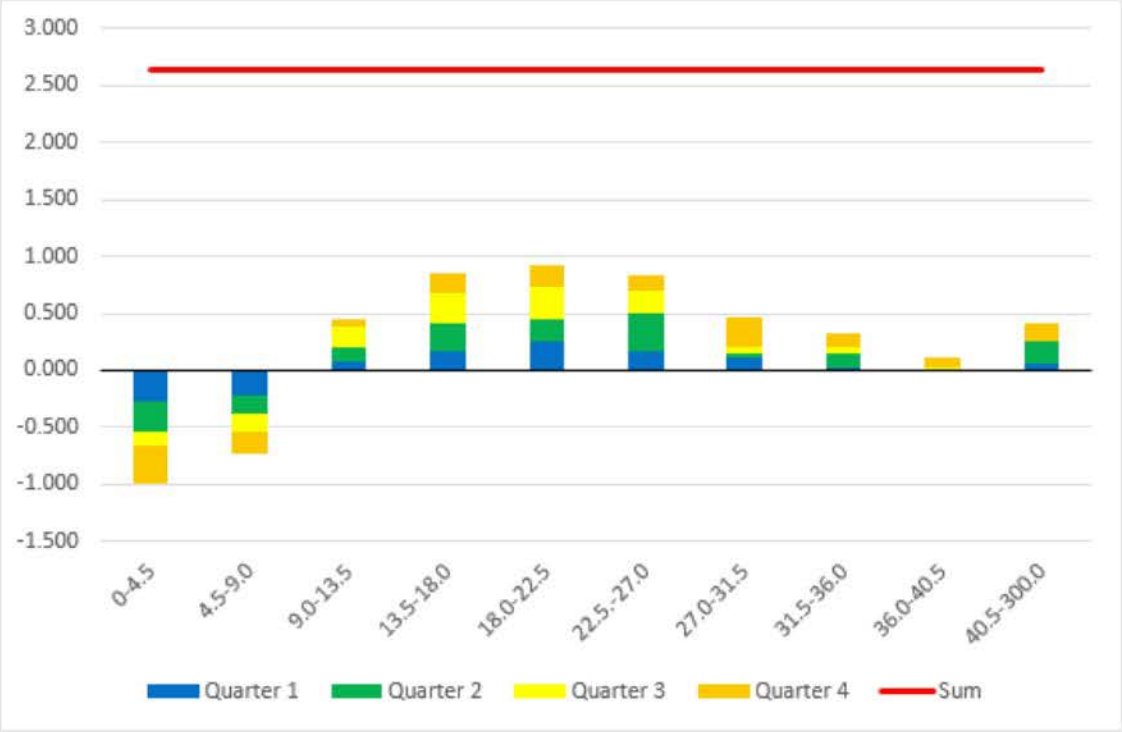


Figure C-1.2.2: Liberty $PM_{2.5}$ Design Value Category Breakdown

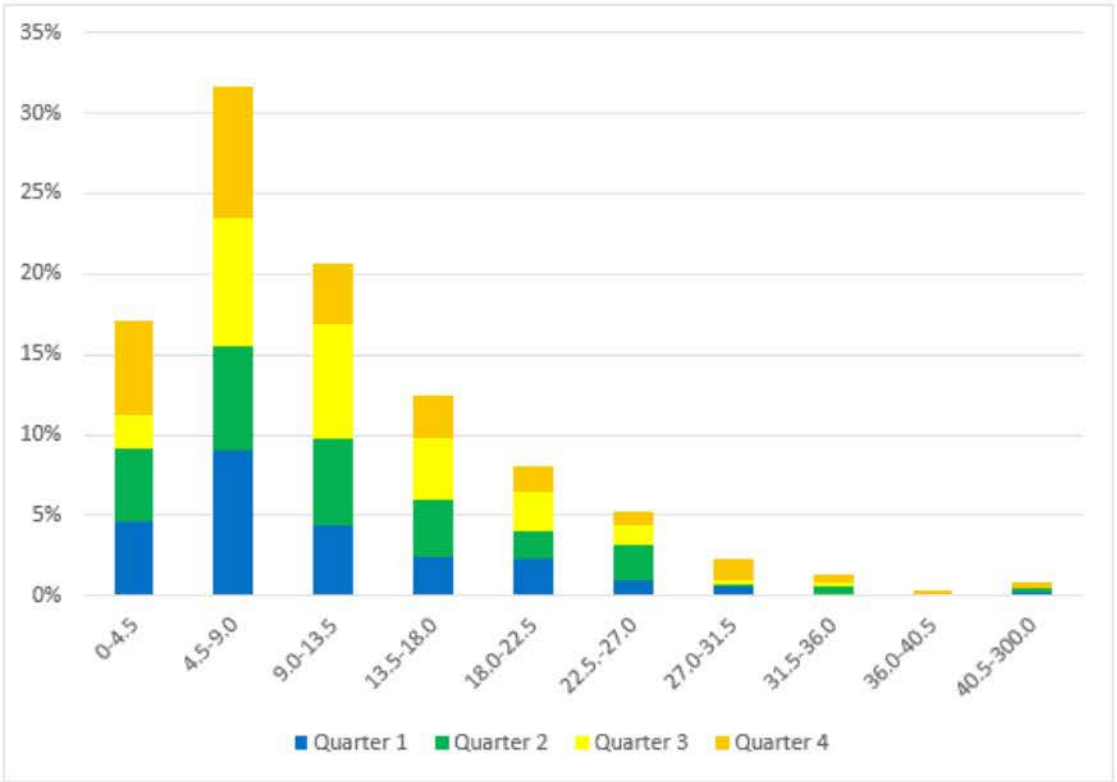


Figure C-1.2.3: North Braddock $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

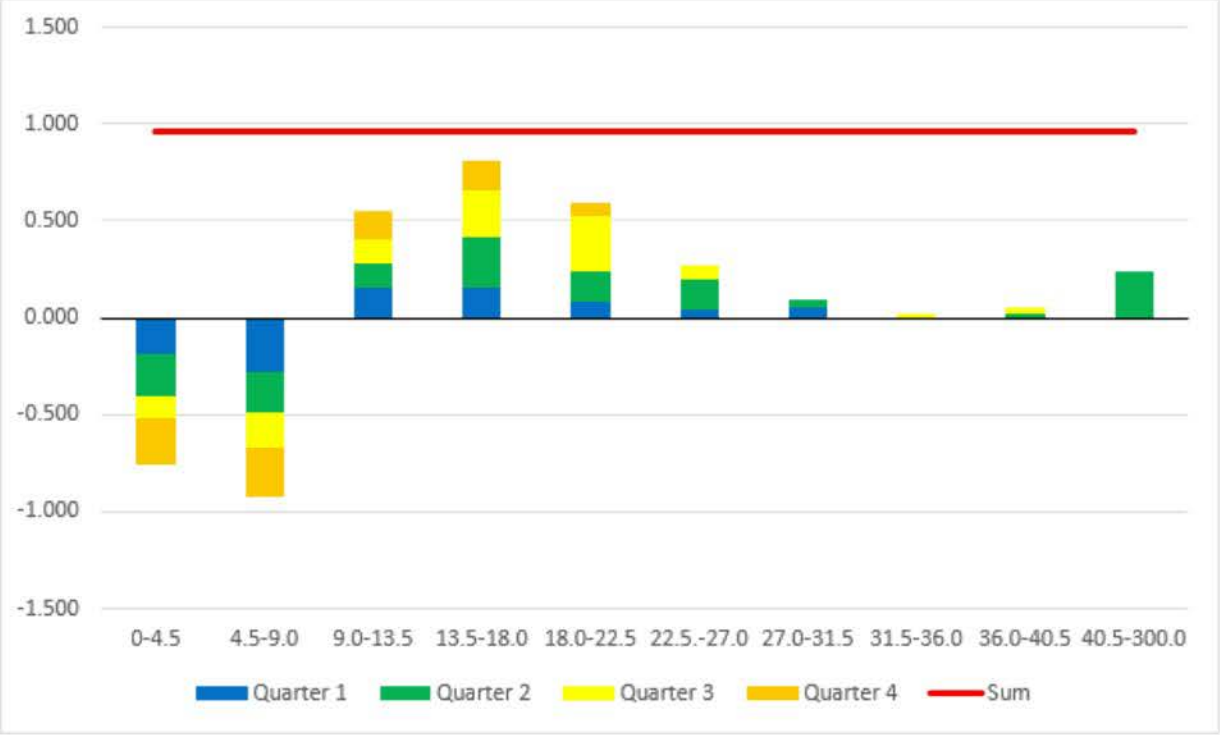


Figure C-1.2.4: North Braddock $PM_{2.5}$ Design Value Category Breakdown

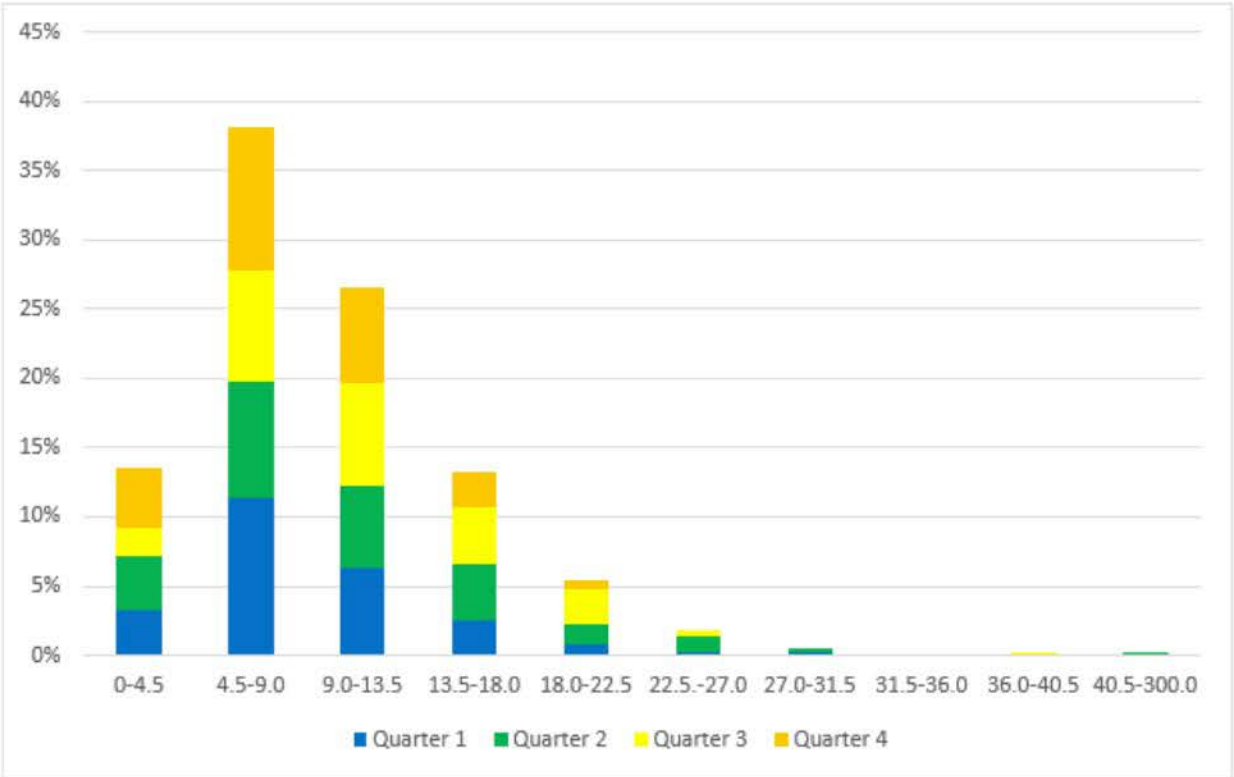


Figure C-1.2.5: Parkway East $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

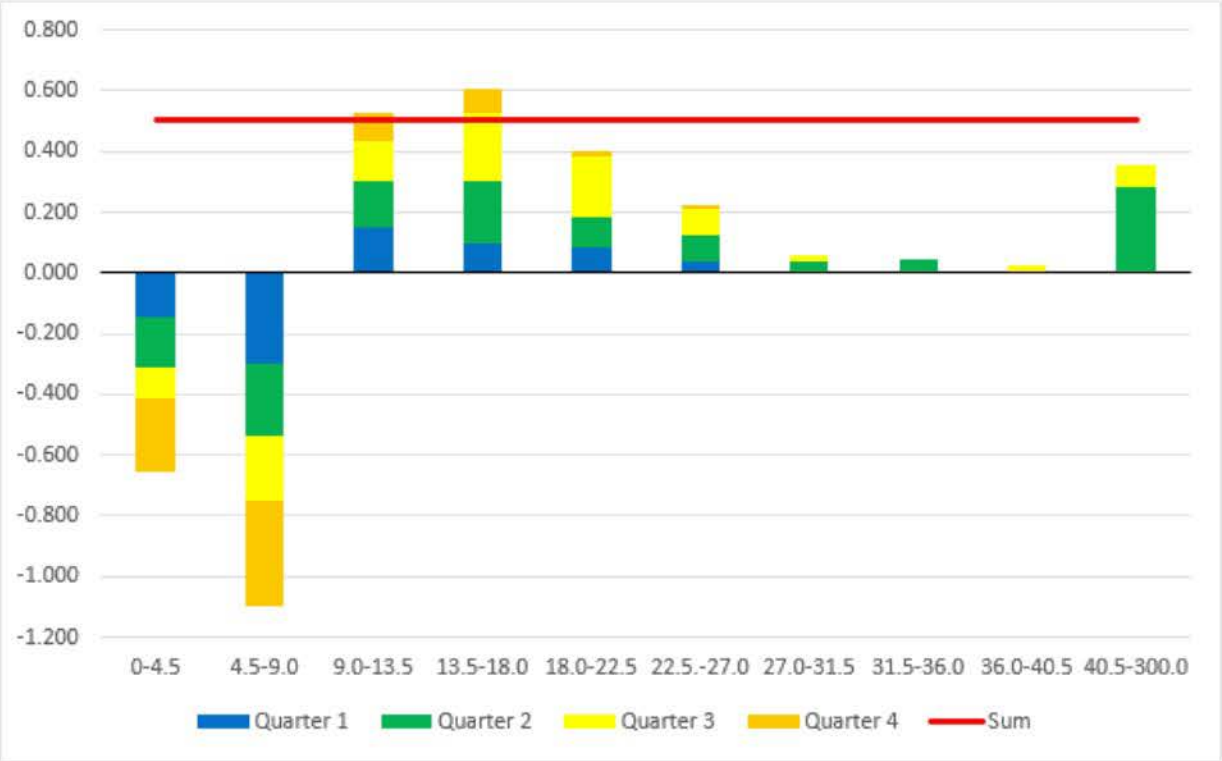


Figure C-1.2.6: Parkway East $PM_{2.5}$ Design Value Category Breakdown

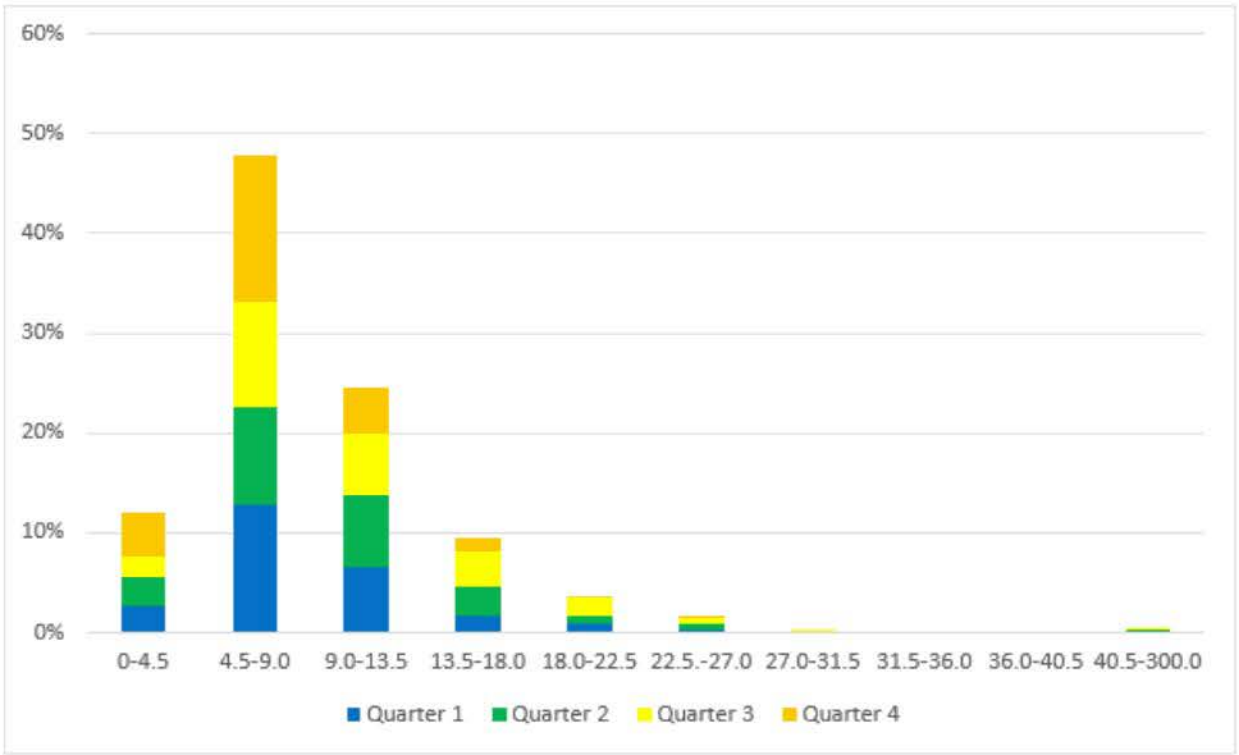


Figure C-1.2.7: Avalon $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

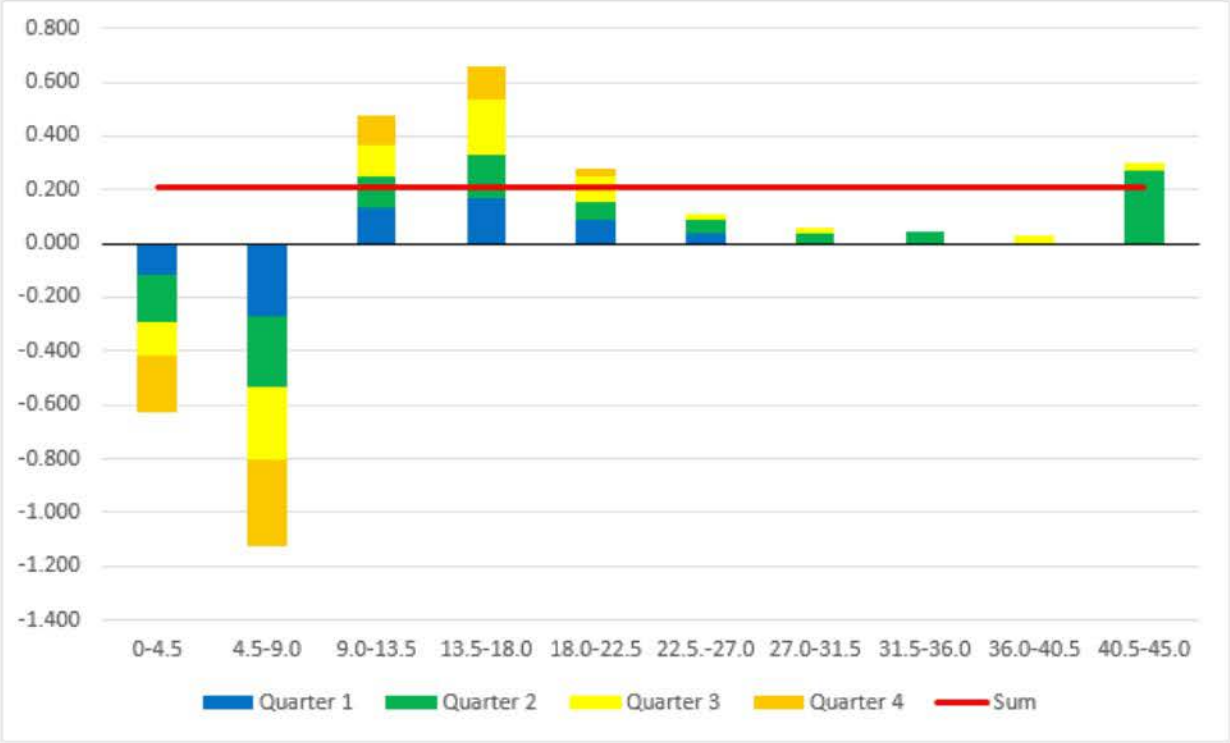


Figure C-1.2.8: Avalon $PM_{2.5}$ Design Value Category Breakdown

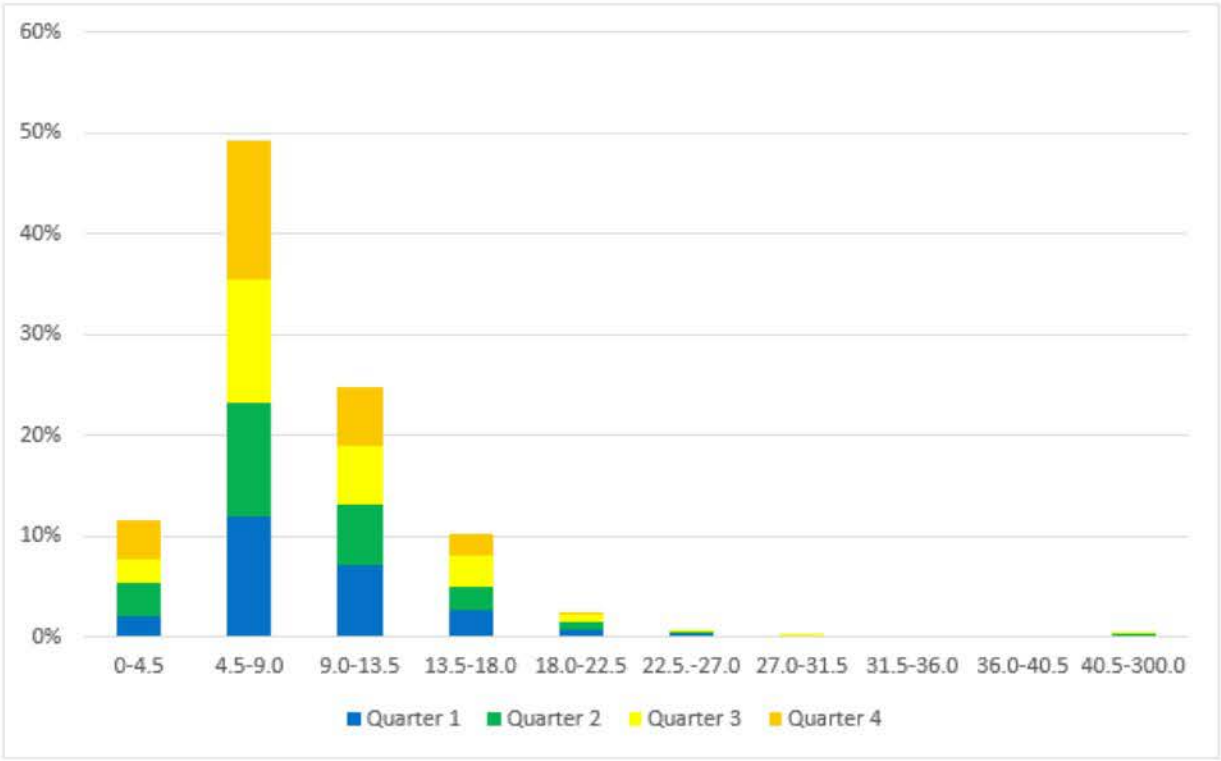


Figure C-1.2.9: Lawrenceville $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

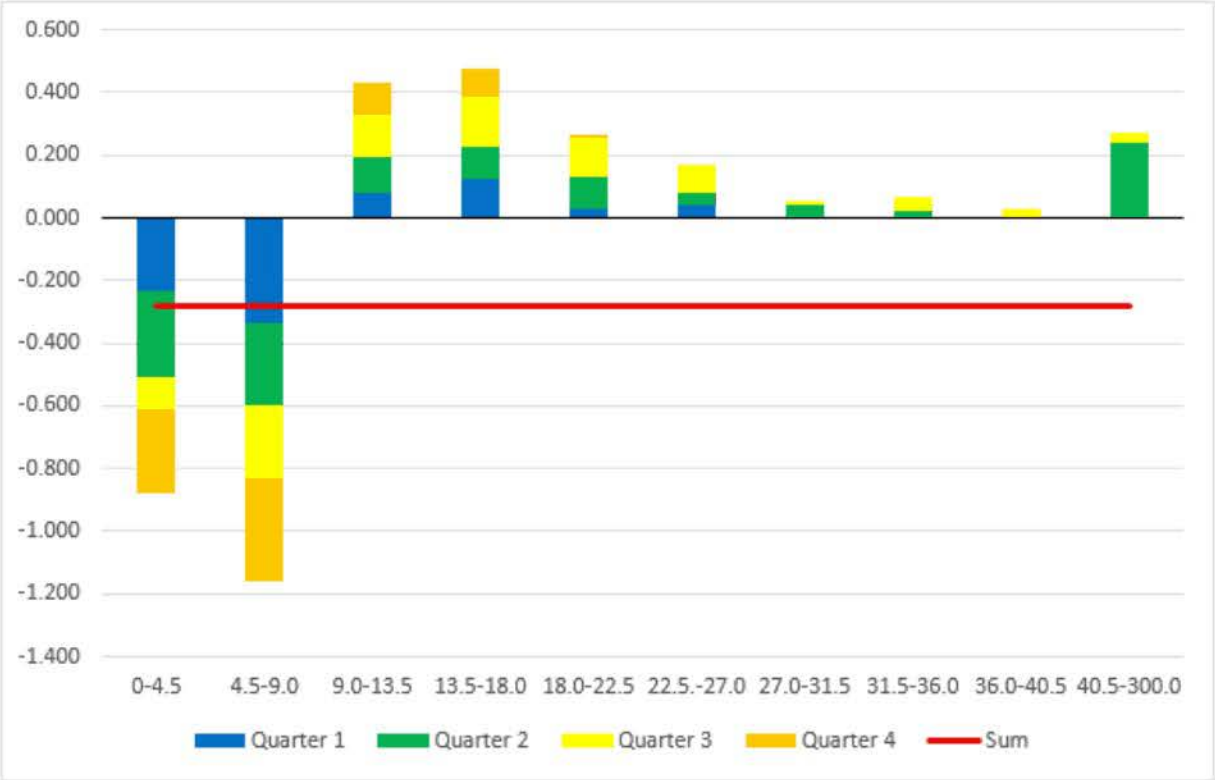


Figure C-1.2.10: Lawrenceville $PM_{2.5}$ Design Value Category Breakdown

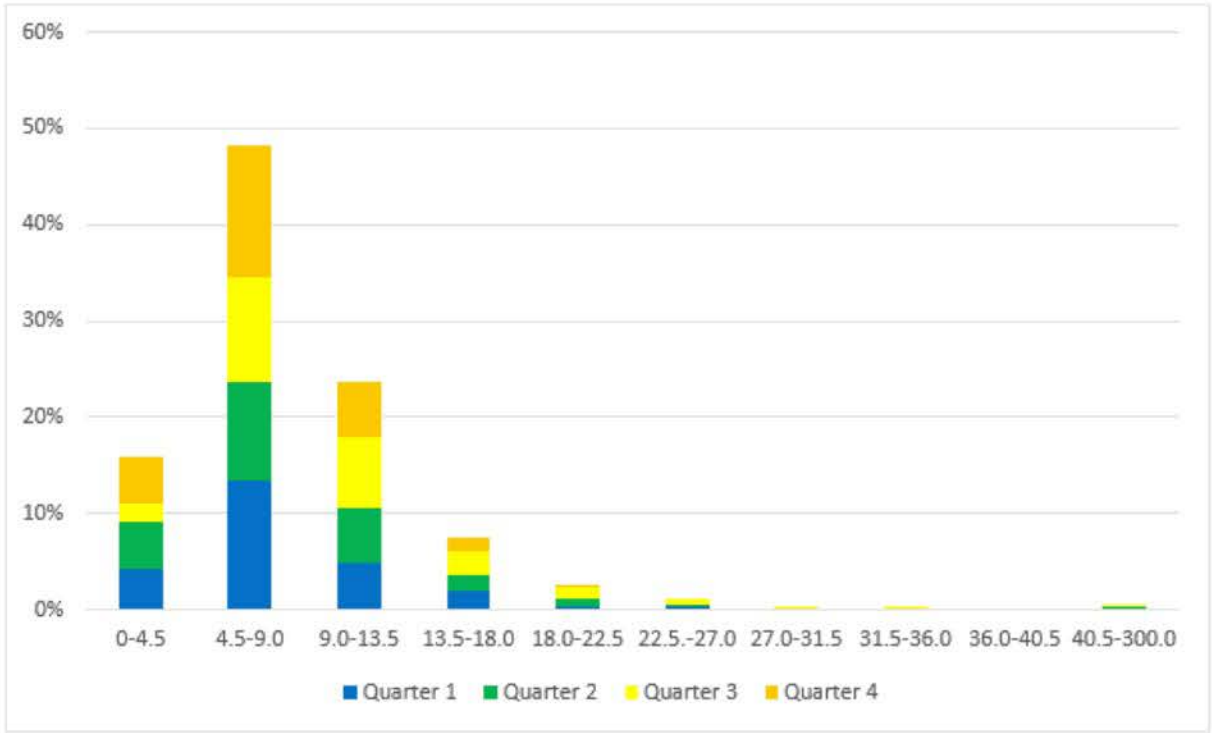


Figure C-1.2.11: Clairton $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

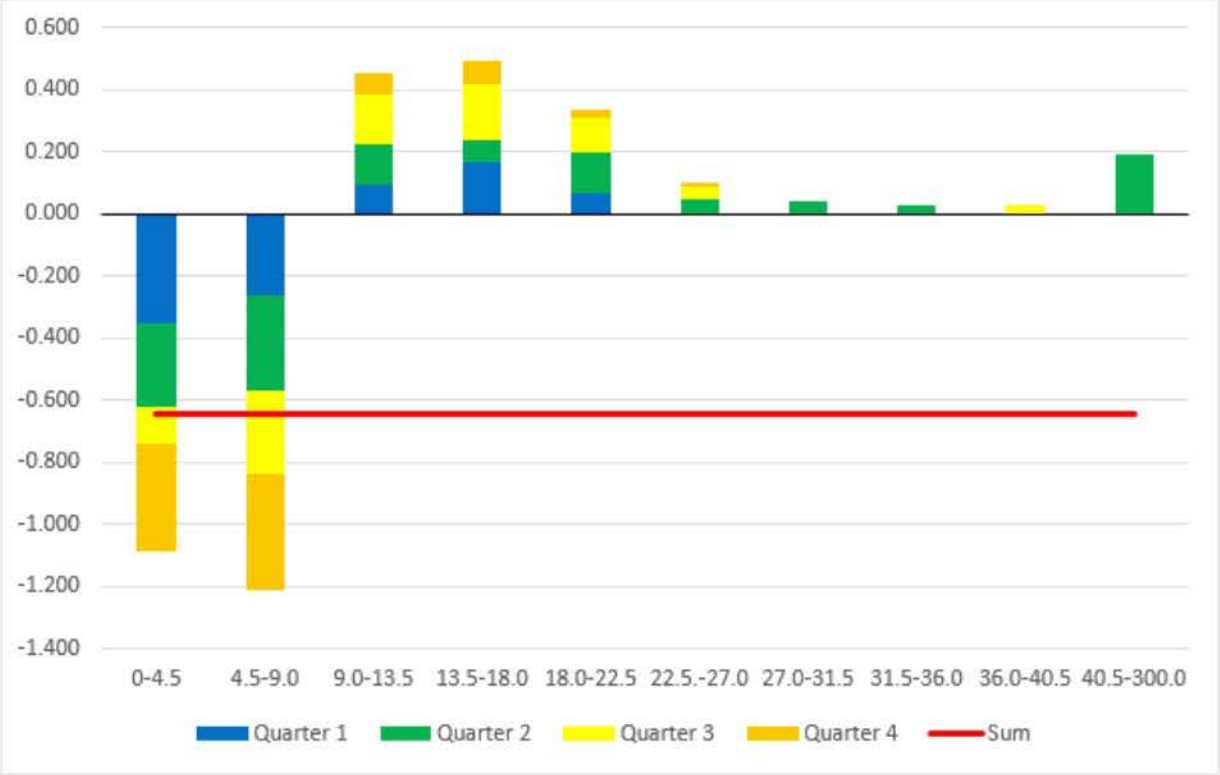


Figure C-1.2.12: Clairton $PM_{2.5}$ Design Value Category Breakdown

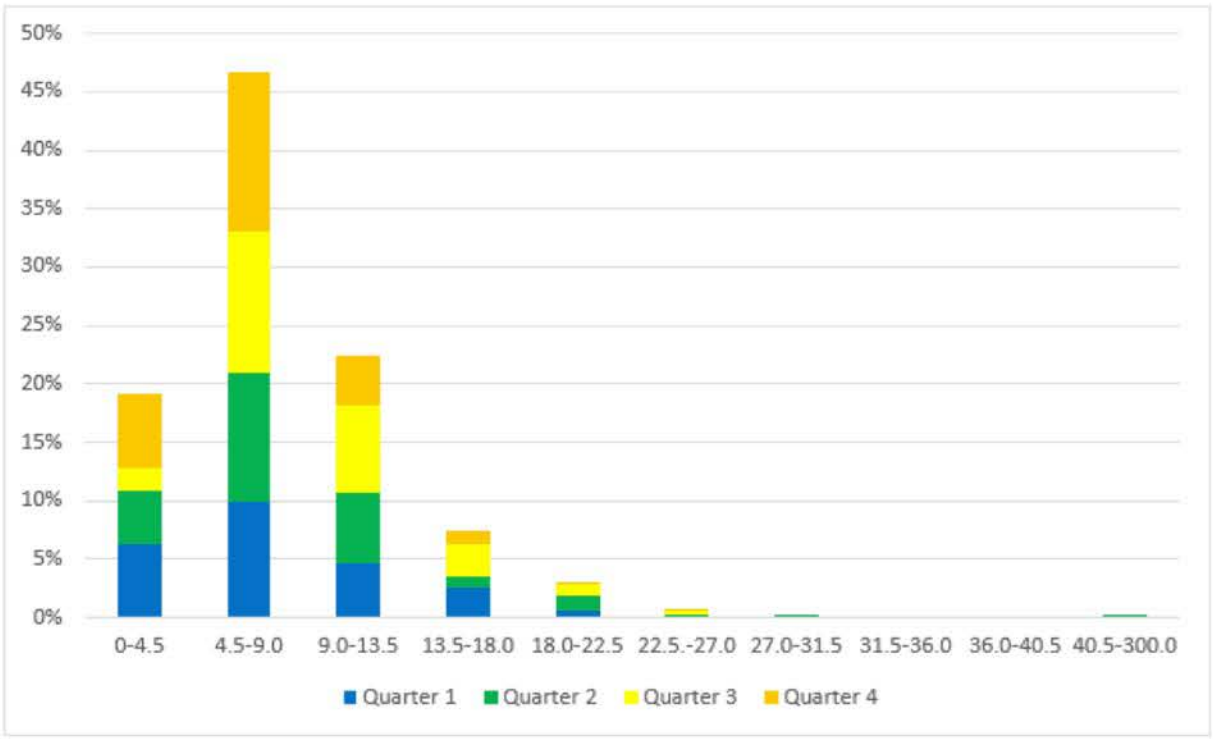


Figure C-1.2.13: Harrison $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

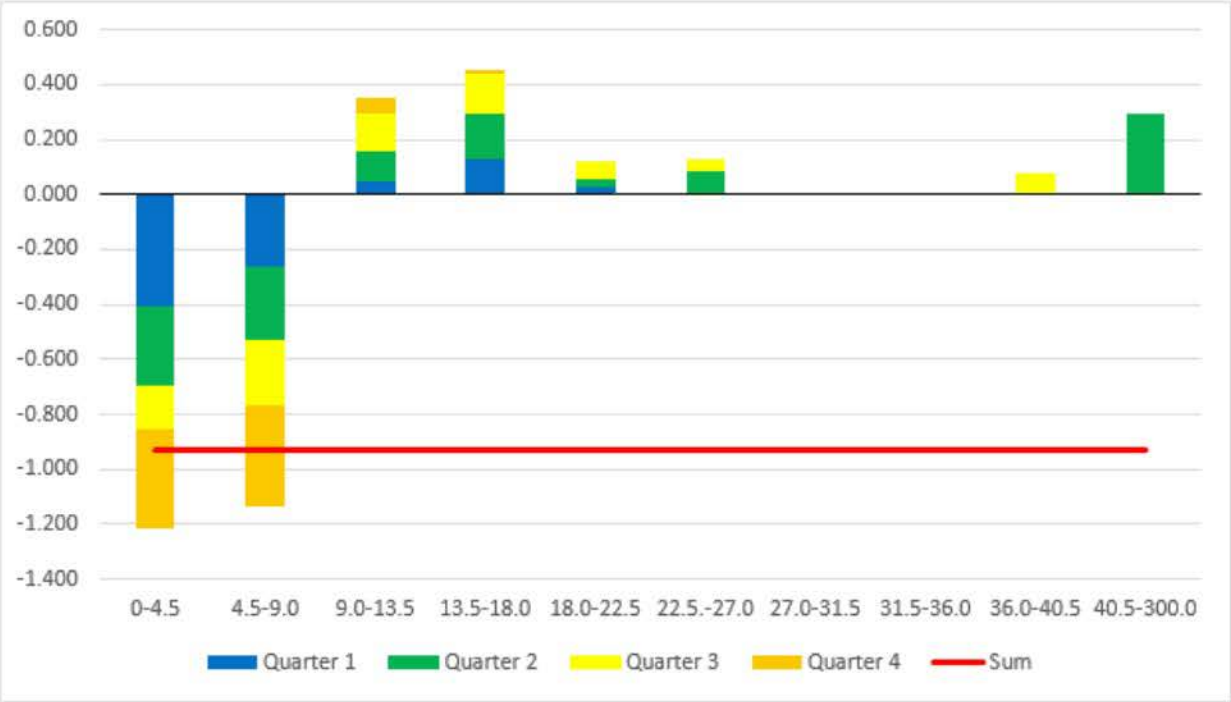


Figure C-1.2.14: Harrison $PM_{2.5}$ Design Value Category Breakdown

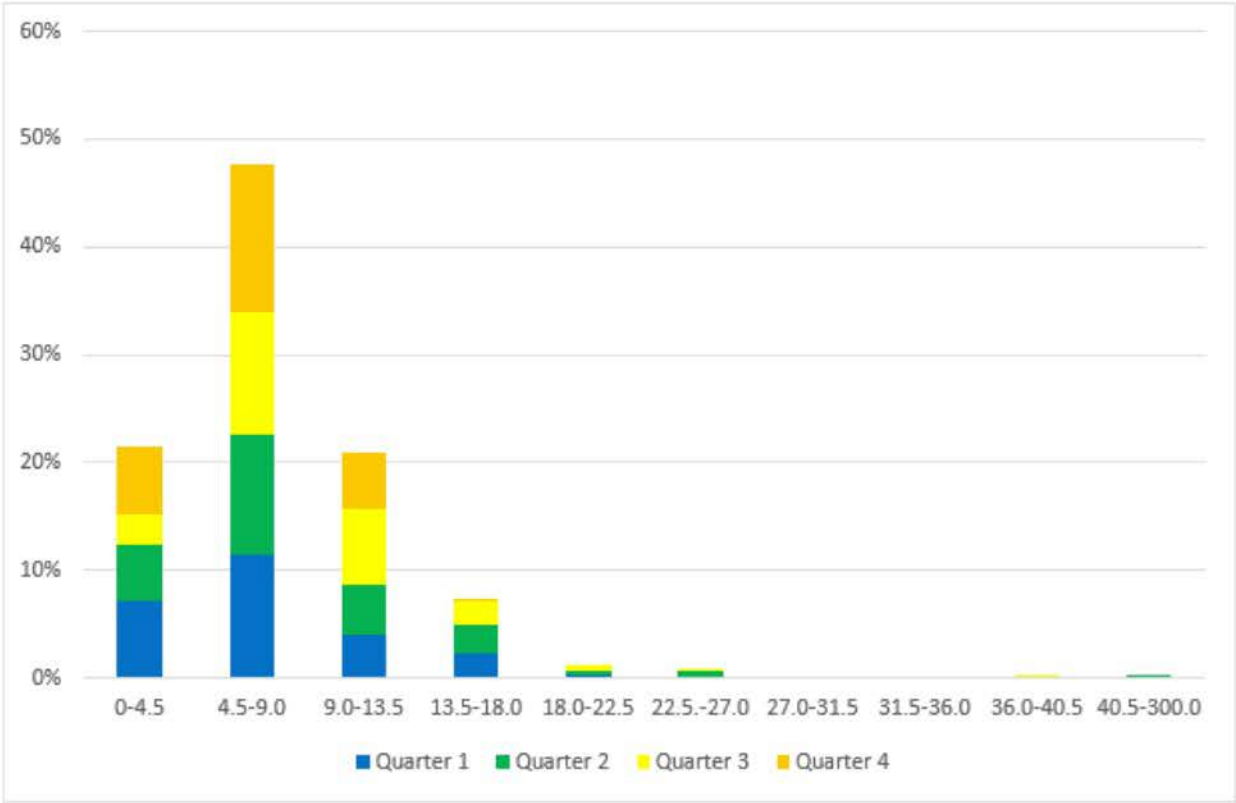


Figure C-1.2.15: South Fayette $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

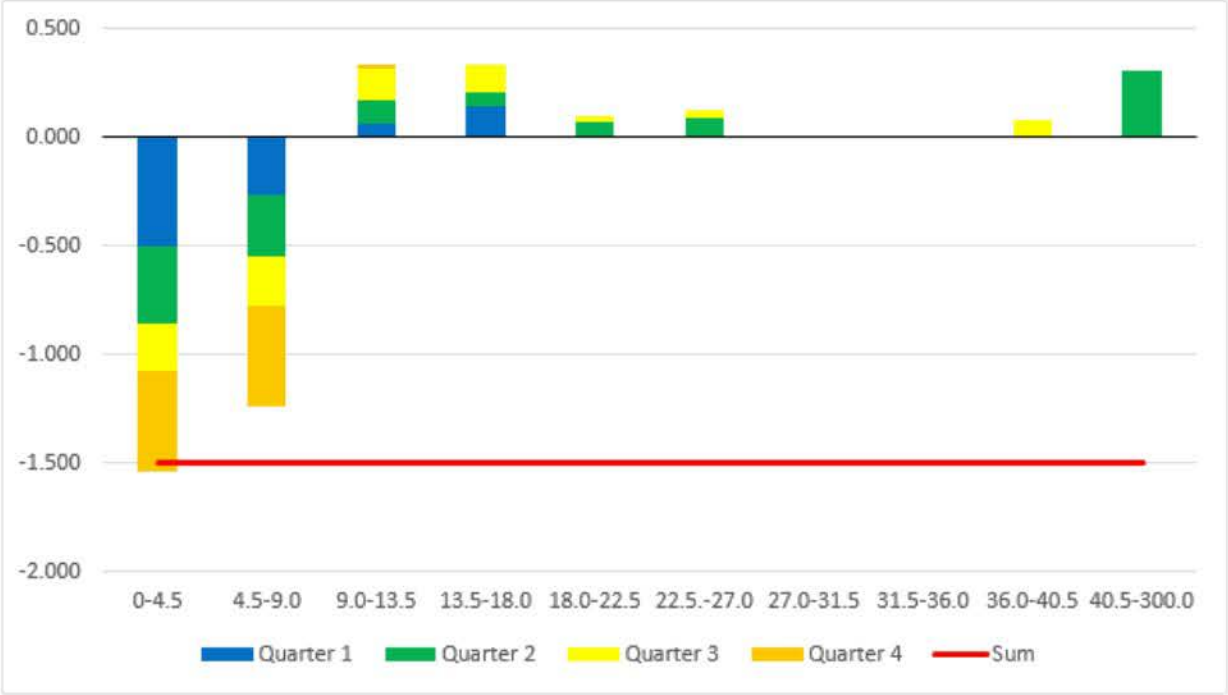


Figure C-1.2.16: South Fayette $PM_{2.5}$ Design Value Category Breakdown

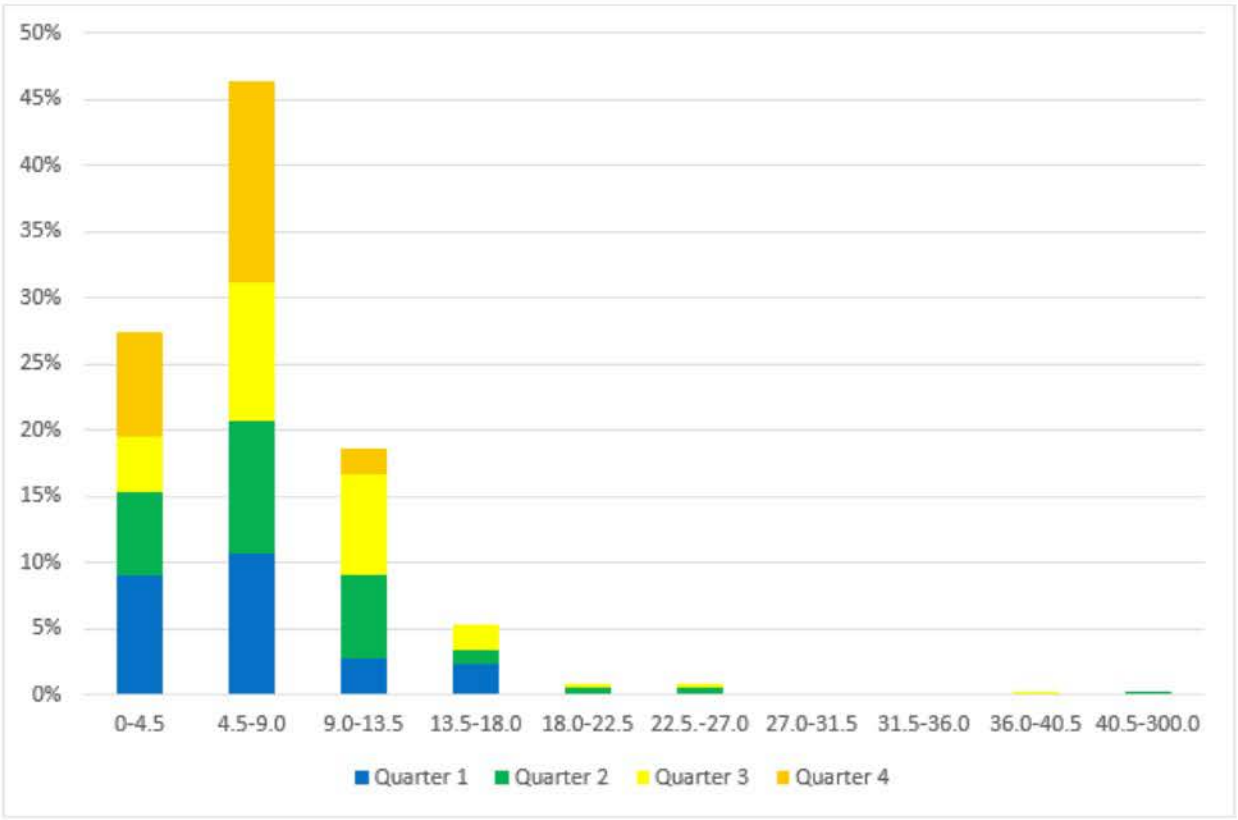


Figure C-1.2.17: Charleroi $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

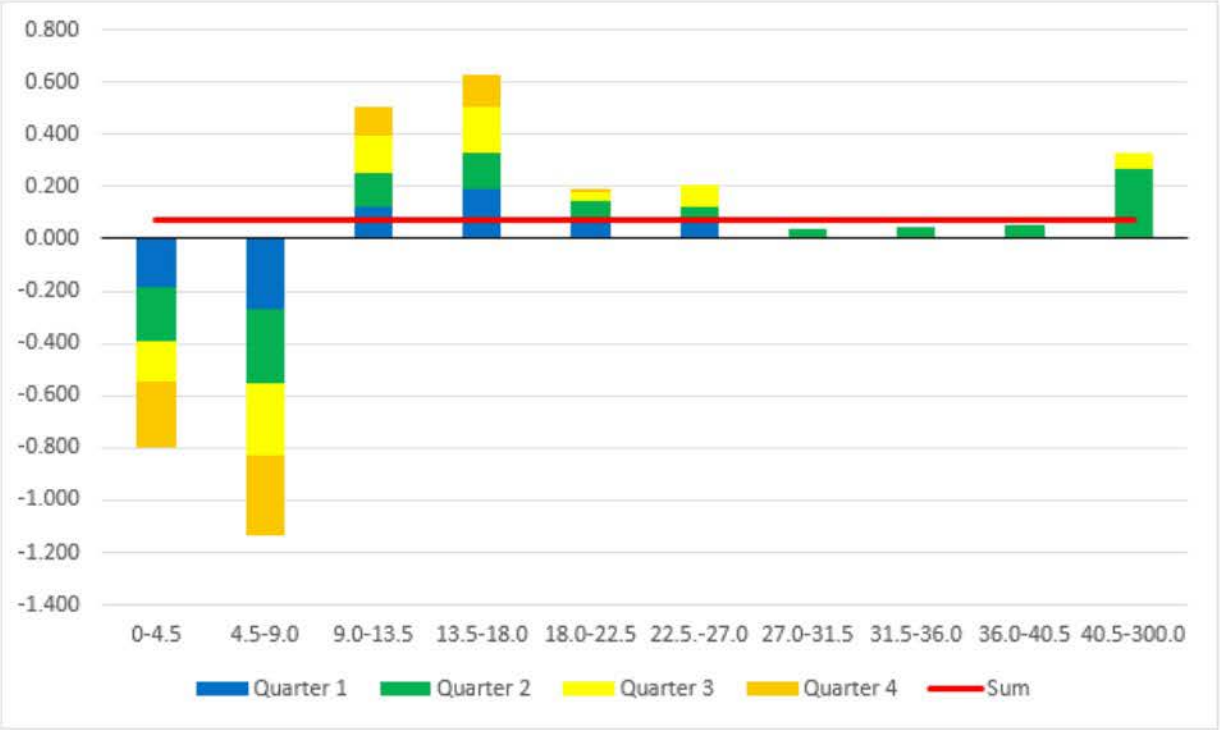


Figure C-1.2.18: Charleroi $PM_{2.5}$ Design Value Category Breakdown

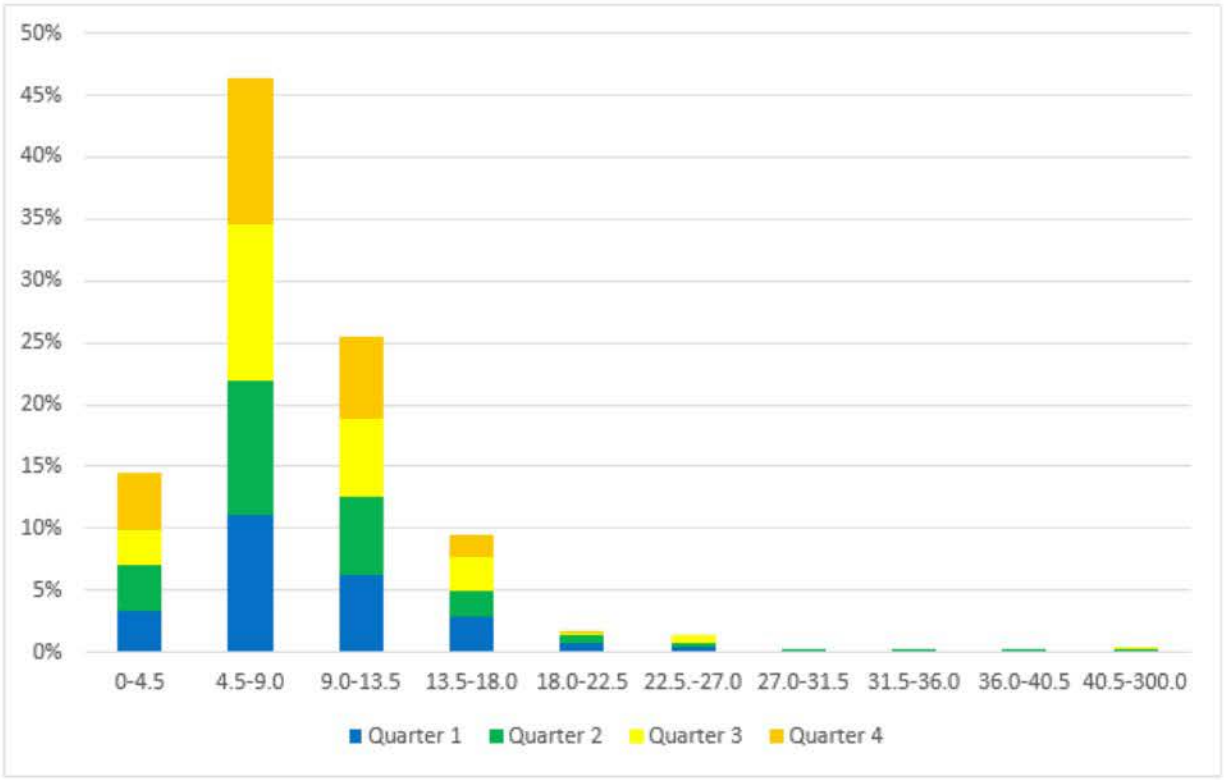


Figure C-1.2.19: Beaver Falls $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

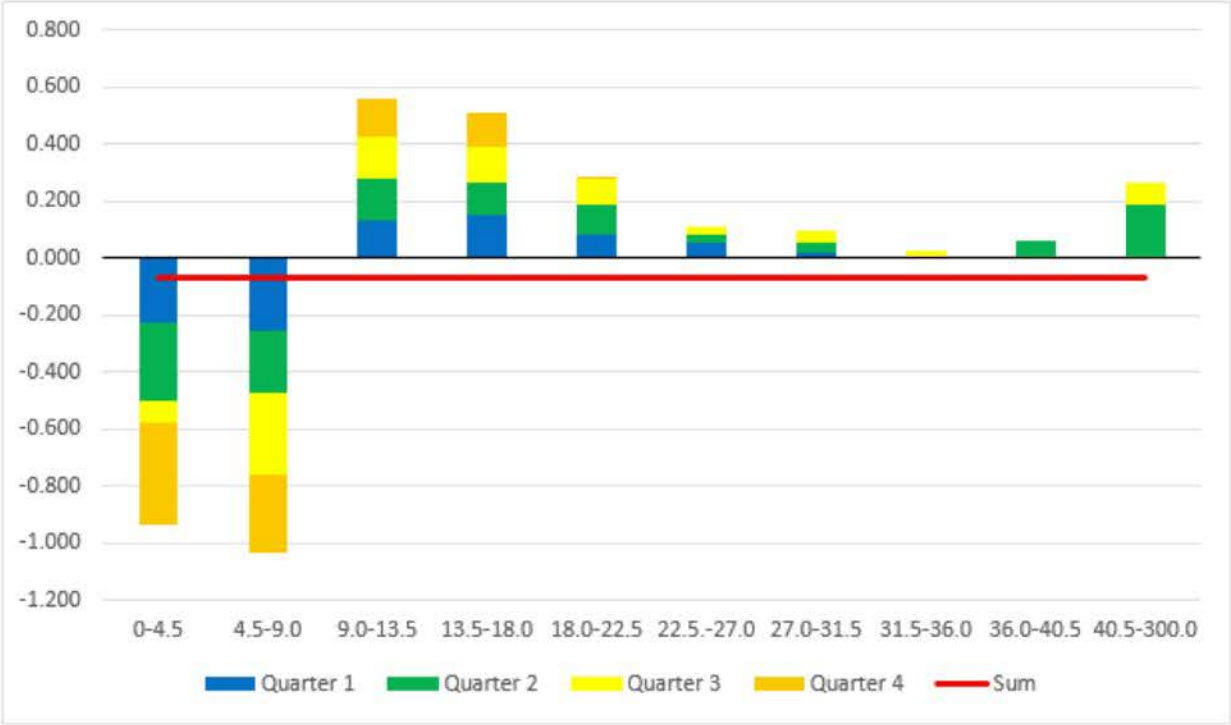


Figure C-1.2.20: Beaver Falls $PM_{2.5}$ Design Value Category Breakdown

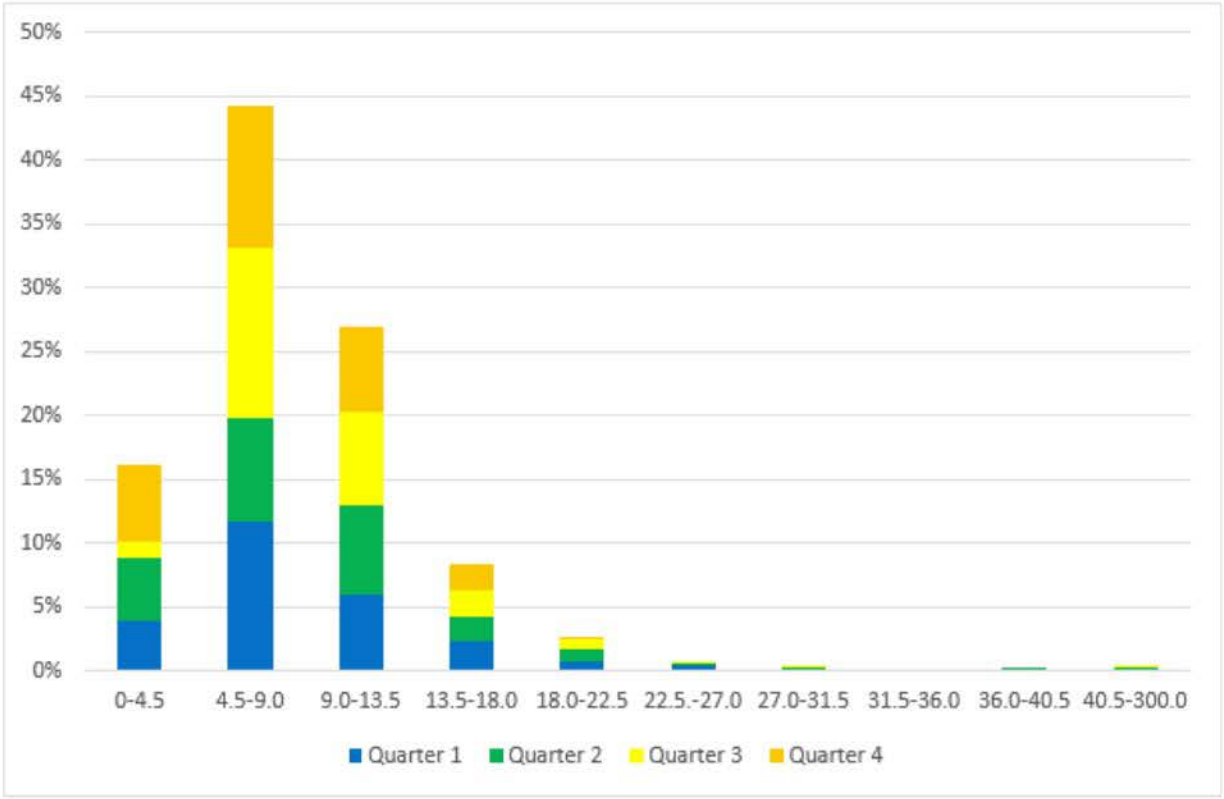


Figure C-1.2.21: Kittanning $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

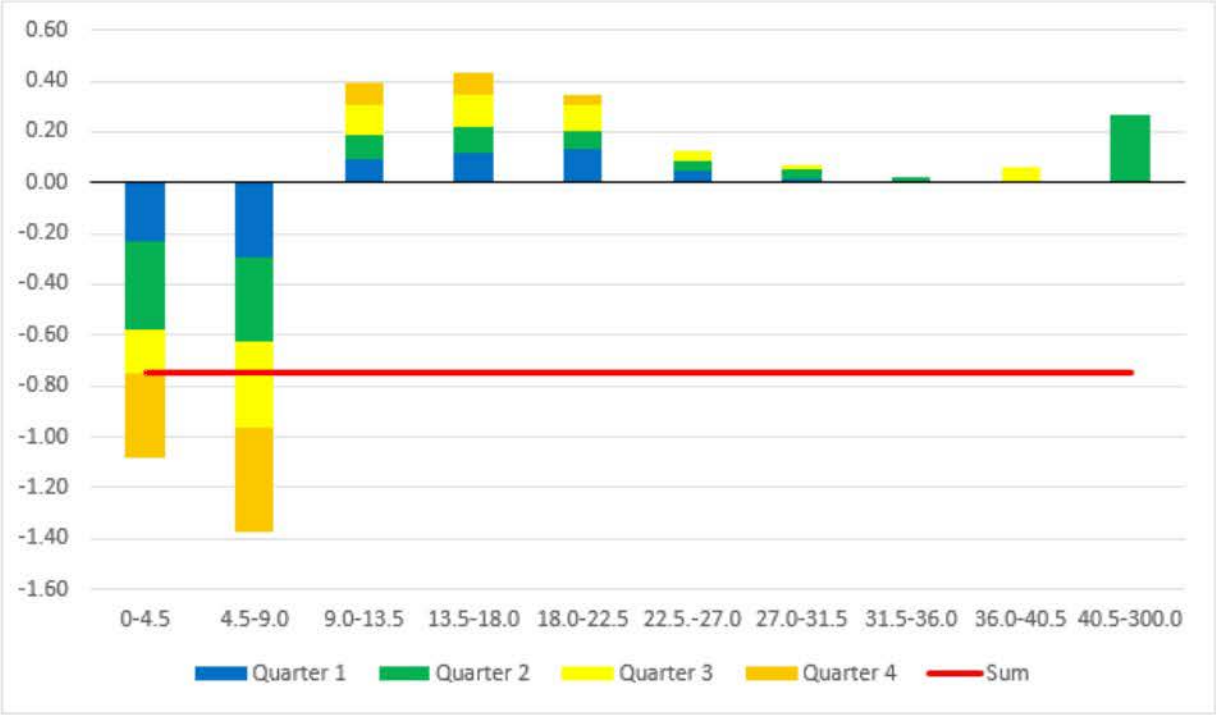


Figure C-1.2.22: Kittanning $PM_{2.5}$ Design Value Category Breakdown

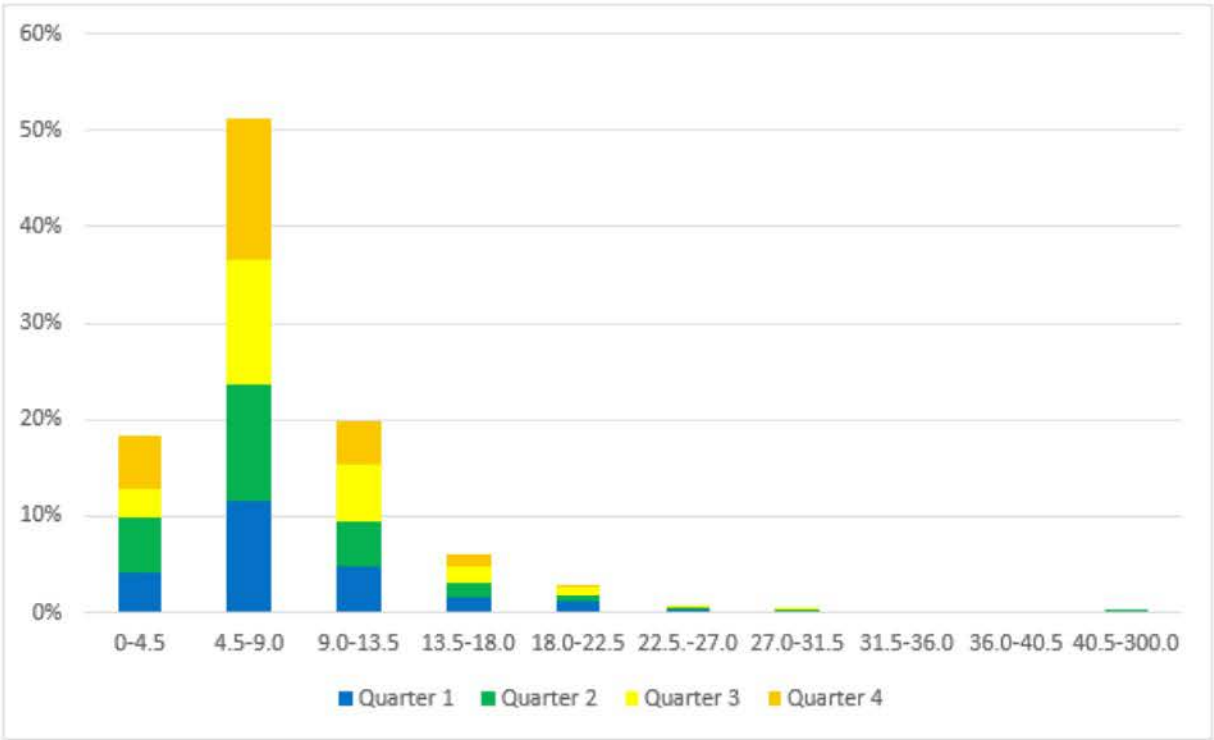


Figure C-1.2.23: Florence PM2.5 Design Value Contribution (µg/m3)

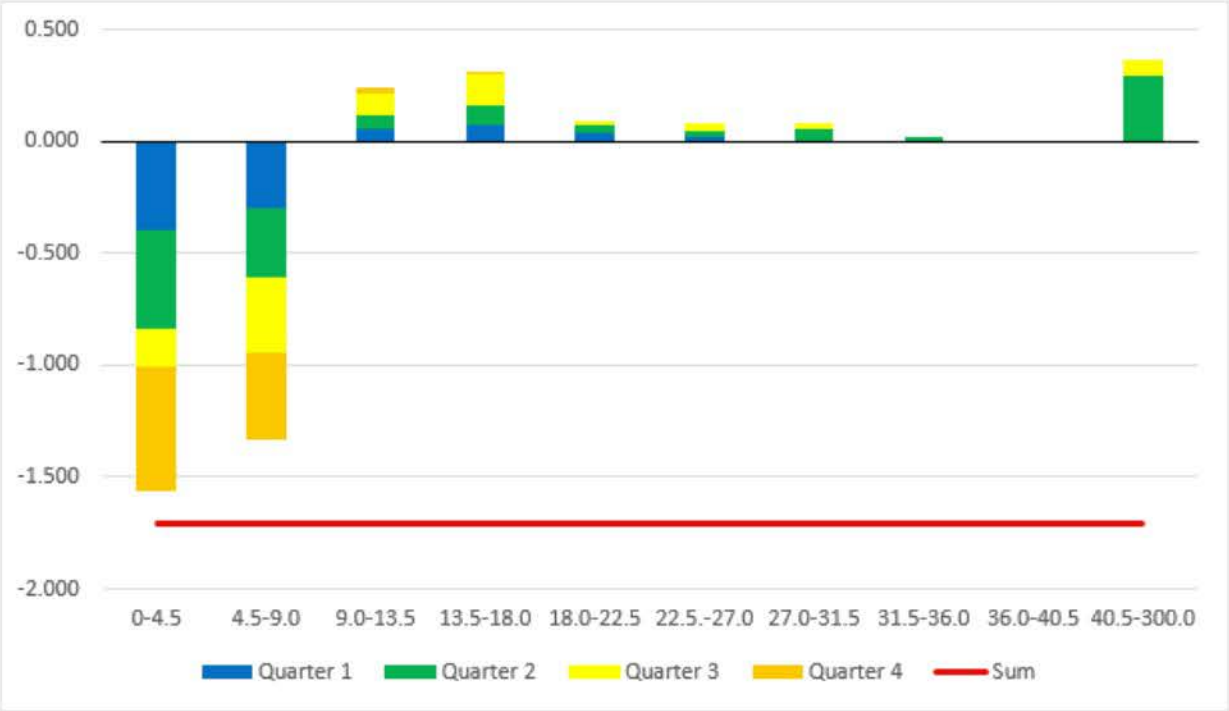


Figure C-1.2.24: Florence $PM_{2.5}$ Design Value Category Breakdown

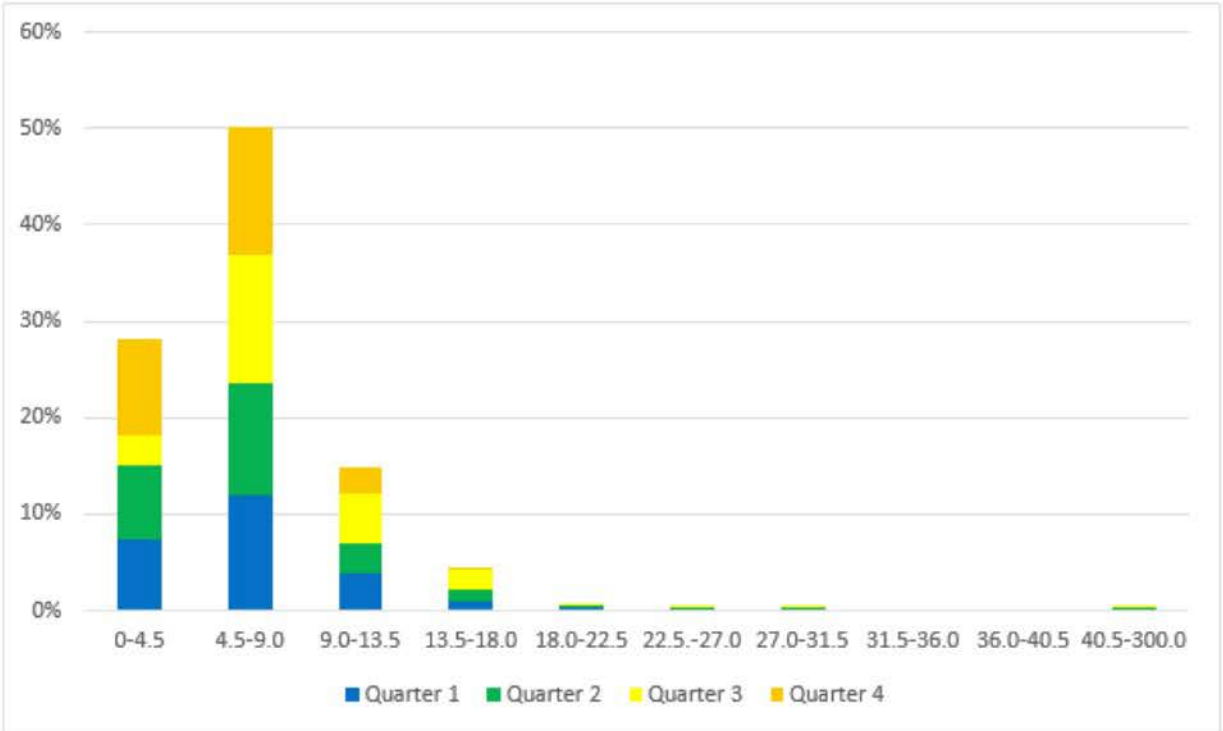


Figure C-1.2.25: Pittsburgh MSA $PM_{2.5}$ Annual Design Value Contribution ($\mu g/m^3$)

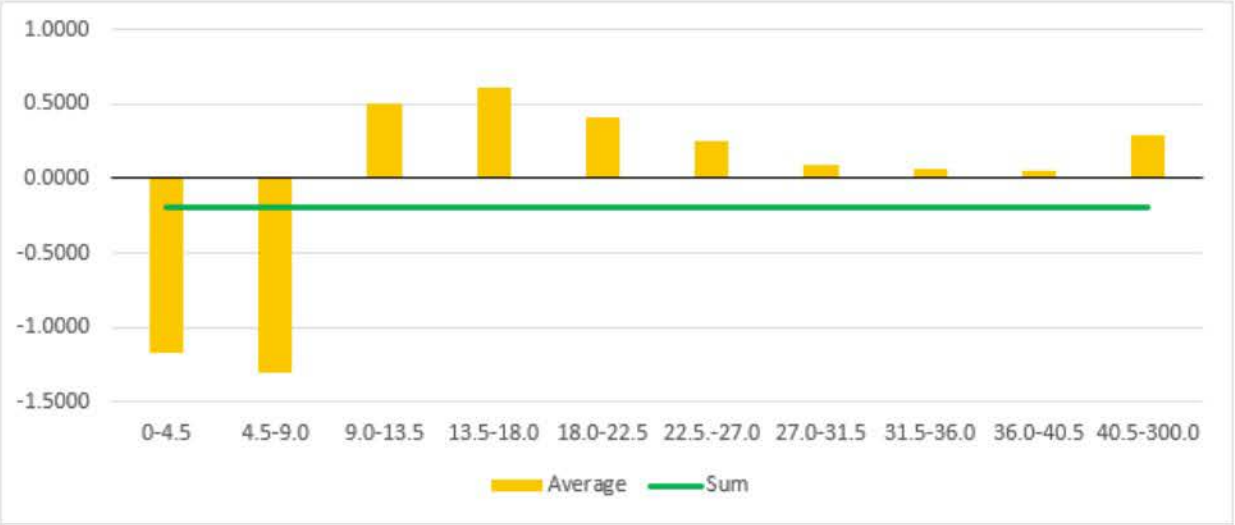


Table C-1.1 and Figures C-1.2.1–C-1.2.25 illustrate the differences between the monitors that are attaining the 2024 $PM_{2.5}$ annual standard and the monitors that are not attaining the 2024 $PM_{2.5}$ annual standard. The monitors that are not attaining the standard have relatively fewer "clean" days (0-9 $\mu g/m^3$) than the monitors that are attaining the standard. For example, the Liberty monitor's $PM_{2.5}$ contribution to the design value in the 0-9.0 $\mu g/m^3$ range was 0.45 $\mu g/m^3$ lower than the Pittsburgh MSA average.

The analysis described in the remainder of this Appendix focuses on the violating monitors in Allegheny County (Liberty, North Braddock, Parkway East, Avalon). Figure C-1.3.1 illustrates the trend of annual averages while Figure C-1.3.2 illustrates the trend of annual design values for monitors in the Pittsburgh MSA with valid 2023 $PM_{2.5}$ design values. The Liberty, North Braddock, Parkway East, and Avalon monitors have both a 2023 annual average and design value above the 2024 standard. Since 2014, annual $PM_{2.5}$ levels have been in a general decline in the Pittsburgh MSA. A total of eight monitors in the Pittsburgh MSA are attaining the 2024 standard and continue to show a decline in annual average and annual design values: four monitors in Allegheny County (Lawrenceville, Clairton, Harrison, and South Fayette), two monitors in Washington County (Charleroi and Florence monitors), one monitor in Beaver County (Beaver Falls monitor) and one monitor in Armstrong County (Kittanning monitor).

It is important to note that 2023 was an extremely active year for Canadian wildfires, leading to an excessive amount of smoke transported into southwestern PA. Days with smoke impacts showed elevated concentrations (beyond what might have been expected), along with several exceedances of the 24-hour NAAQS. Informational qualifier codes were included in AQS for all Allegheny County data on a total of 24 sample days. With an exceptional event analysis submitted to EPA, exclusion of select days would lead to lower concentrations at all sites. However, since at least two monitors in Allegheny County would still be violating the 2024 standard even with several days excluded, an exceptional event exclusion analysis has not been prepared for any of the Allegheny County sites at the time of this analysis.

Figure C-1.3.1: Pittsburgh MSA $PM_{2.5}$ Valid Annual Averages ($\mu g/m^3$)

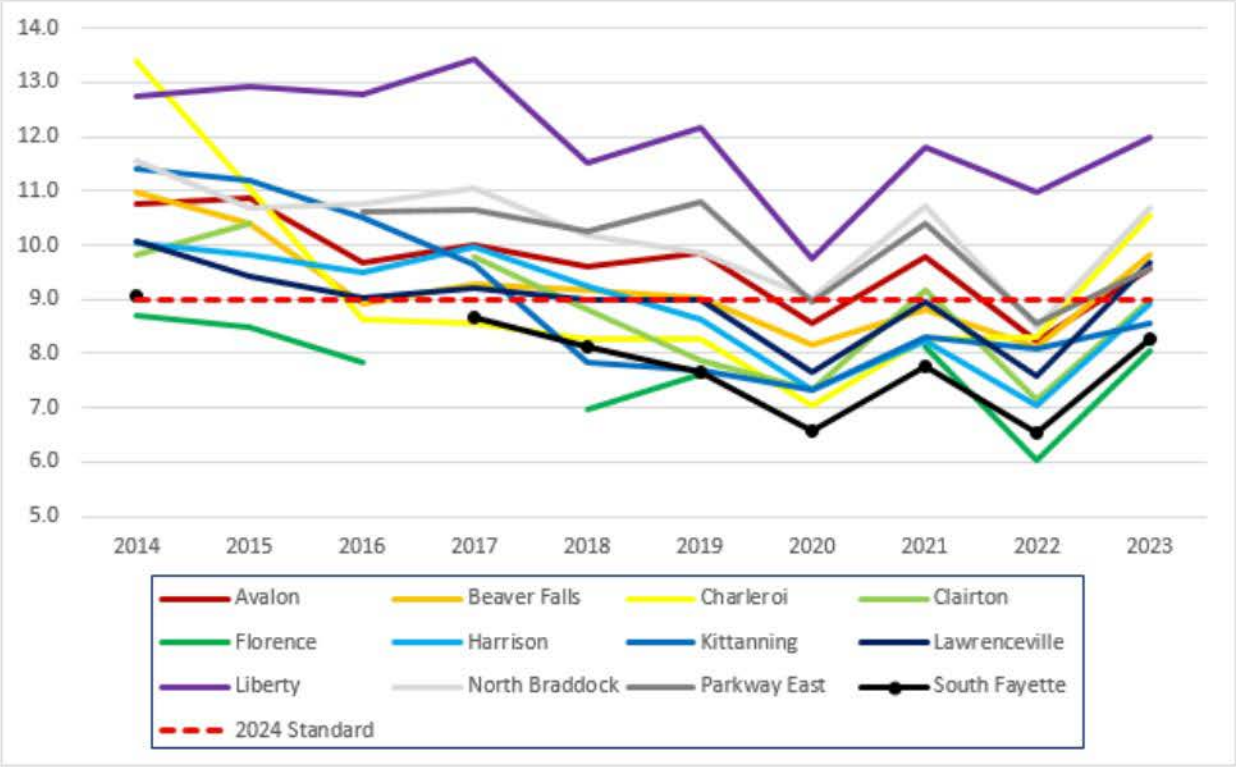
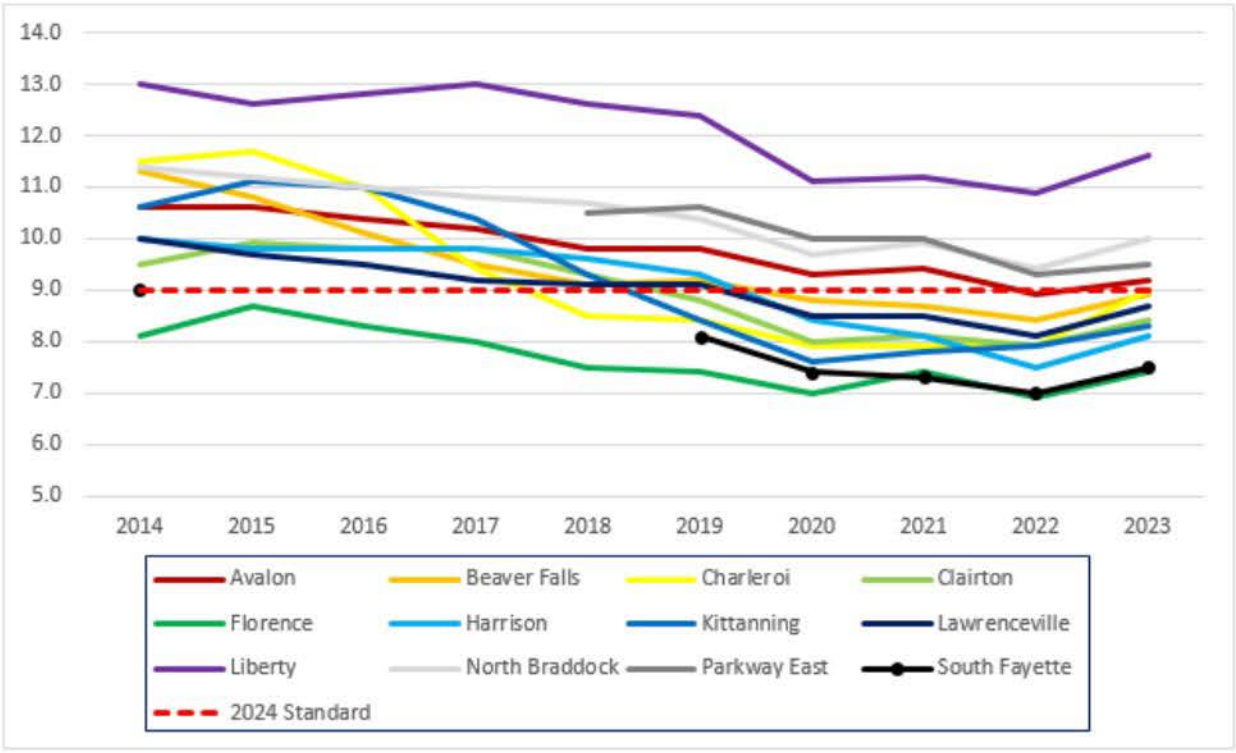


Figure C-1.3.2: Pittsburgh MSA $PM_{2.5}$ Valid Annual Design Values ($\mu g/m^3$)



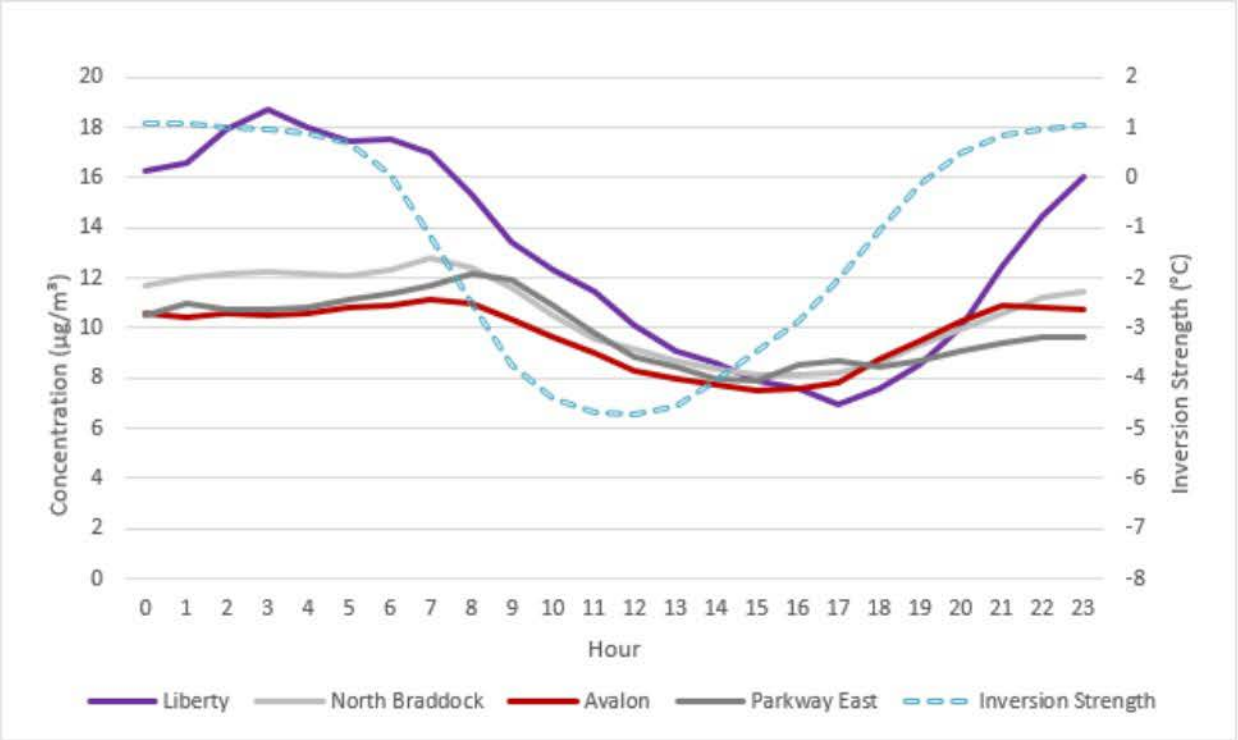
Additional analyses were completed to determine what was contributing to the fewer number of "clean" days at the Liberty, North Braddock, Parkway East, and Avalon monitors. PADEP identified days when these monitor's $PM_{2.5}$ concentrations were relatively high but regional monitoring concentrations in the Pittsburgh MSA were "clean." Between 2021 and 2023, PADEP identified 233 days in which the Liberty monitor was at least one standard deviation above the Pittsburgh MSA regional average while the regional average was at or below 9 $\mu g/m^3$, 94 days in which the North Braddock monitor was at least one standard deviation above the Pittsburgh MSA regional average while the regional average was at or below 9 $\mu g/m^3$, 127 days in which the Parkway East monitor was at least one standard deviation above the Pittsburgh MSA regional average while the regional average was at or below 9 $\mu g/m^3$, and 120 days in which the Avalon monitor was at least one standard deviation above the Pittsburgh MSA regional average while the regional average was at or below 9 $\mu g/m^3$. The most extreme events (top 10%) were further analyzed to determine why these monitor's concentrations were high when the Pittsburgh MSA average concentrations were low.

Meteorological Conditions Impacting High $PM_{2.5}$ Days at the Liberty, North Braddock, Parkway East, and Avalon Monitors

The Pittsburgh MSA includes the City and Pittsburgh and the surrounding suburban municipalities. This includes the following air basins per Appendix B, Figure B-27: Allegheny County, Monongahela Valley, and Upper and Lower Beaver Valley. The densest area of population is within the City of Pittsburgh, while the greatest amount of industry is in the river valleys. Most of the region is dominated by complex terrain, consisting of rolling hills and river valleys with elevations varying from approximately 700 feet to over 1400 feet, with some ridgelines in the eastern portion of the Pittsburgh MSA exceeding 2500 feet. River valley meteorology, often with lower wind speeds than the surrounding hills and plateaus, and surface temperature inversions can substantially affect $PM_{2.5}$ concentrations in Allegheny County.

The Liberty, North Braddock, Parkway East, and Avalon sites include continuous Federal Equivalent Method (FEM) monitors which can be examined for hourly trends. Additionally, ACHD operates sound detection and ranging (sodar) and radio acoustic sounding system (RASS) equipment in the Clairton area, which can be examined for hourly behavior in surface temperature inversions. Figure C-1.4.1 shows hourly average inversion strength (in °C) and hourly average $PM_{2.5}$ concentrations (in $\mu g/m^3$) for the violating sites in 2021-2023. (Note: Inversion strength and concentrations are shown on different axes in the figure.)

Figure C-1.4.1: Hourly Average Inversion Strength (°C) and $PM_{2.5}$ Concentrations (µg/m³) at Allegheny County Violating Sites, 2021-2023



All sites show increased concentrations during nighttime hours when inversions are present. Liberty shows the strongest dependence on inversions, suggesting that nearby source emissions are being trapped within inversions on a regular basis. North Braddock and Avalon are also adjacent to industrial areas that may be influencing concentrations more than in other regions of Allegheny County. Note also that the Parkway East shows peaks during typical rush hour periods, which is unique to this site as the near road monitor for the Pittsburgh MSA.

Figure C-1.5.1 illustrates the sources within the immediate proximity of the Liberty, North Braddock, Avalon, and Parkway East monitors. Using the meteorological station at the Pittsburgh International Airport (KPIT), Figure C-1.5.2 illustrates the frequency of wind distribution coming from a particular direction.

Figure C-1.5.1: Pittsburgh MSA
Major Sources (Over 100 Tons Per Year) Based on PADEP 2022 Emission Inventory

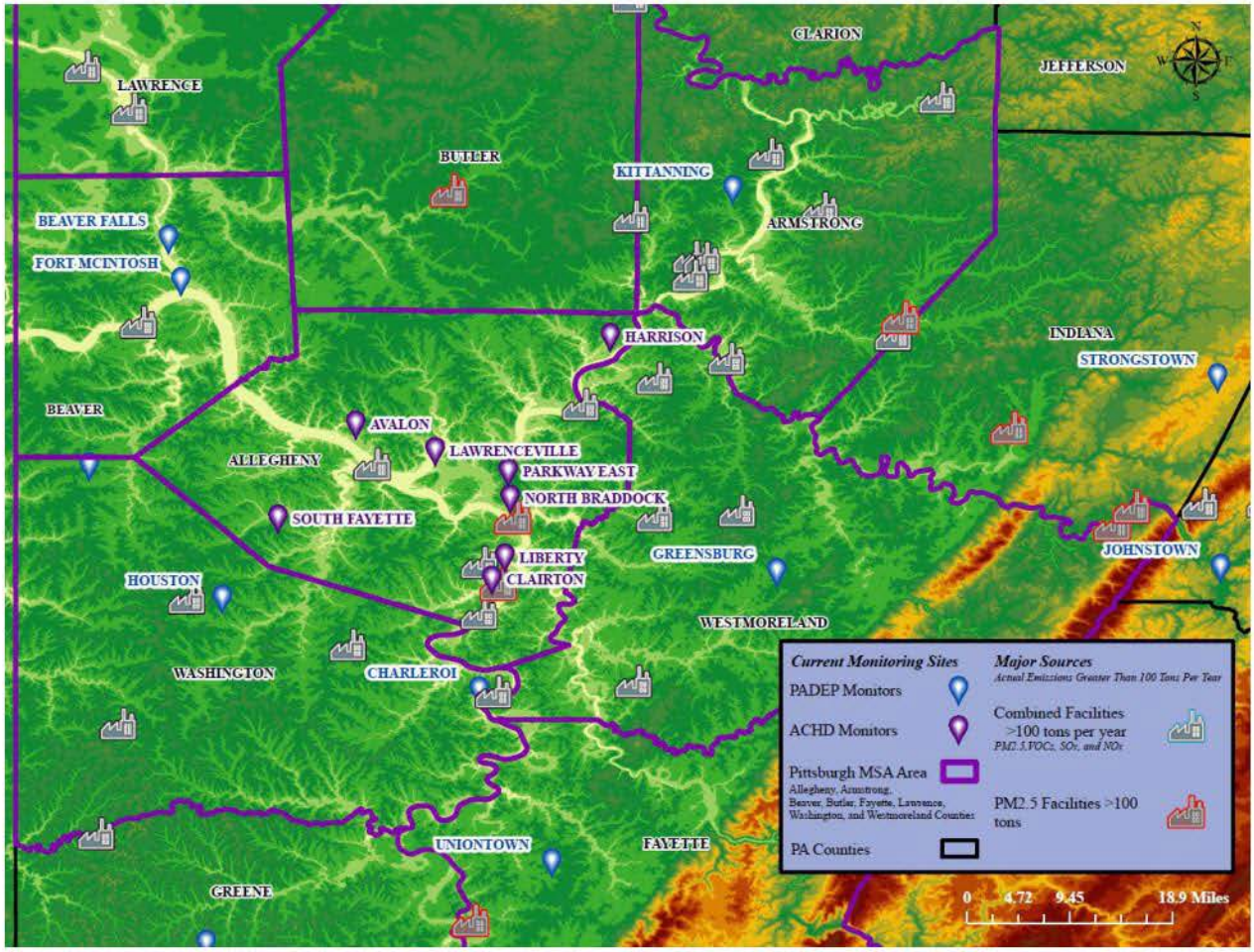


Figure C-1.5.1 shows that while there are multiple major stationary point sources within the Pittsburgh MSA and surrounding counties, the largest cluster of sources are within the Monongahela Valley in Allegheny County, in close proximity to the Liberty and North Braddock monitors. Figures B-21 through B-24 in Appendix B show that these sources emit high amounts of $PM_{2.5}$ and precursors relative to other sources in PA. Figure B-6 in Appendix B also shows that $PM_{2.5}$ area source emission density (in tons per year per square mile) is greatest for Allegheny County within the Pittsburgh MSA. Figures B-11 through B-20 in Appendix B show that on-road and non-road source emissions are also greatest in Allegheny County. The largest point sources in Armstrong and Indiana Counties are power plants with tall stacks.

Figure C-1.5.2: Pittsburgh MSA
Pittsburgh International Airport (KPIT) Wind Rose

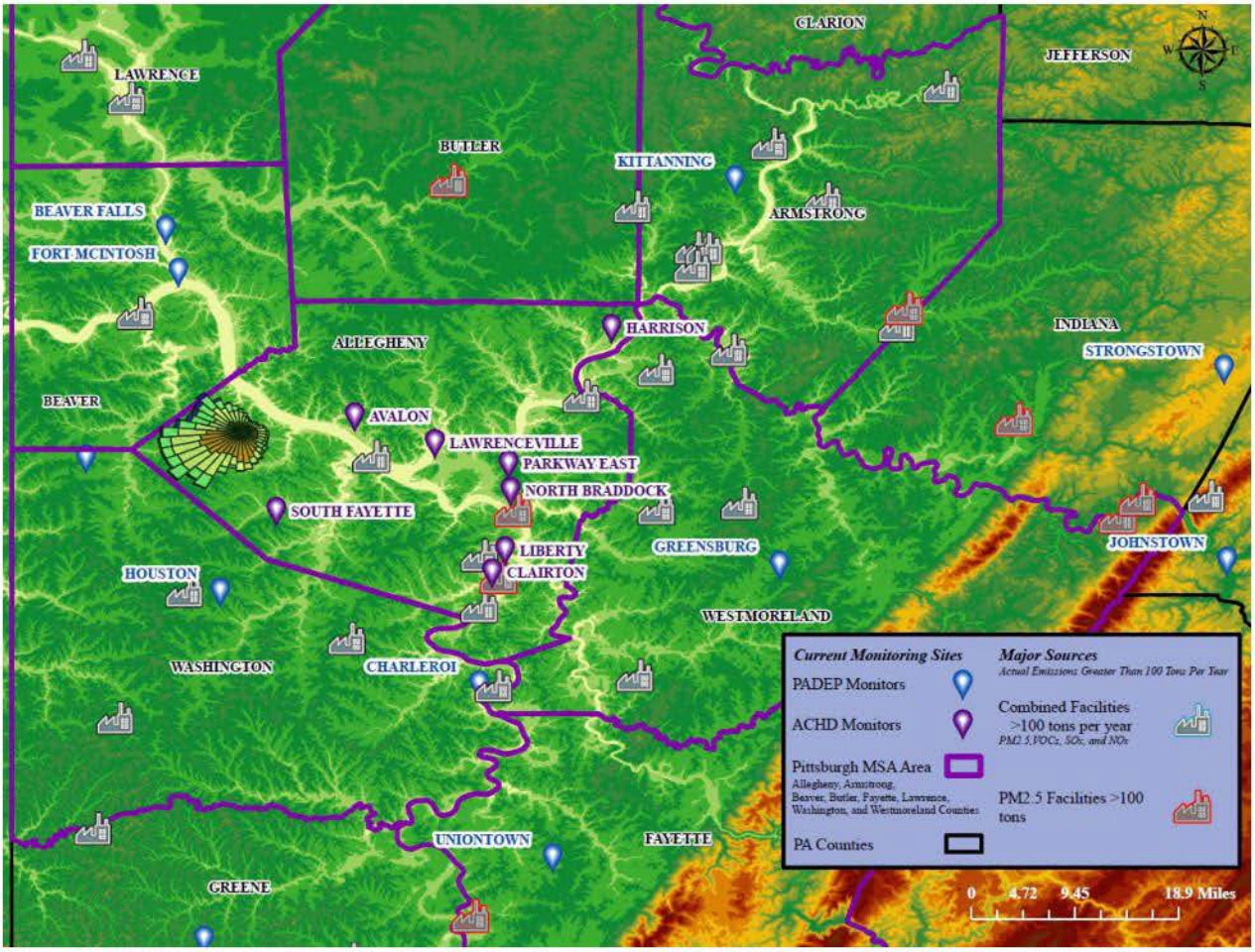


Figure C-1.5.2 shows that, based on the KPIT wind data from 2021-2023, the predominant wind flow is from the west/southwest in the Pittsburgh region. This westerly mesoscale flow can lead to accumulation of impacts throughout Allegheny County from both transported and locally formed emissions. Since surrounding county monitors are attaining the NAAQS, it can be assumed that urban and local source influences within Allegheny County are the driving factors for nonattainment at the violating monitors. It can also be assumed that large sources to the east of Allegheny County are unlikely to contribute to nonattainment, as they are in distant downwind locations from the violating monitors.

Local meteorological data are also available at select sites in Allegheny County, including the Liberty and North Braddock monitors. (As mentioned earlier, Parkway East is a near road site that is affected by microscale roadway emissions which impact the site from nearly all directions.) The local meteorological data can be used in conjunction with concentration data to generate pollution roses for wind directions during the highest concentrations of $PM_{2.5}$.

Figure C-1.5.3 shows pollutions roses for the Liberty and North Braddock sites, showing average hourly $PM_{2.5}$ concentrations (in $\mu g/m^3$) when winds are from 16 different points of compass during the timeframe 2021-2023.

Figure C-1.5.3: Liberty and North Braddock Pollution Roses, 2021-2023

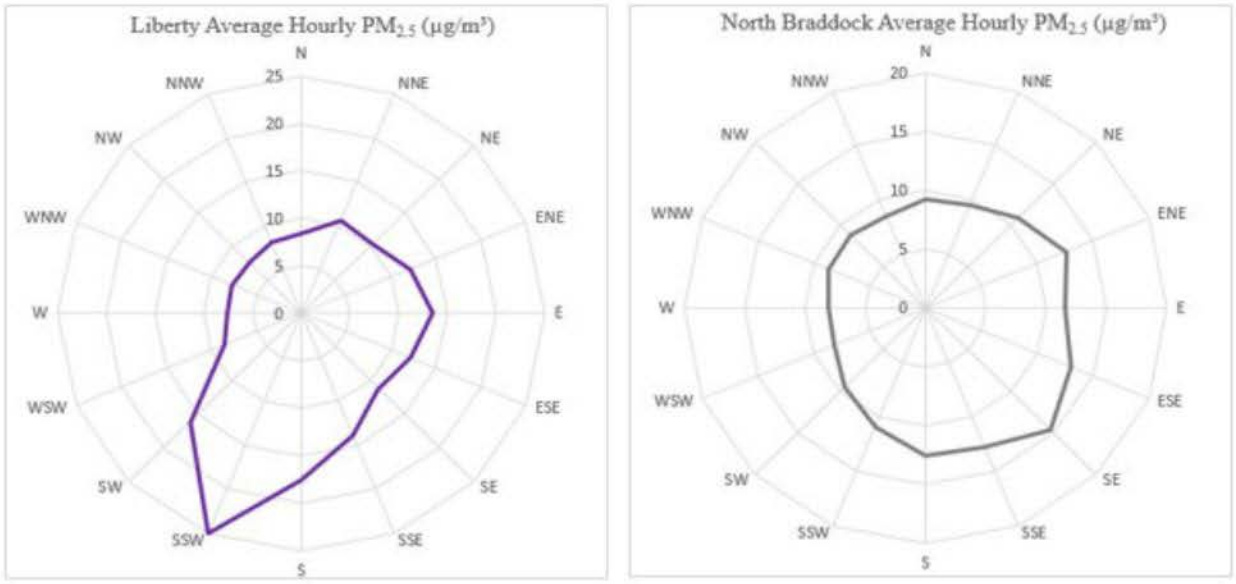
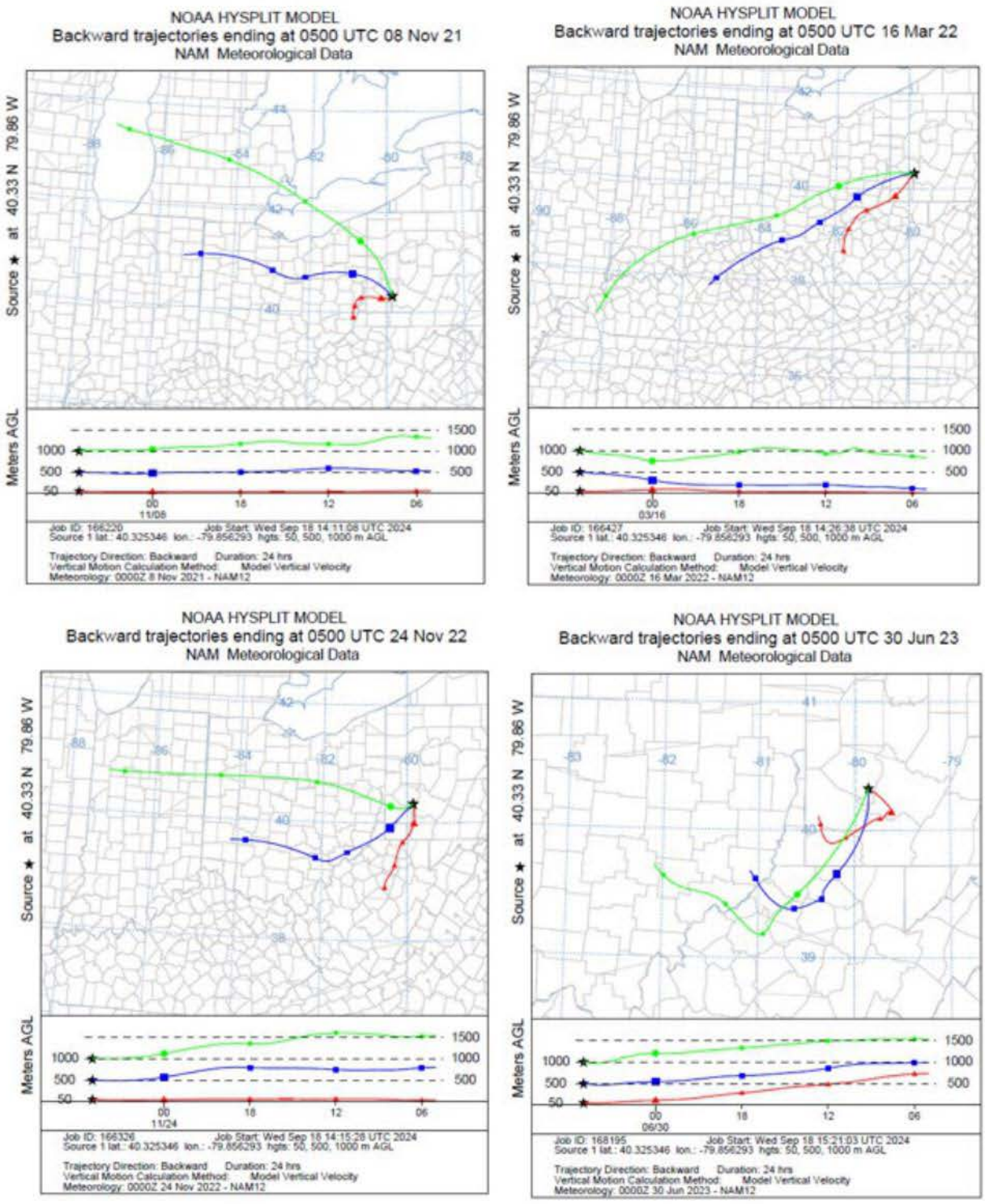


Figure C-1.5.3 shows that the Liberty and North Braddock concentrations are affected at the local scale from specific directions within the Monongahela Valley. For the Liberty site, the concentrations are highest when winds are from the south-southwest (SSW). For the North Braddock site, concentrations are highest when winds are from the southeast (SE). While other sources contributions may be affecting these sites to some degree, the peak $PM_{2.5}$ concentrations are driven by local source contributions in these directions.

The HYSPLIT model can also be used to examine the back-trajectories of air parcels on selected high days. HYSPLIT results can indicate the general locations from which $PM_{2.5}$ and precursors are being transported into or recirculated within an area.

For Figure C-1.5.4, Liberty episodes were first examined over the 2021-2023 timeframe. These include days when the Liberty monitor had elevated concentrations over a period of one or more consecutive days. For the top four highest days during different episodes, the 24-hour back-trajectories were computed by the model. Three different heights were used 50, 500, and 1000 meters) to examine the potential long-range and local transport.

Figure C-1.5.4: HYSPLIT Back-Trajectories During Liberty Episodes



The HYSPLIT results suggest that localized impacts at Liberty are affected at the lowest heights by sources at relatively short distances. These low-level impacts are likely based on primary $PM_{2.5}$ emissions during low winds and strong temperature inversions, while additional transport of precursors at higher heights and/or from outside the Pittsburgh MSA may also be contributing to secondary $PM_{2.5}$ contributions.

The Change in the Composition of the $PM_{2.5}$

Within the Pittsburgh MSA, ACHD operates speciation monitors at Lawrenceville and Liberty, and PADEP operates speciation monitors at Florence and Greensburg. Just to the east of the Pittsburgh MSA, PADEP also operates a speciation monitor at Johnstown (AQS ID# 42-021-0011), which has been included here in the compositional analysis.

Florence (AQS ID# 42-125-5001) is in a rural location in Washington County and is less affected by source influences near the monitor. For that reason, the Florence monitor best reflects the transport that is coming into western Pennsylvania from areas to the west (prevailing wind flow is from west to east across Pennsylvania). The other speciation monitors can be examined in comparison to Florence for urban (or localized) excess contributed by the Pittsburgh MSA or by source influences within the Pittsburgh MSA.

Based on the seasonal formation of different types of species, it might be expected the ammonium nitrate have decreased in cold seasons and ammonium sulfate have decreased in warm seasons. Reductions from motor vehicle emissions and industrial activities might be expected to show year-round decreases in carbon concentrations.

Figures C-1.6.1 - C.4.6.2, C-1.6.4 - C.4.6.5, C-1.6.7 - C.4.6.8, and C-1.6.10 - C.4.6.12 outline the main speciated components of $PM_{2.5}$ during each quarter: ammonium, nitrate, sulfate, organic carbon (OC), elemental carbon (EC), soil, and elements. Figures C-1.6.3, C-1.6.6, C-1.6.9, and C-1.6.12 illustrate the decline in the main speciated components of $PM_{2.5}$ from the 2016 to 2018 period to the 2021 to 2023 period.

Figure C-1.6.1: 2016-2018 Quarter 1 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

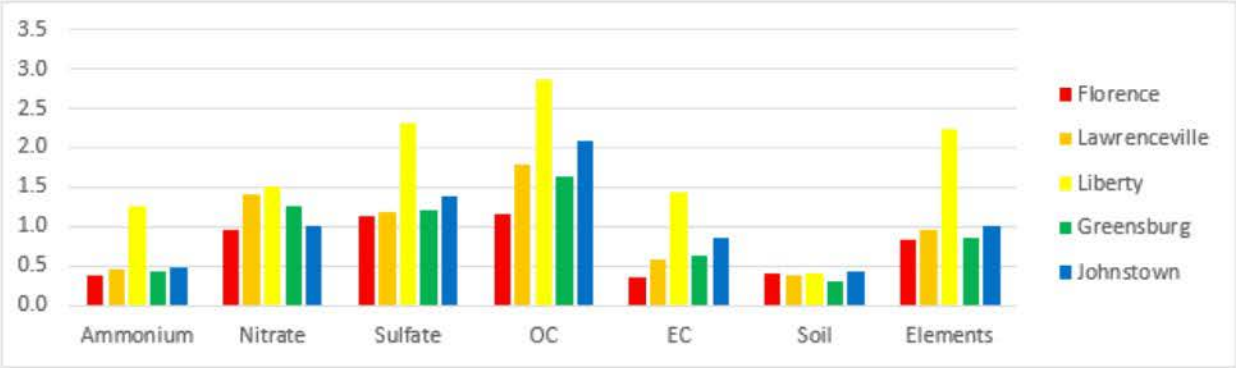


Figure C-1.6.2: 2021-2023 Quarter 1 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

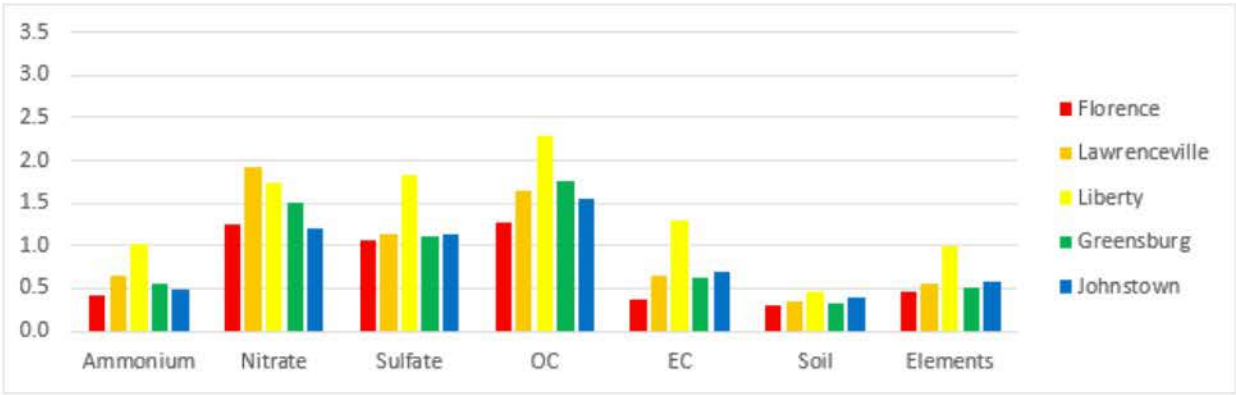


Figure C-1.6.3: Comparison of Quarter 1 $PM_{2.5}$ Average Speciation Concentrations(µg/m³) 2021-2023 minus 2016-2018

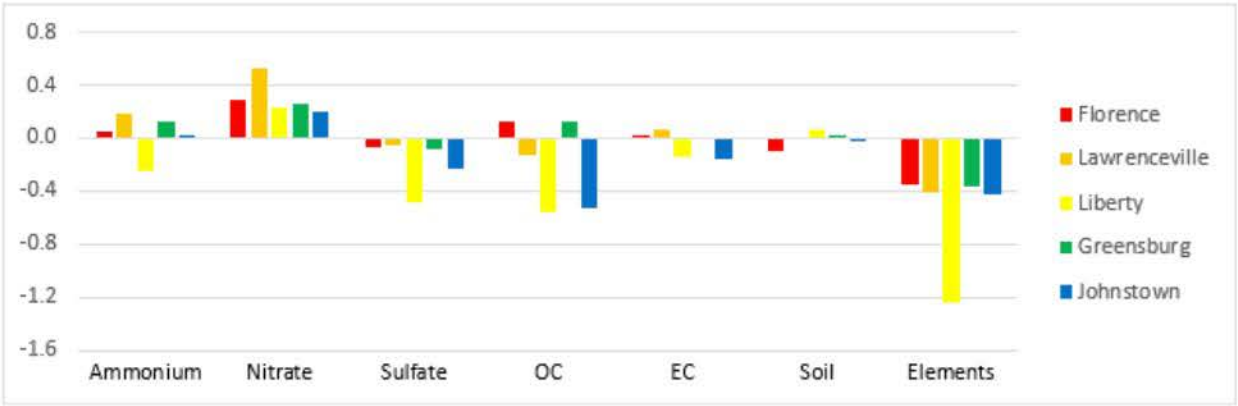


Figure C-1.6.4: 2016-2018 Quarter 2 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

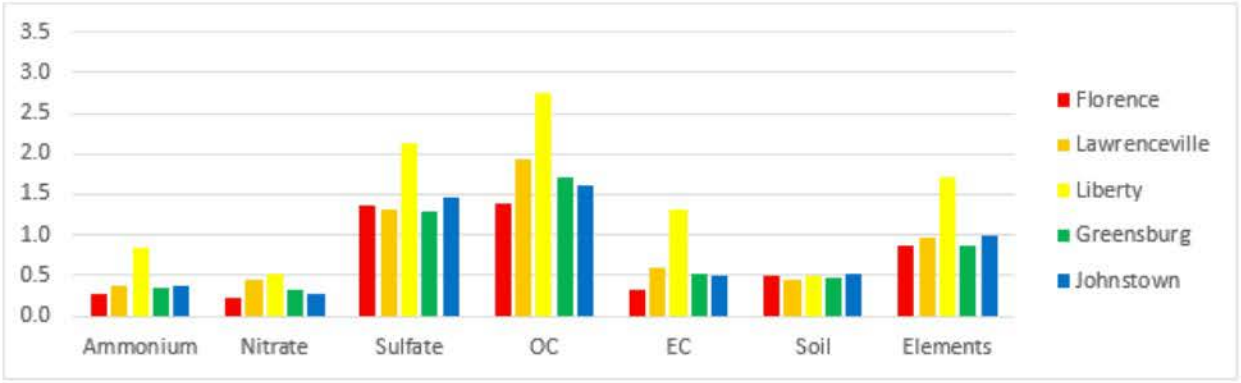


Figure C-1.6.5: 2021-2023 Quarter 2 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

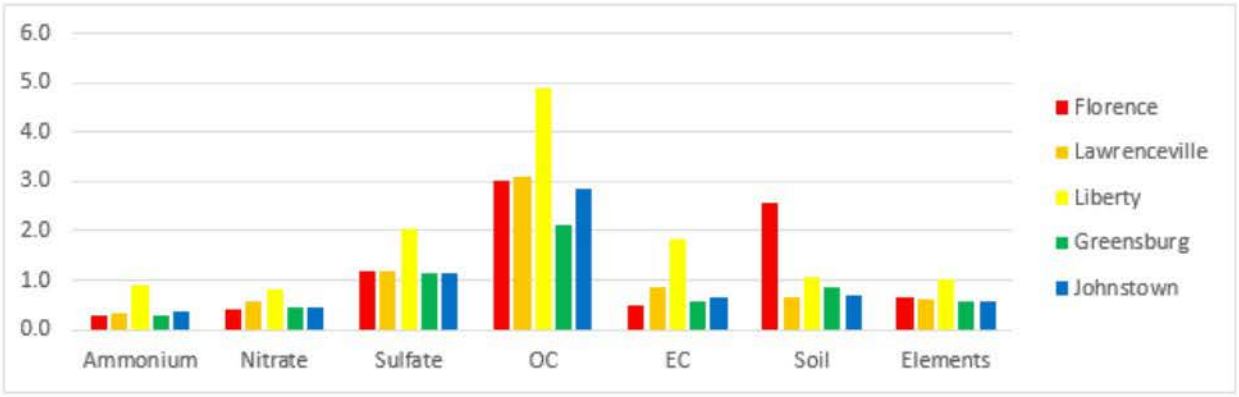


Figure C-1.6.6: Comparison of Quarter 2 $PM_{2.5}$ Average Speciation Concentrations(µg/m³) 2021-2023 minus 2016-2018

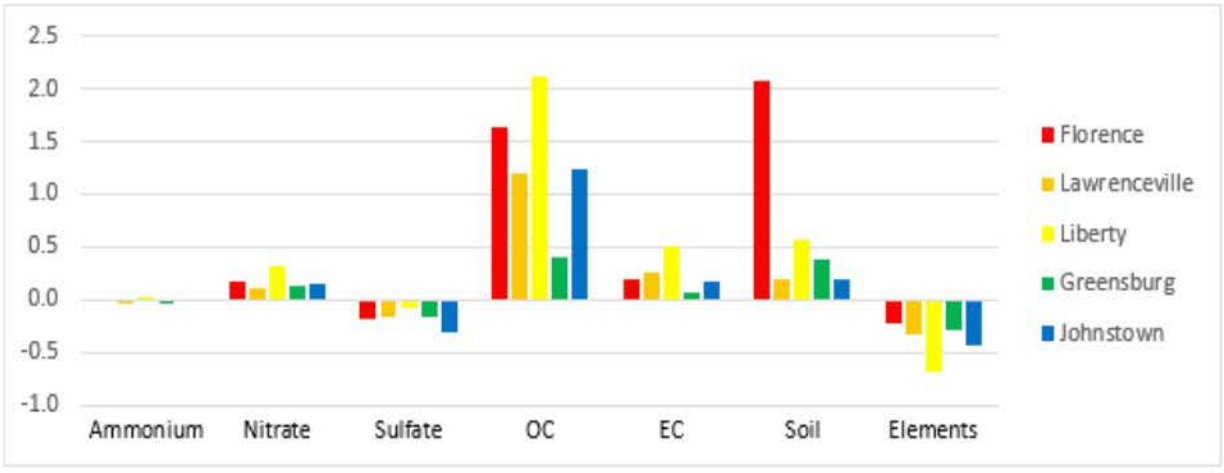


Figure C-1.6.7: 2016-2018 Quarter 3 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

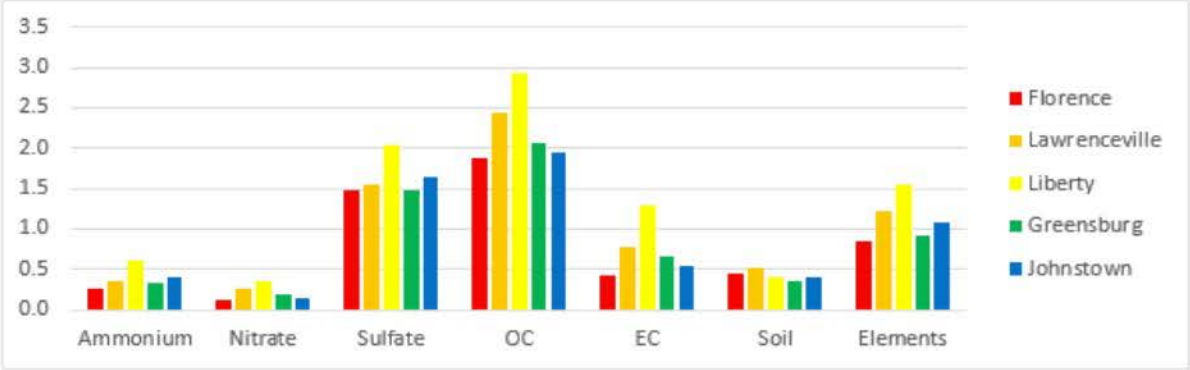


Figure C-1.6.8: 2021-2023 Quarter 3 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

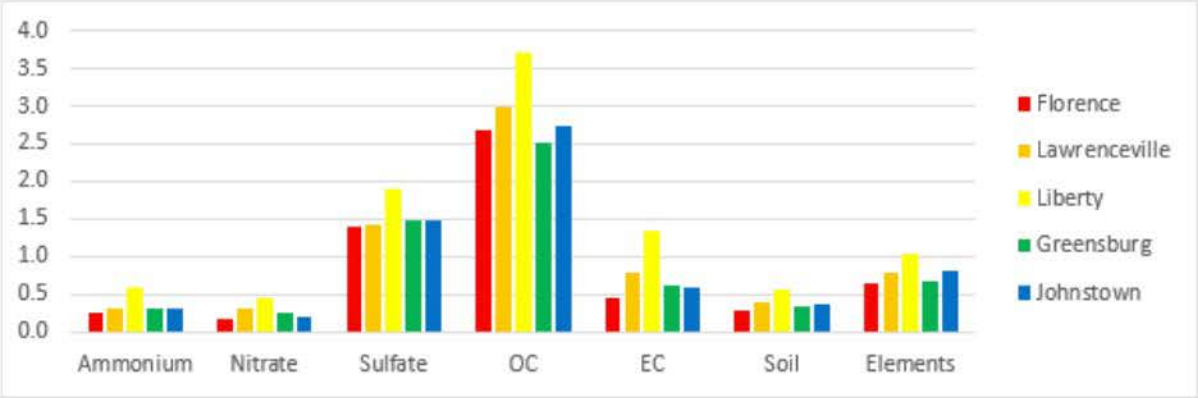


Figure C-1.6.9: Comparison of Quarter 3 $PM_{2.5}$ Average Speciation Concentrations(µg/m³) 2021-2023 minus 2016-2018

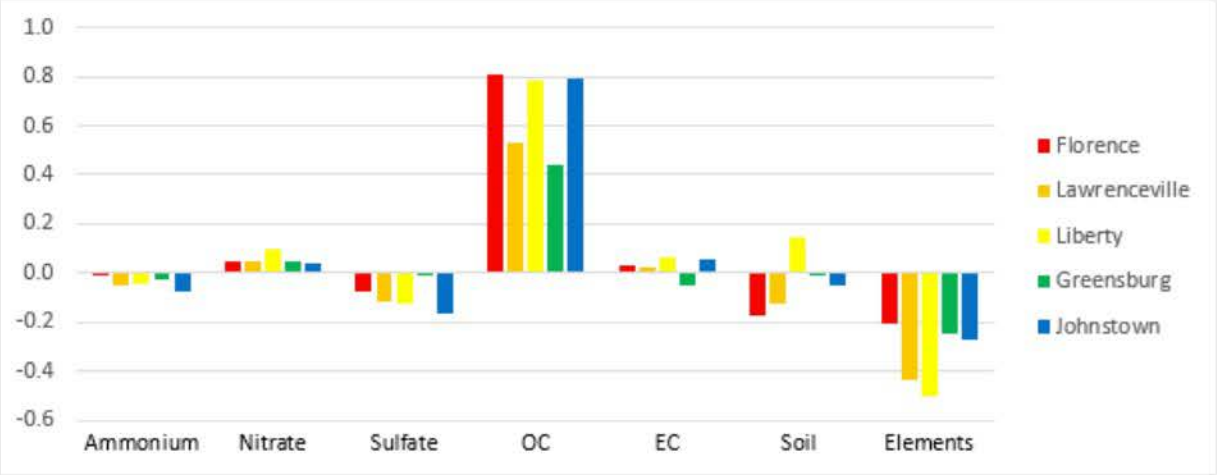


Figure C-1.6.10: 2016-2018 Quarter 4 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

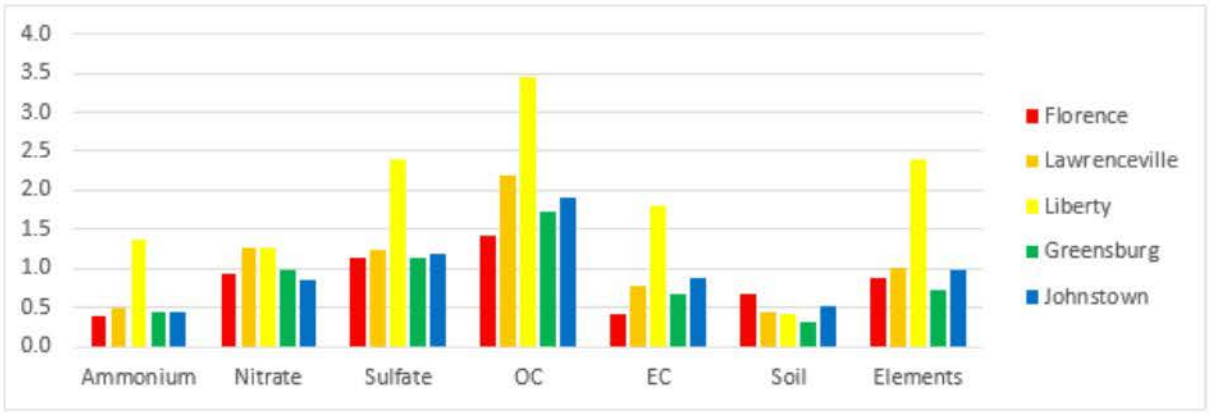


Figure C-1.6.11: 2021-2023 Quarter 4 $PM_{2.5}$ Average Speciation Concentrations (µg/m³)

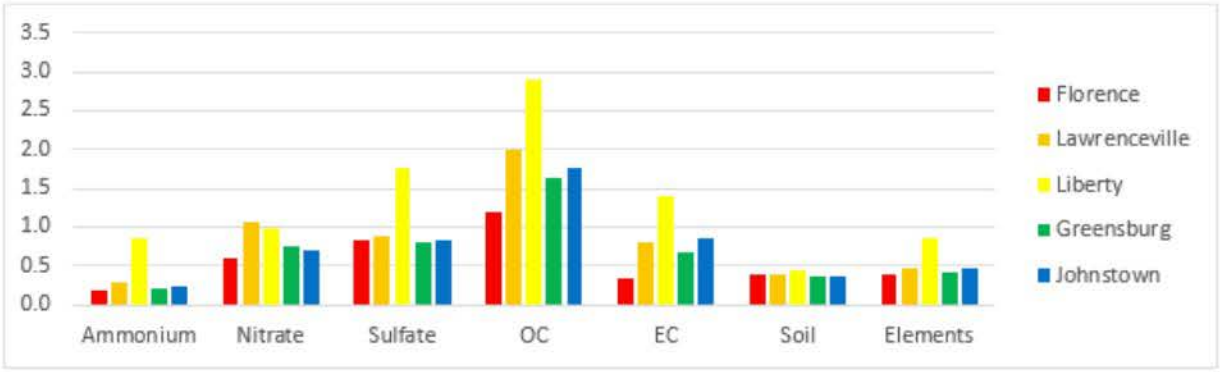
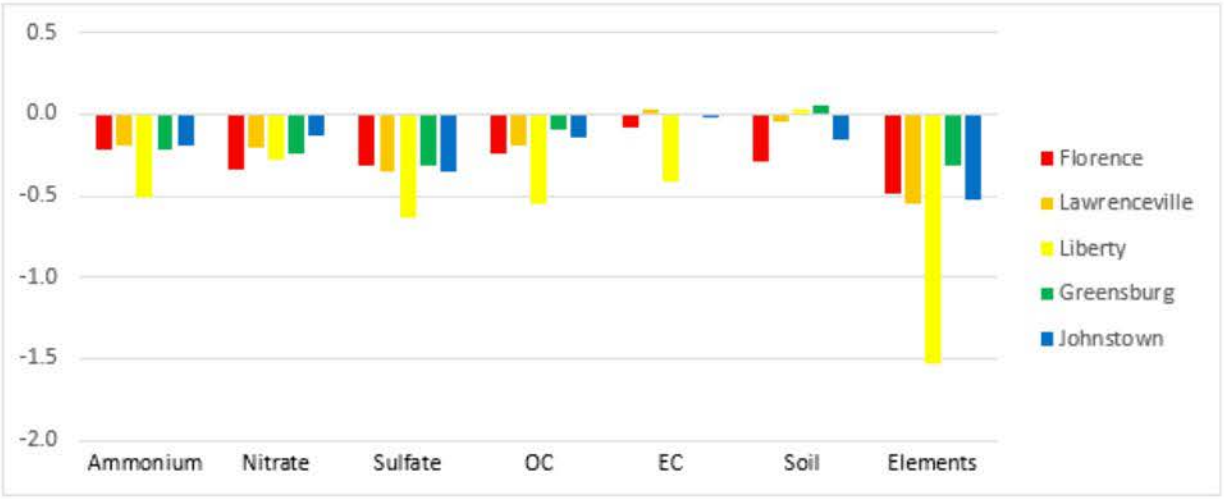


Figure C-1.6.12: Comparison of Quarter 4 $PM_{2.5}$ Average Speciation Concentrations(µg/m³) 2021-2023 minus 2016-2018



During Quarter 1, there have been reductions across the sites in nitrate and ammonium (except at Liberty) with reductions in OC at Florence and Greensburg, reductions in EC at Florence and Lawrenceville, and reductions in soil at Liberty and Greensburg. During Quarter 2, there have been reductions in nitrate, OC, EC, and soil across the sites. During Quarter 3, there have been reductions across the sites in nitrate, OC, and EC (except at Greensburg), and reductions in soil at Liberty. During Quarter 4, there have been reductions in EC at Lawrenceville and reductions in soil at Liberty and Greensburg.

Positive Matrix Factorization (PMF) receptor modeling can be applied to the $PM_{2.5}$ speciation data collected from 2021-2023 to quantify the contribution of sources to the measured $PM_{2.5}$ concentration. This analysis serves as supporting and underlying data for the attainment demonstration in the $PM_{2.5}$ 2024 NAAQS State Implementation Plan (SIP) for the Pennsylvania nonattainment area. Understanding $PM_{2.5}$ sources will help to develop effective emission reduction strategies.

Figure C-1.7.1: $PM_{2.5}$ Urban Excess, Johnstown vs. Florence, 2021-2023 by Quarter

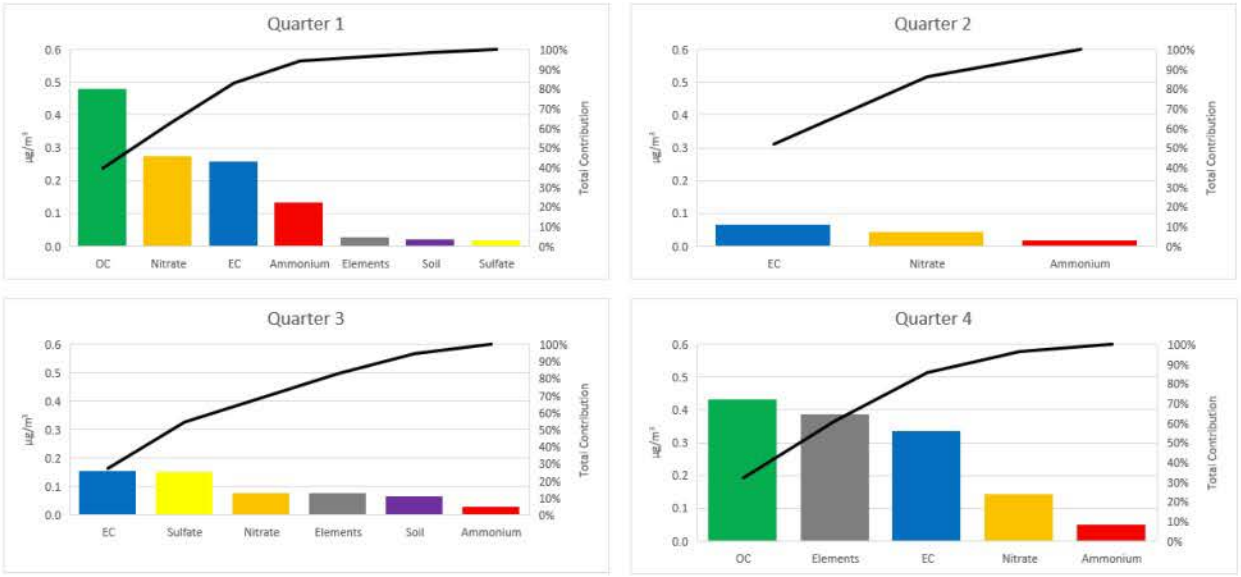


Figure C-1.7.2: $PM_{2.5}$ Urban Excess, Johnstown vs. Florence, 2021-2023

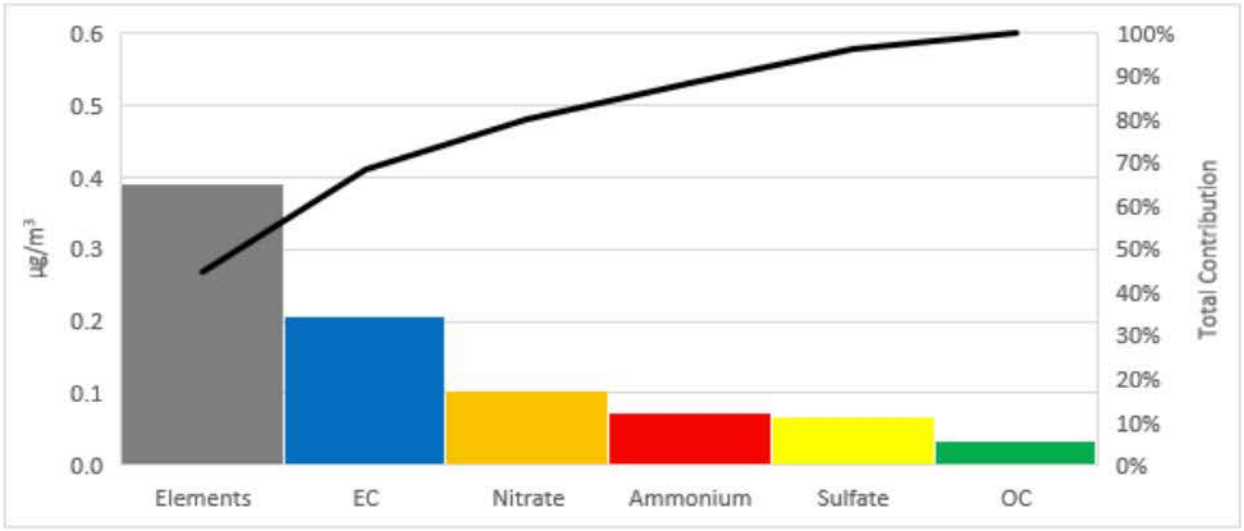


Figure C-1.7.3: $PM_{2.5}$ Urban Excess, Greensburg vs. Florence, 2021-2023 by Quarter

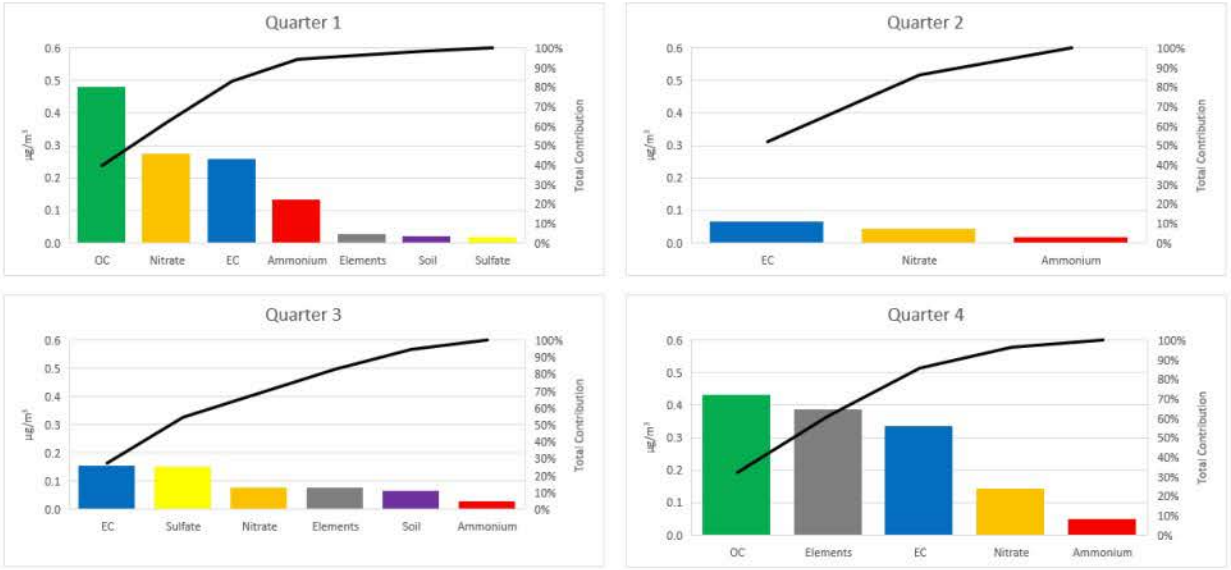


Figure C-1.7.4: $PM_{2.5}$ Urban Excess, Greensburg vs. Florence, 2021-2023

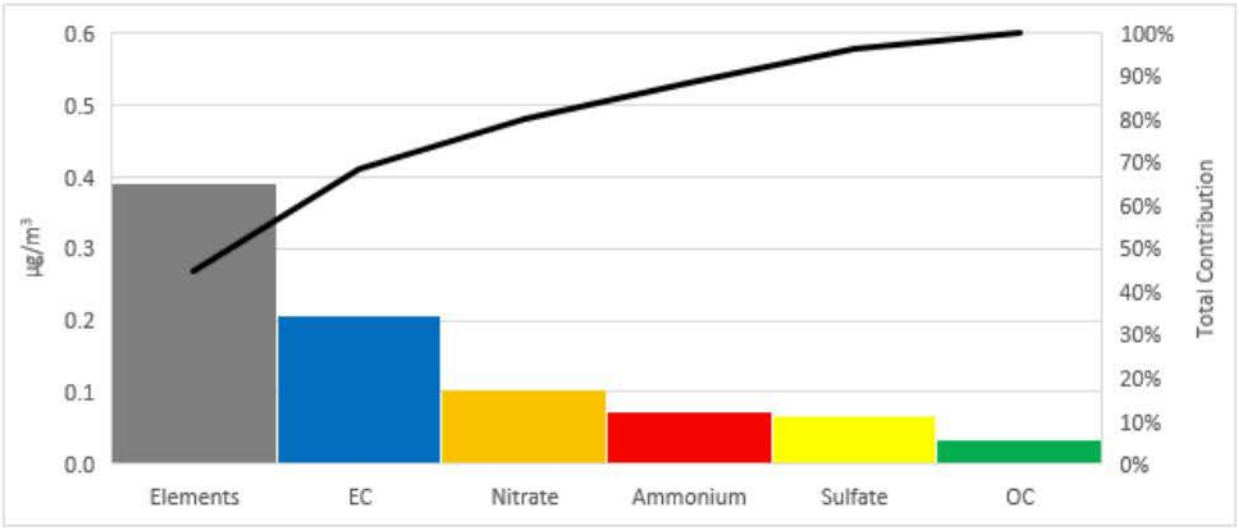


Figure C-1.7.5: $PM_{2.5}$ Urban Excess, Liberty vs. Florence, 2021-2023 by Quarter

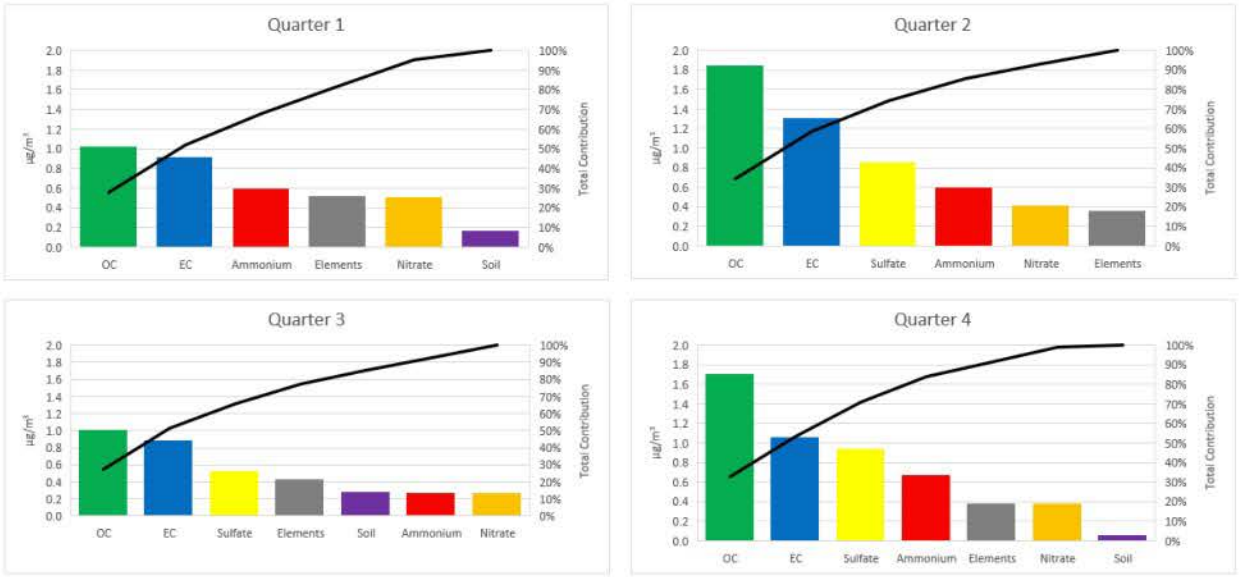


Figure C-1.7.6: $PM_{2.5}$ Urban Excess, Liberty vs. Florence, 2021-2023

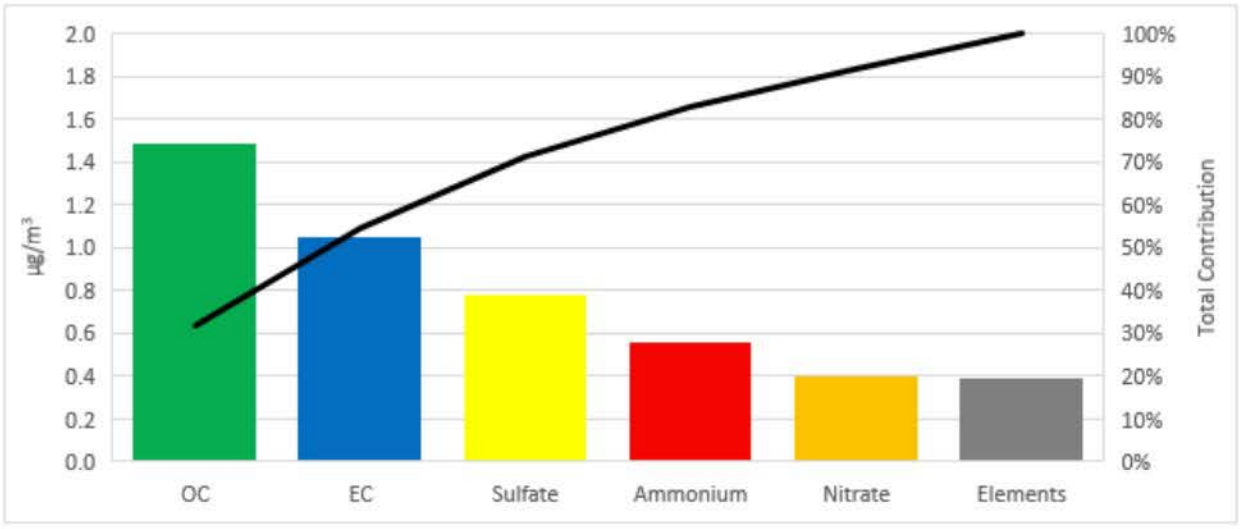


Figure C-1.7.7: $PM_{2.5}$ Urban Excess, Lawrenceville vs. Florence, 2021-2023 by Quarter

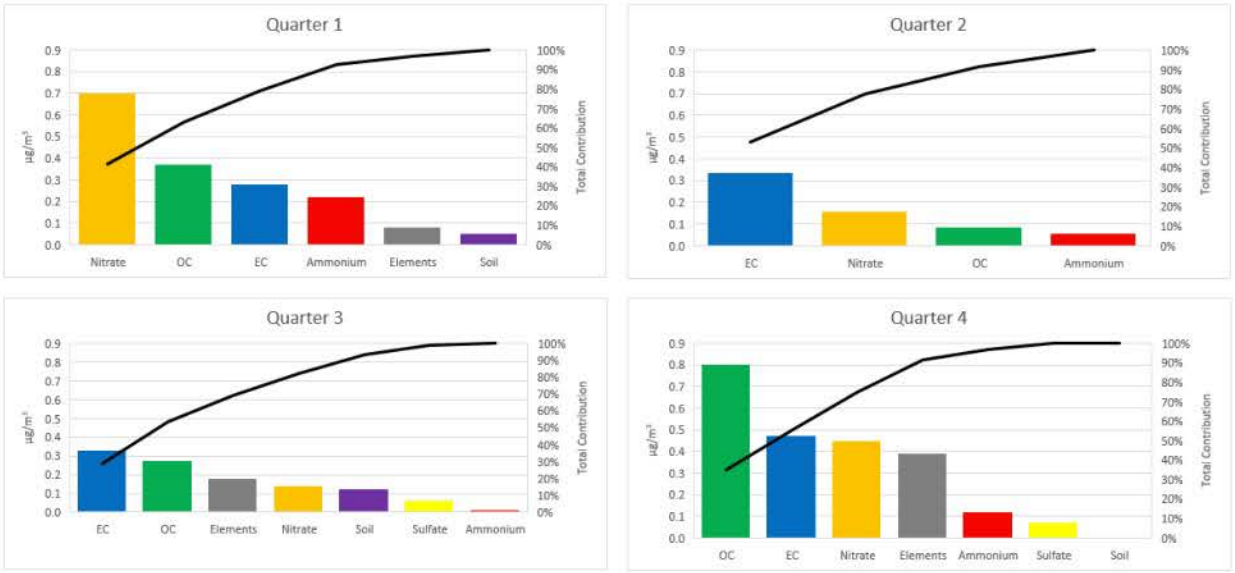
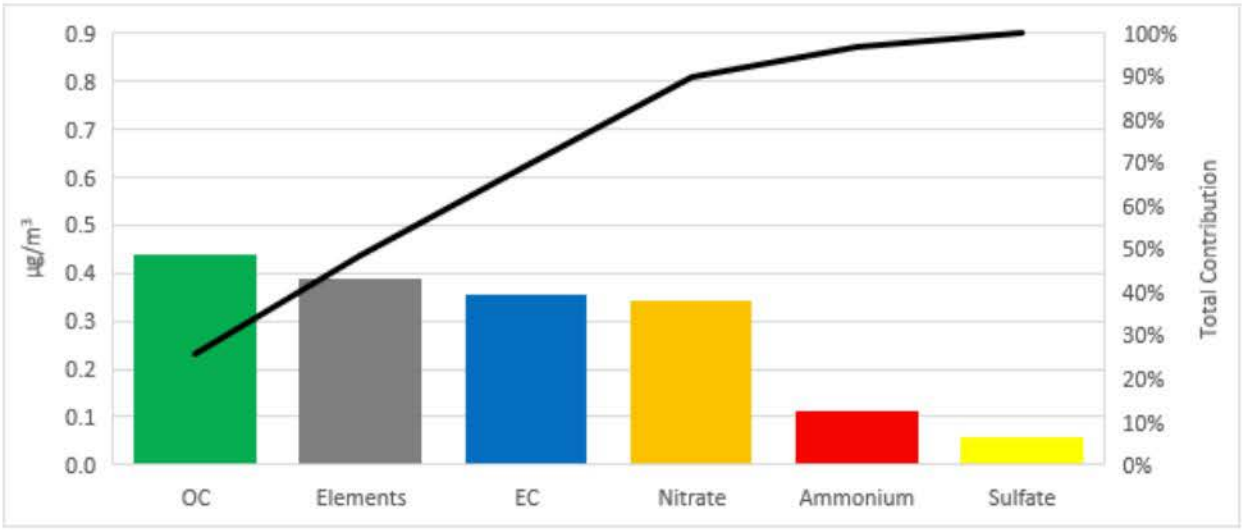


Figure C-1.7.8: $PM_{2.5}$ Urban Excess, Lawrenceville vs. Florence, 2021-2023



Figures C-1.7.1 - C-1.7.8 display the major constituents of $PM_{2.5}$ at the ACHD, Greensburg, and Johnstown monitors compared to Florence. In Quarter 1, all sites have excess ammonium, nitrate, sulfate (except at Liberty and Lawrenceville), OC, EC, soil, and trace elements compared to Florence, suggesting emissions are local in nature. In Quarter 2, Liberty has excess ammonium, nitrate, sulfate, OC, EC, and trace elements compared to Florence, suggesting emissions are local in nature. The remaining sites have excess ammonium, nitrate, and EC compared to Florence and Lawrenceville also has excess OC. In Quarter 3, all sites have excess ammonium, nitrate, sulfate, OC (except at Greensburg and Johnstown), EC, soil, and trace elements compared to Florence, suggesting emissions are local in nature. In Quarter 4, all sites have excess ammonium, nitrate, sulfate (except at Greensburg and Johnstown), OC, EC, soil (except at Greensburg and Johnstown), and trace elements compared to Florence, suggesting emissions are local in nature.

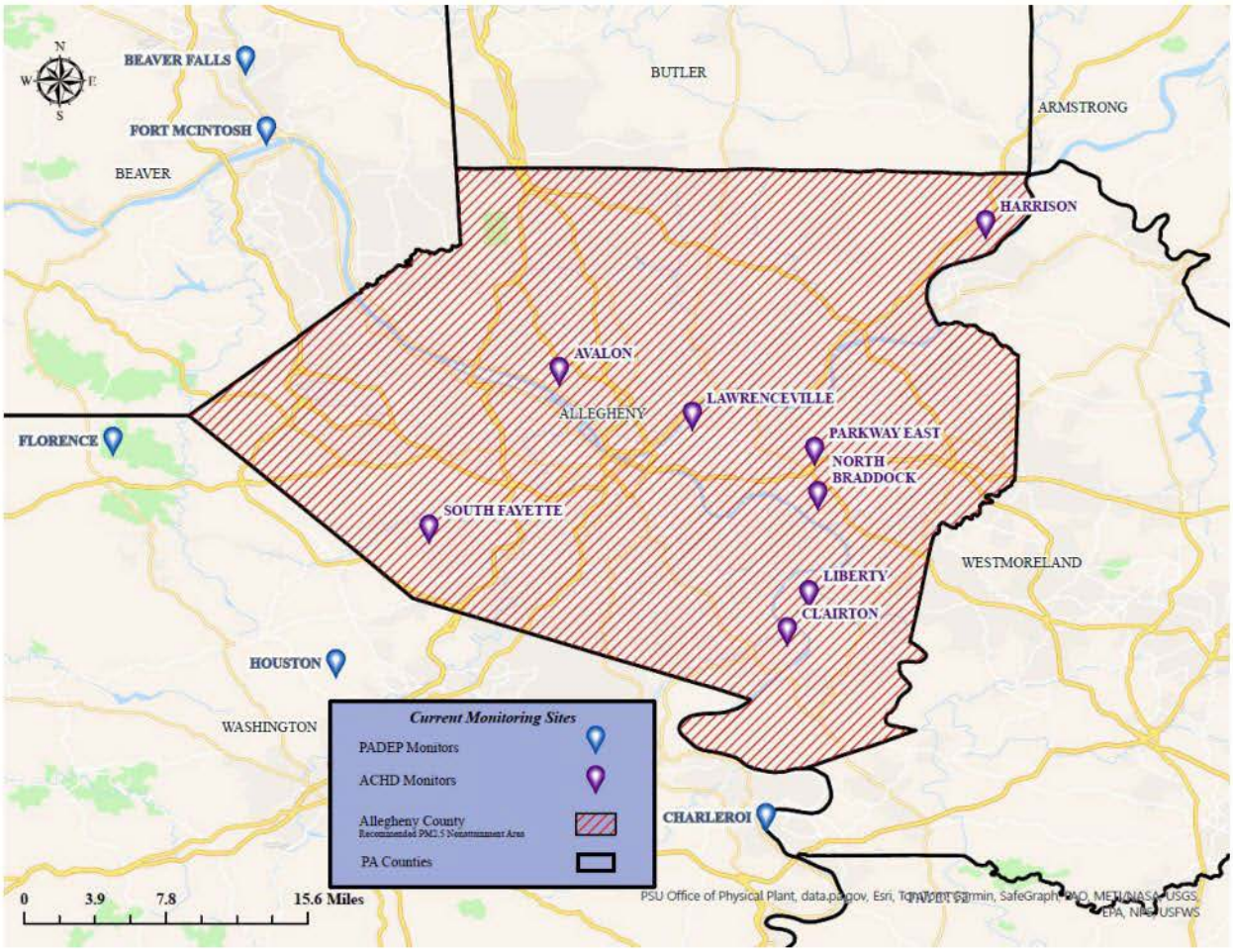
In terms of overall urban (or localized) excess in the Pittsburgh MSA, the Lawrenceville site within Allegheny County shows the highest "urban" excess in the Pittsburgh MSA, with 1.3 $\mu g/m^3$ of excess species that might be attributed to higher population. The downwind Greensburg site in Westmoreland County (and Johnstown in Cambria County, outside the Pittsburgh MSA) show some increase of compounds but to a lesser extent than Lawrenceville. The Liberty site displays a large "localized" excess within Allegheny County (4.4 $\mu g/m^3$) that can be attributed to industrial influences, during worst-case meteorological or poor dispersion conditions.

Summary

PADEP's analysis illustrates the need for a single county nonattainment area in southwestern Pennsylvania, consisting of Allegheny County only. An analysis of the $PM_{2.5}$ data monitored at the Liberty, North Braddock, Parkway East, and Avalon monitors in Allegheny County illustrate that these monitors see greater concentrations in the 9-27 $\mu g/m^3$ range than the regional concentrations in the same range. A further examination into the monitoring data demonstrates that the high concentrations are coming out of the southwest. These wind profiles travel over local point source emissions, further illustrating the local issue at the Liberty, North Braddock, Parkway East, and Avalon monitors. An analysis of the speciated data at the ACHD and Greensburg, Johnstown, and Florence monitors illustrate the excess major constituents of $PM_{2.5}$ emissions to be local in nature. The urban and localized excess is most evident in Allegheny County, which contribute to the violating design values.

The Liberty, North Braddock, Parkway East, and Avalon monitors in Allegheny County have a 2023 annual design value that exceeds the 2024 annual $PM_{2.5}$ NAAQS. The other monitors in the Pittsburgh MSA, namely four monitors in Allegheny County (Lawrenceville, Clairton, Harrison, and South Fayette), two monitors in Washington County (Charleroi and Florence monitors), one monitor in Beaver County (Beaver Falls monitor) and one monitor in Armstrong County (Kittanning monitor) are monitoring attainment of the 2024 standard, are continuing to have a general decline in the annual average, and are not contributing to excess emissions elsewhere. Therefore, PADEP is recommending Allegheny County in the Pittsburgh MSA be designated nonattainment for the 2024 annual $PM_{2.5}$ NAAQS. A map of the proposed nonattainment area is provided below as Figure C-1.8.

Figure C-1.8: Recommended Allegheny County $PM_{2.5}$ Nonattainment Area



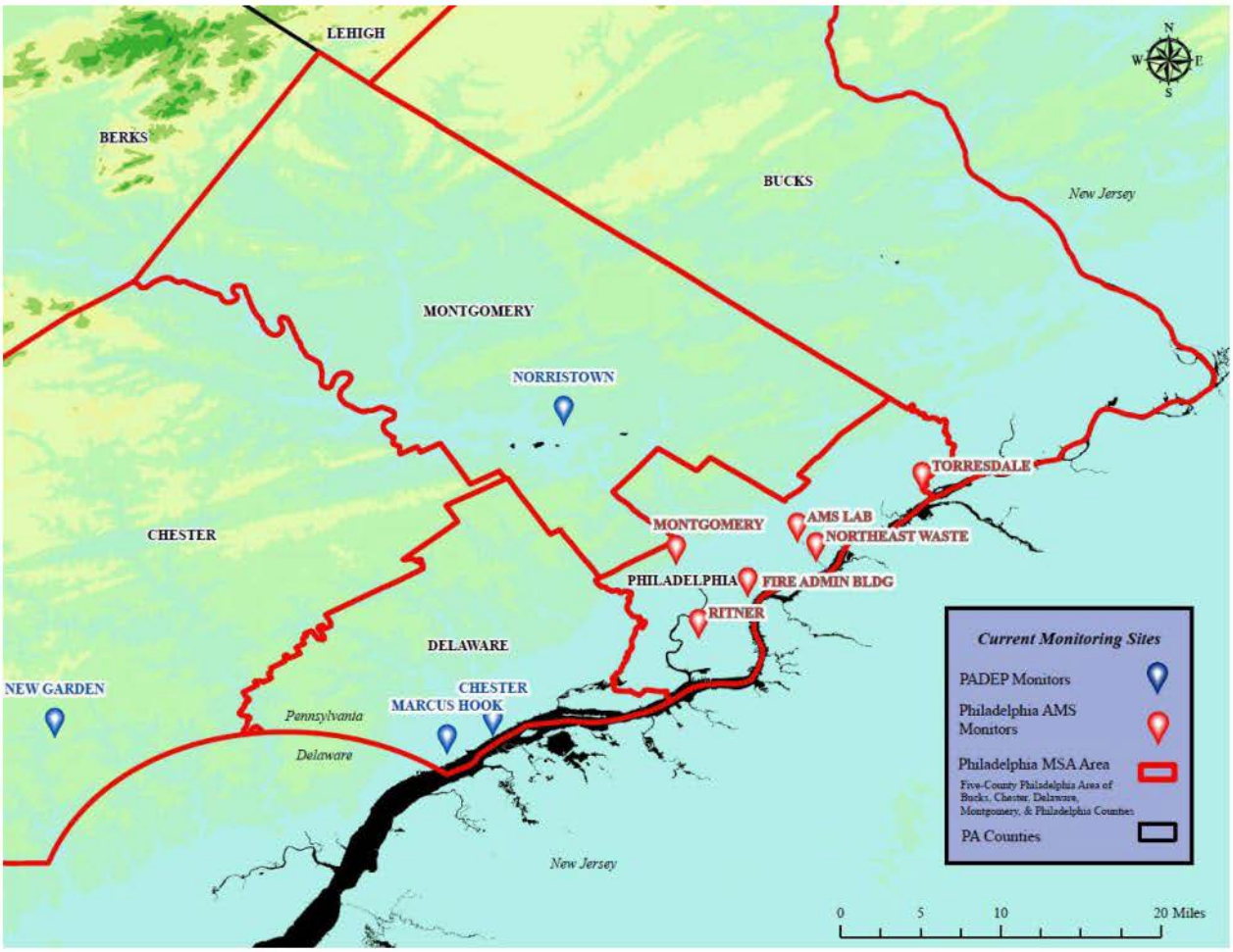
Appendix C-2
GREATER PHILADELPHIA AREA

PADEP reviewed the Philadelphia Metropolitan Statistical Area (MSA) in Pennsylvania (consisting of Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties) to determine its designation recommendations for the 2024 annual $PM_{2.5}$ National Ambient Air Quality Standard (NAAQS). Based on the analysis below, PADEP recommends a nonattainment area limited to Delaware, Montgomery, and Philadelphia Counties and outlines the reason for recommending a larger nonattainment area to the nonattainment area EPA designated for the 2012 $PM_{2.5}$ standard (only Delaware County), but smaller than the nonattainment areas EPA designated for the 2006 and 1997 $PM_{2.5}$ standards (Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties).

Analysis of the Ambient PM2.5 Data – A Design Value Contribution Analysis

Based on EPA-certified 2023 $PM_{2.5}$ valid design values (EPA AQS AMP480 Report), three monitors in the Philadelphia MSA in Pennsylvania are violating the 2024 $PM_{2.5}$ annual standard of 9.0 $\mu g/m^3$. The monitors and their design values are Torresdale (AQS ID # 42-101-0075) at 10.0 $\mu g/m^3$ (in Philadelphia County), Northeast Waste (AQS ID #42-101-0048) at 9.7 $\mu g/m^3$ (in Philadelphia County), and Ritner (AQS ID # 42-101-0055) at 9.3 $\mu g/m^3$ (in Philadelphia County). Figure C-2.1 is a map showing the location of these monitors, along with monitors in attainment, in the Philadelphia MSA in Pennsylvania. Note: Philadelphia Air Management Services (AMS) operates the monitors within Philadelphia County.

Figure C-2.1: Philadelphia MSA in Pennsylvania PM2.5 Monitoring Map



PADEP has completed a design value contribution analysis for all of the $PM_{2.5}$ monitors in the Philadelphia MSA in Pennsylvania with valid 2023 $PM_{2.5}$ design values. The analysis attempts to determine the daily contribution of $PM_{2.5}$ concentrations to the annual $PM_{2.5}$ design value. EPA-certified daily $PM_{2.5}$ measurements (EPA AQS AMP355 Report) were grouped into different $PM_{2.5}$ concentration ranges. An analysis of each range's contribution was then conducted to determine which measurements are contributing to the monitor's design value. These measurements were then further analyzed to determine if some specific meteorological conditions or sources are adversely impacting the monitor's design value.

Results from the design value contribution analysis for the Philadelphia MSA in Pennsylvania are summarized in Table C-2.1. Ultimately, the type of contribution a given monitor's daily value had on the 3-year design value (by comparing this value to 9.0 $\mu g/m^3$) was determined. The daily value for each day a monitor measured $PM_{2.5}$ levels was placed in one of the ten categories.

For example, on January 1, 2021, the Torresdale monitor's 24-hour $PM_{2.5}$ average was 10.0 $\mu g/m^3$. Since this value falls in the 9.0-13.5 $\mu g/m^3$ category in Table C-2.1, the calculated daily

contribution to the design value was placed in this category. In the first quarter of 2021 (January 1 to March 31), the Torresdale monitor recorded 90 measurements. PADEP determined that the January 1, 2021, contribution assessment to the 2023 design value was 0.000926 $\mu g/m^3$. The 0.000926 $\mu g/m^3$ was calculated by subtracting the standard of 9.0 $\mu g/m^3$ from the average daily value of 10.0 $\mu g/m^3$ and then dividing this by the number of measurements for the quarter (90) times 12 (there are a total of 12 quarters in a 3-year design value period). This type of analysis was completed for every day of measurements from January 1, 2021, through December 31, 2023. In Table C-2.1, the sum of the categorical breakdowns for the Torresdale monitor equals 1.0558 $\mu g/m^3$, which demonstrates that the design value is 1.0558 $\mu g/m^3$ above the annual standard of 9.0 $\mu g/m^3$.

Figures C-2.2.1 – C-2.2.15 show the design value contribution and category breakdown for the seven monitors and summary.

Table C-2.1: Philadelphia MSA in Pennsylvania
2023 $PM_{2.5}$ Annual Design Value Contribution Analysis

Site Name	Site ID	Owner	0 - 4.5	4.5 - 9.0	9.0 - 13.5	13.5 - 18.0	18.0 - 22.5	22.5 - 27.0	27.0 - 31.5	31.5 - 36.0	36.0 - 40.5	40.5 - 45.0	SUM
Monitors Attaining 2024 $PM_{2.5}$ Standard													
Chester	420450002	PADEP	-0.9130	-1.2617	0.4185	0.4053	0.2901	0.1049	0.0588	0.0000	0.0560	0.3456	-0.4955
Montgomery	421010076	Philadelphia AMS	-1.1428	-1.3115	0.3701	0.4533	0.3048	0.1674	0.0541	0.0217	0.0280	0.5271	-0.5279
Norristown	420910013	PADEP	-1.2920	-1.3209	0.3291	0.3643	0.2665	0.1677	0.0567	0.0000	0.0283	0.5168	-0.8835
New Garden	420290100	PADEP	-1.1664	-1.3380	0.3384	0.3985	0.2223	0.0764	0.0390	0.0729	0.0000	0.4591	-0.8978
Monitors Not Attaining 2024 $PM_{2.5}$ Standard													
Torresdale	421010075	Philadelphia AMS	-0.6708	-1.0194	0.4321	0.7215	0.3452	0.3962	0.1084	0.0931	0.1051	0.5444	1.0558
Northeast Waste	421010048	Philadelphia AMS	-0.7947	-1.0409	0.4646	0.7122	0.3822	0.2577	0.1659	0.0000	0.0555	0.4678	0.6704
Ritner	421010055	Philadelphia AMS	-1.0081	-1.0510	0.3845	0.5685	0.3454	0.3158	0.0749	0.0872	0.0256	0.5295	0.2723
Philadelphia MSA in Pennsylvania Average			-0.9983	-1.1919	0.3910	0.5177	0.3081	0.2123	0.0797	0.0393	0.0426	0.4843	-0.1152

Figure C-2.2.1: Torresdale $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

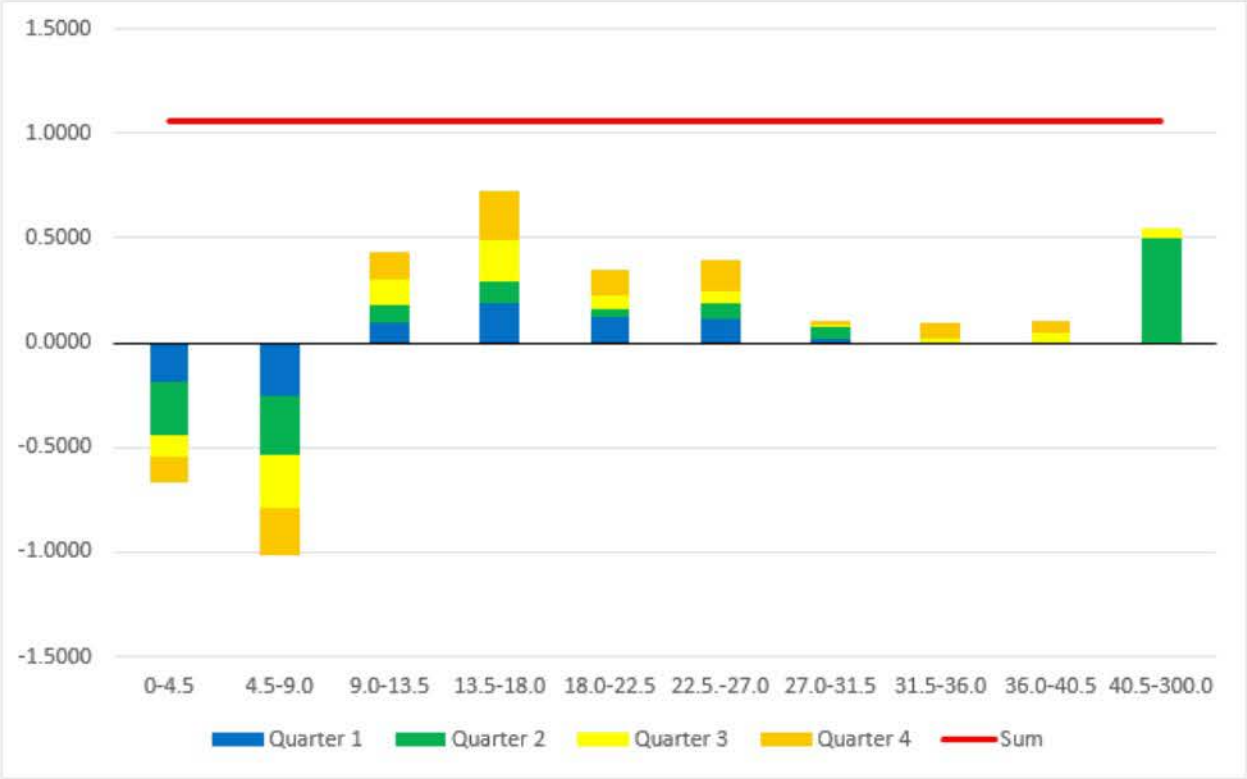


Figure C-2.2.2: Torresdale $PM_{2.5}$ Design Value Category Breakdown

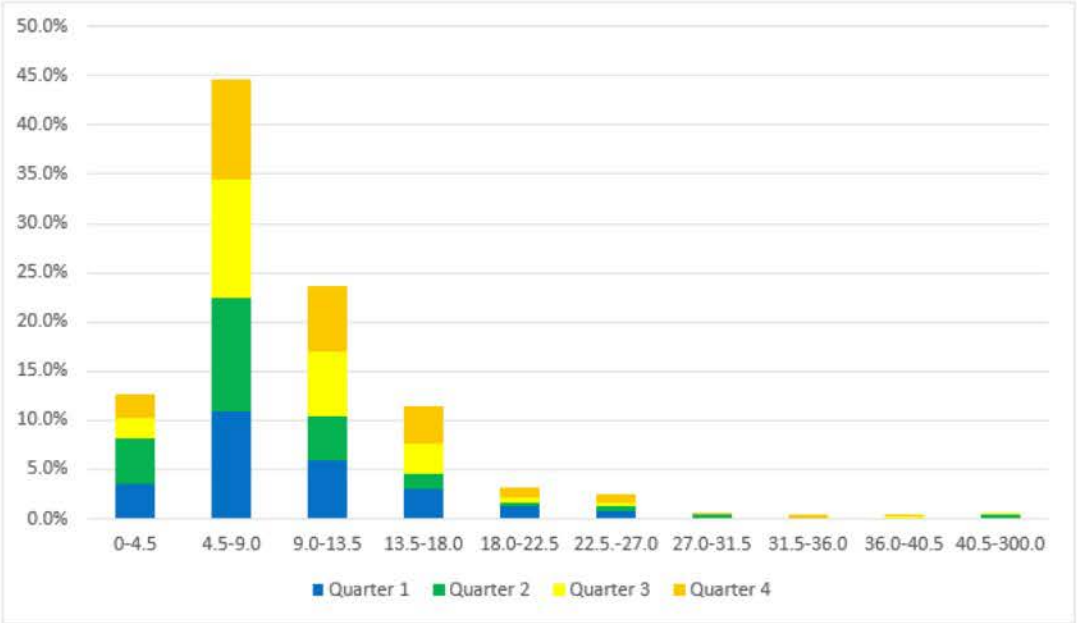


Figure C-2.2.3: Northeast Waste $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

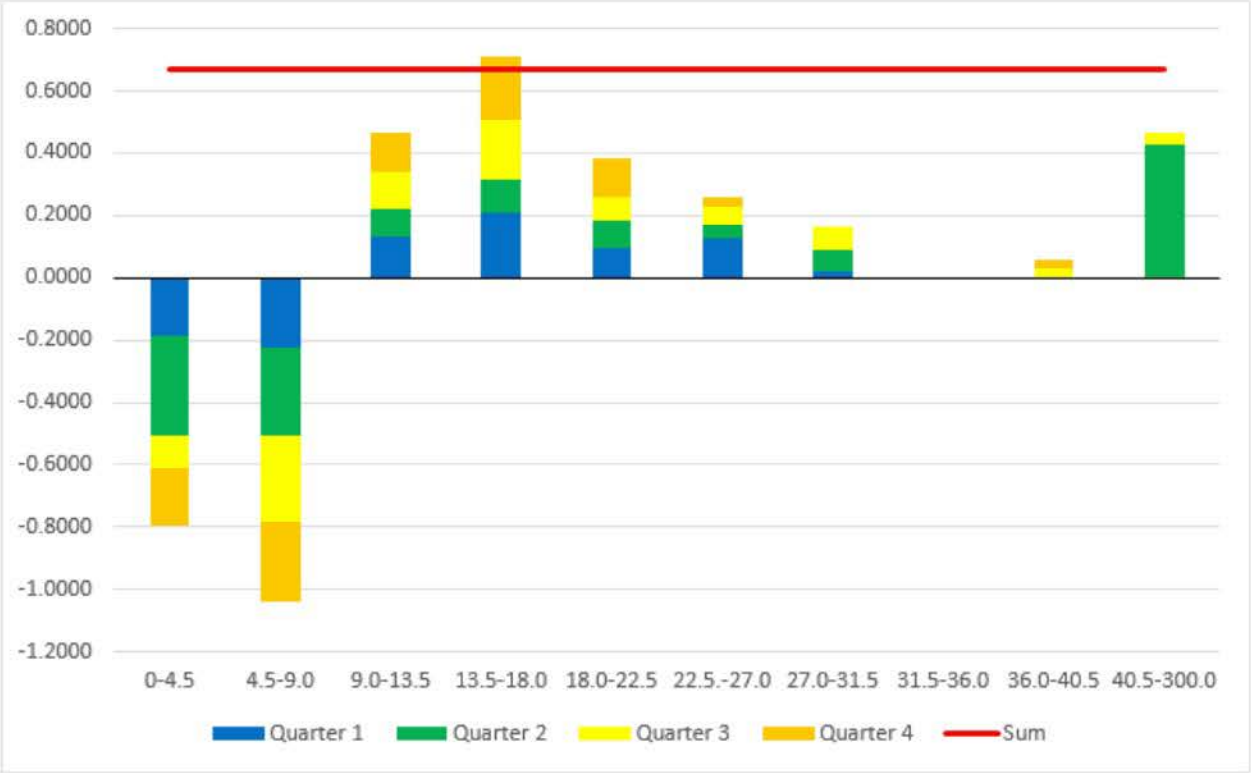


Figure C-2.2.4: Northeast Waste $PM_{2.5}$ Design Value Category Breakdown

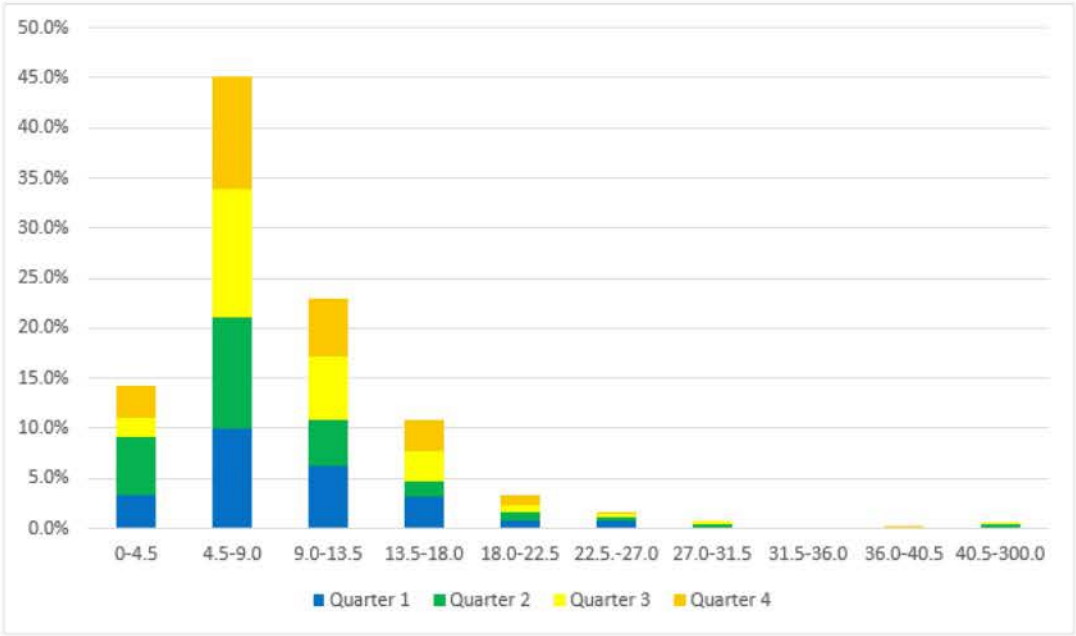


Figure C-2.2.5: Ritner $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

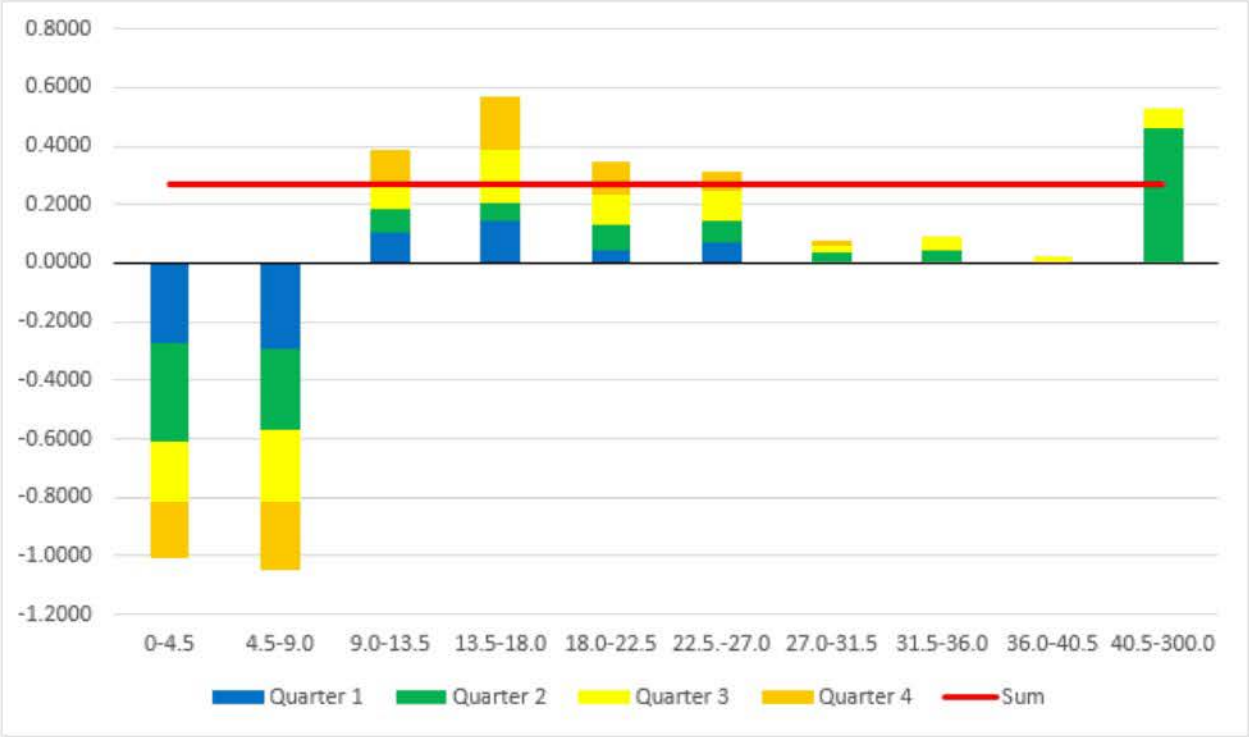


Figure C-2.2.6: Ritner $PM_{2.5}$ Design Value Category Breakdown

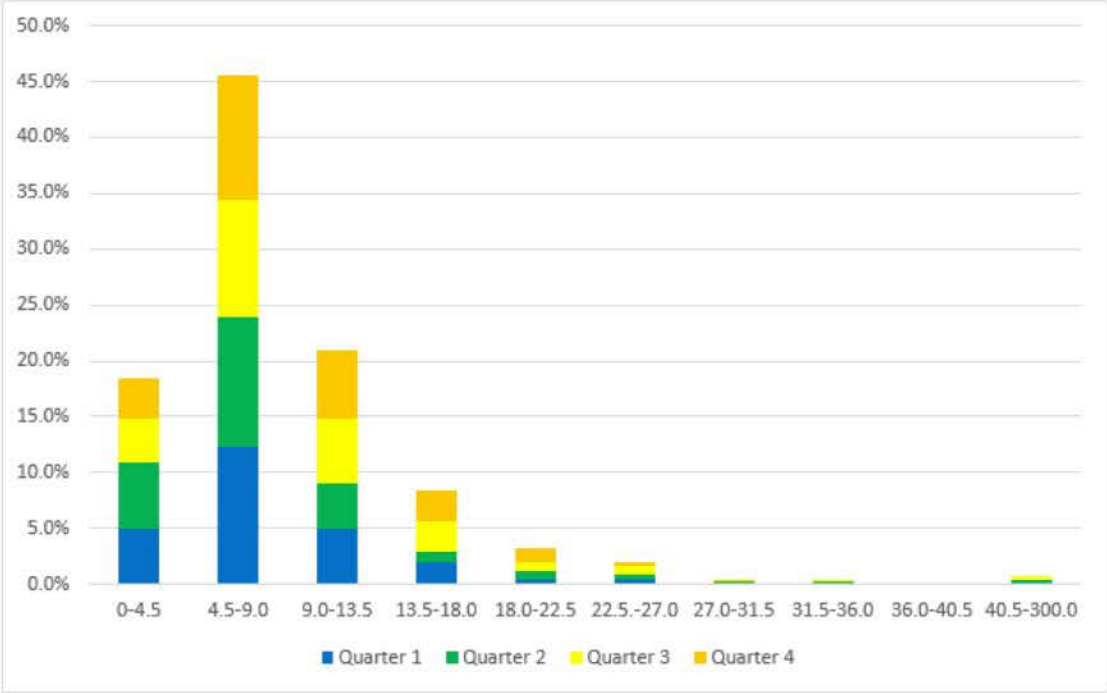


Figure C-2.2.7: Chester $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

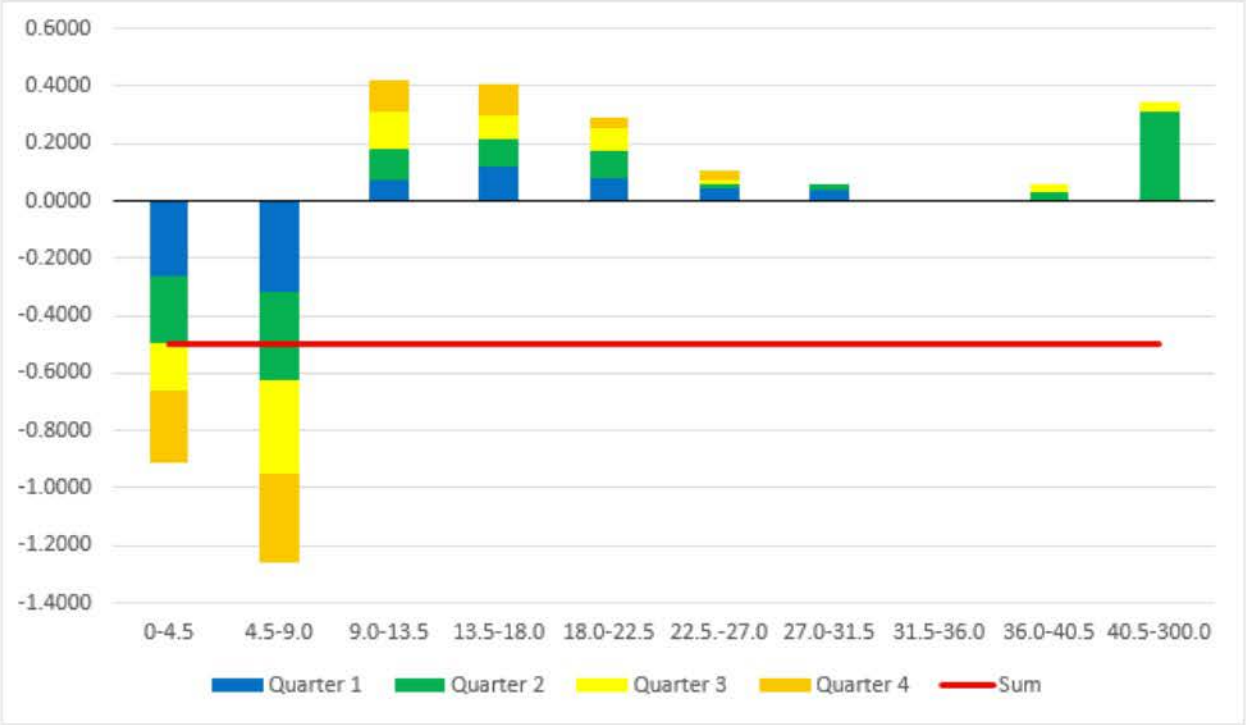


Figure C-2.2.8: Chester $PM_{2.5}$ Design Value Category Breakdown

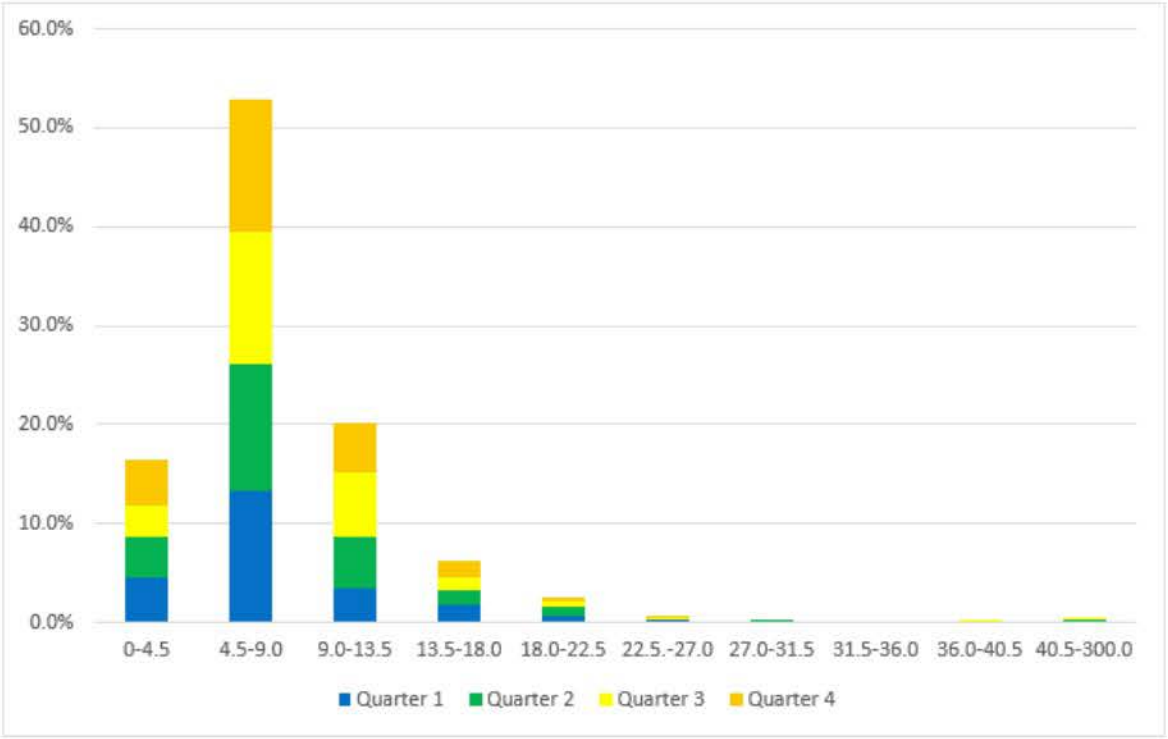


Figure C-2.2.9: Montgomery $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

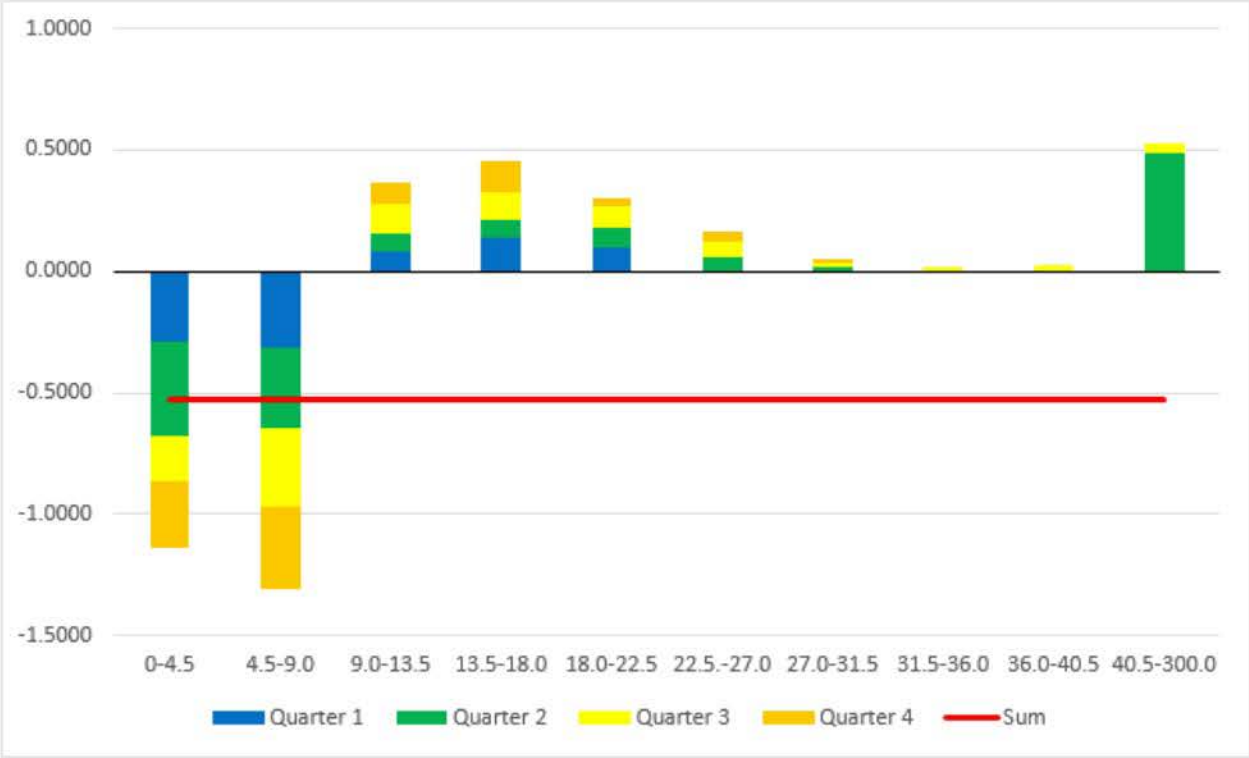


Figure C-2.2.10: Montgomery $PM_{2.5}$ Design Value Category Breakdown

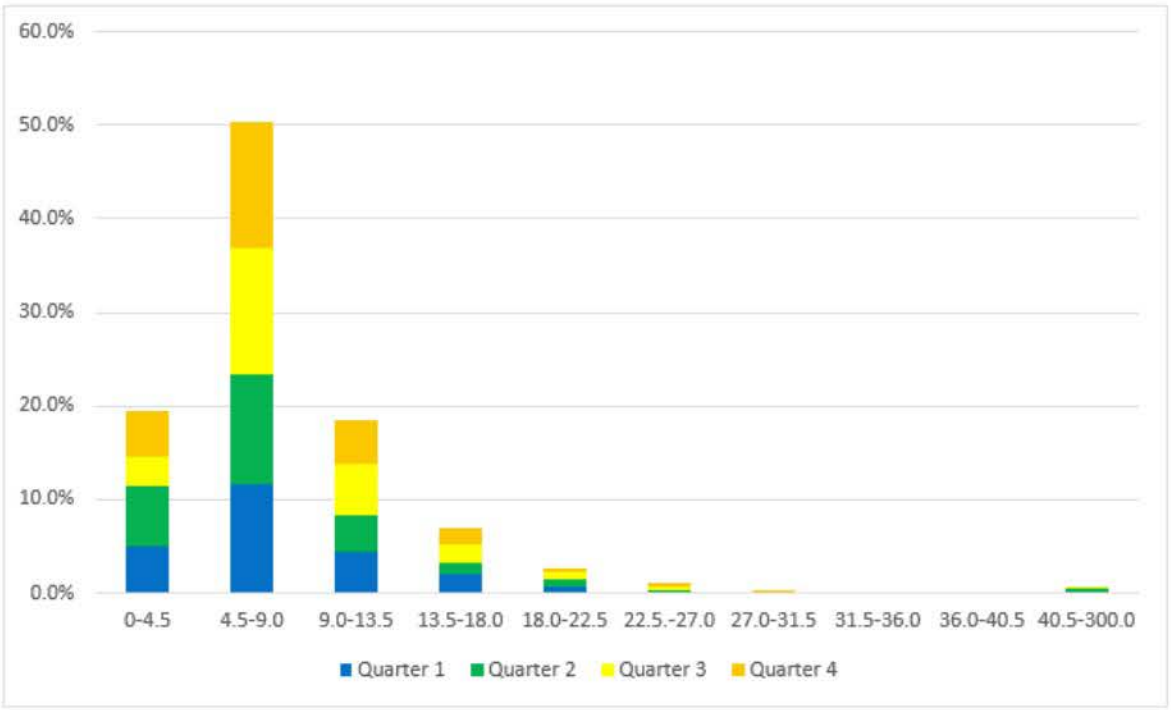


Figure C-2.2.11: New Garden $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

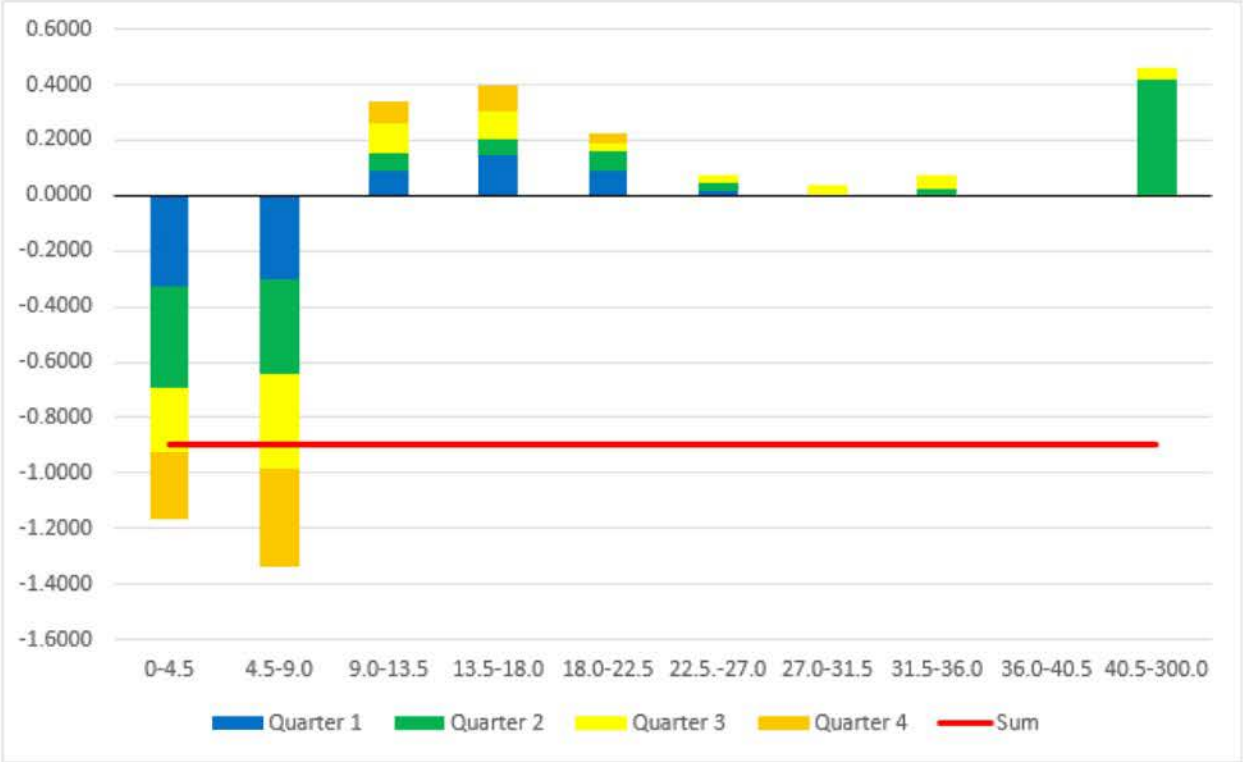


Figure C-2.2.12: New Garden $PM_{2.5}$ Design Value Category Breakdown

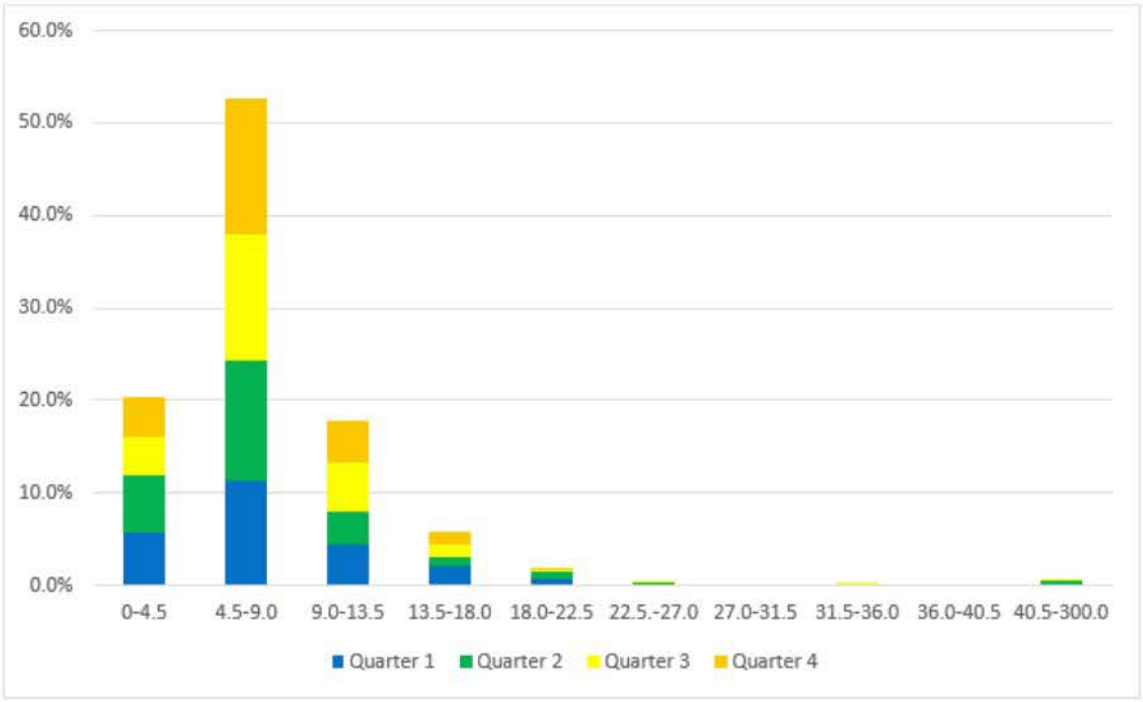


Figure C-2.2.13: Norristown $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

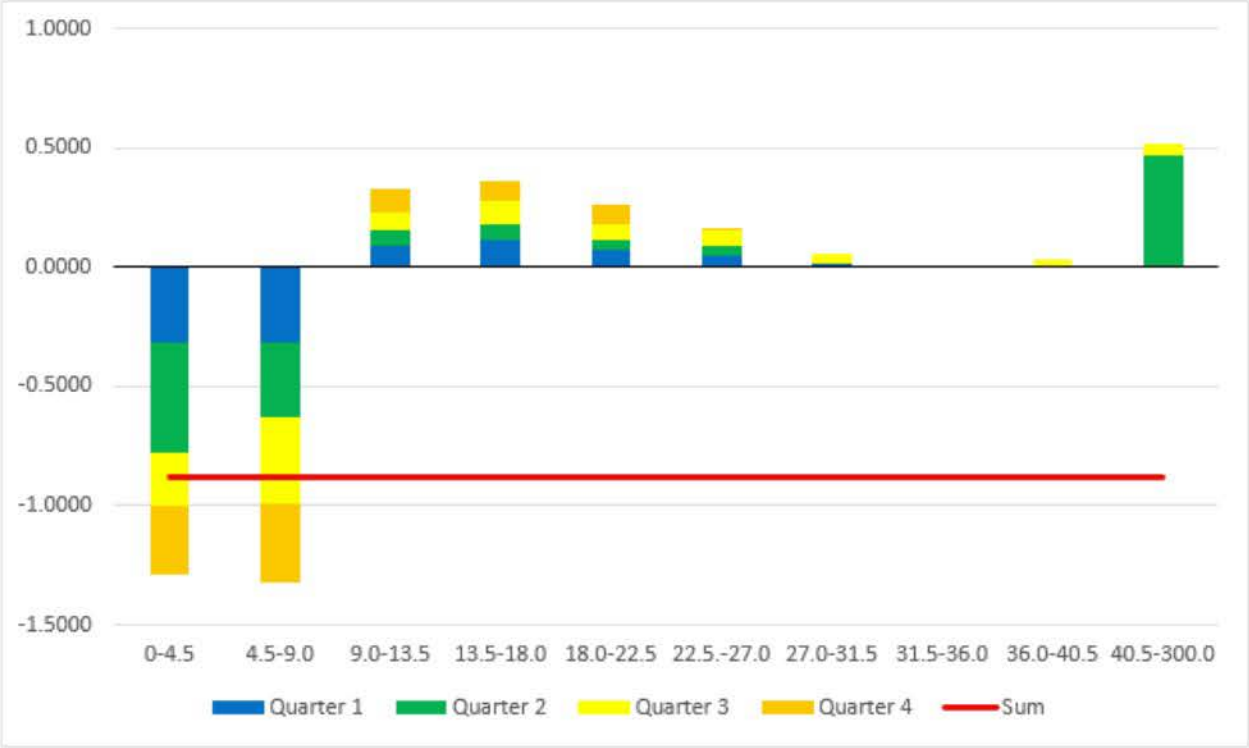


Figure C-2.2.14: Norristown $PM_{2.5}$ Design Value Category Breakdown

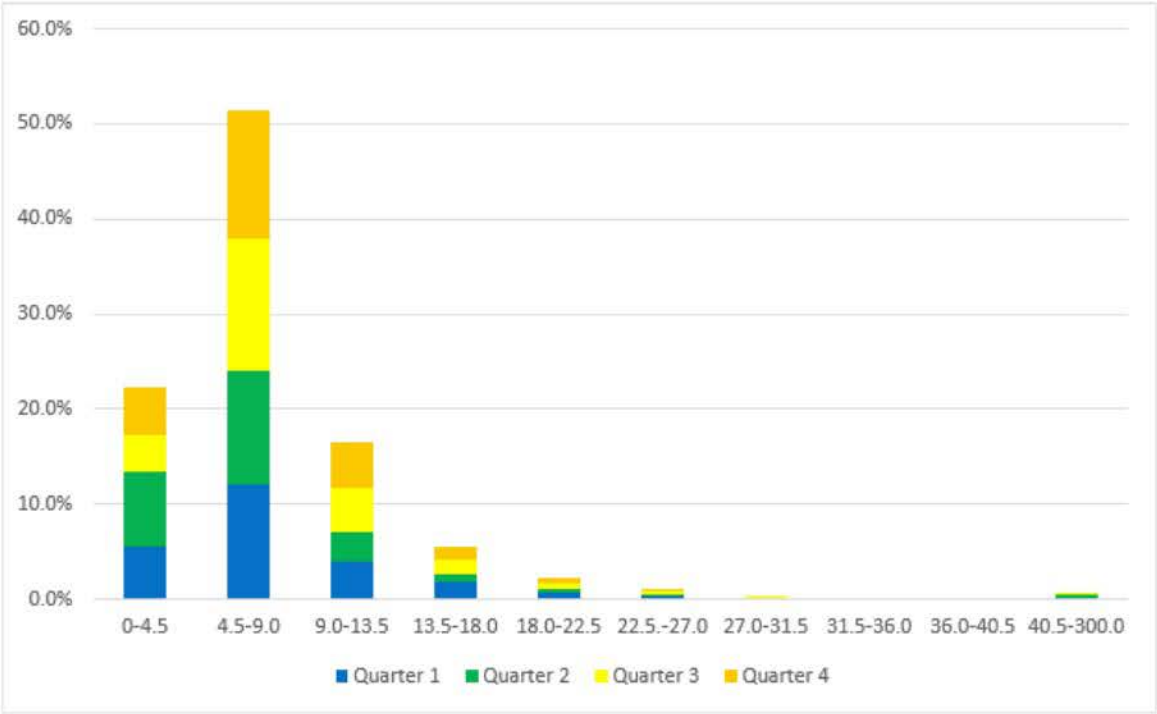


Figure C-2.2.15: Philadelphia MSA in Pennsylvania $PM_{2.5}$ Annual Design Value Contribution ($\mu g/m^3$)

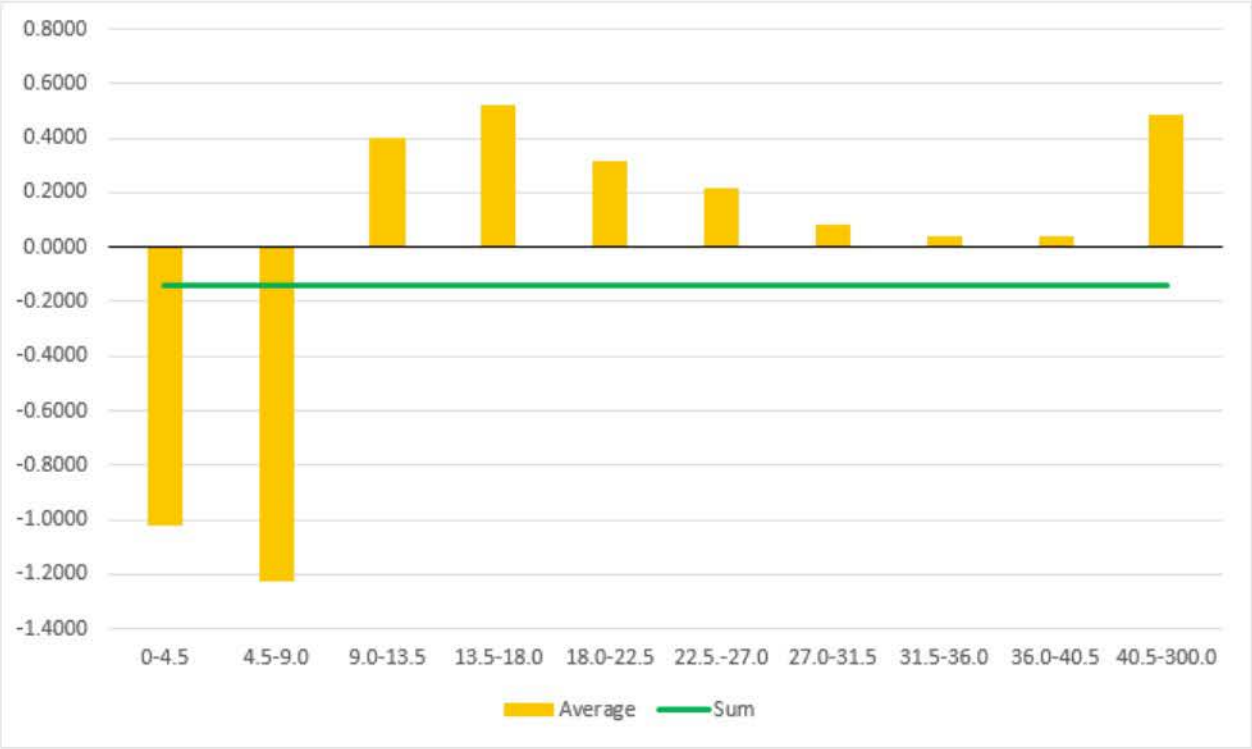


Table C-2.1 and Figures C-2.2.1 – C-2.2.15 illustrate the differences between the monitors that are attaining the 2024 $PM_{2.5}$ annual standard and the monitors that are not attaining the 2024 $PM_{2.5}$ annual standard. The monitors that are not attaining the standard have relatively fewer "clean" days (0-9.0 $\mu g/m^3$) than the monitors that are attaining the standard. For example, the Torresdale monitor's $PM_{2.5}$ contribution to the design value in the 0-9.0 $\mu g/m^3$ range was 0.6 $\mu g/m^3$ lower than the Philadelphia MSA in Pennsylvania average.

The analysis described in the remainder of this Appendix focuses on the violating monitors in Philadelphia County (Torresdale, Northeast Waste, and Ritner) and surrounding Delaware and Montgomery Counties. Figure C-2.3.1 illustrates the trend of annual averages while Figure C-2.3.2 illustrates the trend of annual design values for monitors in the Philadelphia MSA in Pennsylvania with valid 2023 $PM_{2.5}$ design values. The Torresdale, Northeast Waste, and Ritner monitors have both a 2023 annual average and design value above the 2024 standard. Since 2014, annual $PM_{2.5}$ levels have been in a general decline in the Philadelphia MSA in Pennsylvania. Except for 2023, the Montgomery monitor in Philadelphia County has always been below the 2024 standard on an annual average and under the annual design value, the Norristown monitor in Montgomery County has been below the 2024 standard on an annual average since 2018 and under the annual design value since 2019, the Chester monitor in Delaware County has been below the 2024 standard on an annual average since 2019 and under the annual design value since 2021, and the New Garden monitor in Chester County has been below the 2024 standard on an annual average in 2022 and 2020 and under the annual design value in those years as well.

It is important to note that 2023 was an extremely active year for Canadian wildfires, leading to an excessive amount of smoke transported into southeastern PA. Fire-related request for exclusion qualifier codes were included in AQS for all Philadelphia MSA in Pennsylvania $PM_{2.5}$ data on June 6-8 and June 27-July 1, 2023, along with fire-related informational only qualifier codes on 24 sample days. Days with smoke impacts showed elevated concentrations (beyond what might have been expected), along with several exceedances of the 24-hour NAAQS. With an exceptional event analysis submitted to EPA, exclusion of select days would lead to lower concentrations at all sites and per EPA's $PM_{2.5}$ Tiering Tool at: https://www.epa.gov/air-quality-analysis/pm25-tiering-tool-exceptional-events-analysis, Ritner's 2023 $PM_{2.5}$ annual design value would be 8.8 $\mu g/m^3$ as seen in Figure C-2.3.3. However, since two monitors in Philadelphia County would still be violating the 2024 standard even with many days excluded, an exceptional event exclusion analysis has not been prepared for any of the Philadelphia MSA in Pennsylvania sites at the time of this analysis.

Figure C-2.3.1: Philadelphia MSA in Pennsylvania $PM_{2.5}$ Valid Annual Averages (µg/m³)

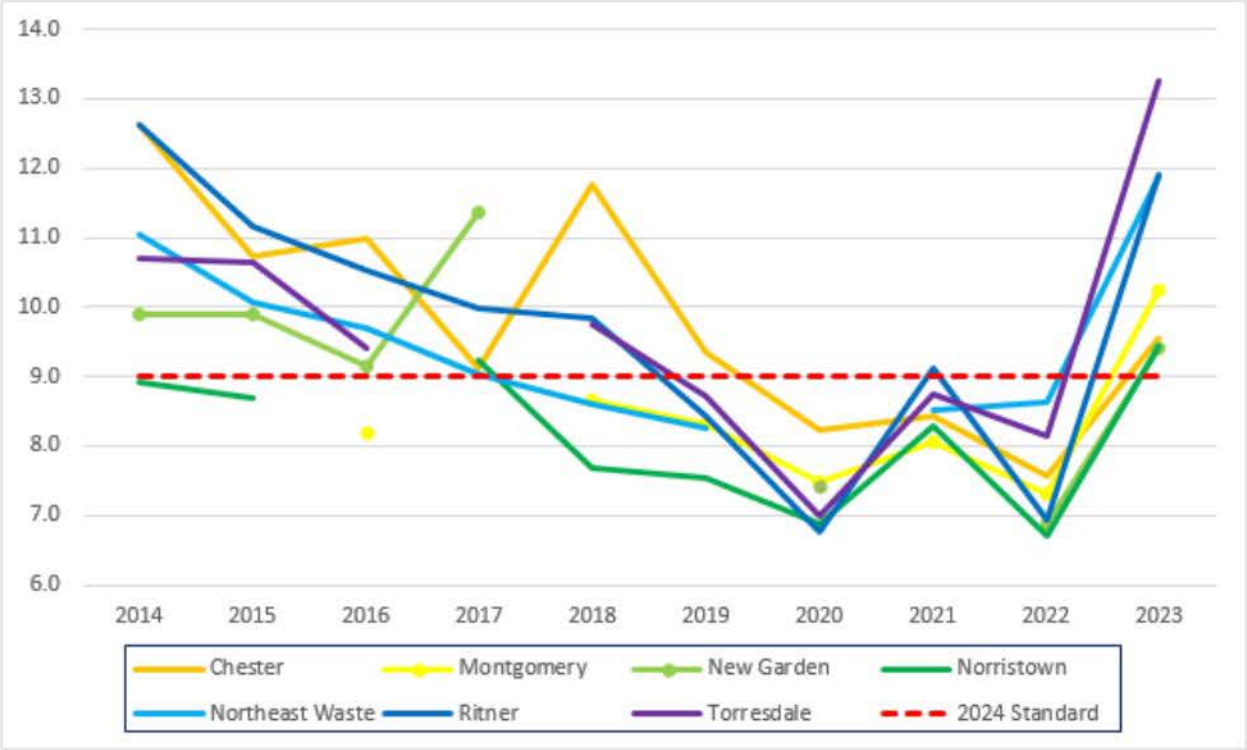


Figure C-2.3.2: Philadelphia MSA in Pennsylvania $PM_{2.5}$ Valid Annual Design Values (µg/m³)

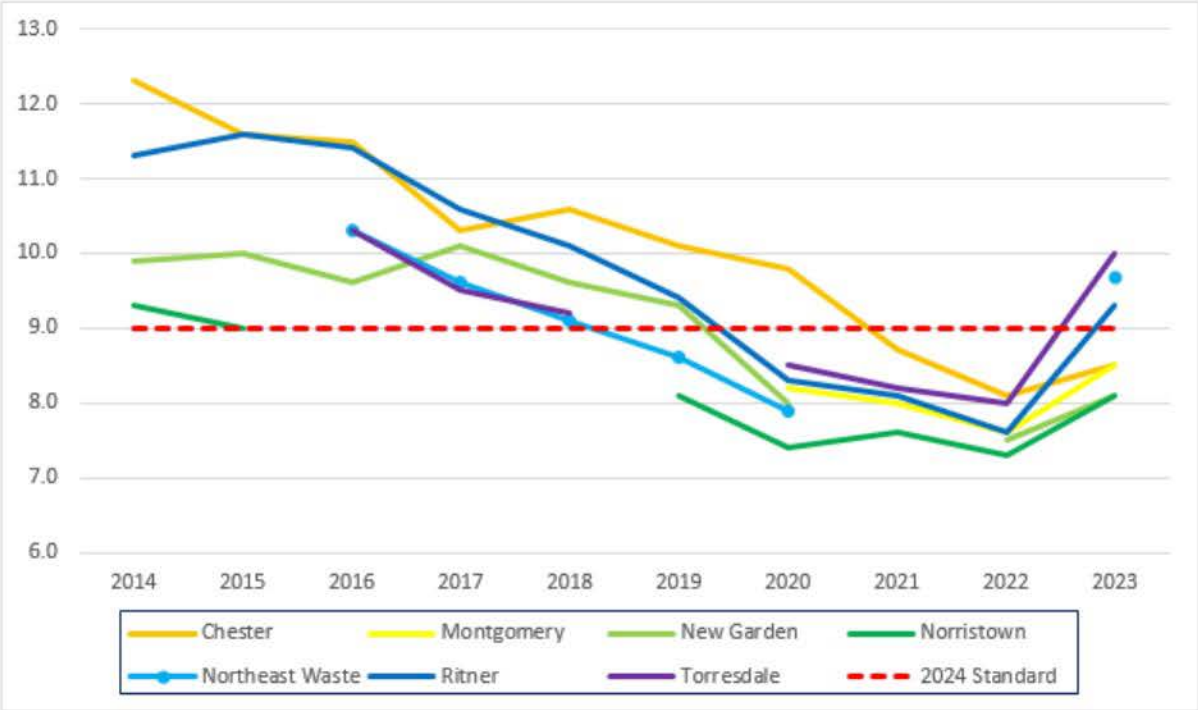
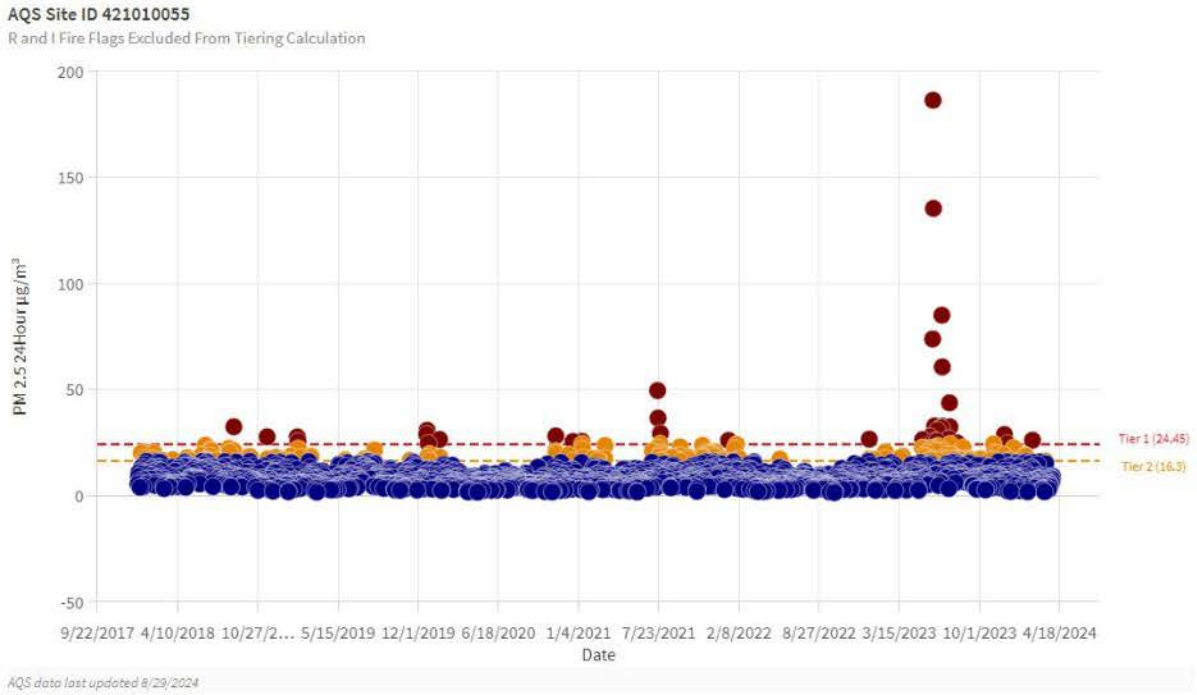


Figure C-2.3.3: Ritner Scatter Plot with Request Exclusion and Fire-Related Informational Flags Excluded from Tiering Calculation



Additional analyses were completed to determine what was contributing to the fewer number of "clean" days at the Torresdale, Northeast Waste, and Ritner monitors. PADEP identified days when these monitor's $PM_{2.5}$ concentrations were relatively high but regional monitoring concentrations in the Philadelphia MSA in Pennsylvania were "clean." Between 2021 and 2023, PADEP identified 151 days in which the Torresdale monitor was at least one standard deviation above the Philadelphia MSA in Pennsylvania average while the Philadelphia MSA in Pennsylvania average was at or below 9.0 µg/m^3, 150 days in which the Northeast Waste monitor was at least one standard deviation above the Philadelphia MSA in Pennsylvania average while the Philadelphia MSA in Pennsylvania average was at or below 9.0 µg/m^3, and 93 days in which the Ritner monitor was at least one standard deviation above the Philadelphia MSA in Pennsylvania average while the Philadelphia MSA in Pennsylvania average was at or below 9.0 µg/m^3.

Meteorological Conditions Impacting High $PM_{2.5}$ Days at the Torresdale, Northeast Waste, and Ritner Monitors

The Philadelphia MSA in Pennsylvania includes the following air basins per Appendix B, Figure B-27: Southeast Pennsylvania Inner and Southeast Pennsylvania Outer, with a dense area of population, and the greatest amount of industry along the Delaware River. The terrain transitions from the urban flatlands of Philadelphia and flat areas of Eastern Bucks and Delaware Counties near the Delaware River to more rural, hilly landscapes as you move outward to Northern Montgomery, Chester, and Bucks Counties. Elevations vary from 0 to 1,000 feet. Wind patterns are generally influenced by weather systems moving from the west. The urban areas, particularly in Philadelphia, can experience poor air quality due to stagnant days.

Figure C-2.4.1 illustrates the sources within the immediate proximity of the Torresdale, Northeast Waste, and Ritner monitors. Using the meteorological station at the Philadelphia International Airport (KPHL), Figure C-2.4.2 illustrates the frequency of wind distribution coming from a particular direction.

Figure C-2.4.1: Philadelphia MSA in Pennsylvania
Major Sources (Over 100 Tons Per Year) Based on PADEP 2022 Emission Inventory

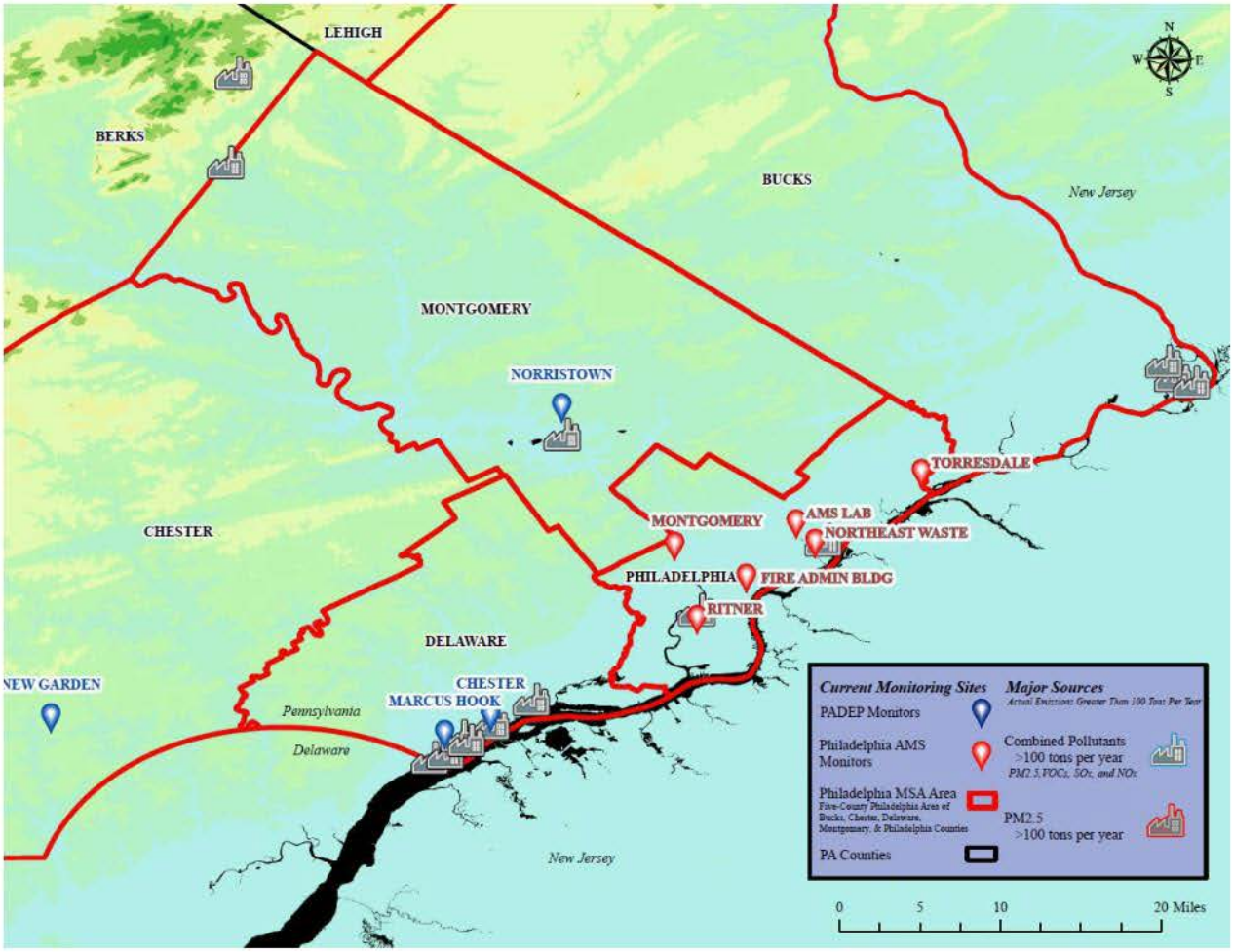


Figure C-2.4.1 shows that there are multiple major sources of SO_2 and NO_X within the Philadelphia MSA in Pennsylvania near the Torresdale, Northeast Waste, and Ritner monitors in Philadelphia County, with the largest sources along the I-95 corridor into Delaware County. Delaware County has the highest NOx and VOC precursor point source emissions as seen in Appendix B, Figures B-23 – B-24. Per Appendix B, Figure B-2, the greatest $PM_{2.5}$ point source emission density is in Delaware County, followed by Philadelphia County. Most $PM_{2.5}$, SO_2 precursor, NOx precursor, and VOC precursor point source emissions are in Philadelphia, Delaware, and Montgomery Counties, with substantially less emissions in Chester and Bucks Counties as seen in Appendix B, Figures B-21 – B-24. Per Appendix B, Figure B-5, the greatest VOC precursor point

source emission density is in Delaware and Montgomery Counties. Per Appendix B, Figures B-6 – B-8, the greatest $PM_{2.5}$, SO_2 precursor and NOx precursor area source emission density is in Philadelphia County, followed by Delaware and Montgomery Counties. Per Appendix B, Figure B-9, the greatest VOC precursor area source emission density is in Philadelphia County, followed by Delaware County. Figures B-11 – B-20 in Appendix B show that on-road and non-road source emissions are also greatest in Delaware, Montgomery, and Philadelphia Counties.

Figure C-2.4.2: Philadelphia MSA in Pennsylvania
Philadelphia International Airport (KPHL) Wind Rose

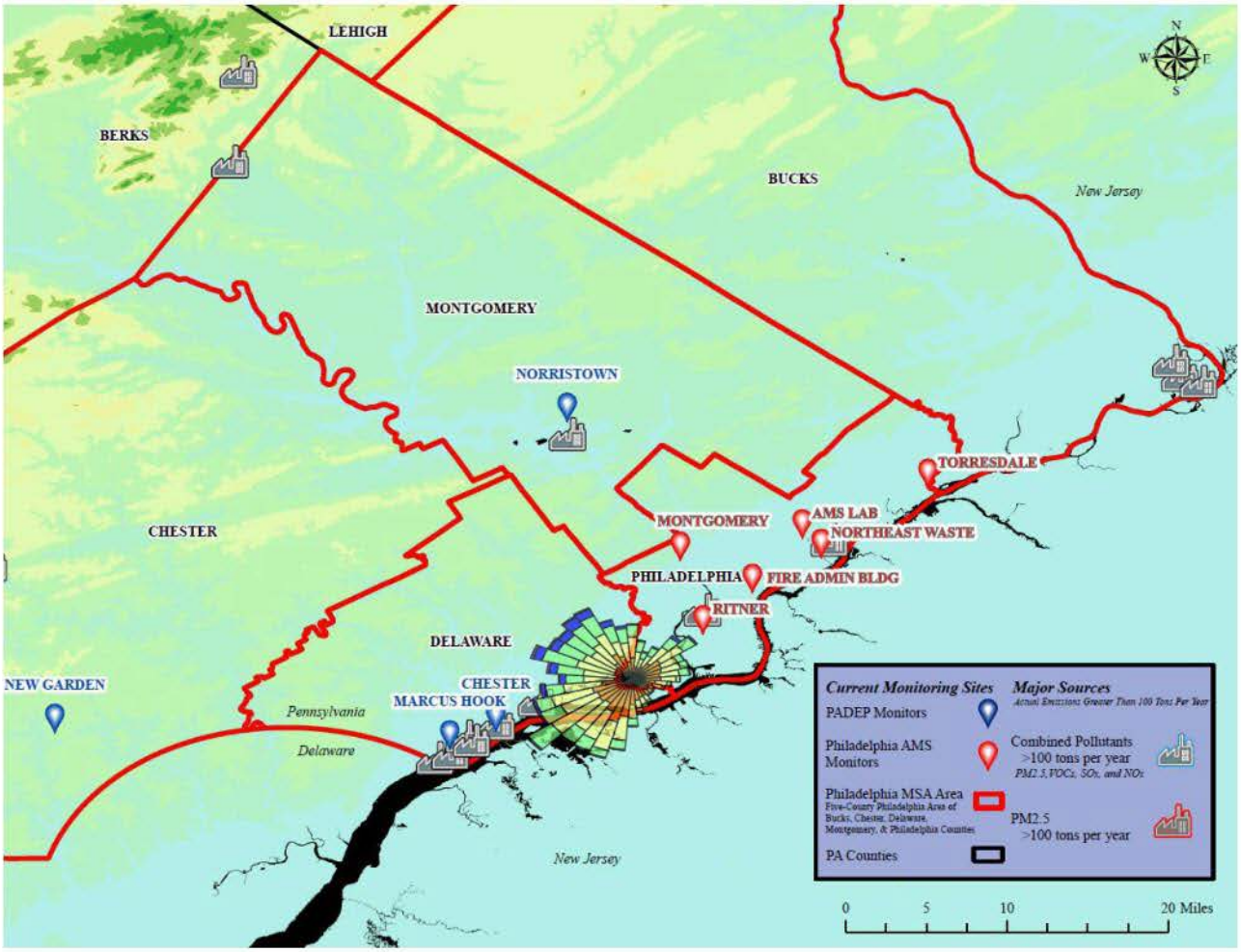


Figure C-2.4.2 shows that, based on the KPHL wind data from 2021-2023, the predominant winds travel directly over these sources, northeast. This analysis indicates the local nature of the problem near these monitors.

The Change in the Composition of the $PM_{2.5}$

Within the Philadelphia MSA in Pennsylvania, Philadelphia AMS operates speciation monitors at Northeast Waste and Ritner and PADEP operates speciation monitors at Chester and New Garden. PADEP also operates a speciation monitor at Arendtsville (AQS ID# 42-001-0001), in a rural location in Adams County. The Arendtsville monitor does not have a major SO_2 or NO_X source within 12 kilometers of the monitor. For that reason, the Arendtsville monitor best reflects the transport that is coming into eastern Pennsylvania from areas to the west (prevailing wind flow is from west to east across Pennsylvania). The other speciation monitors can be examined in comparison to Arendtsville for urban (or localized) excess or by source influences within the Philadelphia MSA in Pennsylvania.

Figures C-2.5.1 - C-2.5.2, C-2.5.4 - C-2.5.5, C-2.5.7 - C-2.5.8, and C-2.5.10 - C-2.5.11 outline the main speciated components of $PM_{2.5}$ during each quarter: ammonium, nitrate, sulfate, organic carbon (OC), elemental carbon (EC), soil, and elements. Figures C-2.5.3, C-2.5.6, C-2.5.9, and C-2.5.12 illustrate the difference in the main speciated components of $PM_{2.5}$ from the 2016 to 2018 period to the 2021 to 2023 period.

Figure C-2.5.1: 2016-2018 Quarter 1 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

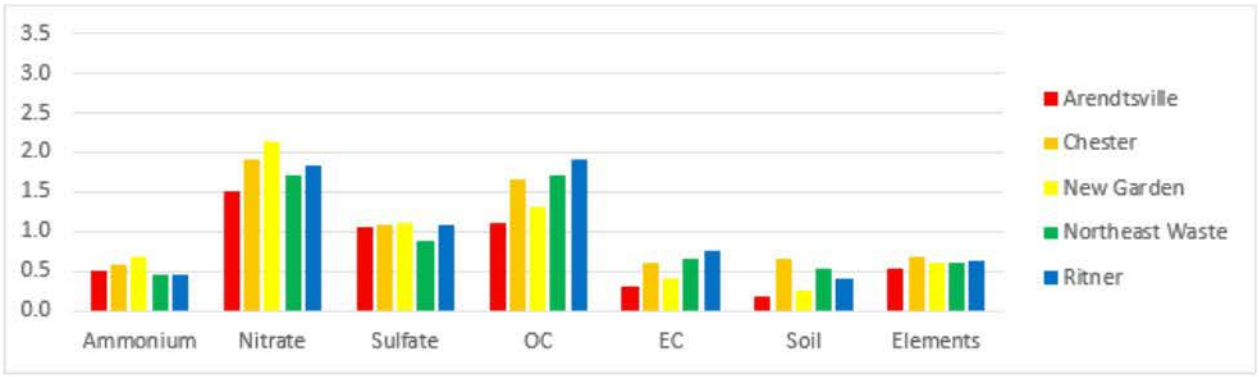


Figure C-2.5.2: 2021-2023 Quarter 1 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

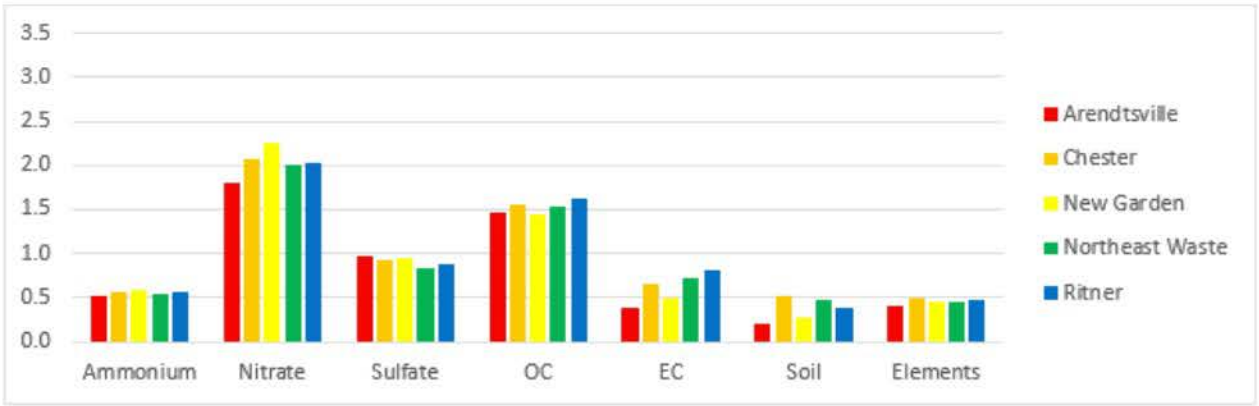


Figure C-2.5.3: Comparison of Quarter 1 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018

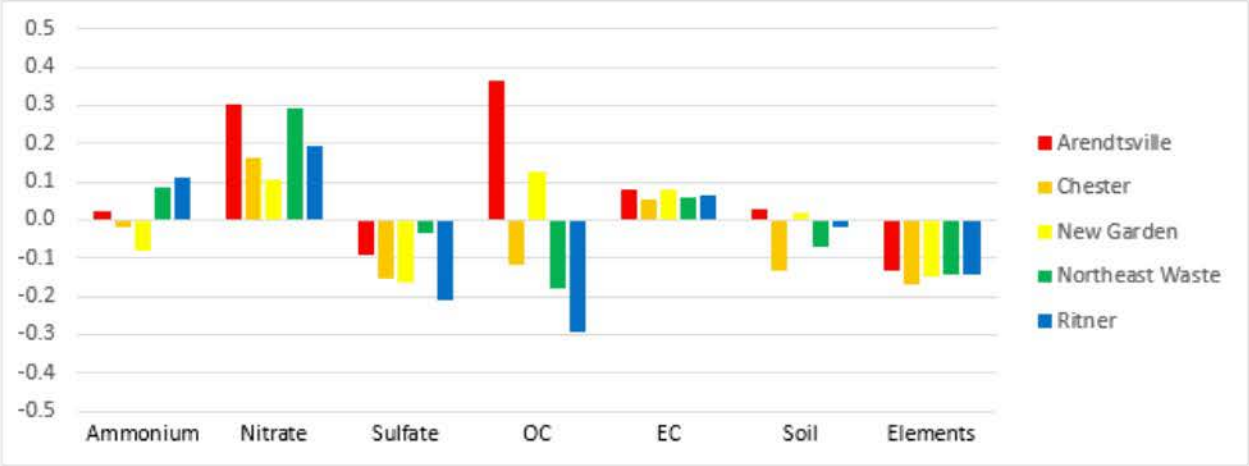


Figure C-2.5.4: 2016-2018 Quarter 2 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

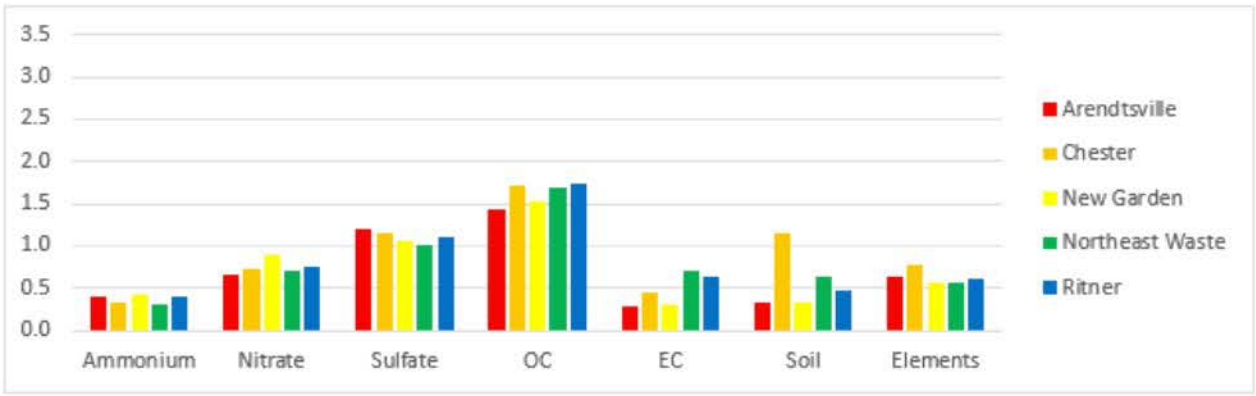


Figure C-2.5.5: 2021-2023 Quarter 2 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

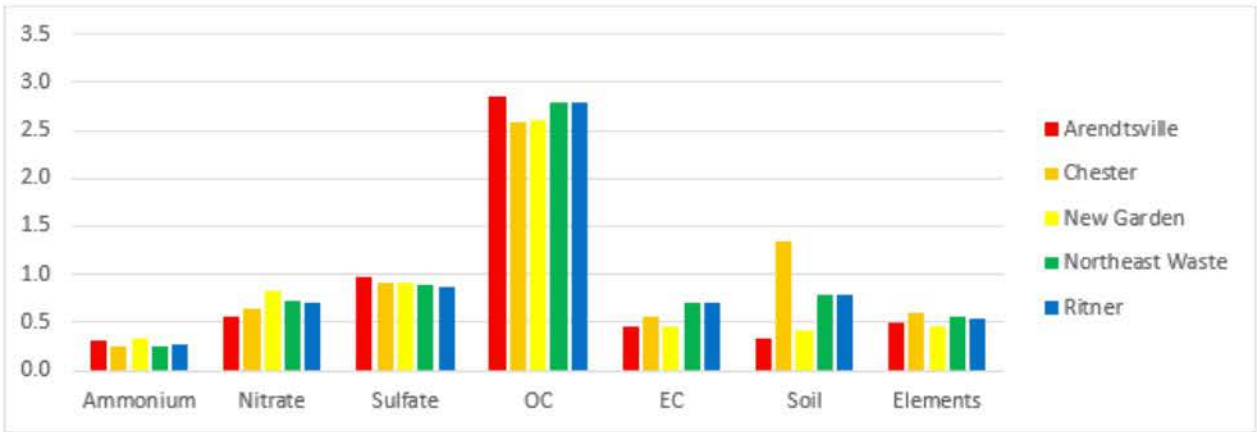


Figure C-2.5.6: Comparison of Quarter 2 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018

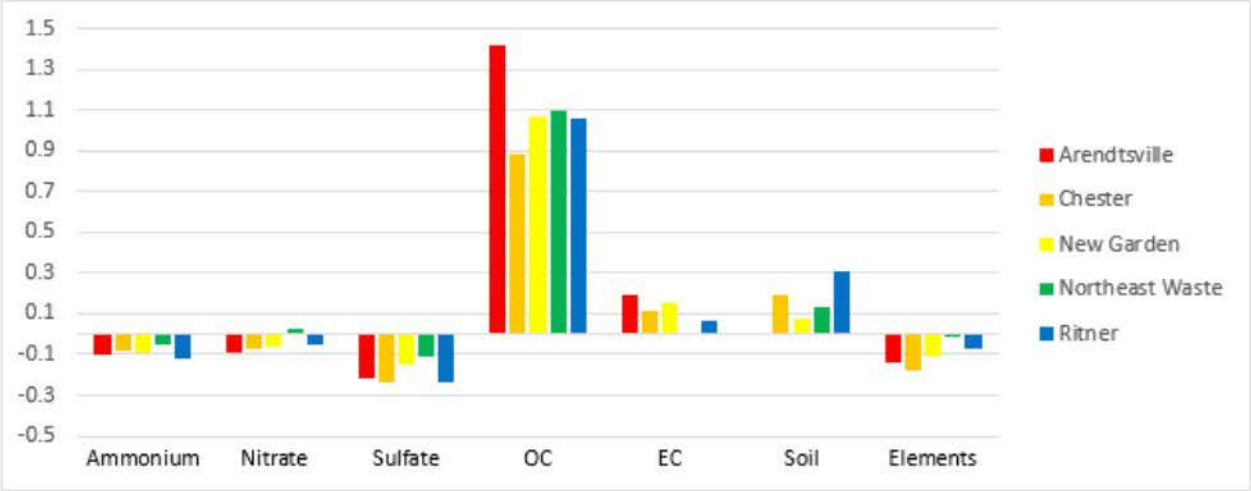


Figure C-2.5.7: 2016-2018 Quarter 3 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

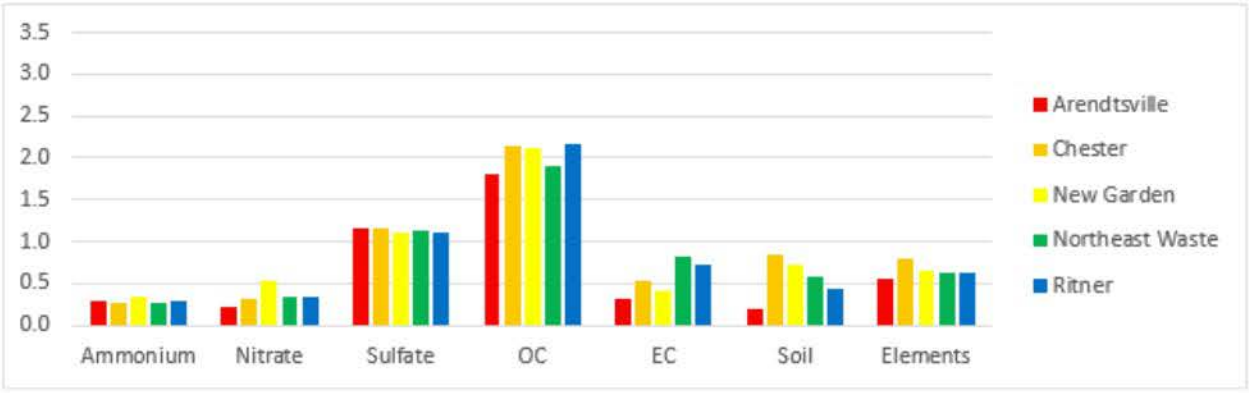


Figure C-2.5.8: 2021-2023 Quarter 3 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

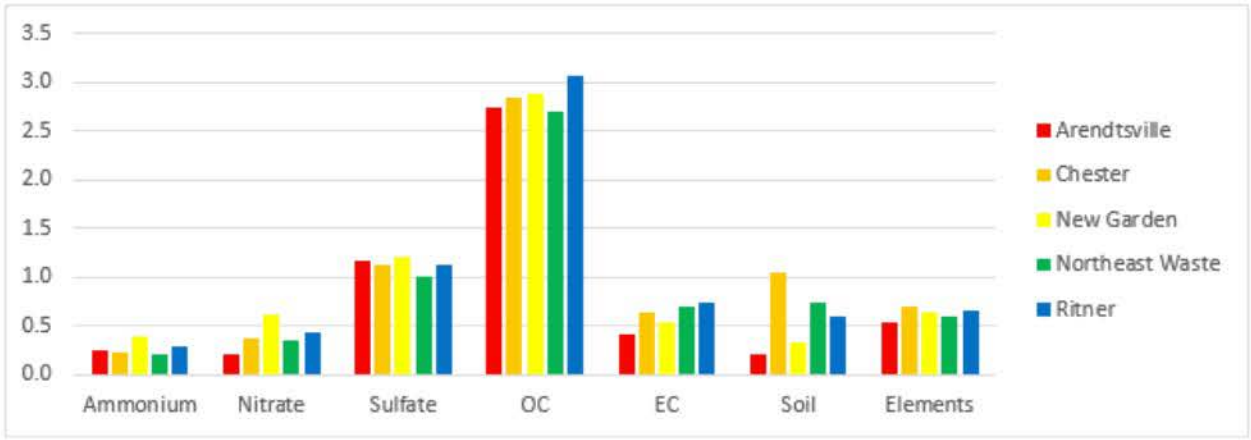


Figure C-2.5.9: Comparison of Quarter 3 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018

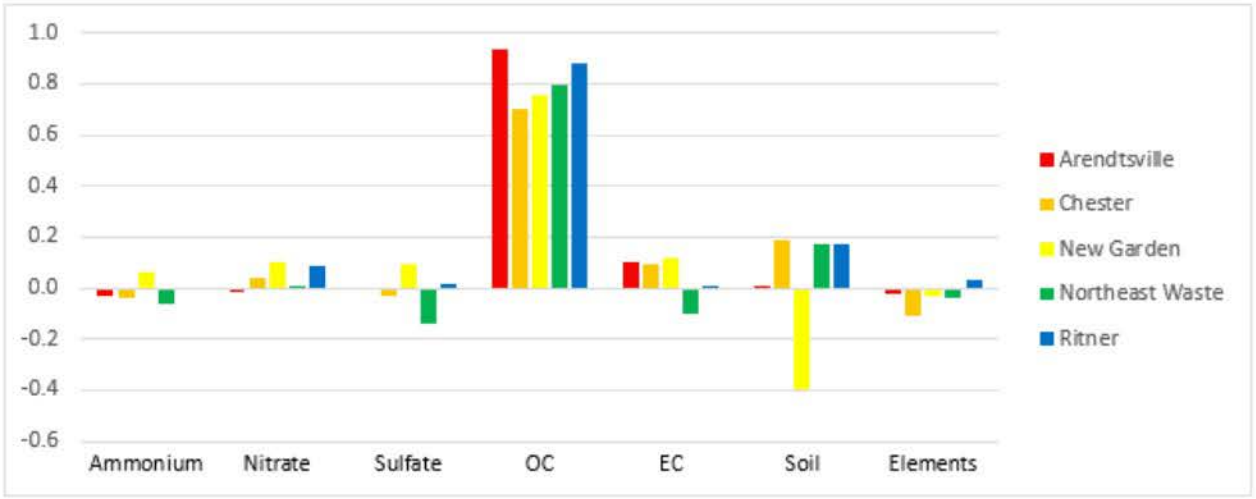


Figure C-2.5.10: 2016-2018 Quarter 4 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

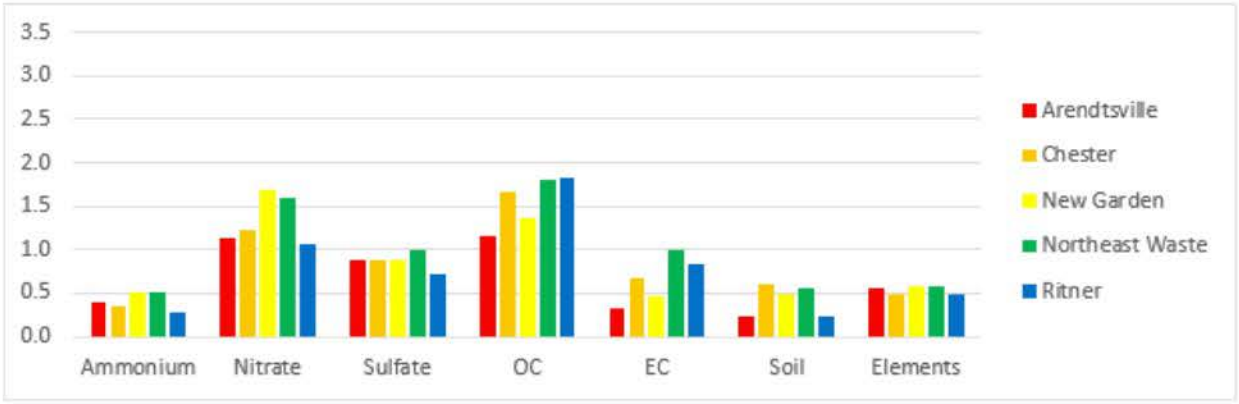


Figure C-2.5.11: 2021-2023 Quarter 4 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

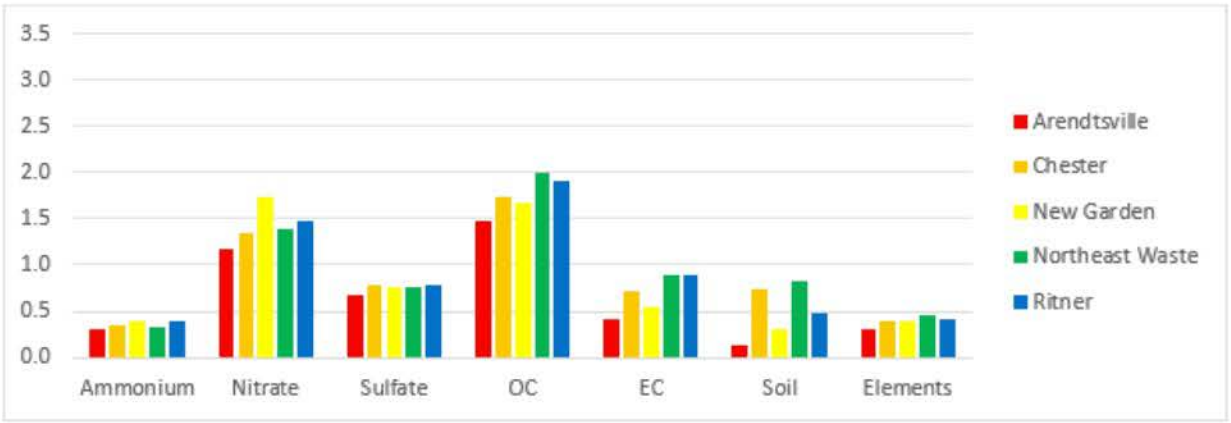
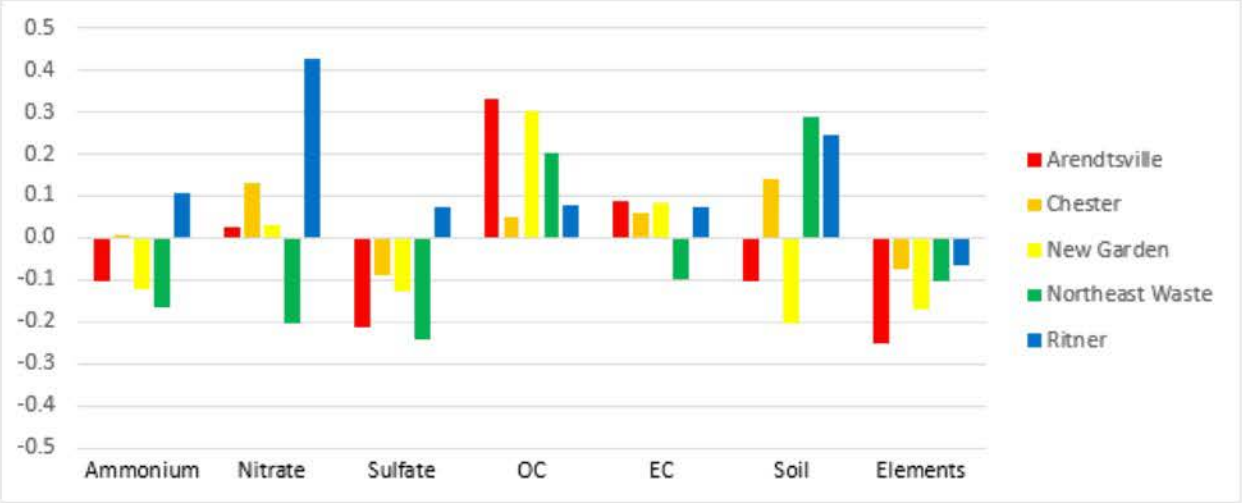


Figure C-2.5.12: Comparison of Quarter 4 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018



During Quarter 1, there have been reductions in sulfate and trace elements across the sites with reductions in ammonium at Chester and New Garden, and reductions in OC and soil at Chester, Northeast Waste, and Ritner. During Quarter 2, there have been reductions in ammonium, nitrate, sulfate, and trace elements across the sites. During Quarter 3, there have been reductions in ammonium at Chester, Northeast Waste, and Ritner, reductions in sulfate at Chester and Northeast Waste, reductions in EC at Northeast Waste, reductions in soil at New Garden, and reductions in trace elements at Chester, New Garden and Northeast Waste. During Quarter 4, there have been reductions in sulfate (except at Ritner) and trace elements across the sites with reductions in ammonium at New Garden and Northeast Waste, reductions in nitrate and EC at Northeast Waste, and reductions in soil at New Garden.

The reductions at Arendtsville are more representative of the reductions observed in eastern Pennsylvania due to emission control strategies of various sources across western Pennsylvania into the Ohio Valley. The data indicates that there have been reductions at the Arendtsville monitor during Quarter 1 for sulfate and trace elements, during Quarter 2 for ammonium, nitrate, sulfate, and trace elements, Quarter 3 for ammonium, nitrate, sulfate, and trace elements, and Quarter 4 for ammonium, sulfate, soil, and trace elements.

Positive Matrix Factorization (PMF) receptor modeling can be applied to the $PM_{2.5}$ speciation data collected from 2021-2023 to quantify the contribution of sources to the measured $PM_{2.5}$ concentration. This analysis serves as supporting and underlying data for the attainment demonstration in the $PM_{2.5}$ 2024 NAAQS State Implementation Plan (SIP) for the Pennsylvania nonattainment area. Understanding $PM_{2.5}$ sources will help to develop effective emission reduction strategies.

Figure C-2.6.1: $PM_{2.5}$ Urban Excess, Northeast Waste vs. Arendtsville, 2021-23 by Quarter

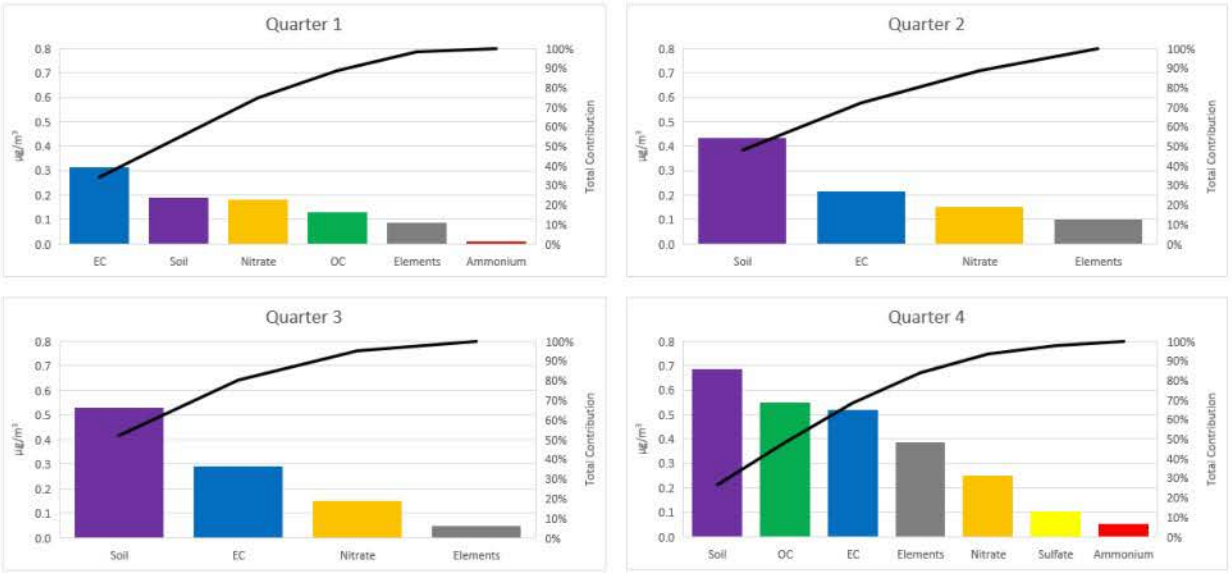


Figure C-2.6.2: $PM_{2.5}$ Urban Excess, Northeast Waste vs. Arendtsville, 2021-23

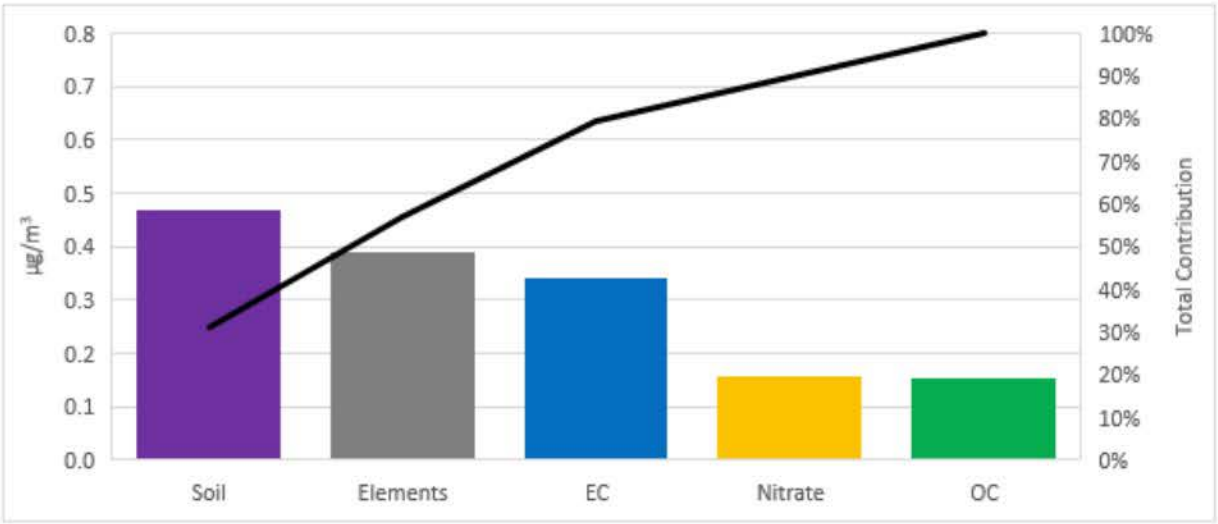


Figure C-2.6.3: $PM_{2.5}$ Urban Excess, Ritner vs. Arendtsville, 2021-23 by Quarter

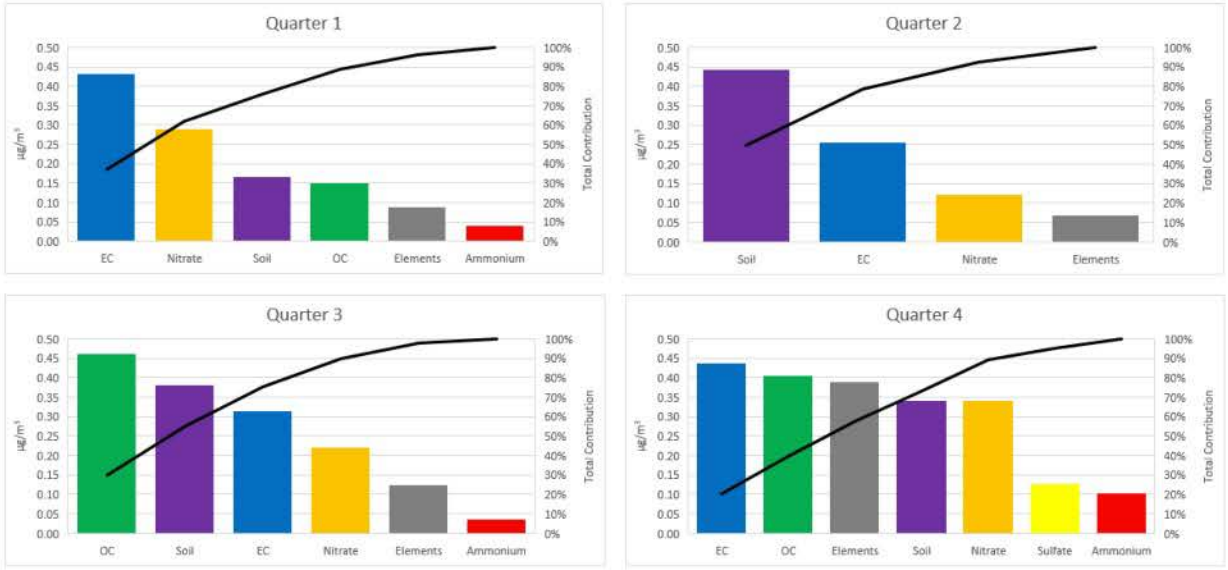


Figure C-2.6.4: $PM_{2.5}$ Urban Excess, Ritner vs. Arendtsville, 2021-23

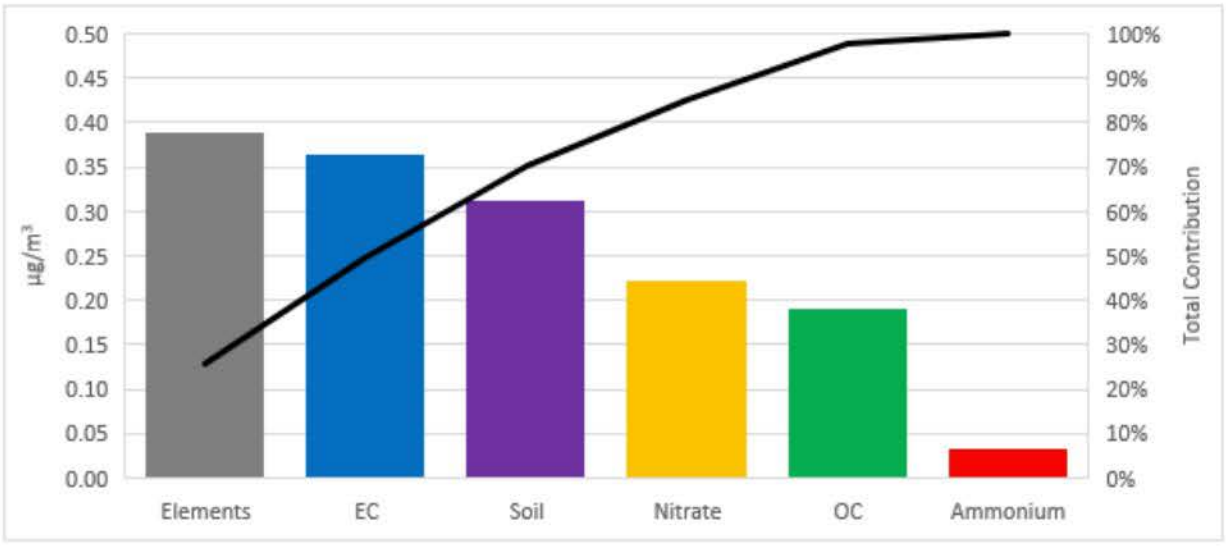


Figure C-2.6.5: $PM_{2.5}$ Urban Excess, Chester vs. Arendtsville, 2021-23 by Quarter

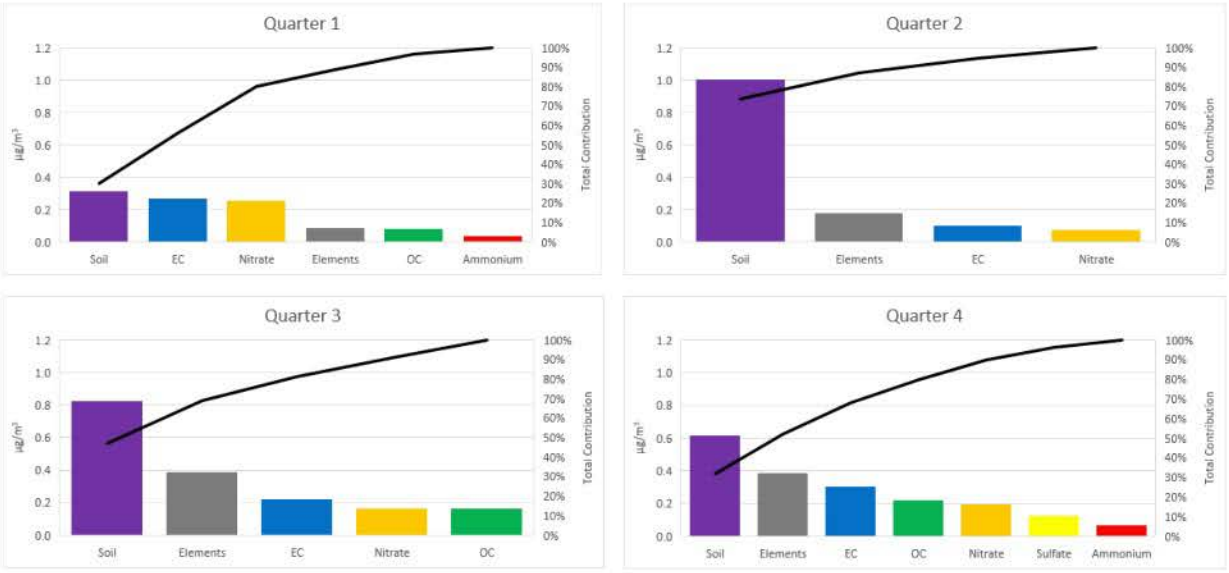


Figure C-2.6.6: $PM_{2.5}$ Urban Excess, Chester vs. Arendtsville, 2021-23

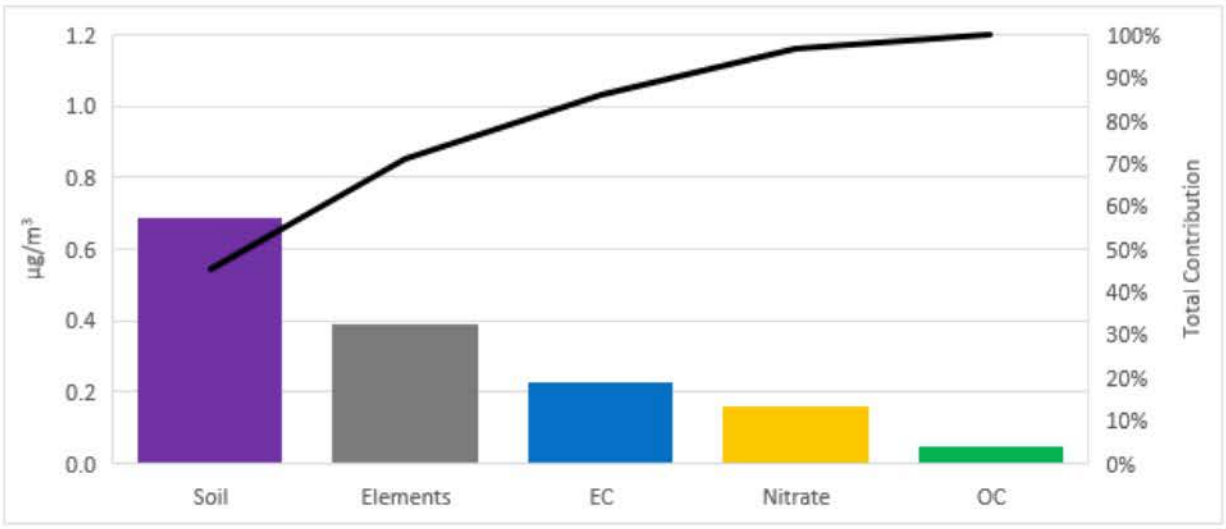


Figure C-2.6.7: $PM_{2.5}$ Urban Excess, New Garden vs. Arendtsville, 2021-23 by Quarter

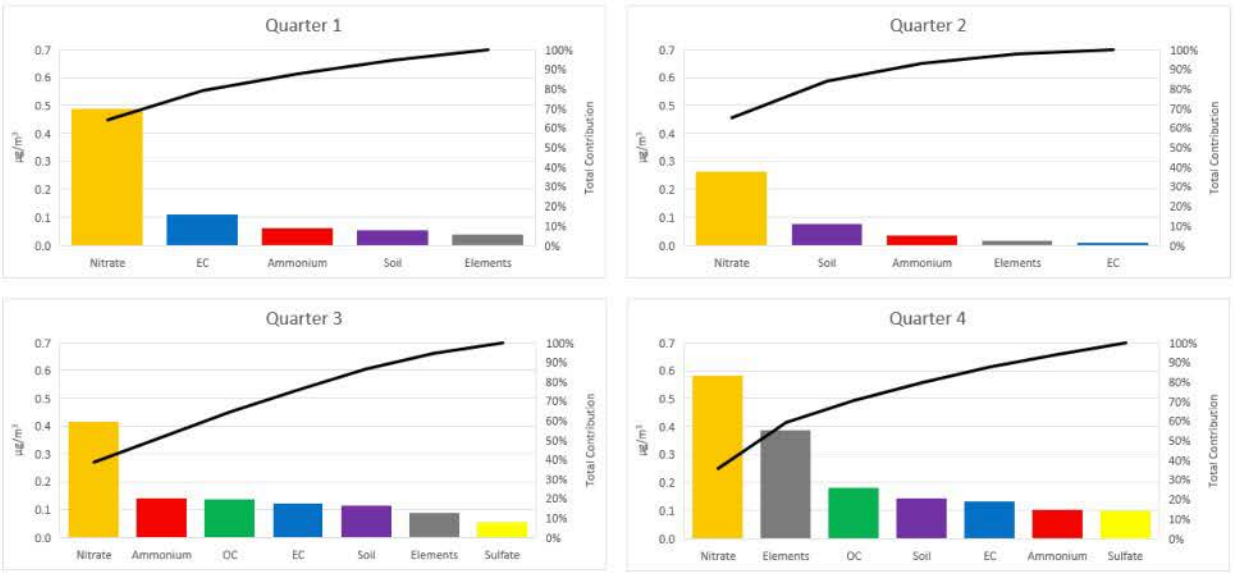
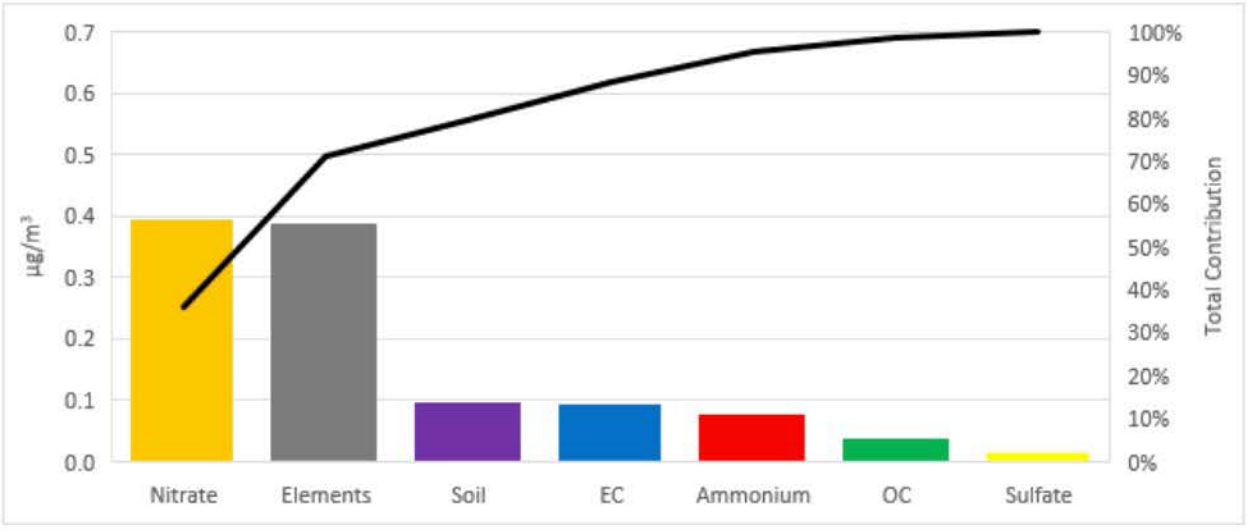


Figure C-2.6.8: $PM_{2.5}$ Urban Excess, New Garden vs. Arendtsville, 2021-23



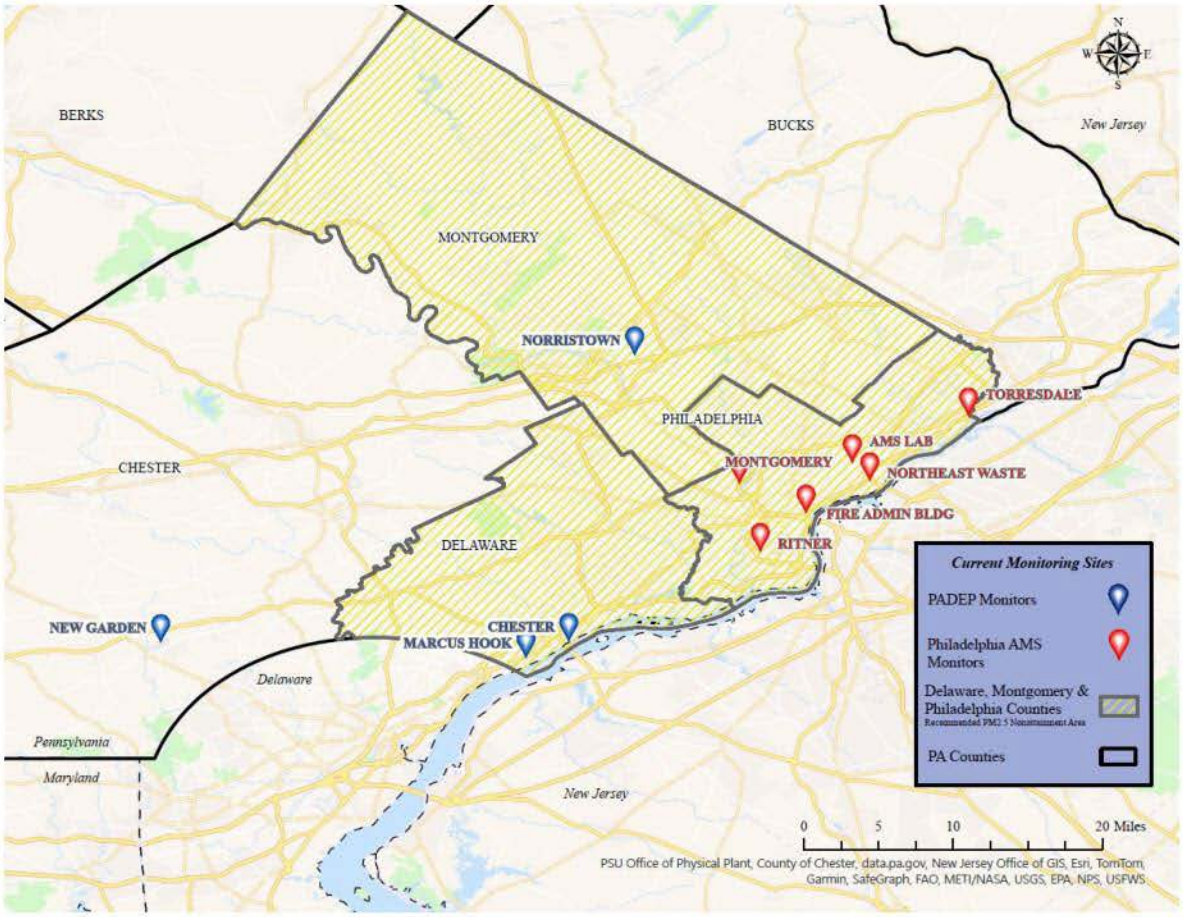
Figures C-2.6.1 - C-2.6.8 display the major constituents of $PM_{2.5}$ at the Philadelphia MSA in Pennsylvania monitors compared to Arendtsville. In Quarters 1 and 4, Northeast Waste, Ritner, and Chester have excess ammonium, nitrate, OC, EC, soil, and trace elements compared to Arendtsville, suggesting emissions are local in nature. In Quarter 2, Northeast Waste, Ritner, and Chester have excess nitrate, EC, soil, and trace emissions compared to Arendtsville. In Quarter 3, Northeast Waste has excess nitrate, EC, soil, and trace elements emissions compared to Arendtsville, Ritner has excess ammonium, nitrate, OC, EC, soil, and trace elements emissions compared to Arendtsville, and Chester has excess nitrate, OC, EC, soil, and trace elements

compared to Arendtsville. Sulfate levels in all quarters, which are indicative of regional emissions from sources such as coal-fired electric generation units, were higher at Arendtsville.

Summary

PADEP's analysis illustrates the need for a three-county nonattainment area in southeastern Pennsylvania, consisting of Delaware, Montgomery, and Philadelphia Counties. An analysis of the $PM_{2.5}$ data monitored at the Torresdale, Northeast Waste, and Ritner monitors in Philadelphia County illustrates that these monitors see greater concentrations in the 9-27 $\mu g/m^3$ than the regional concentrations in the same range. Looking further, the largest sources along the I-95 corridor move from Philadelphia County into Delaware County. Delaware County has the highest NOx and VOC precursor point source emissions and $PM_{2.5}$ point source emission density followed by Philadelphia County. Most $PM_{2.5}$, SO_2 precursor, NOx precursor, and VOC precursor point source emissions are in Philadelphia, Delaware, and Montgomery Counties, with substantially less emissions in Chester and Bucks Counties, with the greatest VOC precursor point source emission density in Delaware and Montgomery Counties. The greatest $PM_{2.5}$, SO_2 precursor and NOx precursor area source emission density is in Philadelphia County, followed by Delaware and Montgomery Counties. The greatest VOC precursor area source emission density is in Philadelphia County, followed by Delaware County. Further examination demonstrates that the predominant winds travel directly over local point sources, northeast. An analysis of the speciated data at the Philadelphia MSA in Pennsylvania and Arendtsville monitors illustrates the excess major constituents of $PM_{2.5}$ emissions to be local in nature, attributed to industrial influences, during worst-case meteorological or poor dispersion conditions. Therefore, PADEP is recommending Delaware, Montgomery, and Philadelphia Counties in the Philadelphia MSA in Pennsylvania be designated nonattainment for the 2024 annual $PM_{2.5}$ NAAQS. A map of the proposed nonattainment area is provided in Figure C-2.7.

Figure C-2.7: Recommended Greater Philadelphia $PM_{2.5}$ Nonattainment Area



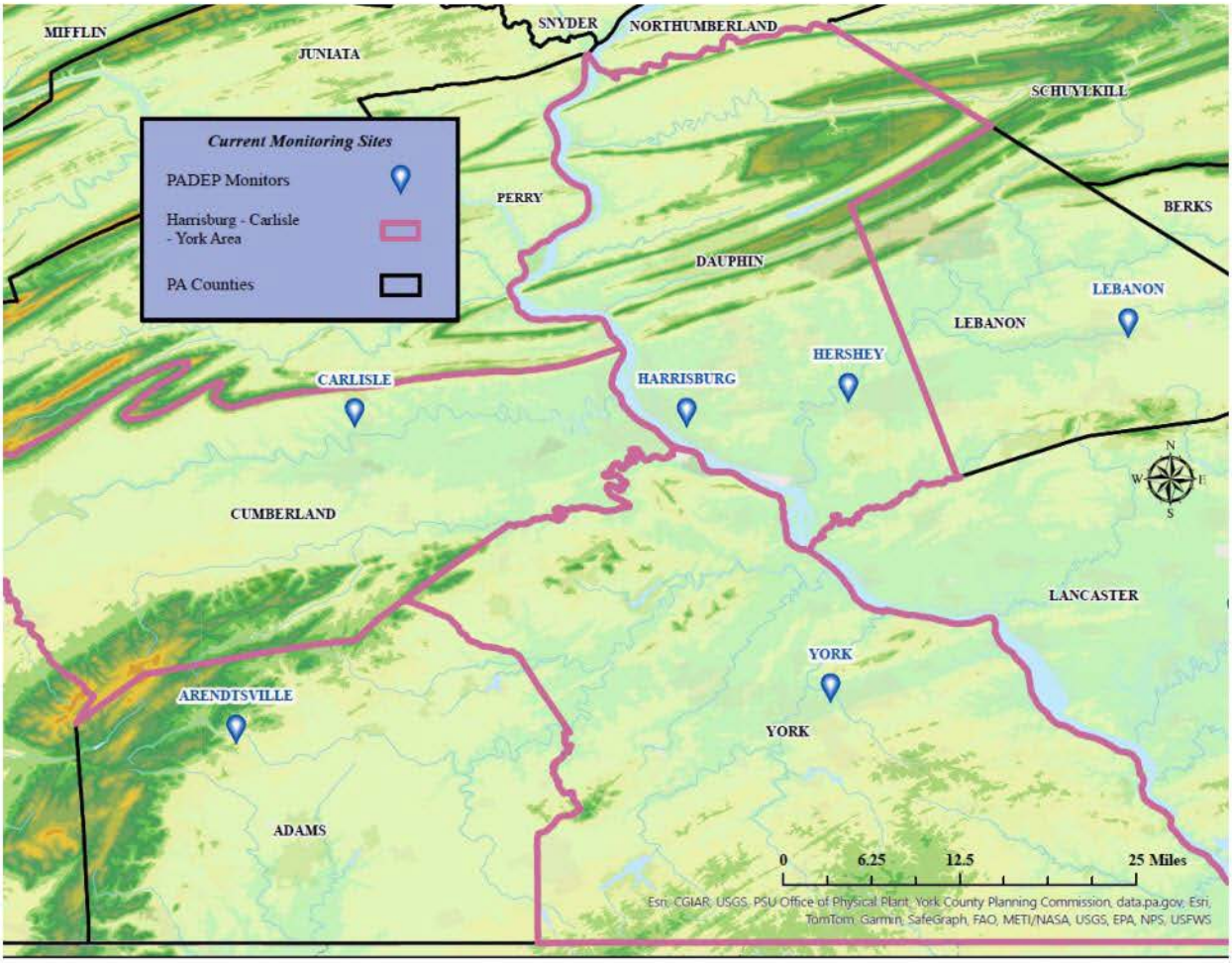
Appendix C-3
HARRISBURG-CARLISLE-YORK AREA

PADEP is recommending a Harrisburg-Carlisle-York area annual $PM_{2.5}$ NAAQS nonattainment area consisting of Cumberland, Dauphin, and York counties. PADEP completed an analysis of the $PM_{2.5}$ ambient air quality data, which outlines the reason for recommending an area consisting of Cumberland, Dauphin, and York counties. This analysis is provided below.

Analysis of the Ambient PM2.5 Data – A Design Value Contribution Analysis

Based on EPA-certified 2023 $PM_{2.5}$ valid design values, two monitors in the Harrisburg-Carlisle-York area are violating the 2024 $PM_{2.5}$ annual standard of 9 $\mu g/m^3$. The monitors and their design values are: Harrisburg (AIRS # 42-043-0401) at 9.8 $\mu g/m^3$ (in Dauphin County) and York (AIRS #42-133-0008) at 9.3 $\mu g/m^3$ (in York County). Figure C-3.1 is a map outlining the location of these monitors, along with monitors in attainment in the vicinity of the Harrisburg-Carlisle-York area.

Figure C-3.1: Harrisburg-Carlisle-York Area PM2.5 Monitoring Map



PADEP has completed a design value contribution analysis for all of the $PM_{2.5}$ monitors in the proximity of the Harrisburg-Carlisle-York region. The analysis attempts to determine the daily contribution of $PM_{2.5}$ concentrations to the annual $PM_{2.5}$ design value. EPA-certified daily $PM_{2.5}$ measurements (EPA AQS AMP355 Report) were grouped into different $PM_{2.5}$ concentration ranges. An analysis of each range's contribution was then conducted to determine which measurements are contributing to the monitor's design value. Dates of these measurements were then further analyzed to determine if there are specific meteorological conditions or sources that are adversely impacting the monitor's design value.

Results from the design value contribution analysis for the Harrisburg-Carlisle-York area are summarized in Table C-3.1. Ultimately, the type of contribution a given monitor's daily value had on the 3-year design value (by comparing this value to 9 $\mu g/m^3$) was determined. The daily value for each day a monitor measured $PM_{2.5}$ levels was placed in one of the ten categories. For example, on January 1, 2021, the Harrisburg monitor's 24-hour $PM_{2.5}$ average was 13.8 $\mu g/m^3$. Since this value falls in the 13.5-18.0 $\mu g/m^3$ category in Table C-3.1, the calculated daily contribution to the design value was placed in this category.

In the first quarter of 2021 (January 1 to March 31), the Harrisburg monitor recorded 83 measurements. PADEP determined that the January 1, 2021, contribution assessment to the 2023 design value was 0.0048 $\mu g/m^3$. The 0.0048 $\mu g/m^3$ was calculated by subtracting the standard of 9.0 $\mu g/m^3$ from the average daily value of 13.8 $\mu g/m^3$ and then dividing this by the number of measurements for the quarter (83) times 12 (there are a total of 12 quarters in a 3-year design value period). This type of analysis was completed for every day of measurements from January 1, 2021, through December 31, 2023. In Table C-3.1, the sum of the categorical breakdowns for the Harrisburg monitor equals 0.81 $\mu g/m^3$, which demonstrates that the design value is 0.81 $\mu g/m^3$ above the annual standard of 9 $\mu g/m^3$.

Figures C-3.2.1 through C-3.2.11 show the design value contribution and category breakdown for the monitors in the Harrisburg-Carlisle-York area.

Table C-3.1: Harrisburg-Carlisle-York Area
2023 $PM_{2.5}$ Annual Design Value Contribution Analysis

Site Name	Site ID	Owner	0 - 4.5	4.5 - 9.0	9.0 - 13.5	13.5 - 18.0	18.0 - 22.5	22.5 - 27.0	27.0 - 31.5	31.5 - 36.0	36.0 - 40.5	40.5 - 300.0	Sum
Monitors Attaining 2024 PM 2.5 Standard													
Arendtsville	420010001	PA DEP	-1.2559	-1.1795	0.4409	0.4522	0.3403	0.1526	0.1208	0.0549	0.0253	0.5278	-0.3206
Lebanon	420750101	PA DEP	-1.4119	-1.0792	0.4014	0.4472	0.2835	0.2189	0.0510	0.0898	0.0268	0.3375	-0.6351
Carlisle	420410101	PA DEP	-1.7784	-1.0681	0.3199	0.4276	0.3550	0.1622	0.0589	0.0691	0.0000	0.3089	-1.1449
Monitors Not Attaining 2024 PM 2.5 Standard													
York	421330008	PA DEP	-0.9040	-1.1509	0.4474	0.5392	0.3779	0.2101	0.0834	0.1065	0.0329	0.5335	0.2760
Harrisburg	420430401	PA DEP	-0.9630	-0.9896	0.4592	0.6620	0.4259	0.3172	0.1714	0.1155	0.0281	0.5841	0.8108
Harrisburg-Carlisle-York Area Average			-1.2626	-1.0935	0.4138	0.5056	0.3565	0.2122	0.0971	0.0872	0.0226	0.4584	-0.2028

Figure C-3.2.1: Harrisburg $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

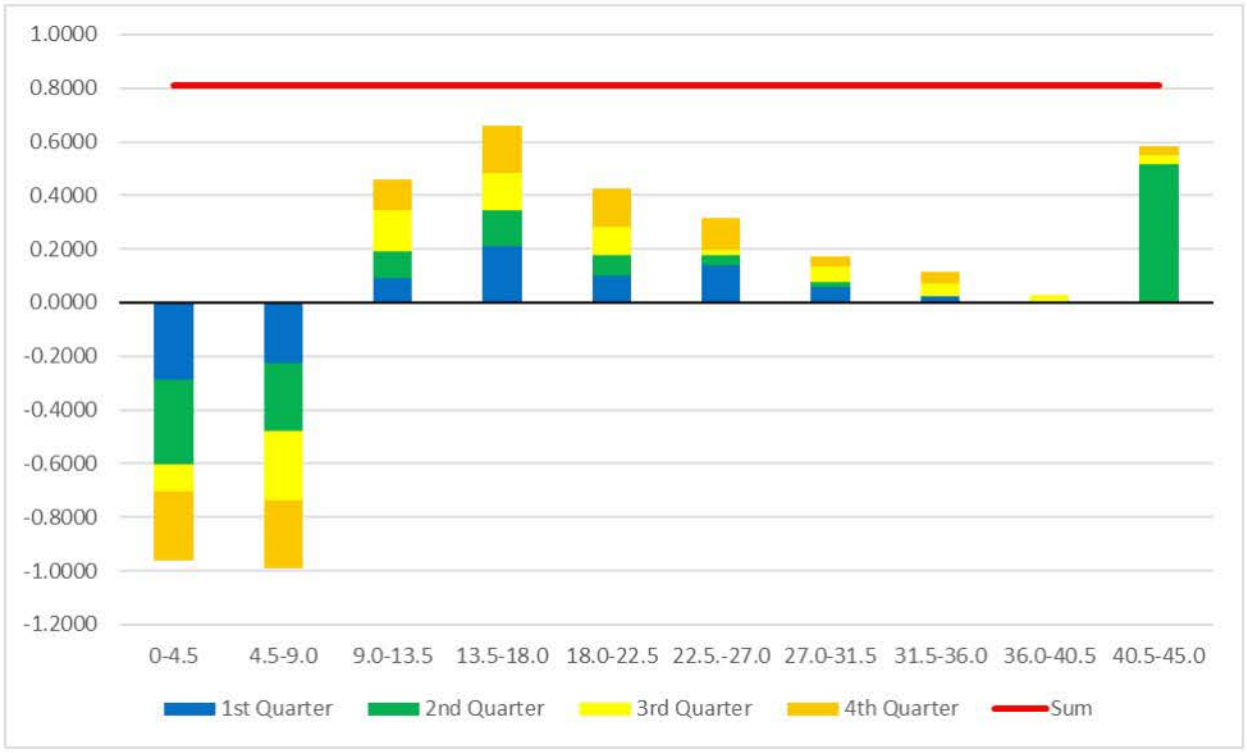


Figure C-3.2.2: Harrisburg $PM_{2.5}$ Design Value Category Breakdown

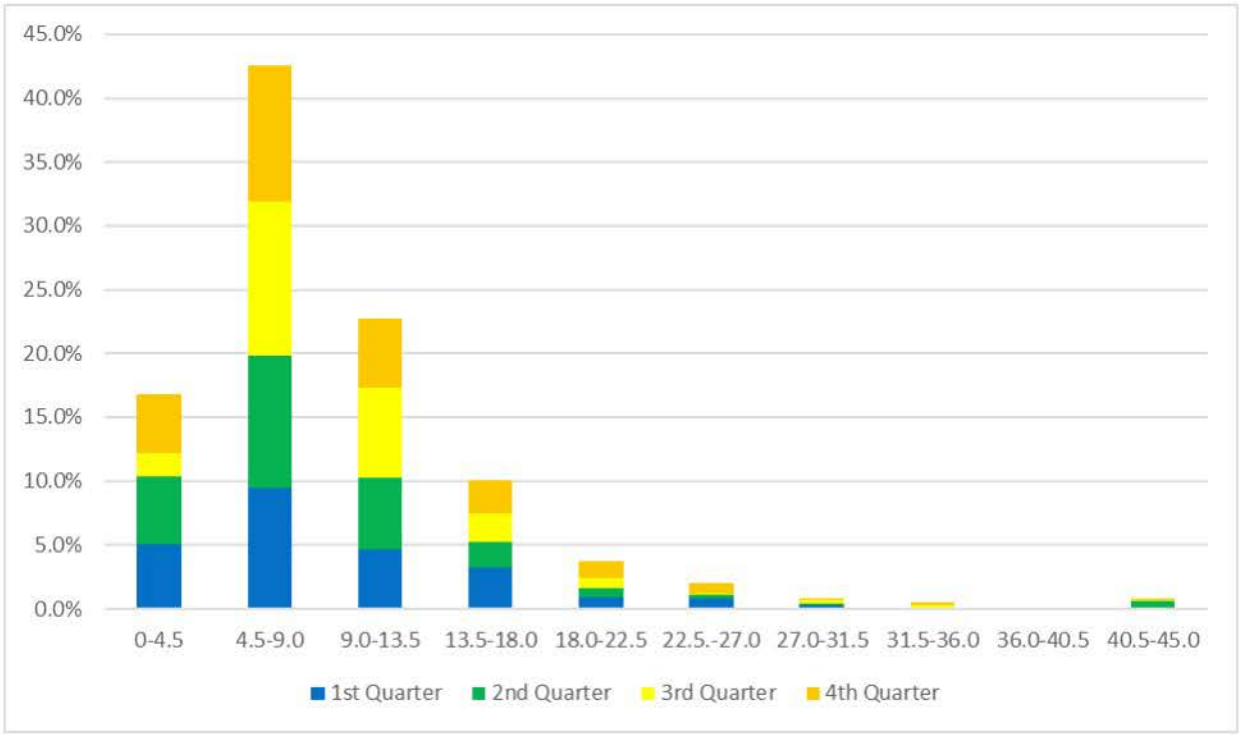


Figure C-3.2.3: York $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

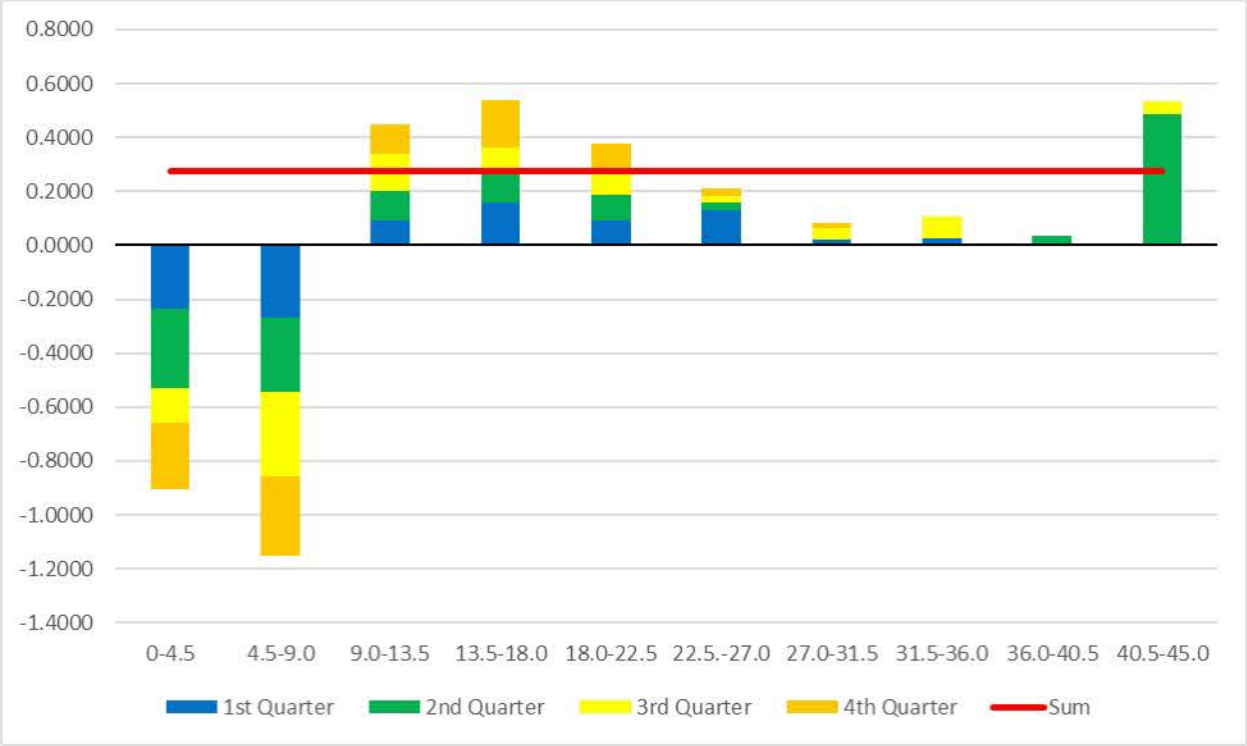


Figure C-3.2.4: York $PM_{2.5}$ Design Value Category Breakdown

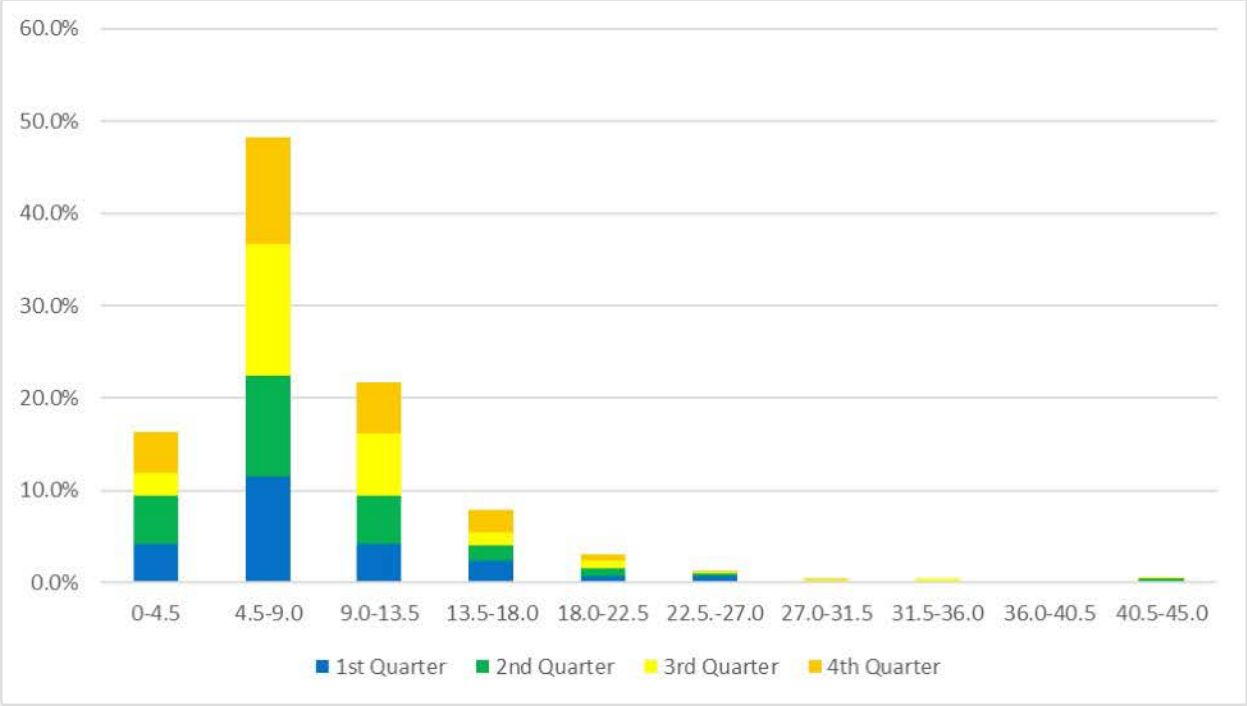


Figure C-3.2.5: Arendtsville $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

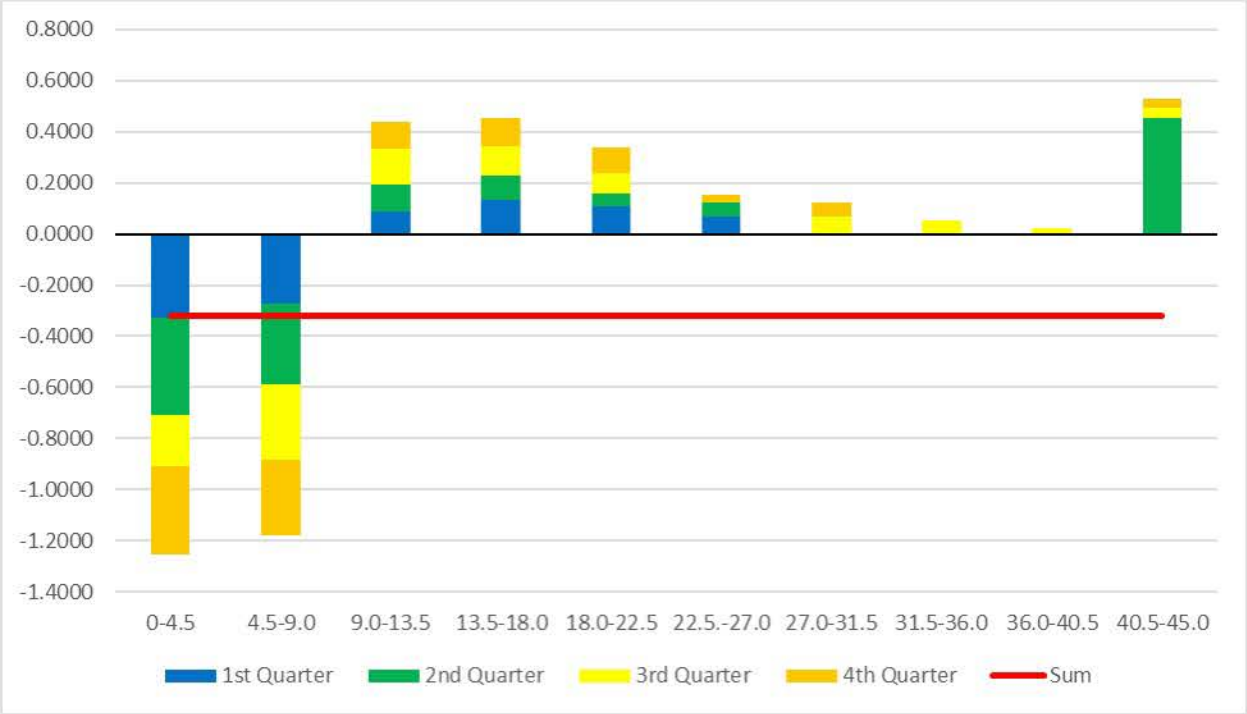


Figure C-3.2.6: Arendtsville $PM_{2.5}$ Design Value Category Breakdown

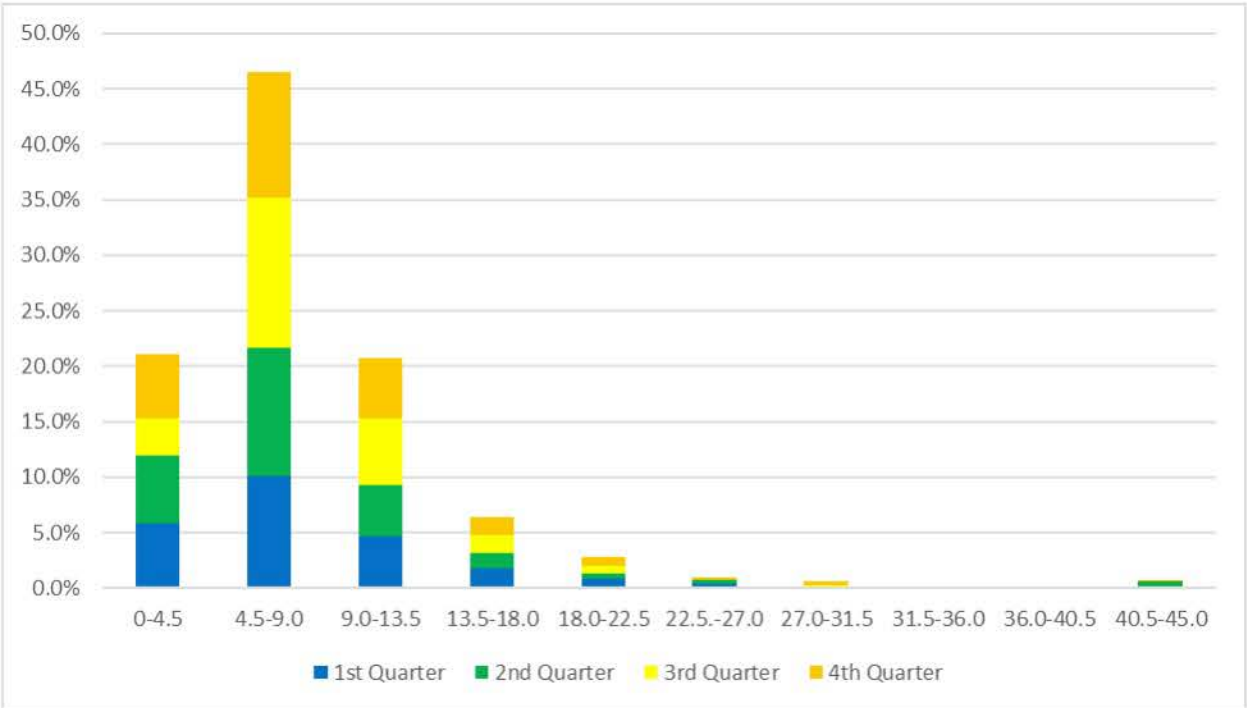


Figure C-3.2.7: Carlisle $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

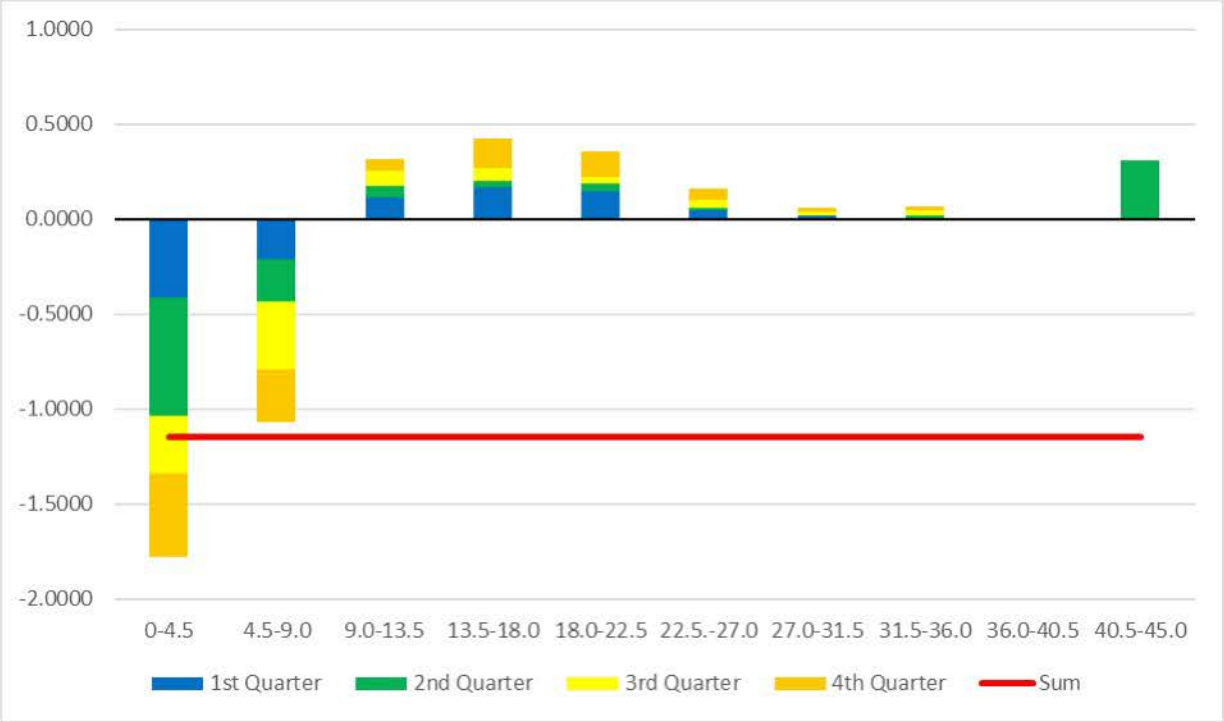


Figure C-3.2.8: Carlisle $PM_{2.5}$ Design Value Category Breakdown

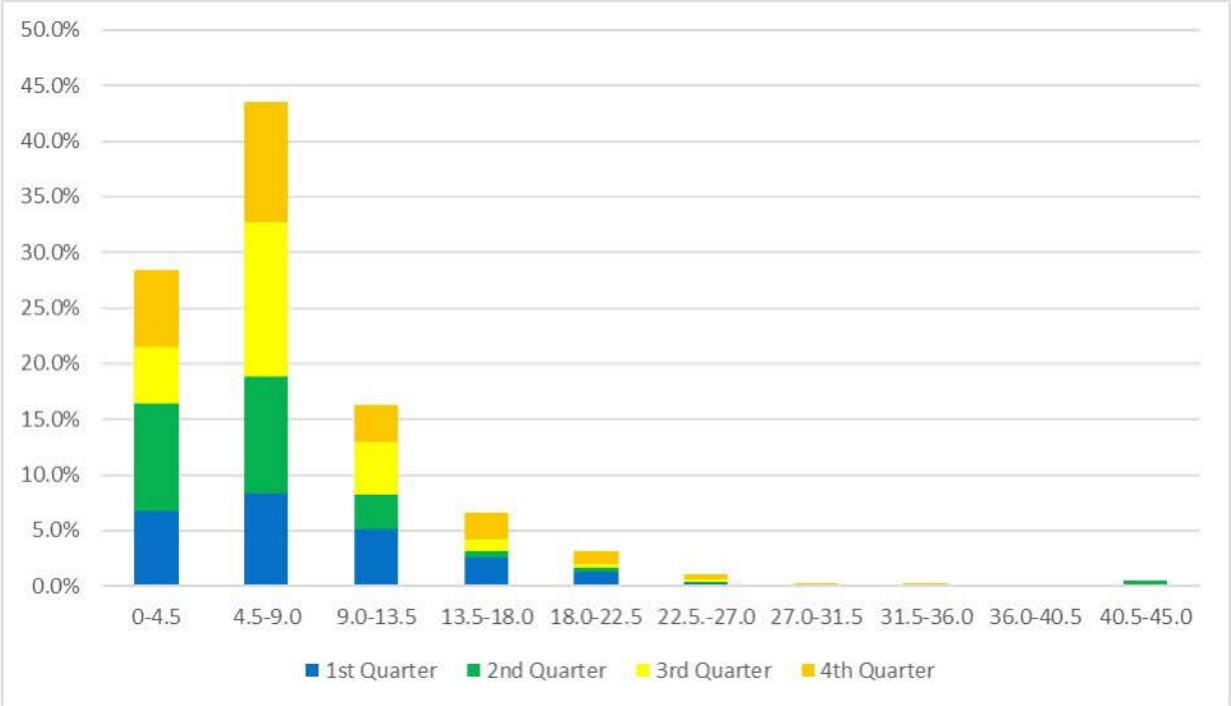


Figure C-3.2.9: Lebanon $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

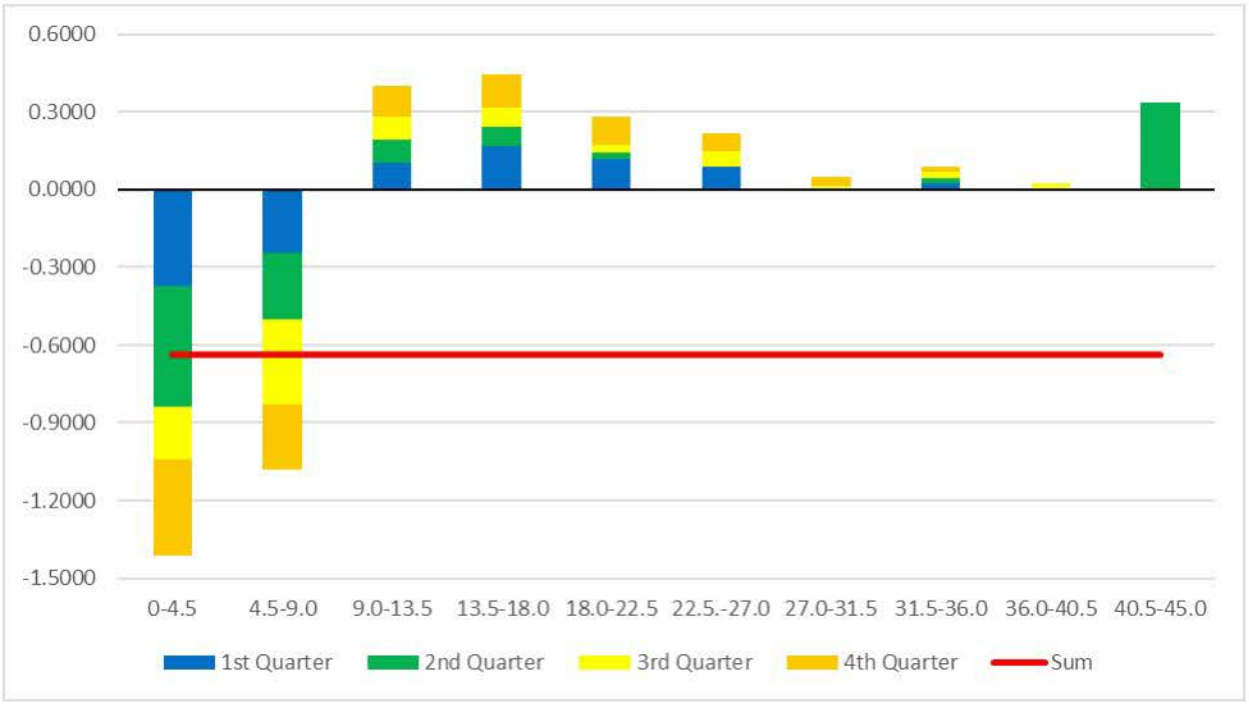


Figure C-3.2.10: Lebanon $PM_{2.5}$ Design Value Category Breakdown

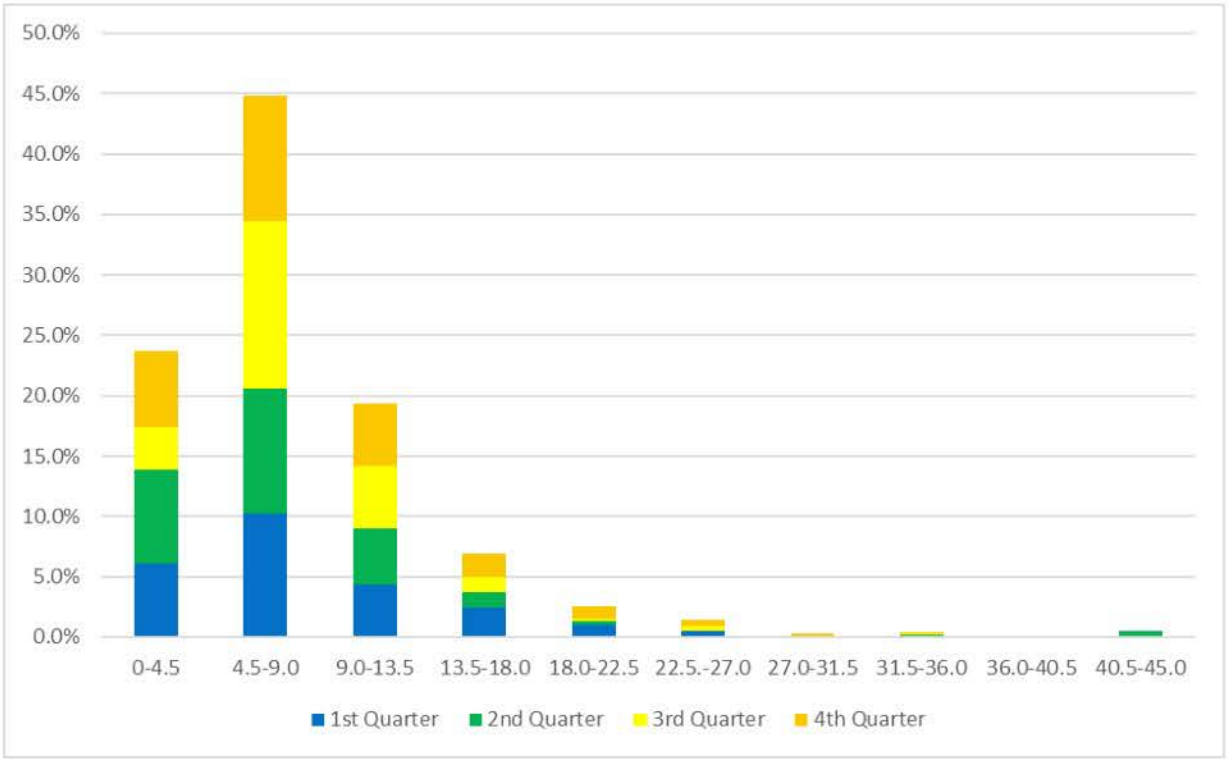


Figure C-3.2.11: Harrisburg-Carlisle-York Area $PM_{2.5}$ Annual Design Value Contribution ($\mu g/m^3$)

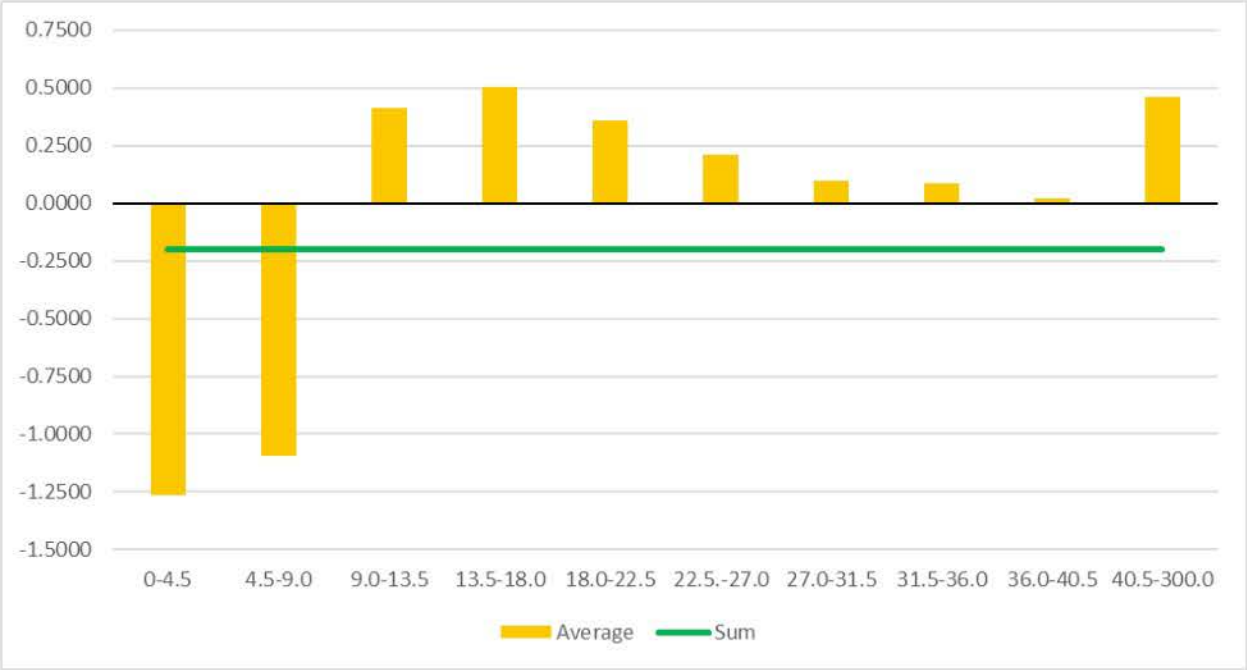


Table C-3.1 illustrates the differences between the monitors that are attaining the 2024 $PM_{2.5}$ annual standard and the monitors that are not attaining the 2024 $PM_{2.5}$ annual standard. The Harrisburg monitor has slightly fewer "clean" days (0-9 $\mu g/m^3$) than the monitors that are attaining the standard. For example, the Harrisburg monitor's $PM_{2.5}$ contribution to the design value in the 0-9 $\mu g/m^3$ range was 0.4 $\mu g/m^3$ lower than the regional average.

The analysis described in the remainder of this Appendix focuses on the violating monitors in the Harrisburg-Carlisle-York area (Harrisburg and York). Figure C-3.3.1 illustrates the trend of annual averages while Figure C-3.3.2 illustrates the trend of annual design values for monitors in the Harrisburg-Carlisle-York area with valid 2023 $PM_{2.5}$ design values. The Harrisburg and York monitors have both a 2023 annual average and design value above the 2024 standard. Since 2014, annual $PM_{2.5}$ levels have been in a general decline in the Harrisburg-Carlisle-York area. It is important to note that 2023 was an extremely active year for Canadian wildfires, leading to an excessive amount of smoke transported into southcentral PA.

Figure C-3.3.1: Harrisburg-Carlisle-York Area $PM_{2.5}$ Valid Annual Averages ($\mu g/m^3$)

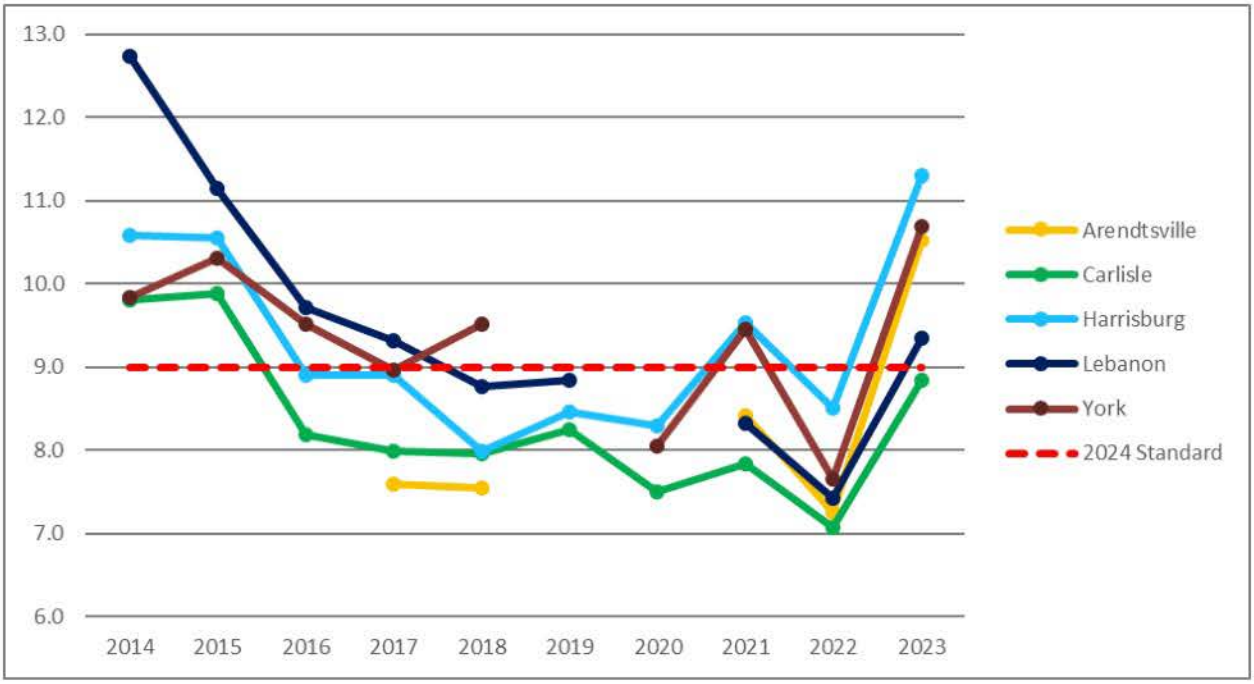
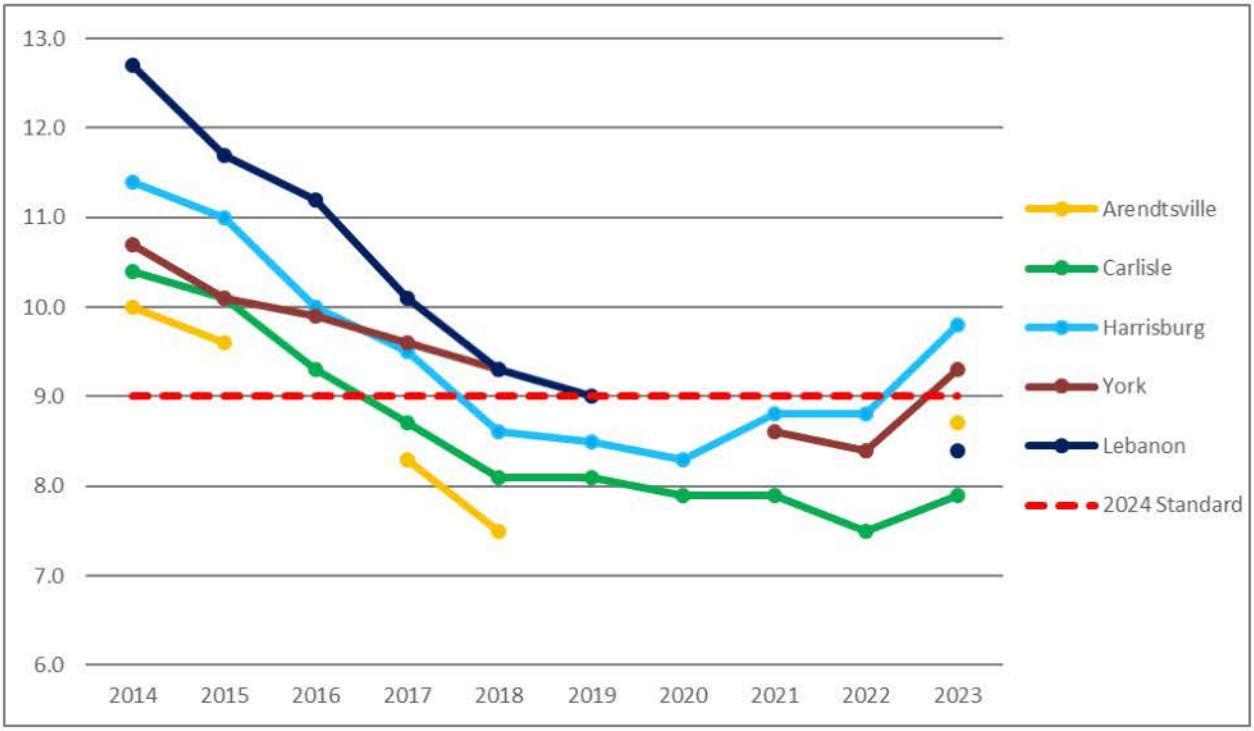


Figure C-3.3.2: Harrisburg-Carlisle-York Area $PM_{2.5}$ Valid Annual Design Values ($\mu g/m^3$)



Additional analyses were completed to determine what was contributing to the fewer number of "clean" days at the Harrisburg and York monitors. PADEP identified days when these monitors'

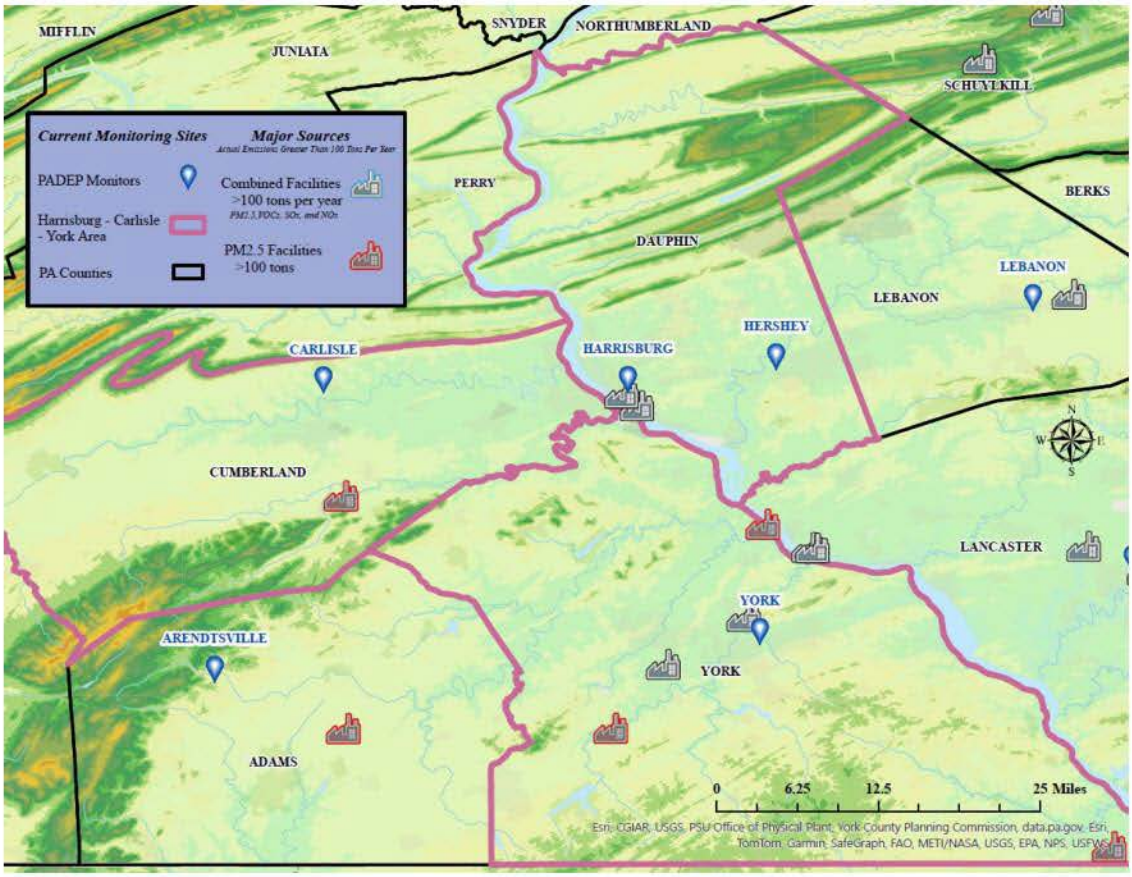
$PM_{2.5}$ concentrations were relatively high but regional monitoring concentrations in the Harrisburg-Carlisle-York area were "clean." Between 2021 and 2023, PADEP identified 75 days in which the Harrisburg monitor was at least one standard deviation above the regional average while the regional average was at or below 9 $\mu g/m^3$ and 78 days in which the York monitor was at least one standard deviation above the regional average while the regional area average was at or below 9.0 µg/m3.

Meteorological Conditions Impacting High $PM_{2.5}$ Days at the Harrisburg and York Monitors

The Harrisburg-Carlisle-York area made up of Cumberland, Dauphin, and York counties includes the following air basins per Appendix B, Figure 17: Harrisburg and York. The Susquehanna River borders the Harrisburg monitor to the west. Elevations vary from 102 to over 2,200 feet. Wind patterns are generally influenced by weather systems moving from the west.

Figure C-3.4.1 illustrates the sources within the immediate proximity of the Harrisburg and York monitors. Using the meteorological station at the Capital City Airport (CXY), Figure C-3.4.2 illustrates the frequency of wind distribution coming from a particular direction.

Figure C-3.4.1: Harrisburg-Carlisle-York Area
Major Sources (Over 100 Tons Per Year) Based on PADEP 2022 Emission Inventory



There are multiple major sources of SO_2 and NO_X in close proximity of the Harrisburg and York monitors. The closest major source of NO_X is located within 0.5 kilometer to the southwest of the Harrisburg monitor and within five kilometers to the north of the York monitor. Per Appendix B, Figure B-2, the greatest $PM_{2.5}$ point source emission density is in York and Cumberland Counties, followed by Dauphin County. $PM_{2.5}$, SO_2 precursor, NOx precursor, and VOC precursor point source emissions are similarly spread throughout Cumberland, Dauphin, and York Counties as seen in Appendix B, Figures B-21 – B-24. Per Appendix B, Figure B-5, the greatest VOC precursor point source emission density is in York County. Per Appendix B, Figures B-6 – B-9, $PM_{2.5}$, SO_2 precursor, NOx precursor, and VOC precursor area source emission density all fall within the same range in Cumberland, Dauphin, and York Counties. Figures B-11 – B-20 in Appendix B show similar on-road and non-road source emissions in Cumberland, Dauphin, and York Counties.

Figure C-3.4.2: Harrisburg-Carlisle-York Area
Capital City Airport (CXY) Wind Rose

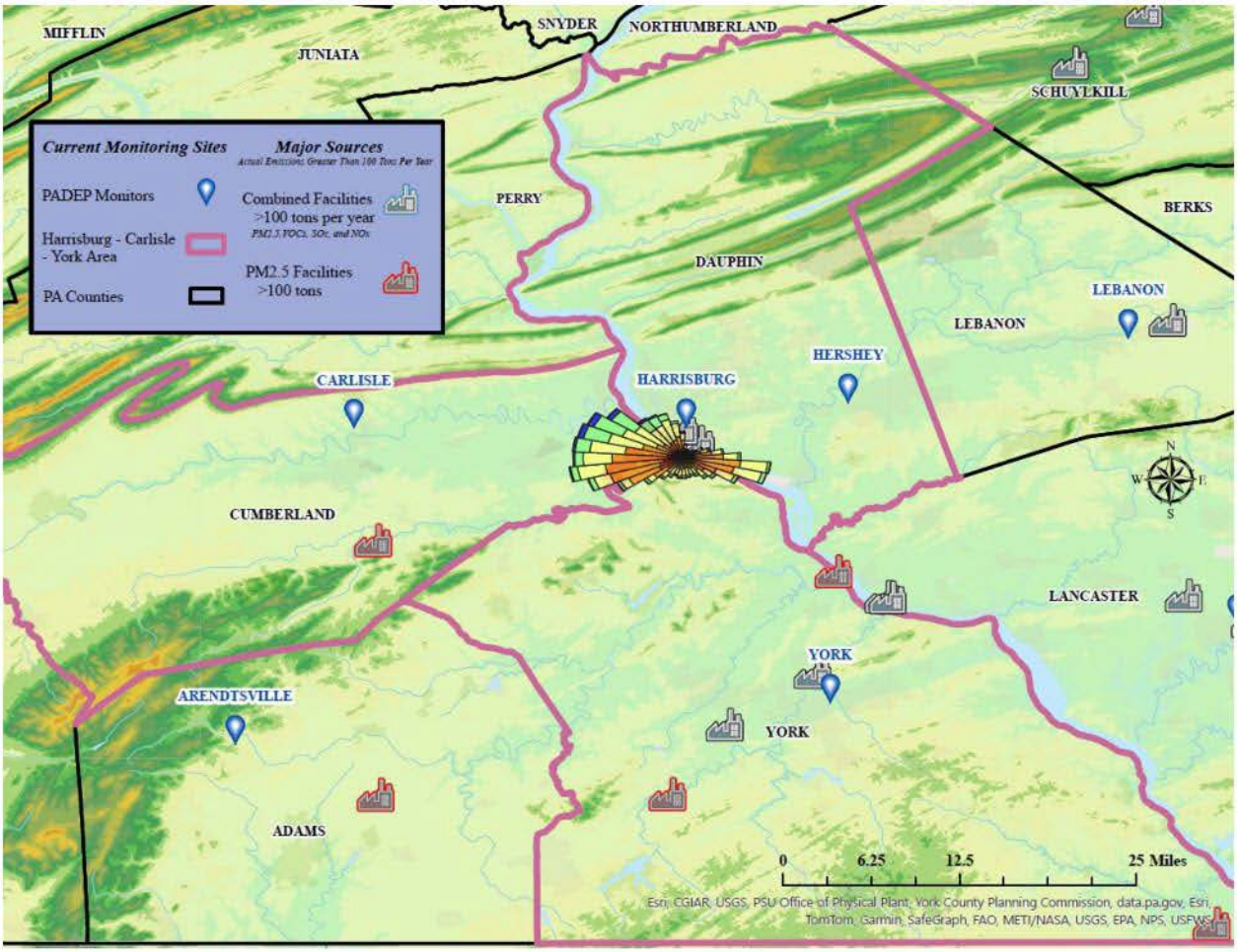


Figure C-3.4.2 shows that, based on the Capital City Airport wind data, the predominant wind flow is from the west/northwest/southwest in the Harrisburg region. The wind direction above shows that the predominant winds travel directly over these sources. This analysis indicates the local nature of the problem near the Harrisburg and York monitors.

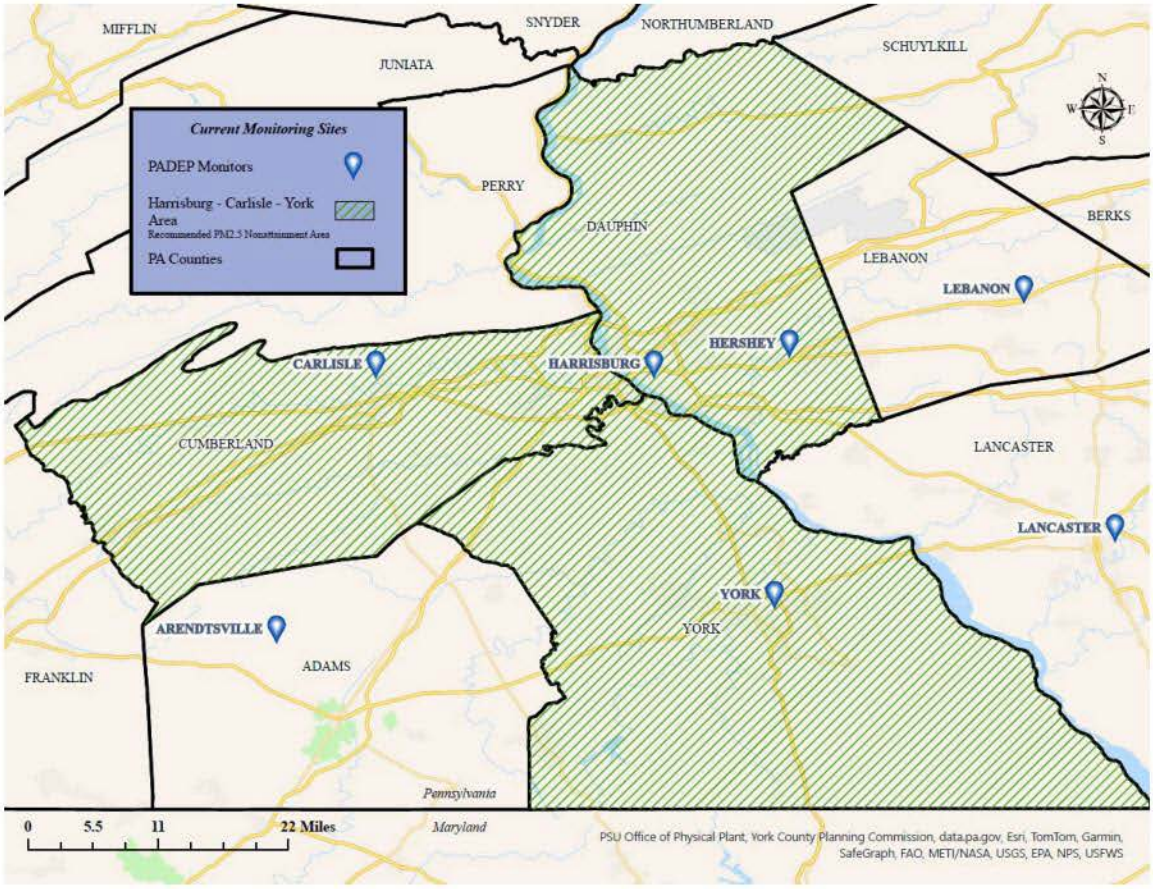
The Change in the Composition of the $PM_{2.5}$

PADEP does not currently operate a speciation monitor in the Harrisburg-Carlisle-York area. PADEP is considering adding a speciation monitor to the Harrisburg site in 2025.

Summary

PADEP's analysis illustrates the need for a nonattainment area consisting of Cumberland, Dauphin, and York counties. An analysis of the $PM_{2.5}$ data monitored at the Harrisburg monitor in Dauphin County and the York monitor in York County illustrates that the Harrisburg and York monitors see greater concentrations in the 9-27 $\mu g/m^3$ range than the regional concentrations in the same range. A further examination into the monitoring data demonstrates that the predominant winds travel directly over local point sources, further illustrating the local issue at the Harrisburg and York monitors. There are multiple point sources clustered along the Cumberland/Dauphin County border. The Harrisburg monitor in Dauphin County and York monitor in York County have a 2023 annual design value that exceeds the 2024 annual $PM_{2.5}$ NAAQS. The Lebanon monitor in Lebanon County has been monitoring in attainment of the 2024 standard for several years and is not contributing to excess emissions elsewhere. Therefore, PADEP is recommending the Harrisburg-Carlisle-York nonattainment area encompassing Cumberland, Dauphin, and York counties in Pennsylvania be designated nonattainment for the 2024 annual $PM_{2.5}$ NAAQS. A map of the proposed nonattainment area is provided below as Figure C-3.5.

Figure C-3.5: Recommended Harrisburg-Carlisle-York Area $PM_{2.5}$ Nonattainment Area



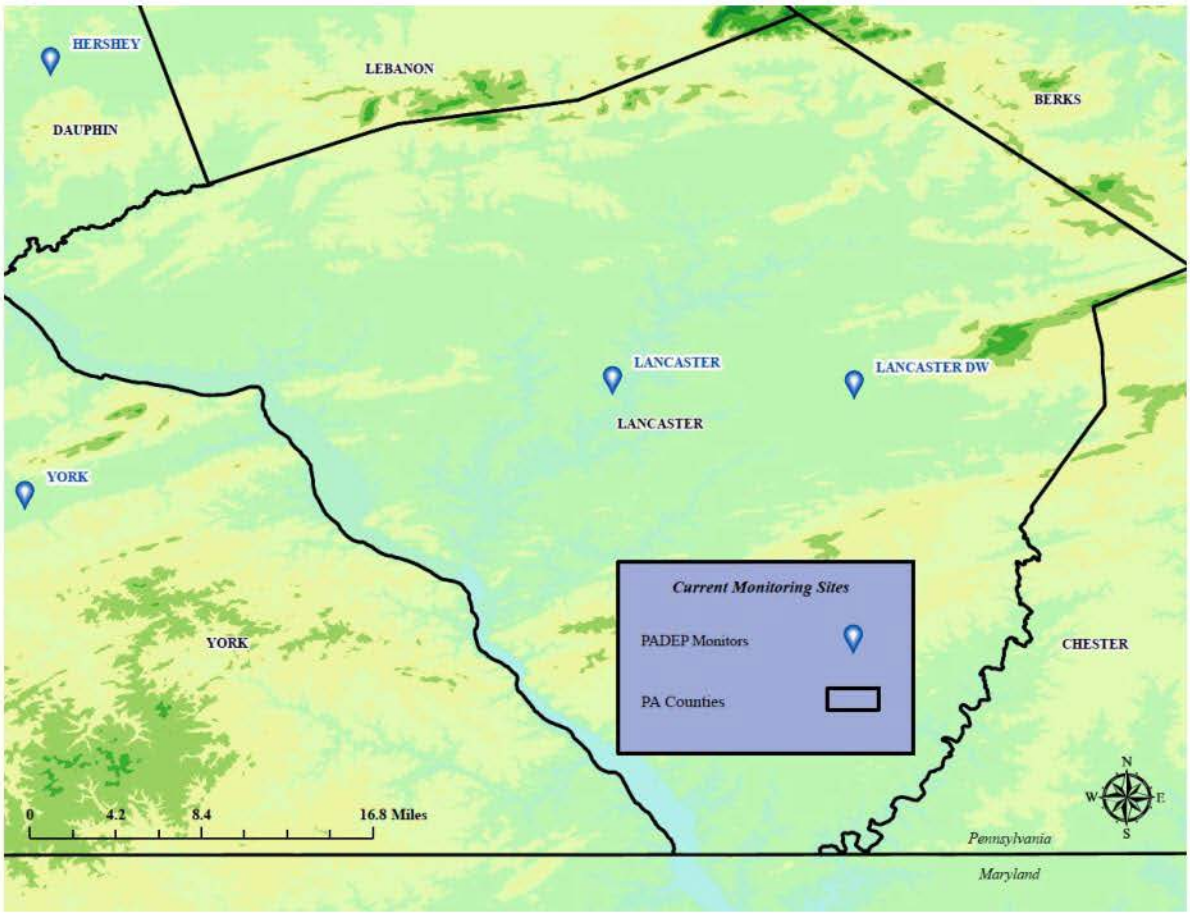
Appendix C-4
LANCASTER COUNTY AREA

PADEP is recommending a Lancaster County annual PM2.5 NAAQS nonattainment area consisting of Lancaster County. PADEP completed an analysis of the PM2.5 ambient air quality data, which outlines the reason for recommending an area consisting of only Lancaster County. This analysis is provided below.

Analysis of the Ambient PM2.5 Data – A Design Value Contribution Analysis

Based on EPA-certified 2023 $PM_{2.5}$ valid design values, one monitor in the Lancaster metropolitan statistical area (MSA) is violating the 2024 $PM_{2.5}$ annual standard of 9 $\mu g/m^3$. The monitor and its design value is Lancaster Downwind (AIRS #42-071-0012) at 9.5 $\mu g/m^3$ (in Lancaster County). The Lancaster monitor (AIRS #42-071-0007), by contrast, is monitoring attainment of the standard at 8.8 $\mu g/m^3$. The Lancaster monitor is also in Lancaster County, located to the west of the Lancaster Downwind monitor. Figure C-4.1 is a map outlining the location of these monitors, along with monitors in attainment in the vicinity of the Lancaster County area.

Figure C-4.1: Lancaster County Area PM2.5 Monitoring Map



PADEP has completed a design value contribution analysis for all of the $PM_{2.5}$ monitors in the proximity of the Lancaster Downwind monitor. The analysis attempts to determine the daily contribution of $PM_{2.5}$ concentrations to the annual $PM_{2.5}$ design value. Daily $PM_{2.5}$ measurements were grouped into different $PM_{2.5}$ concentration ranges. An analysis of each range's contribution was then conducted to determine which measurements are contributing to the monitor's design value. Dates of these measurements were then further analyzed to determine if there are specific meteorological conditions or sources that are adversely impacting the monitor's design value.

Results from the design value contribution analysis for the Lancaster County area are summarized in Table C-4.1. Ultimately, the type of contribution a given monitor's daily value had on the 3-year design value (by comparing this value to 9 $\mu g/m^3$) was determined. The daily value for each day a monitor measured $PM_{2.5}$ levels was placed in one of the ten categories. For example, on January 1, 2021, the Lancaster Downwind monitor's 24-hour $PM_{2.5}$ average was 14.8 $\mu g/m^3$. Since this value falls in the 13.5-18.0 $\mu g/m^3$ category in Table C-4.1, the calculated daily contribution to the design value was placed in this category. In the first quarter of 2021 (January 1 to March 31), the Lancaster Downwind monitor recorded 88 measurements. PADEP determined that the January 1, 2021, contribution assessment to the 2023 design value was 0.00549 $\mu g/m^3$. The 0.00549 $\mu g/m^3$ was calculated by subtracting the standard of 9.0 $\mu g/m^3$ from the average daily value of 14.8 $\mu g/m^3$ and then dividing this by the number of measurements for the quarter (88) times 12 (there are a total of 12 quarters in a 3-year design value period). This type of analysis was completed for every day of measurements from January 1, 2021, through December 31, 2023. In Table C-4.1, the sum of the categorical breakdowns for the Lancaster Downwind monitor equals 0.5176 $\mu g/m^3$, which demonstrates that the design value is 0.5176 $\mu g/m^3$ above the annual standard of 9 $\mu g/m^3$.

Figures C-4.2.1 – C-4.2.11 show the design value contribution and category breakdown for the monitors in the Lancaster County area.

Table C-4.1: Lancaster County Area
2023 $PM_{2.5}$ Annual Design Value Contribution Analysis

Site Name	Site ID	Owner	0 - 4.5	4.5 - 9.0	9.0 - 13.5	13.5 - 18.0	18.0 - 22.5	22.5 - 27.0	27.0 - 31.5	31.5 - 36.0	36.0 - 40.5	40.5 - 300.0	Sum
Monitors Attaining 2024 PM 2.5 Standard													
Lancaster	420710007	PA DEP	-1.1620	-1.0743	0.3996	0.5618	0.3457	0.1585	0.1477	0.1396	0.0528	0.2794	-0.1513
Arendtsville	420010001	PA DEP	-1.2559	-1.1795	0.4409	0.4522	0.3403	0.1526	0.1208	0.0549	0.0253	0.5278	-0.3206
Lebanon	420750101	PA DEP	-1.4119	-1.0792	0.4014	0.4472	0.2835	0.2189	0.0510	0.0898	0.0268	0.3375	-0.6351
New Garden	420290100	PA DEP	-1.1664	-1.3380	0.3384	0.3985	0.2223	0.0764	0.0390	0.0729	0.0000	0.4591	-0.8978
Monitors Not Attaining 2024 PM 2.5 Standard													
Lancaster Downwind	420710012	PA DEP	-0.9001	-0.9375	0.5163	0.5835	0.3980	0.2323	0.2125	0.0496	0.0801	0.2829	0.5176
Lancaster Regional Average			-1.1793	-1.1217	0.4193	0.4886	0.3180	0.1677	0.1142	0.0814	0.0370	0.3773	-0.2974

Figure C-4.2.1: Lancaster Downwind $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

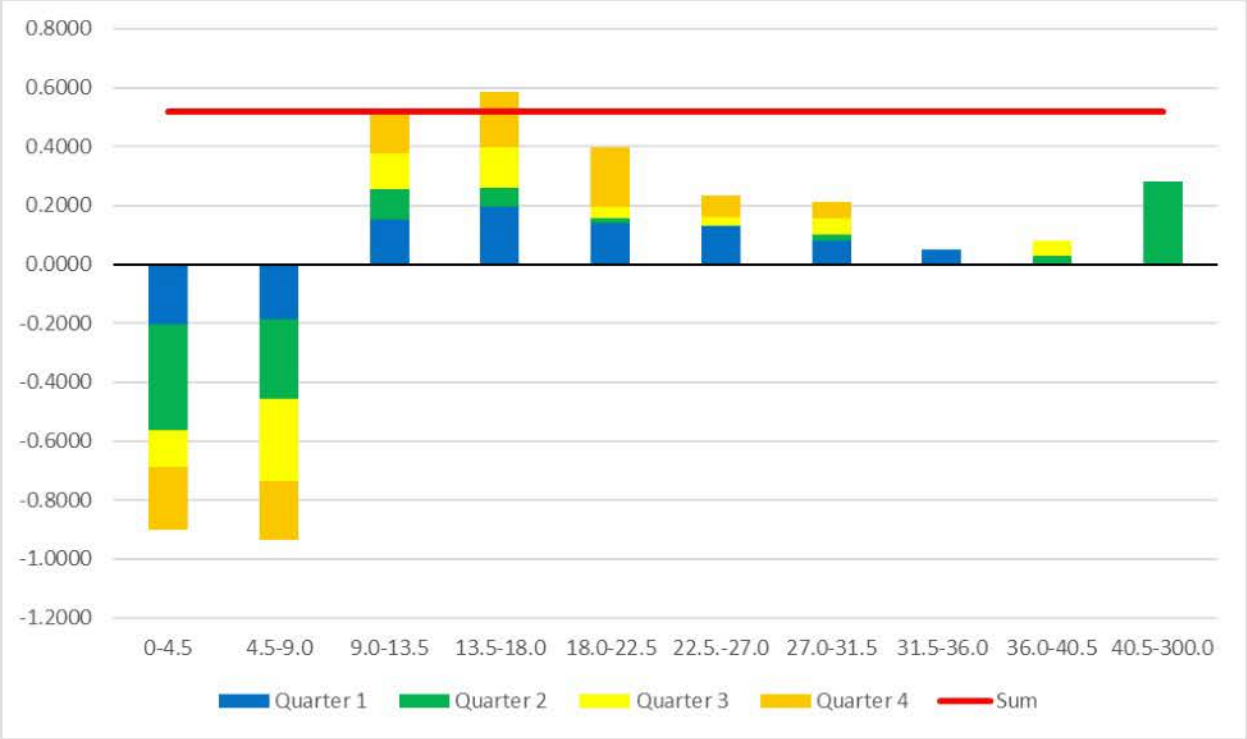


Figure C-4.2.2: Lancaster Downwind $PM_{2.5}$ Design Value Category Breakdown

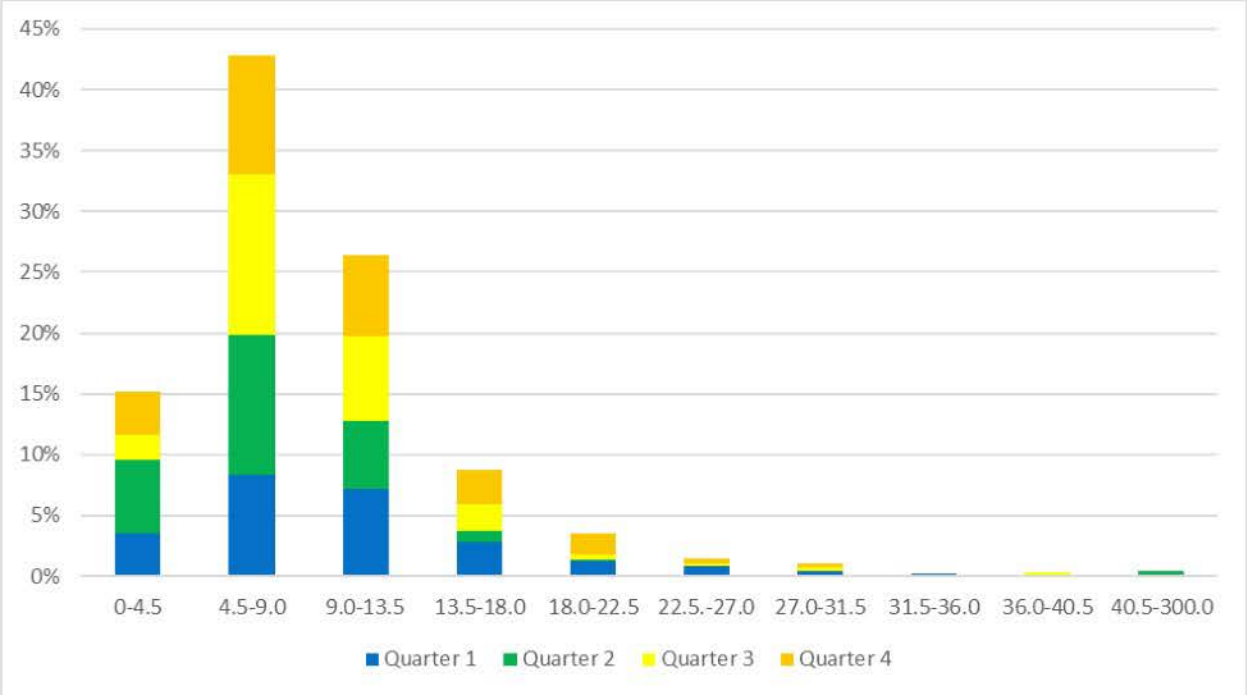


Figure C-4.2.3: Lancaster $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

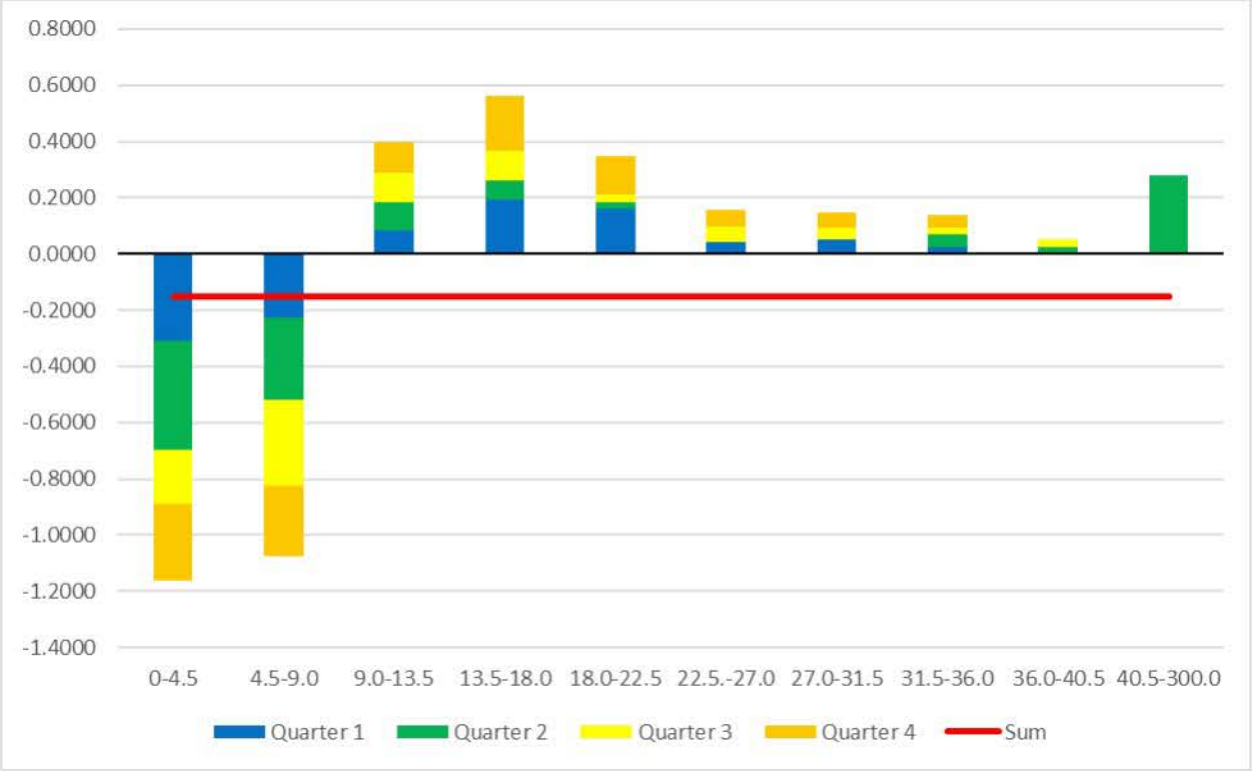


Figure C-4.2.4: Lancaster $PM_{2.5}$ Design Value Category Breakdown

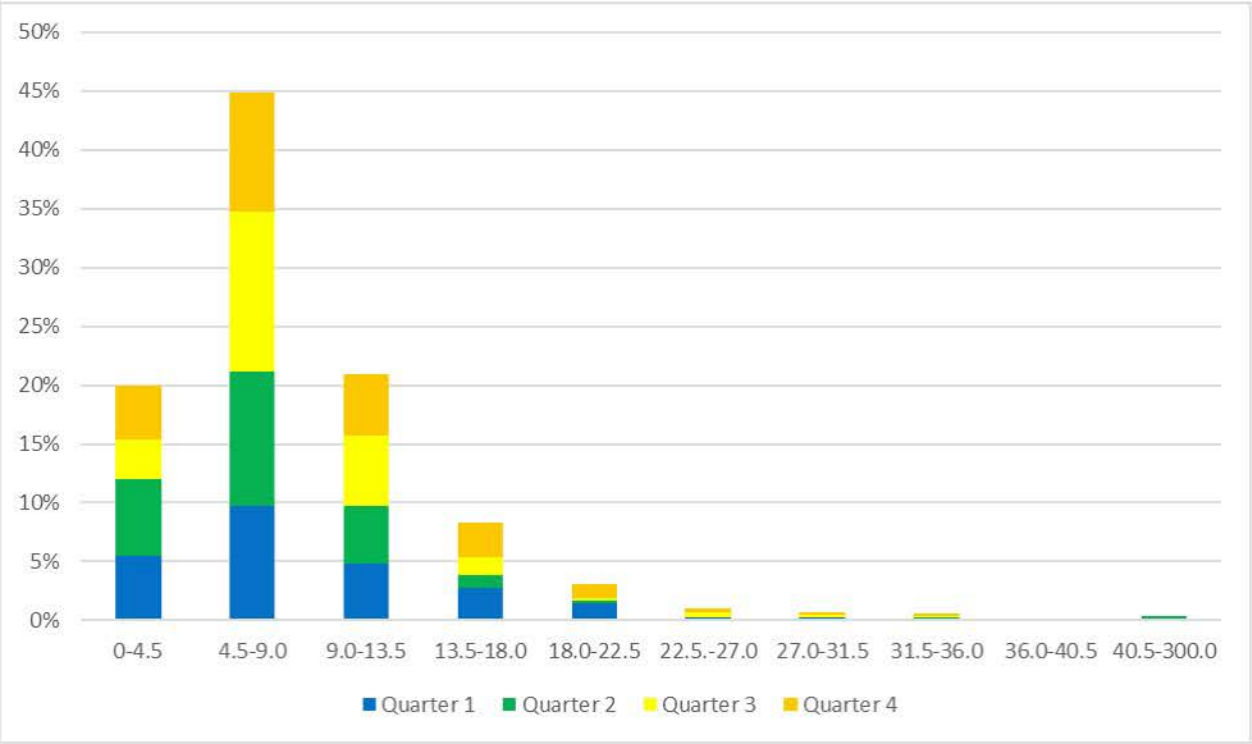


Figure C-4.2.5: Arendtsville $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

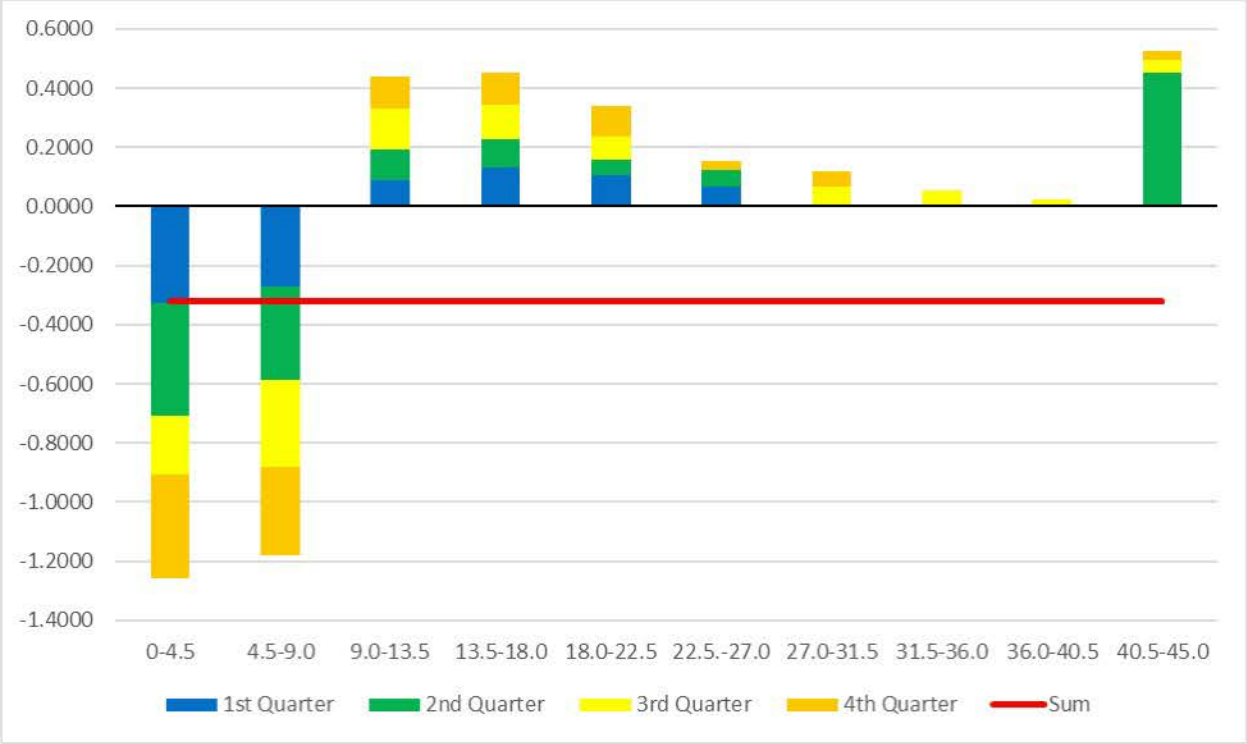


Figure C-4.2.6: Arendtsville $PM_{2.5}$ Design Value Category Breakdown

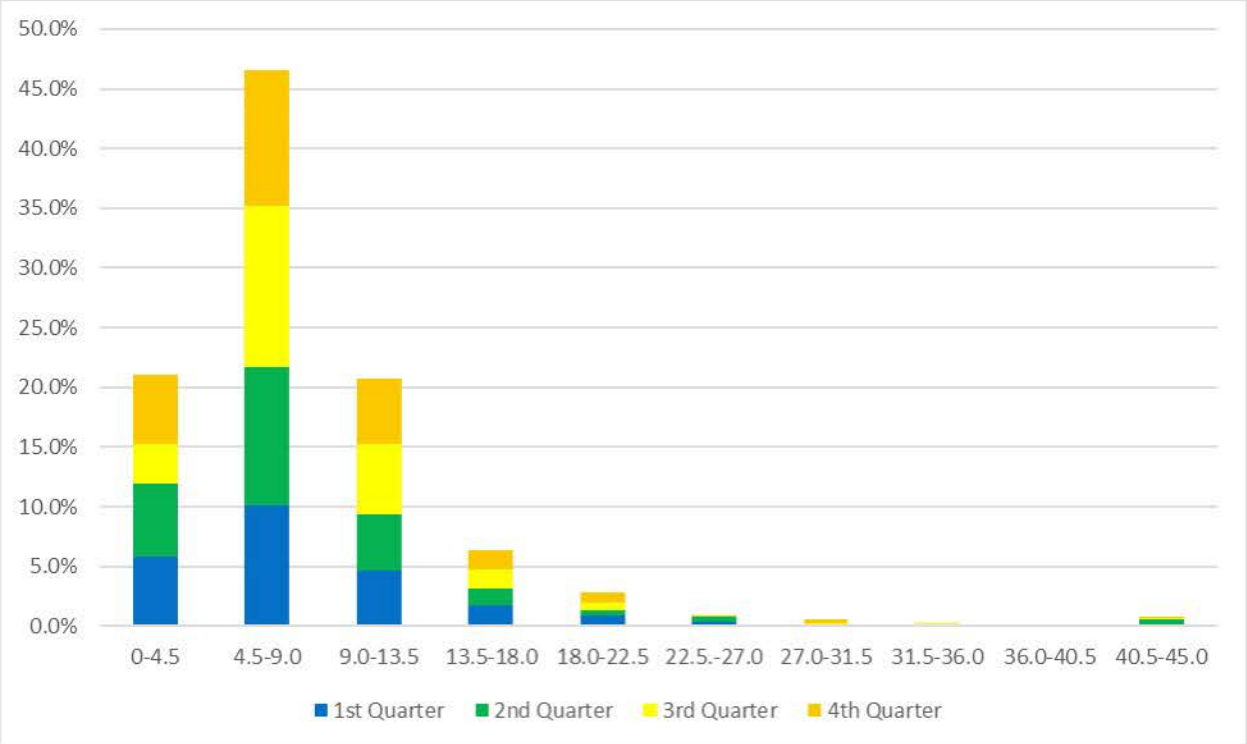


Figure C-4.2.7: Lebanon $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

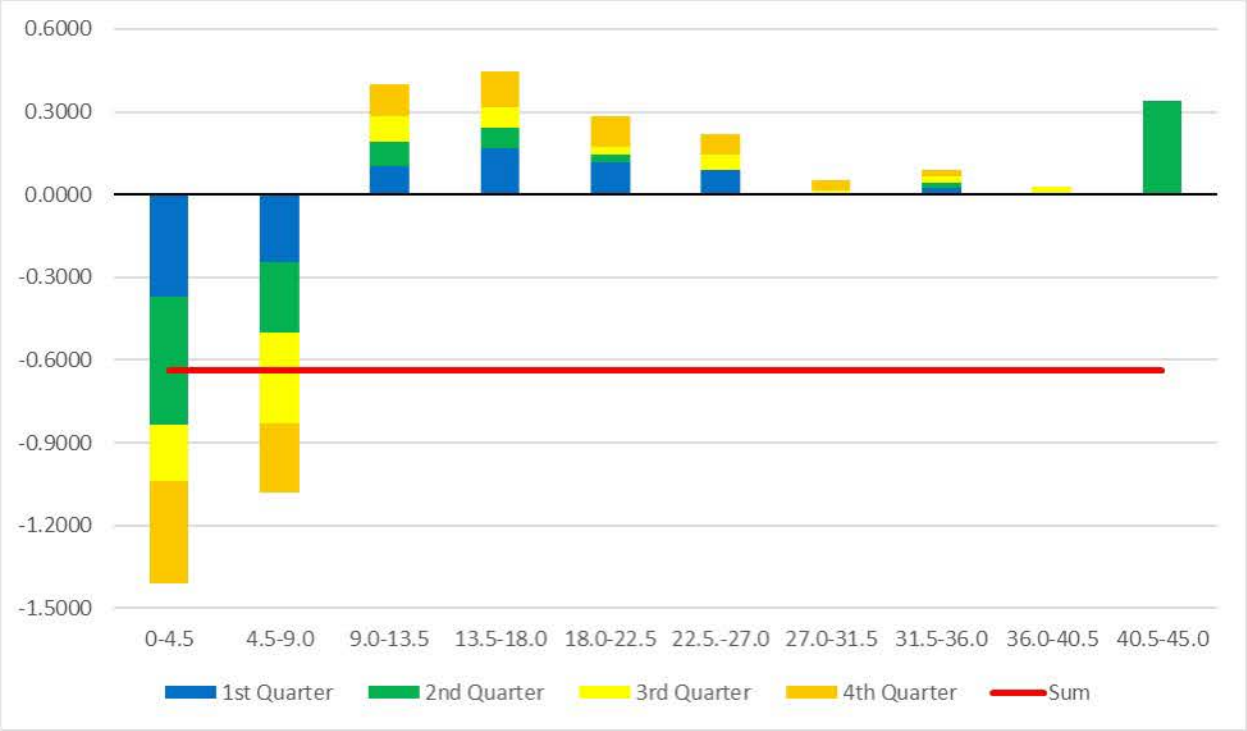


Figure C-4.2.8: Lebanon $PM_{2.5}$ Design Value Category Breakdown

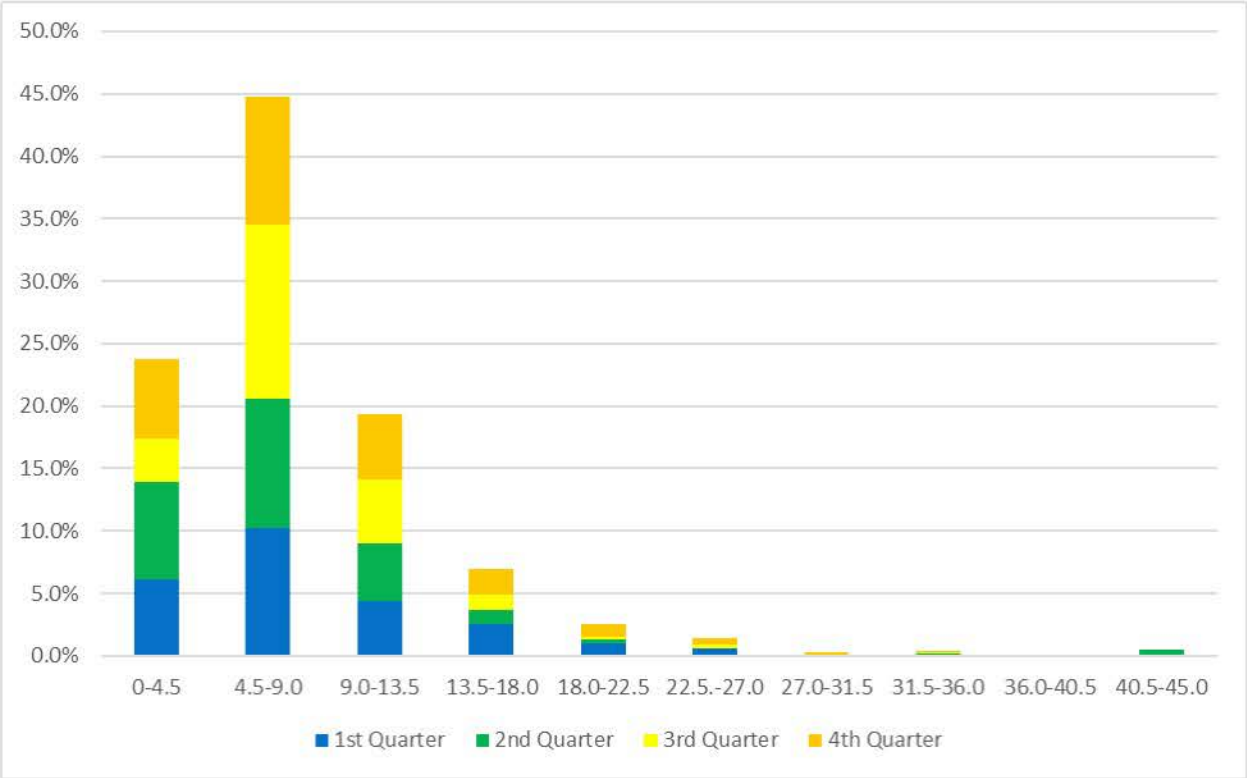


Figure C-4.2.9: New Garden $PM_{2.5}$ Design Value Contribution ($\mu g/m^3$)

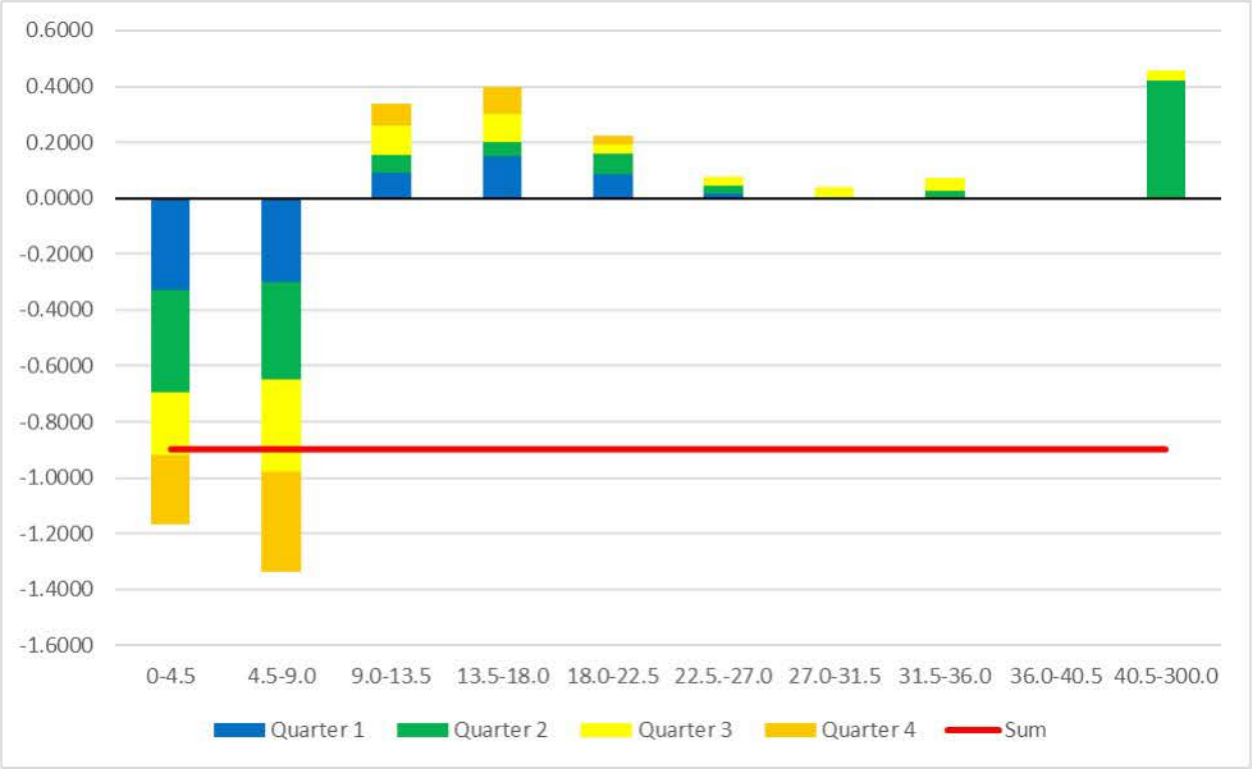


Figure C-4.2.10: New Garden $PM_{2.5}$ Design Value Category Breakdown

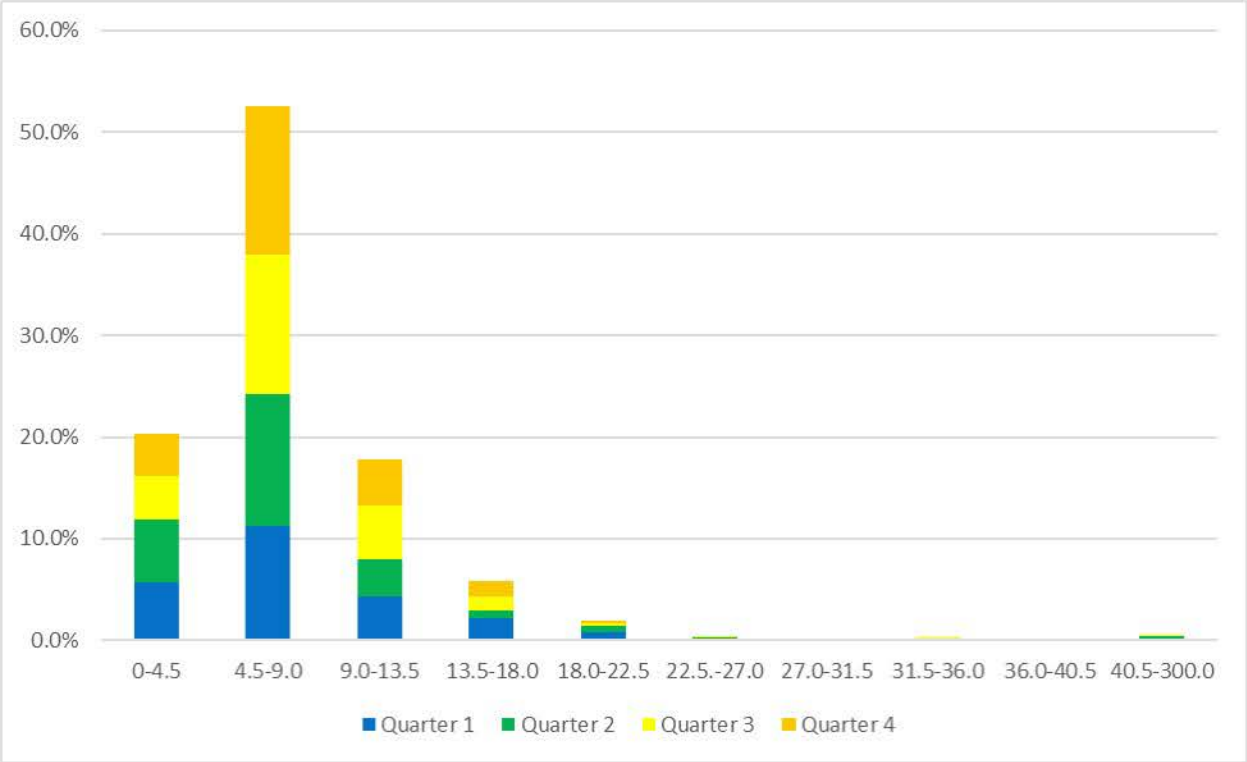


Figure C-4.2.11: Lancaster County Area $PM_{2.5}$ Annual Design Value Contribution ($\mu g/m^3$)

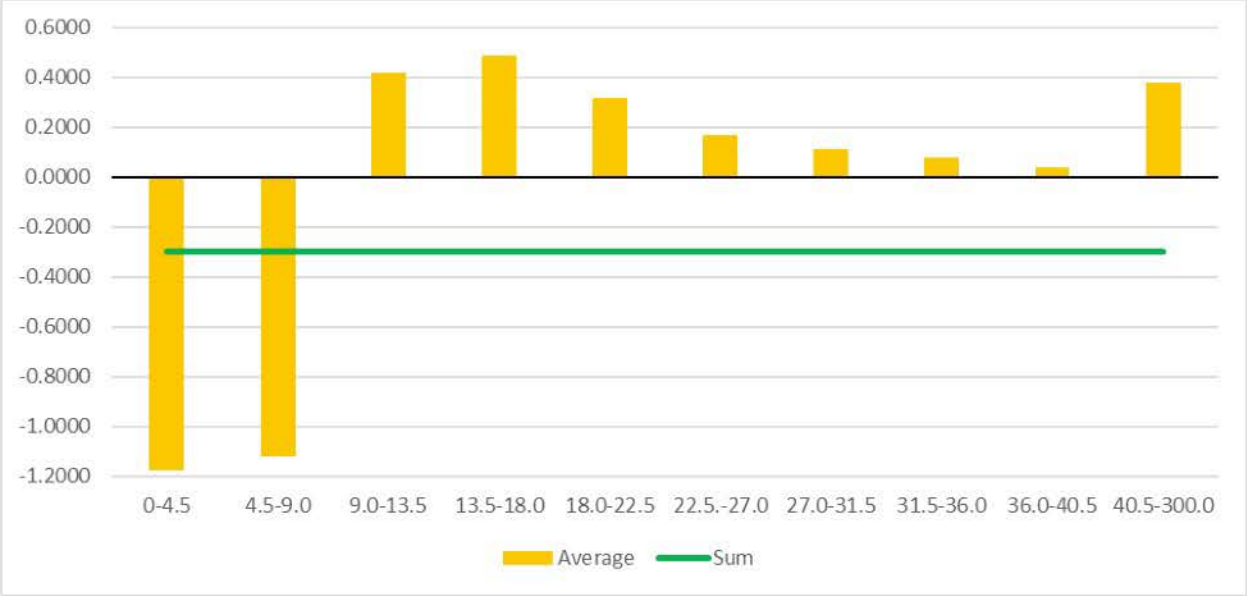


Table C-4.1 illustrates the differences between the monitors that are attaining the 2024 $PM_{2.5}$ annual standard and the monitor that is not attaining the 2024 $PM_{2.5}$ annual standard. The Lancaster Downwind monitor has slightly fewer "clean" days (0-9 $\mu g/m^3$) than the monitors

that are attaining the standard. For example, the Lancaster Downwind monitor's $PM_{2.5}$ contribution to the design value in the 0-9 $\mu g/m^3$ range was 0.46 $\mu g/m^3$ lower than the regional average.

The analysis described in the remainder of this Appendix focuses on the Lancaster Downwind monitor because it is the only monitor of concern. Figure C-4.3.1 illustrates the trend of annual averages while Figure C-4.3.2 illustrates the trend of annual design values during the period in the Lancaster County area with valid 2023 $PM_{2.5}$ design values. The Lancaster Downwind monitor has both a 2023 annual average and design value above the 2024 standard. Since 2014, annual $PM_{2.5}$ levels have been in a general decline in the Lancaster County area. It is important to note that 2023 was an extremely active year for Canadian wildfires, leading to an excessive amount of smoke transported into southeastern PA. Days with smoke impacts showed elevated concentrations (beyond what might have been expected), along with several exceedances of the 24-hour NAAQS.

Figure C-4.3.1: Lancaster County Area $PM_{2.5}$ Valid Annual Averages ($\mu g/m^3$)

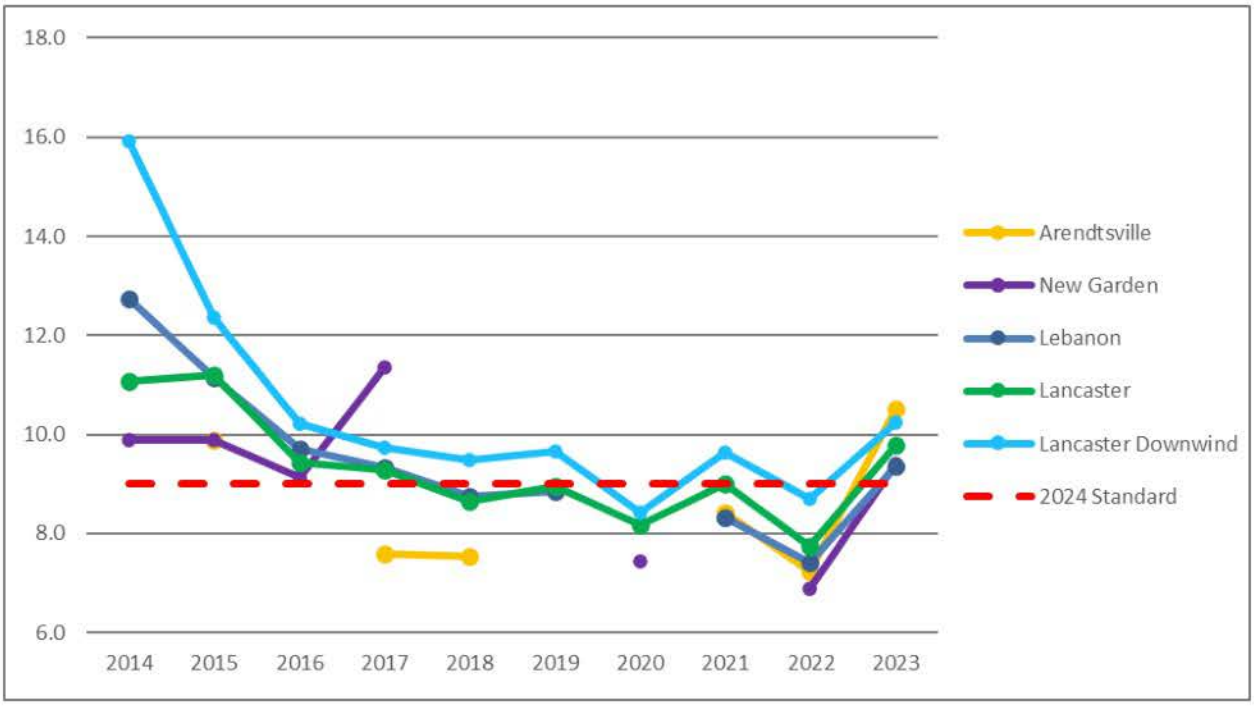
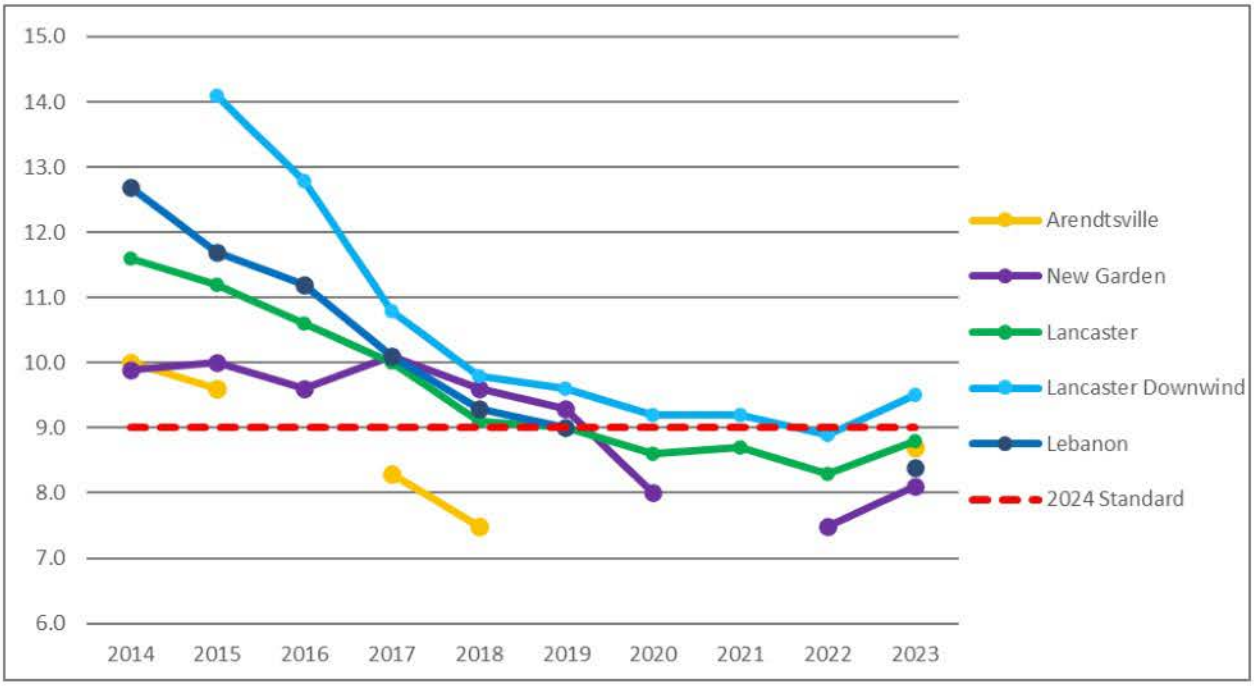


Figure C-4.3.2: Lancaster County Area $PM_{2.5}$ Valid Annual Design Values ($\mu g/m^3$)



Additional analyses were completed to determine what was contributing to the fewer number of "clean" days at the Lancaster Downwind monitor. PADEP identified days when the Lancaster Downwind monitor's $PM_{2.5}$ concentrations were relatively high but regional monitoring

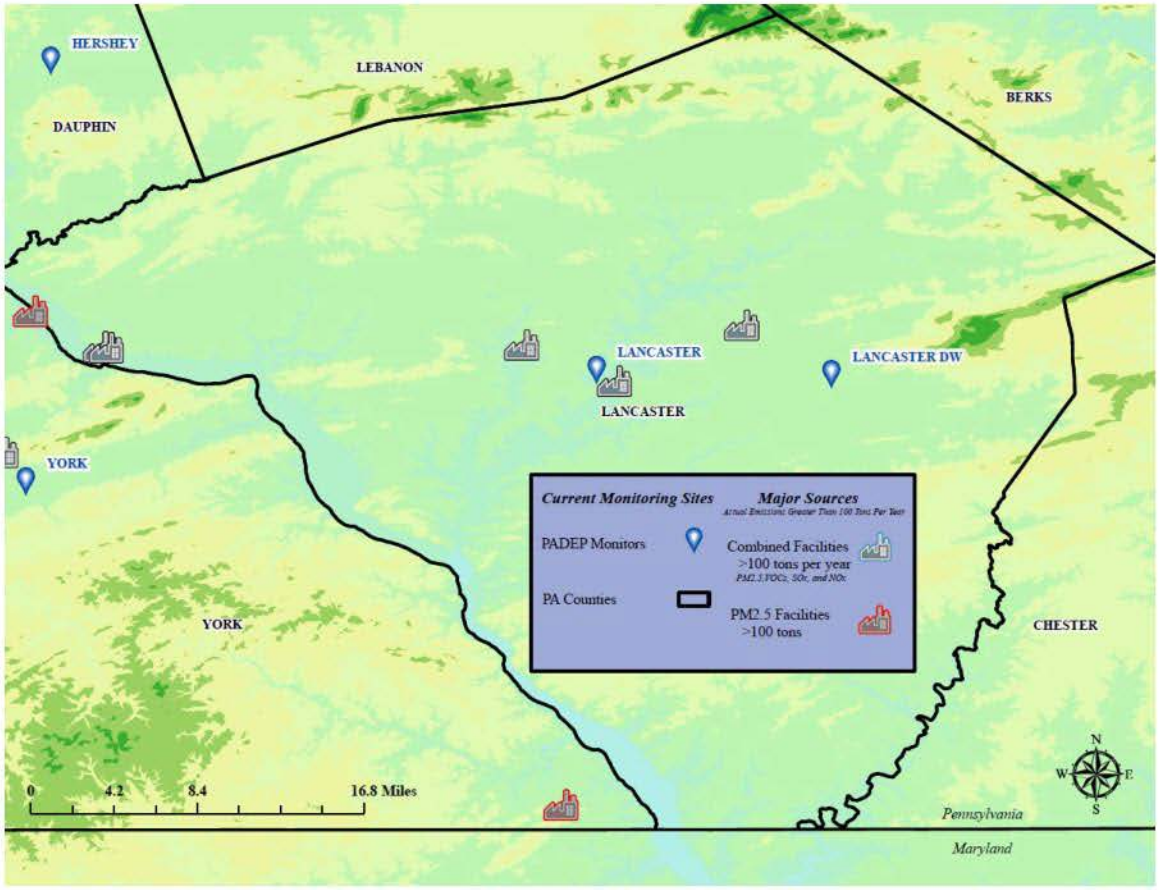
concentrations in the Lancaster area were "clean." Between 2021 and 2023, PADEP identified 183 days in which the Lancaster Downwind monitor was at least one standard deviation above the regional average while the regional average was at or below 9 $\mu g/m^3$.

Meteorological Conditions Impacting High $PM_{2.5}$ Days at the Lancaster Downwind Monitor

The Lancaster MSA, made up of Lancaster County, includes the Lancaster air basin per Appendix B, Figure 17. Lancaster County has the most farms and acres of farmland in the Commonwealth. Lancaster County consists of mostly farmlands surrounding downtown Lancaster and the location of the Lancaster and Lancaster Downwind monitor. Elevations in Lancaster County vary from 89 to over 1,300 feet. Wind patterns are generally influenced by weather systems moving from the west.

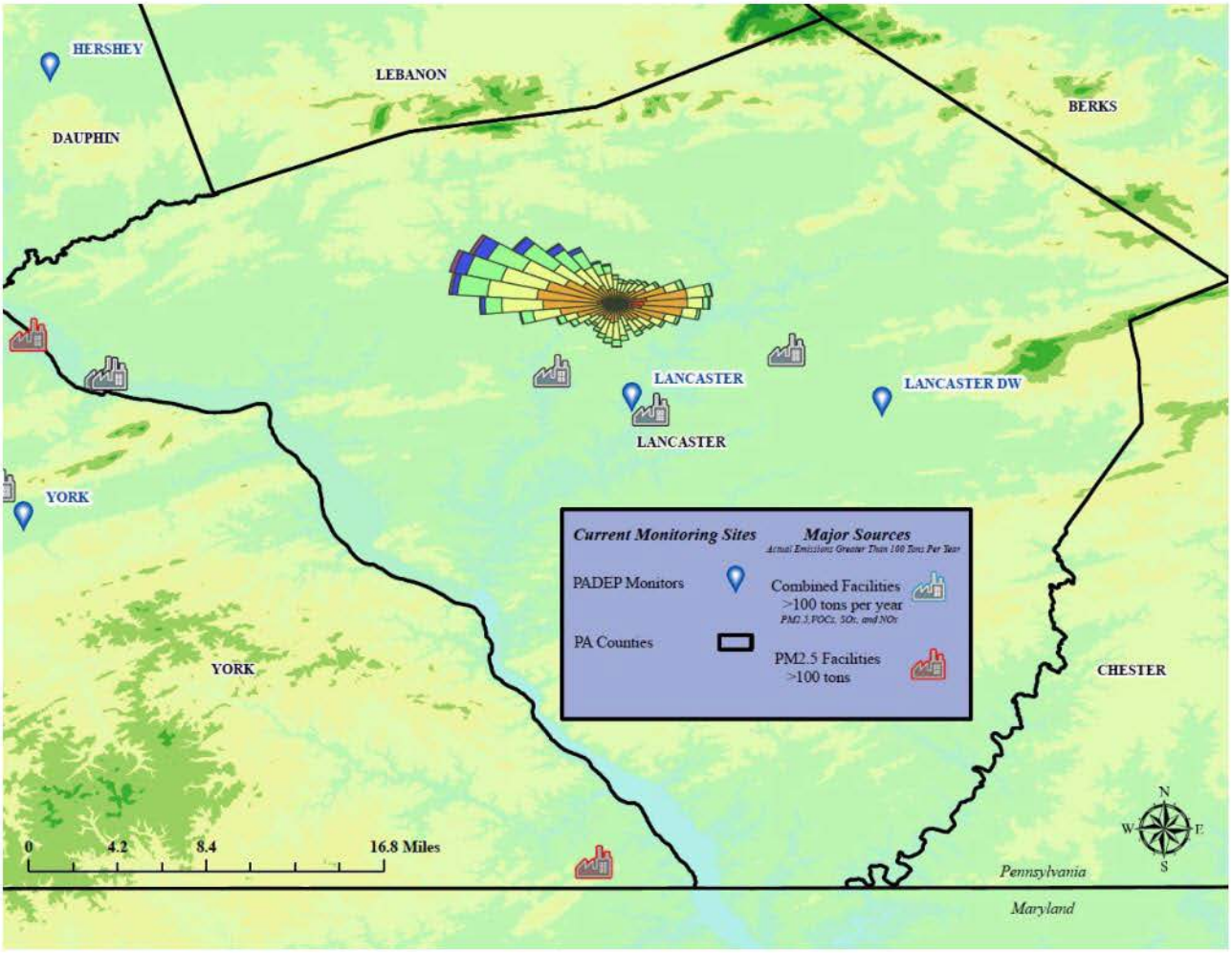
Figure C-4.4.1 illustrates the sources within the immediate proximity of the Lancaster and Lancaster Downwind monitors. Using the meteorological station at the Lancaster Airport (LNS), Figure C-4.4.2 illustrates the frequency of wind distribution coming from a particular direction.

Figure C-4.4.1: Lancaster Area
Major Sources (Over 100 Tons Per Year) Based on PADEP 2022 Emission Inventory



The closest major source is located approximately five (5) miles to the northwest of the Lancaster Downwind monitor. Figure B-10 in Appendix B shows that Lancaster County has the largest ammonia area source emission density (in tons per year per square mile) in Pennsylvania. This analysis also illustrates that there is a potential local influence to the high $PM_{2.5}$ concentrations at the Lancaster Downwind monitor.

Figure C-4.4.2: Lancaster Area
Lancaster Airport (LNS) Wind Rose



The Change in the Composition of the $PM_{2.5}$

In the Lancaster County area, PADEP operates speciation monitors at Lancaster and Lancaster Downwind. PADEP also operates a speciation monitor at Arendtsville (AQS ID# 42-001-0001), located in Adams County. We chose to compare seasonal values with what has occurred in Arendtsville which is in a rural location of Pennsylvania and does not have a major nitrogen oxide or sulfur dioxide source within 12 kilometers of the monitor. For that reason, the Arendtsville monitor reflects the transport that is coming into eastern Pennsylvania from areas to the west (prevailing wind flow is from west to east across Pennsylvania).

Figures C-4.5.1 - C-4.5.2, C-4.5.4 - C-4.5.5, C-4.5.7 - C-4.5.8, and C-4.5.10 - C-4.5.11 outline the main speciated components of $PM_{2.5}$ during each quarter. Figures C-4.5.3, C-4.5.6, C-4.5.9, and C-4.5.12 illustrate the difference in the main speciated components of $PM_{2.5}$ from the 2016 to 2018 period to the 2021 to 2023 period.

Figure C-4.5.1: 2016-2018 Quarter 1 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

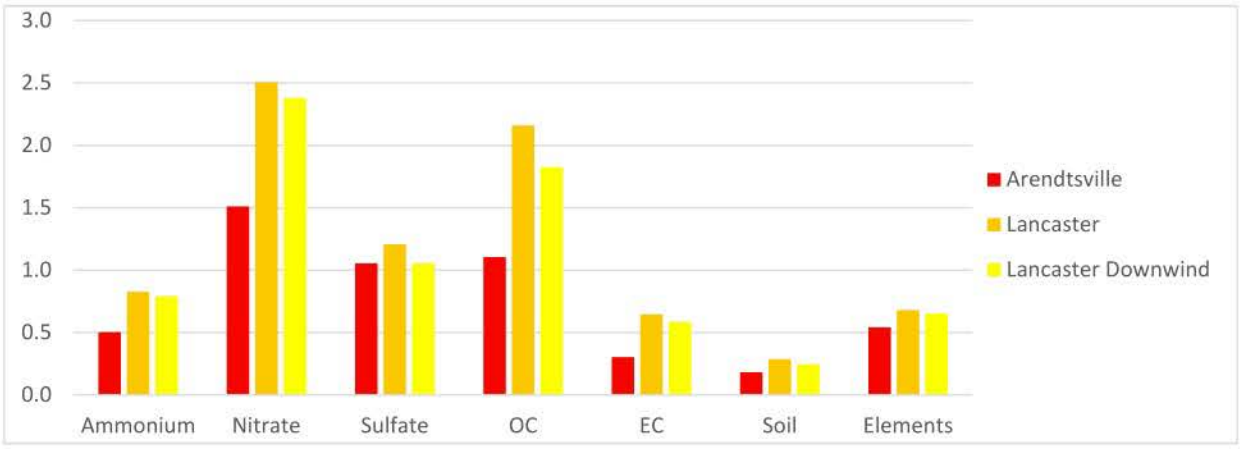


Figure C-4.5.2: 2021-2023 Quarter 1 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

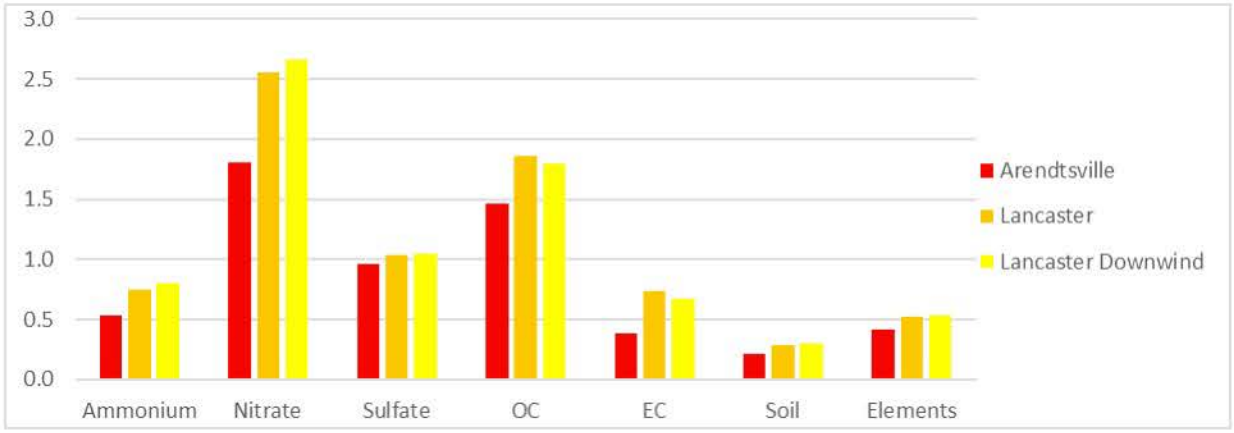


Figure C-4.5.3: Comparison of Quarter 1 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018

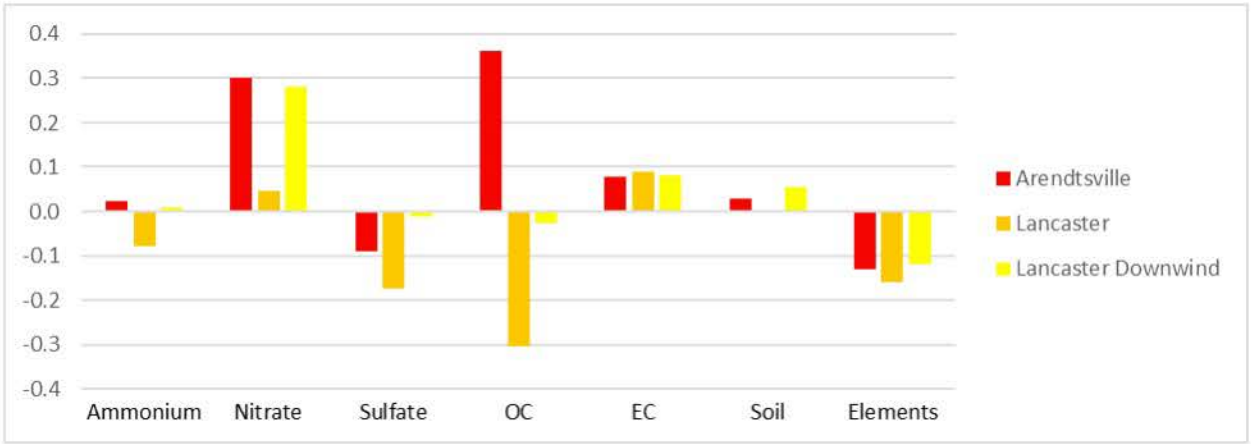


Figure C-4.5.4: 2016-2018 Quarter 2 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

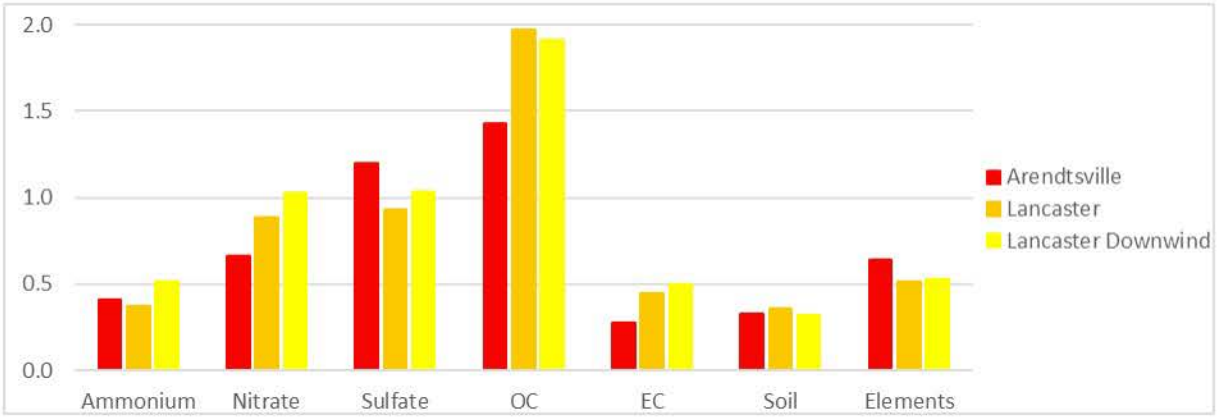


Figure C-4.5.5: 2021-2023 Quarter 2 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

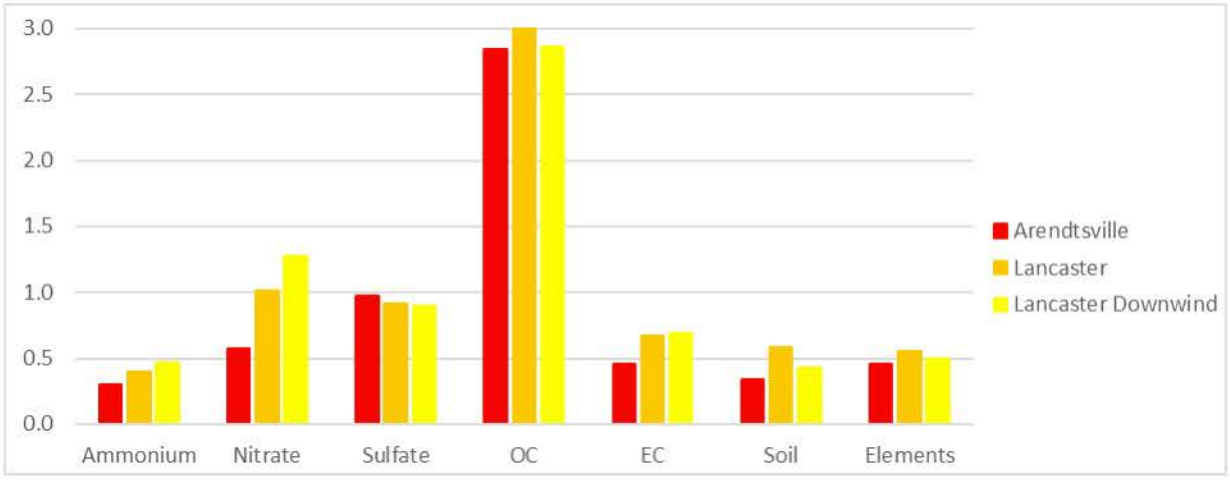


Figure C-4.5.6: Comparison of Quarter 2 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018

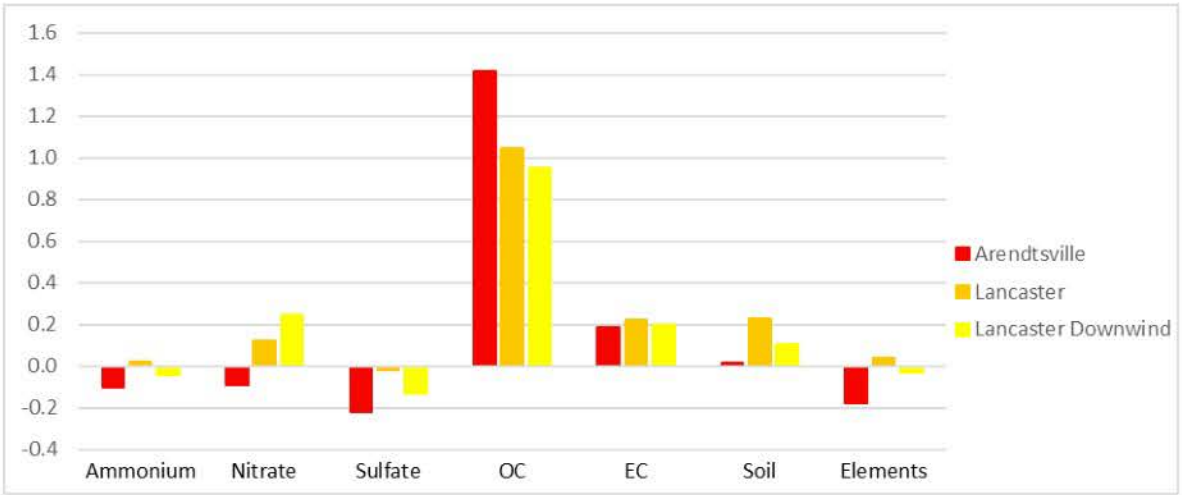


Figure C-4.5.7: 2016-2018 Quarter 3 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

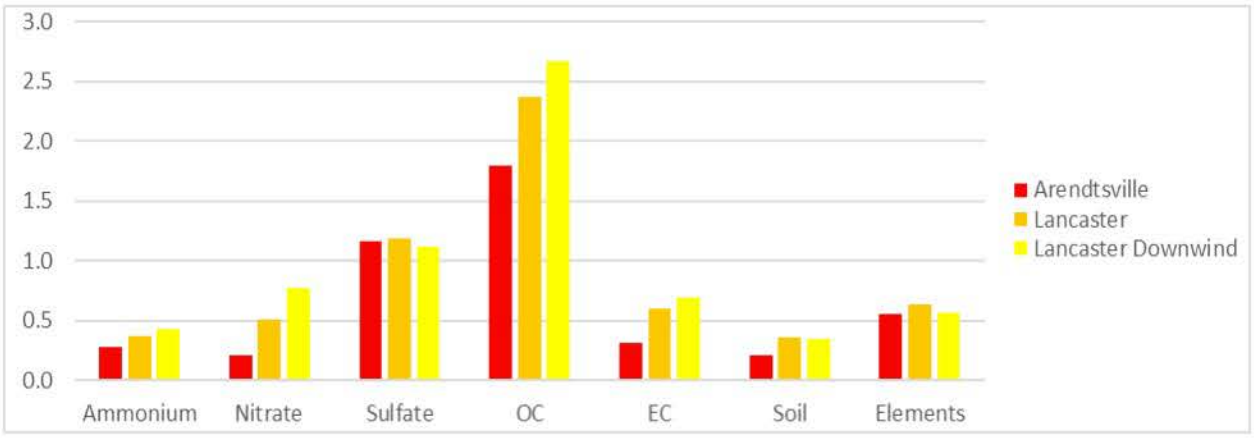


Figure C-4.5.8: 2021-2023 Quarter 3 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

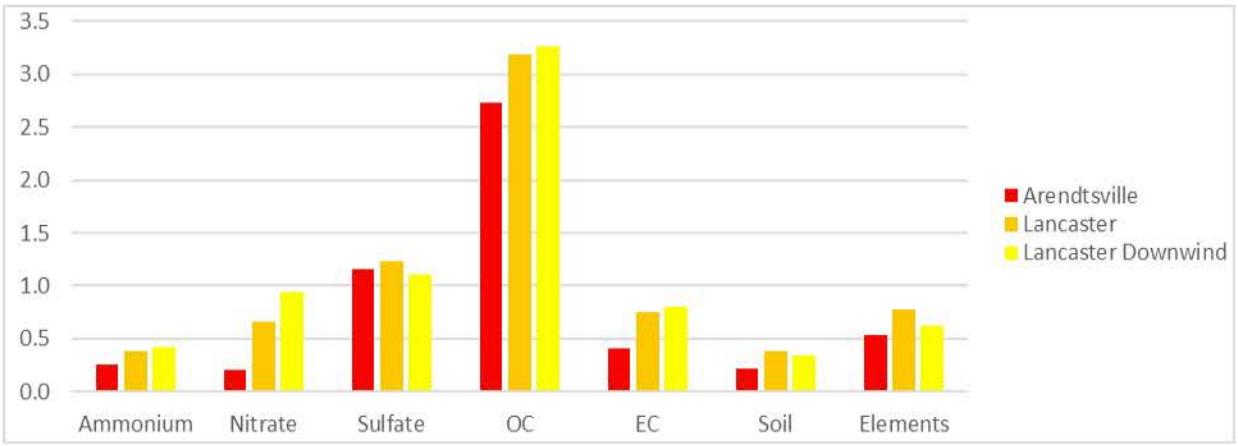


Figure C-4.5.9: Comparison of Quarter 3 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018

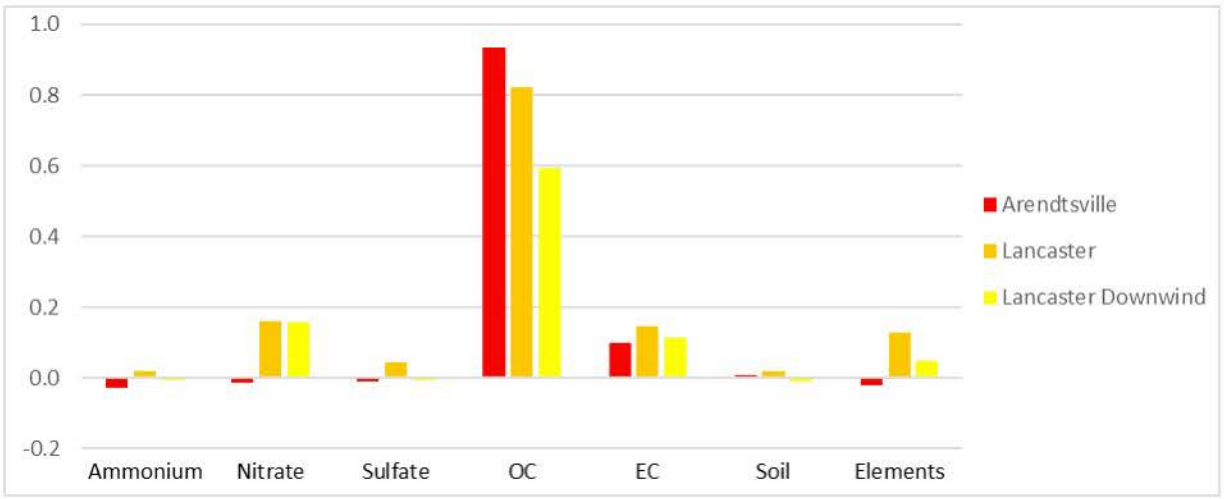


Figure C-4.5.10: 2016-2018 Quarter 4 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

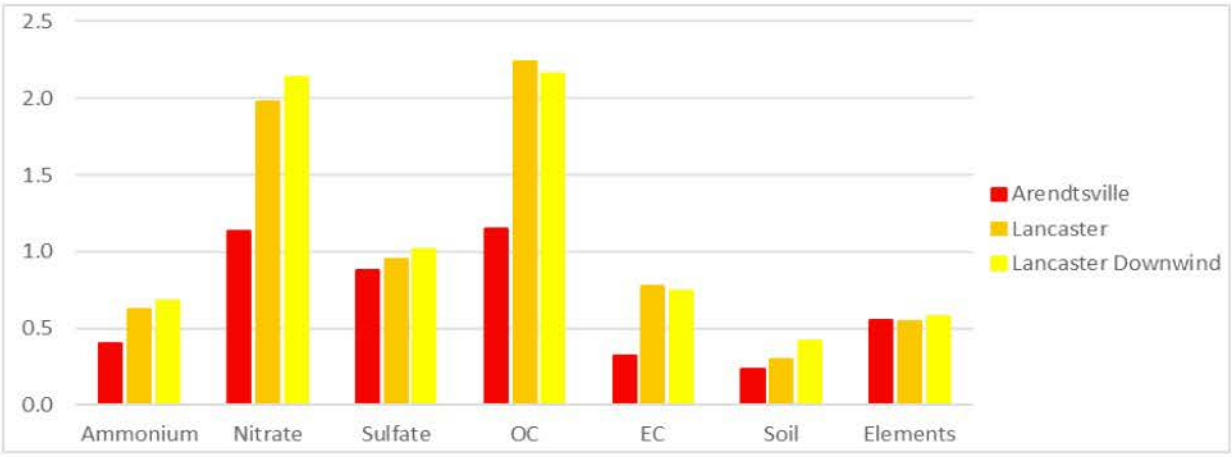


Figure C-4.5.11: 2021-2023 Quarter 4 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$)

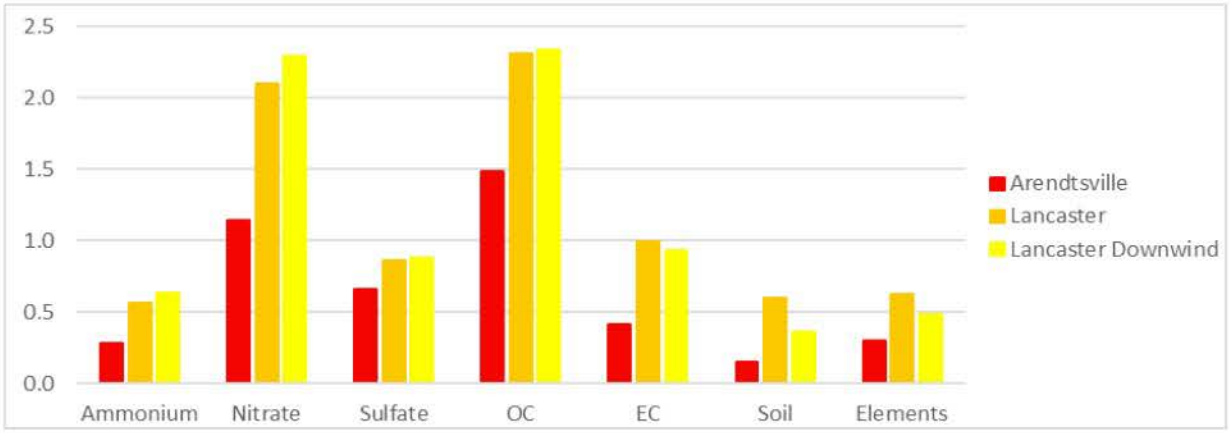
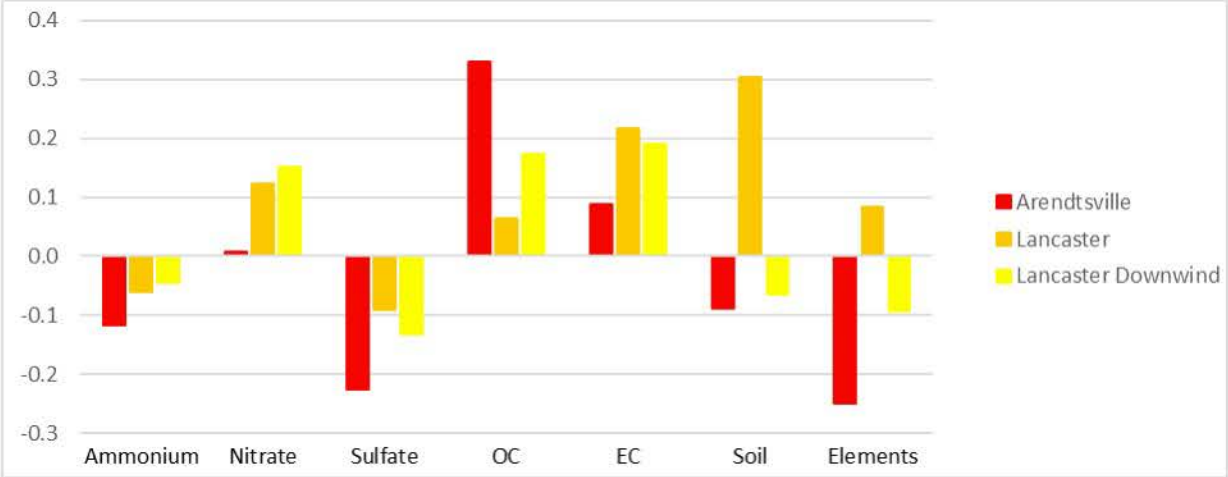


Figure C-4.5.12: Comparison of Quarter 4 $PM_{2.5}$ Average Speciation Concentrations ($\mu g/m^3$) 2021-2023 minus 2016-2018



During Quarter 1, there have been reductions in sulfate and trace elements concentrations across the sites with reductions in ammonium at Lancaster, reductions in organic carbon at Lancaster and Lancaster Downwind, and reductions in soil at Lancaster. During Quarter 2, there have been reductions in ammonium and trace elements at Lancaster Downwind, and reductions in sulfate at Lancaster and Lancaster Downwind. During Quarter 3, there have been reductions in ammonium, sulfate, and soil at Lancaster Downwind. During Quarter 4, there have been reductions in ammonium and sulfate at Lancaster and Lancaster Downwind, and reductions in soil and trace elements at Lancaster Downwind.

The reductions at Arendtsville are more representative of the reductions observed in eastern Pennsylvania due to emission control strategies of various sources across western Pennsylvania into the Ohio Valley. The data indicates that there have been reductions at the Arendtsville monitor during Quarter 1 for sulfate and trace elements, during Quarter 2 for ammonium, nitrate, sulfate, and trace elements, Quarter 3 for ammonium, nitrate, sulfate, and trace elements, and Quarter 4 for ammonium, sulfate, soil, and trace elements.

Positive Matrix Factorization (PMF) receptor modeling can be applied to the $PM_{2.5}$ speciation data collected from 2021-2023 to quantify the contribution of sources to the measured $PM_{2.5}$ concentration. This analysis serves as supporting and underlying data for the attainment demonstration in the $PM_{2.5}$ 2024 NAAQS State Implementation Plan (SIP) for the Pennsylvania nonattainment area. Understanding $PM_{2.5}$ sources will help to develop effective emission reduction strategies.

Figure C-4.6.1: $PM_{2.5}$ Urban Excess, Lancaster Downwind vs. Arendtsville, 2021-23 by Quarter

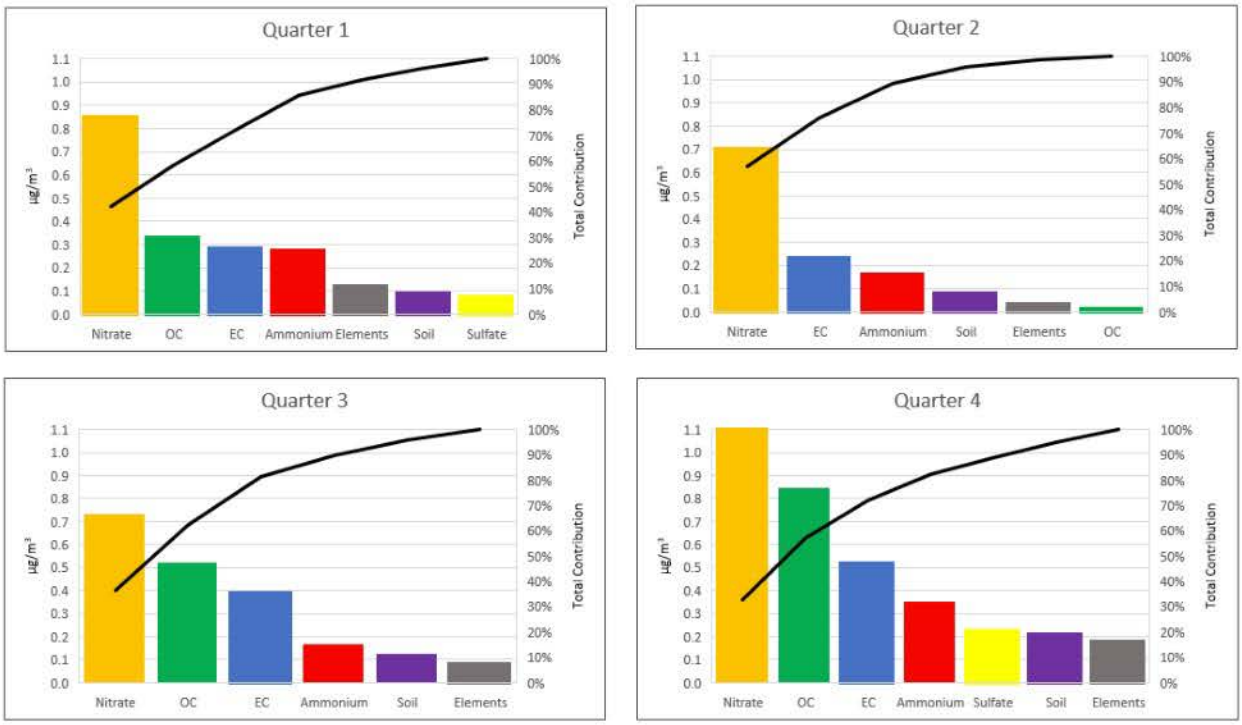


Figure C-4.6.2: $PM_{2.5}$ Urban Excess, Lancaster Downwind vs. Arendtsville, 2021-23

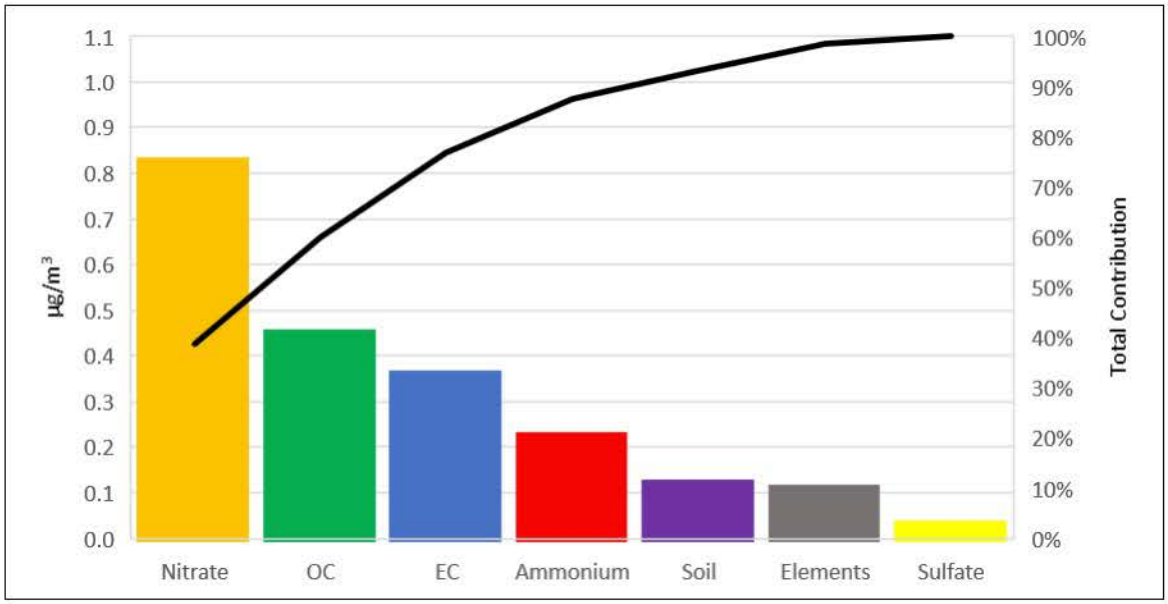


Figure C-4.6.3: $PM_{2.5}$ Urban Excess, Lancaster vs. Arendtsville, 2021-23 by Quarter

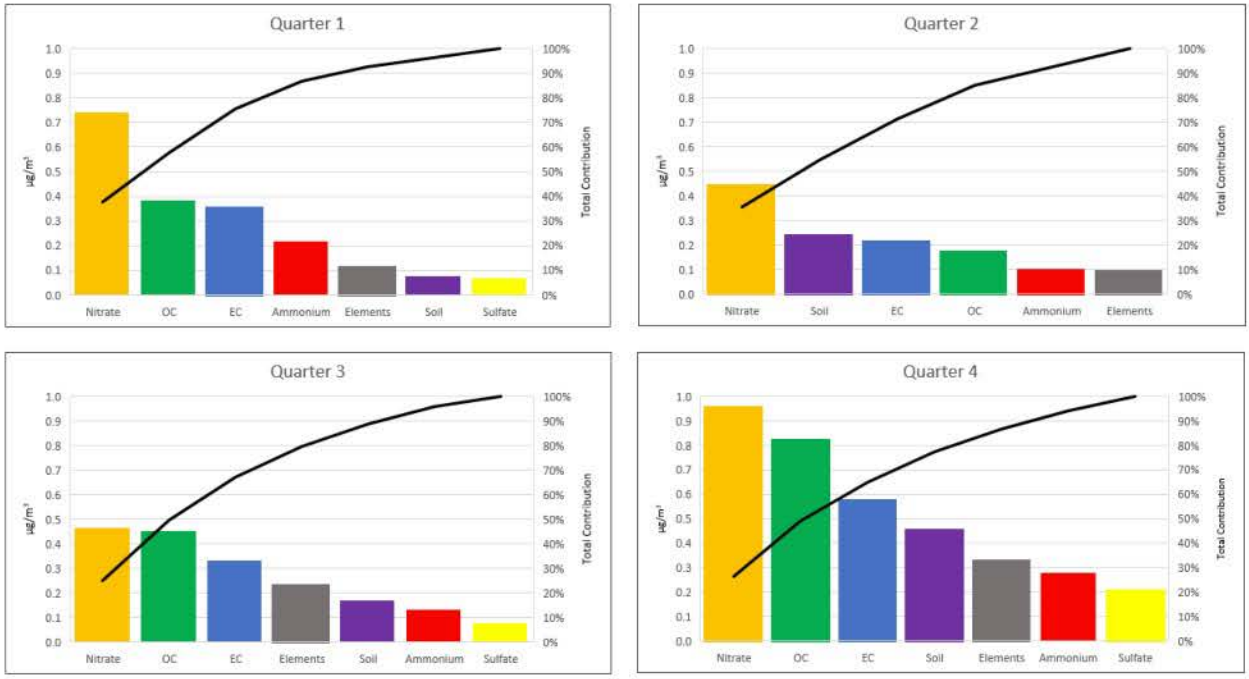
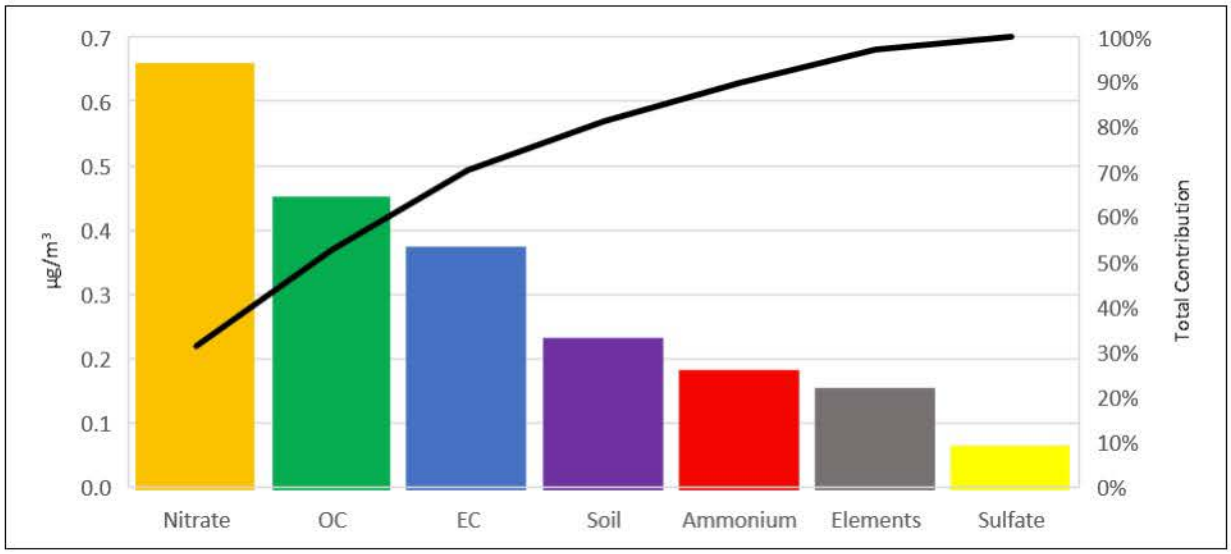


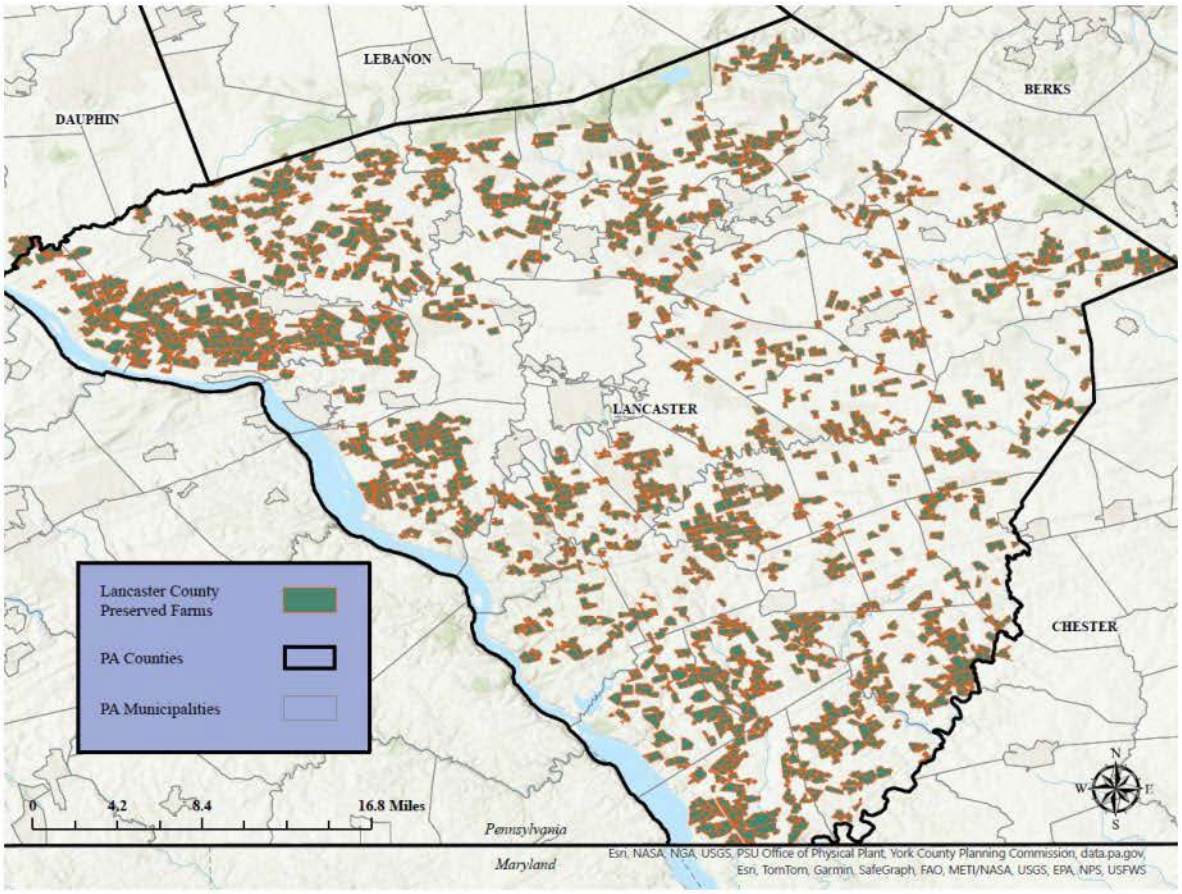
Figure C-4.6.4: $PM_{2.5}$ Urban Excess, Lancaster vs. Arendtsville, 2021-23



Figures C-4.6.1 - C-4.6.4 display the major constituents of $PM_{2.5}$ at the Lancaster County monitors compared to Arendtsville. In Quarters 1 and 4, Lancaster Downwind and Lancaster have excess ammonium, nitrate, organic and elemental carbon, soil, sulfate, and trace elements compared to Arendtsville, suggesting emissions are local in nature. In Quarters 2 and 3, Lancaster Downwind and Lancaster have excess ammonium, nitrate, organic and elemental carbon, soil, and trace emissions compared to Arendtsville. Lancaster County has a strong tie to the agricultural sector. Lancaster County has the most farms and acres of farmland in the Commonwealth. Lancaster

County consists of mostly farmlands surrounding downtown Lancaster and the location of the Lancaster and Lancaster Downwind monitor. Ammonia emissions are prevalent in the agricultural sector due to the abundance of manure from livestock and a higher concentration of animals, for instance. The abundance of ammonium during the cold season allows for additional nitrate (from vehicles) to form ammonium nitrate, a constituent of $PM_{2.5}$. Figure C-4.7 displays a map of Lancaster County and the proximity of preserved farms, which are farms and acres of land preserved for agricultural production, to the Lancaster Downwind monitor.

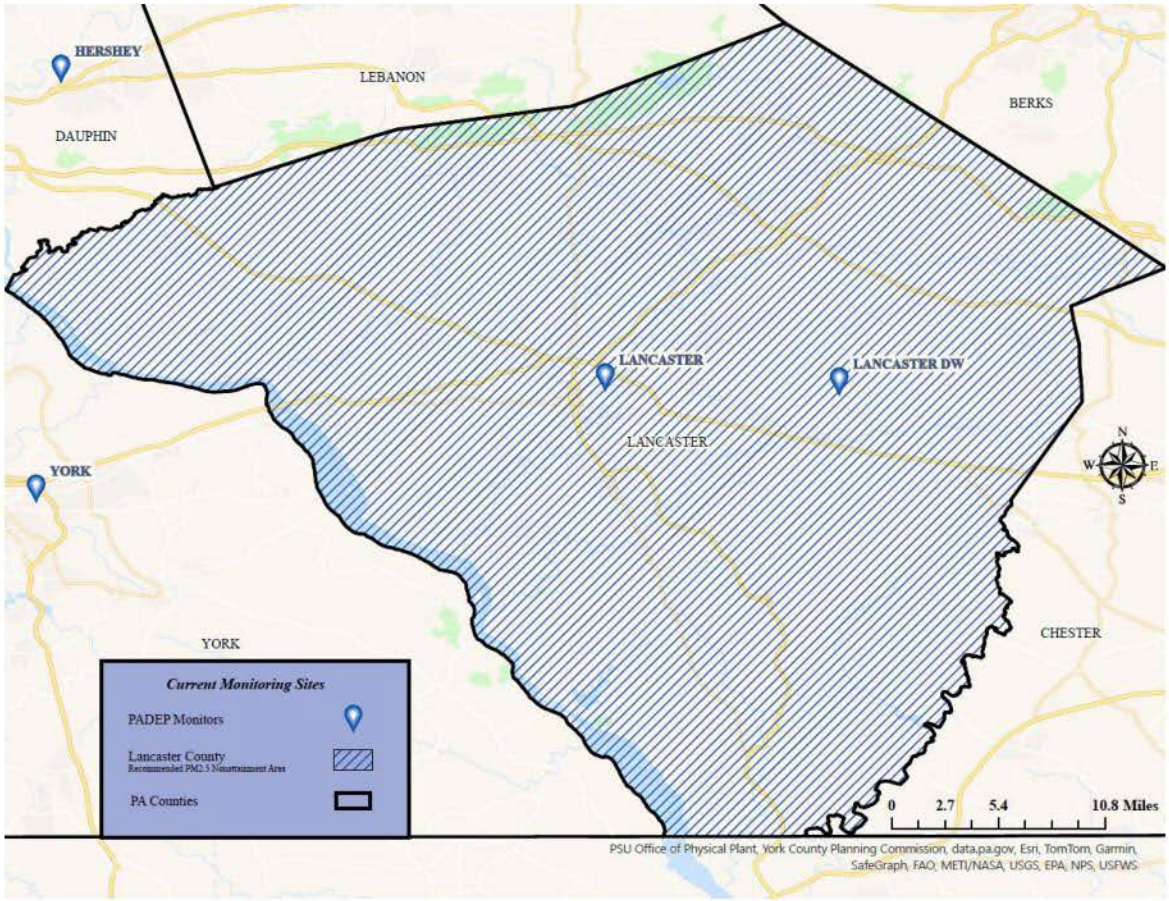
Figure C-4.7: Preserved Farms in Lancaster County Map



Summary

PADEP's analysis illustrates the need for a small nonattainment area consisting of Lancaster County. An analysis of the $PM_{2.5}$ data monitored at the Lancaster Downwind monitor in Lancaster County illustrates that the Lancaster Downwind monitor sees greater concentrations in the 9-27 $\mu g/m^3$ range than the regional concentrations in the same range. Lancaster County has the largest ammonia area source emission density (in tons per year per square mile) in Pennsylvania. A further examination into the monitoring data demonstrates that the high concentrations are coming out of two primary directions: northwesterly and easterly. These wind profiles travel over local farms, further illustrating the local issue at the Lancaster Downwind monitor. An analysis of the speciated data at the Lancaster Downwind and Arendtsville monitors illustrates the excess nitrate, ammonium, and organic and elemental carbon at the Lancaster Downwind monitor. The excess ammonium is likely a function of the high number of farms in the immediate vicinity of the Lancaster Downwind monitor. The excess ammonium, when in contact with excess nitrate, forms ammonium nitrate, a large constituent of $PM_{2.5}$ during the cold season. Therefore, PADEP is recommending the Lancaster County nonattainment area encompassing Lancaster County in Pennsylvania be designated nonattainment for the 2024 annual $PM_{2.5}$ NAAQS. A map of the proposed nonattainment area is provided below as Figure C-4.8.

Figure C-4.8: Recommended Lancaster County $PM_{2.5}$ Nonattainment Area



Pennsylvania
Department of
Environmental Protection

DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD (NAAQS)

COMMENT AND RESPONSE DOCUMENT

MARCH 2025

Bureau of Air Quality

On December 21, 2024, the Pennsylvania Department of Environmental Protection ("DEP" or "Department") published a notice seeking public comment on its "Proposed Designation Recommendations to U.S. EPA for the 2024 Primary Annual Fine Particulate (PM2.5) National Ambient Air Quality Standard (NAAQS). 54 Pa. B. 8350 (December 21, 2024). Three public meetings were held on January 21 (Pittsburgh and Norristown) and January 23 (Harrisburg) in Pennsylvania. The Department published a notice extending the public comment period until January 28, 2025. 55 Pa. B. 887 (January 25, 2025). Below is a list of the commentators and the Department's responses to the comments received during the 38-day public comment period.

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COMMENTS AND RESPONSES

1. **COMMENT:** Commentator requested DEP to designate the Commonwealth as non-attainment and lower the annual PM2.5 standard from 9 $\mu g/m^3$ to 6 $\mu g/m^3$.

   RESPONSE: DEP appreciates the comment. The U.S. Environmental Protection Agency's (EPA) process for setting the National Ambient Air Quality Standards (NAAQS) is guided by the federal Clean Air Act (CAA). The establishment of a revised NAAQS for PM2.5 is EPA's responsibility under the CAA and is based on a thorough review of the latest scientific evidence on health and environmental impacts, conducted by the EPA and independent scientific advisors. The current public notice and designation recommendations focus on identifying areas' compliance with the 2024 primary annual PM2.5 standard of 9 $\mu g/m^3$. While lowering the standard further to 6 $\mu g/m^3$ is beyond the scope of the current designation process, such considerations may be addressed by EPA during future NAAQS review processes.

2. **COMMENT:** Commentator advocated a four-county nonattainment area to include: Allegheny, Westmoreland, Washington, and Beaver (or Butler) counties. The commentator noted Allegheny County has multiple monitors that violate the annual NAAQS, with neighboring counties monitoring particulate concentrations just under the standard. The commentator indicated the predominant winds enter Allegheny County from the southwest. Additionally, the commentator noted an analysis of pollution concentrations at each monitor, along with wind and weather data conducted by EPA, indicate that pollution sources in neighboring counties contribute to the high concentrations of PM2.5 in Allegheny County. The commentator noted data indicates transport from Washington and Beaver counties, with some additional influence along the Westmoreland-Allegheny County border, noting poor air quality is affecting all these areas and current industrial buildouts will only add to the poor air quality.

   The commentator further notes the 2020 U.S. Census recorded nearly two million people living in Allegheny, Beaver, Washington and Westmoreland Counties. Declaring these four counties as one non-attainment area would provide the Commonwealth with multiple options for emission reductions that would benefit the residents of these counties. This is especially important given that PM2.5 has no known lower threshold for health harms and the expectation that growth in the region's industrial and power sector could offset the gains the region has enjoyed over the previous decade.

   The Commentator urged the DEP to take this important step in designating a four-county non-attainment area so that children living in the region will not spend their entire lifetimes hoping for better air quality like they've had to do, indicating that "we owe it to ourselves and future generations to begin to right the wrongs that have been allowed to persist for far too long".

   The commentator encouraged the DEP to begin the process of working to reduce dangerous air pollution by this important designation that will allow the State to seek meaningful emission reductions for the protection of all.

   RESPONSE: DEP appreciates the comment. As per the Initial Area Designations for the 2024 Revised Primary Annual Fine Particulate National Ambient Air Quality Standard Memo, J. Goffman, February 7, 2024, DEP evaluated five key factors to set nonattainment boundaries for PM2.5: air quality data, emissions, meteorology, geography, and jurisdictional boundaries. DEP used a weight-of-evidence approach to ensure practical boundaries and effective air quality management in determining which areas should be included or excluded.

The air quality monitors within Allegheny County show violations of the annual PM2.5 NAAQS, while monitors in neighboring counties of Beaver, Washington, and Westmoreland are currently measuring PM2.5 concentrations below the standard. Butler County is part of the Pittsburgh Metropolitan Statistical Area (MSA). To date, the Pittsburgh MSA requires three monitors minimum and contains 16 monitoring sites total. DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance. Attainment is expected after final 2022--2024 values for Avalon and Parkway East in Allegheny County.

Designating neighboring counties as part of the non-attainment area requires evidence that their contributions are significant enough to directly influence monitored violations. The importance of transport and formation of pollutants throughout the greater Pittsburgh region is recognized. In this case, the primary exceedances occur due to emissions originating within Allegheny County. The meteorology does not show significant transport from neighboring counties contributing to Allegheny County's exceedances. Using the meteorological station wind data at the Pittsburgh International Airport (KPIT) from 2021-2023, the predominant wind flow is from the west/southwest in the Pittsburgh region. This westerly mesoscale flow can lead to accumulation of impacts throughout Allegheny County from both transported and locally formed emissions. Since surrounding county monitors are attaining the NAAQS, it can be assumed that urban and local source influences within Allegheny County are the driving factors for nonattainment at the violating monitors. It can also be assumed that large sources to the east of Allegheny County are unlikely to contribute to nonattainment, as they are in distant downwind locations from the violating monitors. Transport is best addressed through state implementation plans (SIPs) through regional strategies rather than expanding nonattainment boundaries unnecessarily. Any nonattainment designation requires several elements to be addressed, including reasonable further progress, contingency measures, and other elements. There should be an amount of homogeneity of source contributions in any one nonattainment area to adequately meet these objectives. A nonattainment designation also subjects a geographic area to 20 years of maintenance following attainment, as well as federal sanctions should attainment not be achieved. Furthermore, EPA has the right to designate additional nonattainment areas at any time following initial designations. Factors leading to additional designations could be based on monitored data, emissions data, or other findings. The New Source Review (NSR) program also provides a mechanism to ensure that an attainment area is not affected detrimentally by any new sources.

In this case, the primary exceedances and nonattainment issues are a localized issue within Allegheny County and occur due to emissions originating within Allegheny County. The non-attainment designation allows for focused emission reduction measures to address these localized issues effectively. DEP remains committed to improving air quality across the Commonwealth and will continue to work with neighboring counties to ensure regional collaboration on emission reduction strategies, even beyond non-attainment designations.

3. **COMMENT:** The commentator commented on behalf of the members of a non-profit organization, Protect Penn-Trafford (Protect PT). Protect PT asks that DEP amend its designation recommendation by:

    1. Clarifying the reason why each monitor value marked as "not valid due to incomplete data periods" was marked as such, including the value for the Greensburg monitoring site in Westmoreland County.
    2. Committing in this designation recommendation or in a follow-up publication to place an additional air quality monitor in Westmoreland County near a major source of air pollutants, with enough time to provide complete data which can be considered in the next PM2.5 designation recommendation.
    3. Amending Section 3.2, Table 2 of the designation recommendation to include the data from the Liberty air monitoring site in Allegheny County, specifically that it recorded a 2023 annual PM2.5 design value of 11.6 $\mu g/m^3$.

RESPONSE: DEP appreciates the comment. The Greensburg monitor was suspended temporarily due to insufficient staffing, which resulted in a period of incomplete data. The monitor resumed operation in August 2023, and data collection has since continued to meet the necessary quality assurance and regulatory requirements, found in 40 CFR Part 58 (relating to ambient air quality surveillance).

DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance. The Greensburg monitor is at a location of heavier motor vehicle emissions from nearby Route 30, a combination of diesel and motor vehicles. With the reactivation of the Greensburg monitor, data is provided for evaluating air quality in the Pittsburgh MSA. Westmoreland County is part of the Pittsburgh MSA. To date, the Pittsburgh MSA requires three monitors minimum and contains 16 monitoring sites total.

The Department has updated Table 2 in Section 3.2 to include data from the Liberty air monitoring site in Allegheny County that it recorded a 2023 Annual PM2.5 design value of 11.6 $\mu g/m^3$.

4. **COMMENT:** Commentator on behalf of GASP supports the DEP's proposal to designate Allegheny County as a nonattainment area for the revised primary annual NAAQS for PM2.5. The commentator noted the following:

   1. Local residents, researchers, medical professionals and fellow environmental advocates know all too well how PM2.5 poses significant and widespread health risks to Allegheny County residents.
   2. As the so-called Steel City, Pittsburgh has a long history with industrial pollution and the largest point source of PM2.5 pollution in the entire state. U.S. Steel's Clairton Coke Works is located in Allegheny County.
   3. U.S. Steel's Clairton Coke Works facility alone emitted more than 45 tons of PM2.5, as well as thousands of tons of precursor pollutants like Nitrogen Oxides, Sulfur Oxides, and Volatile Organic Compounds.
   4. Exposure to these microscopic particles has been linked to serious respiratory illnesses, cardiovascular diseases, and developmental impacts.
   5. The commentator acknowledges that both nationally and locally, the burden of PM2.5 pollution is not equally distributed. Communities of color and low-income neighborhoods - like those they see in the Mon Valley and other areas of Allegheny County - experience disproportionately higher levels of exposure, exacerbating existing health disparities.
   6. This environmental injustice demands urgent **action.**
   7. The designation of Allegheny County as nonattainment is a critical step toward addressing these serious health concerns. This designation will empower the Allegheny County Health Department to:
      - Identify the primary sources of PM2.5 pollution within the county.
      - Develop and implement effective strategies to reduce emissions.
      - Prioritize interventions in areas most impacted by air pollution.

   GASP urges DEP to move forward with this designation for Allegheny County and to work collaboratively with local communities, environmental organizations, and public health agencies to develop and implement a comprehensive plan to achieve and maintain attainment of the revised PM2.5 NAAQS.

RESPONSE: DEP appreciates the comment. DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance.

5. **COMMENT:** Commentator commented on behalf of PennEnvironment Research & Policy Center. PennEnvironment affirms the report's assessment of the public health risks of fine particulate matter: premature mortality, aggravation of respiratory and cardiovascular disease, lung disease, decreased lung function, asthma attacks, increases in respiratory symptoms like coughing and difficult or painful breathing, chronic bronchitis, and certain cardiovascular problems such as heart attacks and cardiac arrhythmia.

   Additional environmental impacts from fine particulate matter include haze, visibility impairment, acid rain formation, fish kills/algae blooms in waterways, soil nutrient depletion, and damage to forests.

   Given the significant negative impact, the commentator encourage PADEP to err on the side of caution and make designation of nonattainment areas as broad as possible.

   PennEnvironment supports the designation of five counties, Allegheny, Dauphin, Lancaster, Philadelphia, and York, as nonattainment areas.

   Yet at the same time, the monitoring data shows additional sites that are at or just below the NAAQS of 9.0 micrograms per cubic meter. This includes Butler, Westmoreland, and Cambria counties. The commentator urged PADEP to include these counties as non-attainment designations given the significant air pollution problems facing them. Given that PM2.5 is unsafe at any level, it is critical that Butler, Westmoreland, and Cambria counties with significantly high levels of PM2.5 receive the same safeguards and those currently in the proposal for nonattainment.

   The commentator noted that it is important to measure the air quality in the multiple counties that directly border nonattainment counties. PennEnvironment requested that DEP establish monitoring of PM2.5 levels in counties neighboring nonattainment counties such as Butler and Westmoreland counties (next to Allegheny County), and Lehigh and Bucks counties (next to Montgomery and Philadelphia counties).

   Lastly, for the remainder of the "unclassifiable/attainment," the commentator requested that DEP clarify whether this means there are no monitors or data at all in these areas, and if that's the case, how the DEP intends to measure air quality in these counties. The commentator requested that DEP establish monitoring of PM2.5 levels throughout the commonwealth.

   RESPONSE: DEP appreciates the comment. The air quality monitors within Allegheny County show violations of the annual PM2.5 NAAQS, while monitors in neighboring counties, Westmoreland and Cambria counties, are currently measuring PM2.5 concentrations below the standard. Butler County is part of the Pittsburgh Metropolitan Statistical Area (MSA). To date, the Pittsburgh MSA requires three monitors minimum and contains 16 monitoring sites total. DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance. Attainment is expected after final 2022-2024 values for Avalon and Parkway East in Allegheny County. The importance of transport and formation of pollutants throughout the greater Pittsburgh region is recognized. In this case, the primary exceedances occur due to emissions originating within Allegheny County. The meteorology does not show significant transport from neighboring counties contributing to Allegheny County's exceedances. Using the meteorological station wind data at the Pittsburgh International Airport (KPIT) from 2021-2023, the predominant wind flow is from the west/southwest in the Pittsburgh region. This westerly mesoscale flow can lead to accumulation of impacts throughout Allegheny County from both transported and locally formed emissions. Since surrounding county monitors are attaining the NAAQS, it can be assumed that urban and local source influences within

Allegheny County are the driving factors for nonattainment at the violating monitors. It can also be assumed that large sources to the east of Allegheny County are unlikely to contribute to nonattainment, as they are in distant downwind locations from the violating monitors.

The air quality monitors within Philadelphia County show violations of the annual PM2.5 NAAQS, while monitors in Lehigh County are currently measuring PM2.5 concentrations below the standard. Bucks County is part of the Philadelphia Metropolitan Statistical Area (MSA). To date, the Philadelphia MSA requires three monitors minimum and contains 19 monitoring sites total (ten in Pennsylvania). DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance found in 40 CFR Part 58 (relating to ambient air quality surveillance). The importance of transport and formation of pollutants throughout the greater Philadelphia region is recognized. In this case, the primary exceedances occur due to emissions originating within Philadelphia, Delaware, and Montgomery Counties. While some pollution may come from Lehigh and Bucks counties, it is substantially less than Philadelphia, Delaware, and Montgomery counties. The meteorology does not show significant transport from Lehigh and Bucks counties contributing to Philadelphia County's exceedances. Using the meteorological station wind data at the Philadelphia International Airport (KPHL) from 2021-2023, the predominant wind flow is northeast directly over the sources in Philadelphia, Delaware, and Montgomery counties.

Transport is best addressed through state implementation plans (SIPs) through regional strategies rather than expanding nonattainment boundaries unnecessarily. Designating neighboring counties as part of the non-attainment area requires evidence that their contributions are significant enough to directly influence monitored violations. Any nonattainment designation requires several elements to be addressed, including reasonable further progress, contingency measures, and other elements. There should be an amount of homogeneity of source contributions in any one nonattainment area to adequately meet these objectives. A nonattainment designation also subjects a geographic area to 20 years of maintenance following attainment, as well as federal sanctions should attainment not be achieved. Furthermore, EPA has the right to designate additional nonattainment areas at any time following initial designations. Factors leading to additional designations could be based on monitored data, emissions data, or other findings. The New Source Review (NSR) program also provides a mechanism to ensure that an attainment area is not affected detrimentally by any new sources. The nonattainment designation allows for focused emission reduction measures to address these localized issues effectively.

Also, it is important to note that the values for 2023 were influenced by exceptional events, specifically wildfire smoke. The widespread wildfires in 2023 contributed significantly to elevated PM2.5 levels across the Commonwealth and beyond. However, due to regulatory significance, data from monitors measuring near the standard could not be excluded in the designation process. As a result, the 2023 data may not fully reflect the baseline air quality in these counties under typical conditions. DEP remains committed to improving air quality across the Commonwealth and will continue to work with neighboring counties to ensure regional collaboration on emission reduction strategies, even beyond non-attainment designations.

An "unclassifiable/attainment" designation applies to areas where insufficient data exists to classify an area in accordance with Clean Air Act (CAA) section 107(d)(1) (42 U.S.C. § 7407). Some areas with this designation may not have monitors due to EPA's requirements based on network assessments, largest sources of emissions, and most populated areas, and are showing attainment. DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance.

6. **COMMENT:** The commentator requested the DEP include Appendices A and B in the proposed recommendations (appendices referenced on Page iii of the proposed designation recommendations). The

Appendices appeared to include maps, figures, and other important underlying data (including detailed facility emissions information for PM2.5).

The commentator requested that the DEP provide them with copies of these appendices, and also requested that DEP upload these files to the eLibrary as soon as possible?

Additionally, the commentator requested that DEP grant a brief extension to the deadline for public comment, of at least one week to January 28, because of the missing Appendices and the fact that the public comment period started immediately before the winter holidays, the DEP gave the public a very narrow window of time to review and draft comments on this proposal. The commentator expressed that they truly believe a brief extension would help ensure that the comments DEP receives are as thorough/organized as possible, and that this will ultimately benefit DEP by helping it refine its own proposal before sending it to EPA for review.

RESPONSE: In response to this comment, DEP added the requested Appendices to the eLibrary and published a notice at 55 Pa. B. 887, which extended the public comment period until January 28, 2025.

7. **COMMENT:** The Breathe Project, Carnegie Mellon University CREATE Lab Allegheny County Clean Air Now, Environmental Health Project, PennFuture, Clean Air Council, and the Environmental Integrity Project, submitted comments on the DEP's proposed designation recommendations for the 2024 PM2.5 NAAQS, which was promulgated by EPA on February 7, 2024. See generally EPA, Final Rule: Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16202 (Mar. 6, 2024) ("2024 NAAQS")

   1. The commentator suggested that the DEP should expand the Allegheny County Area nonattainment area to include Beaver, Washington, and Westmoreland Counties, because emissions from sources in these counties clearly contribute to the NAAQS violations in Allegheny County.
   2. The commentator suggested that DEP should (1) include Bucks County in the Philadelphia MSA Nonattainment Area because Bucks County emissions almost definitely and Chester County most likely significantly contribute to exceedances of the annual PM2.5 NAAQS measured at Philadelphia's Torresdale monitor, and (2) add PM2.5 monitors in Bucks County to determine whether the air quality in Bucks County is exceeding the annual PM2.5 NAAQS.
   3. For the 46 counties proposed for "unclassifiable/attainment" designation, the commentator suggested that DEP should clarify whether this means that there is no data at all, or whether there is any data indicating these areas are in attainment or nonattainment even if based on non-regulation monitors.

RESPONSE: DEP appreciates the comment. The air quality monitors within Allegheny County show violations of the annual PM2.5 NAAQS, while monitors in neighboring counties Beaver, Washington, and Westmoreland are currently measuring PM2.5 concentrations below the standard. To date, the Pittsburgh MSA requires three monitors minimum and contains 16 monitoring sites total. DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance. Attainment is expected after final 2022-2024 values for Avalon and Parkway East in Allegheny County. The importance of transport and formation of pollutants throughout the greater Pittsburgh region is recognized. In this case, the primary exceedances occur due to emissions originating within Allegheny County. The meteorology does not show significant transport from neighboring counties contributing to Allegheny County's exceedances. Using the meteorological station wind data at the Pittsburgh International Airport (KPIT) from 2021-2023, the predominant wind flow is from the west/southwest in the Pittsburgh region. This westerly mesoscale flow can lead to accumulation of impacts throughout Allegheny County from both transported and locally formed emissions. Since surrounding county monitors are attaining the NAAQS, it can be assumed that urban and local source

influences within Allegheny County are the driving factors for nonattainment at the violating monitors. It can also be assumed that large sources to the east of Allegheny County are unlikely to contribute to nonattainment, as they are in distant downwind locations from the violating monitors. With regards to the pollution roses and HYSPLIT plots, there are localized micrometeorological effects at the high concentration sites.

The air quality monitors within Philadelphia County show violations of the annual PM2.5 NAAQS, while monitors in Chester County are currently measuring PM2.5 concentrations below the standard. Bucks County is part of the Philadelphia Metropolitan Statistical Area (MSA). To date, the Philadelphia MSA requires three monitors minimum and contains 19 monitoring sites total (ten in Pennsylvania). DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance. The importance of transport and formation of pollutants throughout the greater Philadelphia region is recognized. In this case, the primary exceedances occur due to emissions originating within Philadelphia, Delaware, and Montgomery counties. While some pollution may come from Chester and Bucks counties, it is substantially less than Philadelphia, Delaware, and Montgomery counties. The meteorology does not show significant transport from Chester and Bucks counties contributing to Philadelphia County's exceedances. Using the meteorological station wind data at the Philadelphia International Airport (KPHL) from 2021-2023, the predominant wind flow is northeast directly over the sources in Philadelphia, Delaware, and Montgomery counties.

Transport is best addressed through state implementation plans (SIPs) through regional strategies rather than expanding nonattainment boundaries unnecessarily. Designating neighboring counties as part of the non-attainment area requires evidence that their contributions are significant enough to directly influence monitored violations. Any nonattainment designation requires several elements to be addressed, including reasonable further progress, contingency measures, and other elements. There should be an amount of homogeneity of source contributions in any one nonattainment area to adequately meet these objectives. A nonattainment designation also subjects a geographic area to 20 years of maintenance following attainment, as well as federal sanctions should attainment not be achieved. Furthermore, EPA has the right to designate additional nonattainment areas at any time following initial designations. Factors leading to additional designations could be based on monitored data, emissions data, or other findings. The New Source Review (NSR) program also provides a mechanism to ensure that an attainment area is not affected detrimentally by any new sources.

DEP remains committed to improving air quality across the Commonwealth and will continue to work with neighboring counties to ensure regional collaboration on emission reduction strategies, even beyond non-attainment designations. The non-attainment designation allows for focused emission reduction measures to address these localized issues effectively.

Also, it is important to note that the values for 2023 were influenced by exceptional events, specifically wildfire smoke. The widespread wildfires in 2023 contributed significantly to elevated PM2.5 levels across the Commonwealth and beyond. However, due to regulatory significance, data from monitors measuring near the standard could not be excluded in the designation process. As a result, the 2023 data may not fully reflect the baseline air quality in these counties under typical conditions. DEP remains committed to improving air quality across the Commonwealth and will continue to work with neighboring counties to ensure regional collaboration on emission reduction strategies, even beyond non-attainment designations.

An "unclassifiable/attainment" designation applies to areas where insufficient data exists to classify an area. Some areas with this designation may not have monitors due to EPA's requirements based on network assessments, largest sources of emissions, and most populated areas, and are showing attainment.

DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance.

8. **COMMENT:** A group of 16 commentators (9-24 listed above) requested DEP to monitor for PM2.5 pollution in Bucks County and extend the boundaries of the Philadelphia area nonattainment area to include Bucks County. Commentators suggested that if DEP monitored for PM2.5 pollution in Bucks County it would likely find that Bucks County did not attain the EPA's 2024 Annual Standard for PM2.5 pollution. The highest annual PM2.5 readings in Philadelphia County occurred at the air monitor closest to Bucks County (AQS Code: 421010075) and nearby monitors in Lehigh and Northampton Counties have also recorded high PM2.5 pollution levels. Bucks County is also in the same metropolitan statistical area as Philadelphia, Delaware, and Montgomery counties, all of which are in nonattainment of the 2024 annual standard, and likely contributes to the nonattainment measured near its border.

   Commentators mentioned that DEP's current designation recommendations specifically mention that predominant winds travel Northeast over Delaware and Philadelphia counties, into Bucks County. DEP correctly addresses the large amount of point-source and on-road emission sources in Delaware and Philadelphia counties, but neglects to conclude that predominant winds bring air pollution from these areas into Bucks County.

   Commentators further expressed that In addition to receiving air pollution from adjacent counties that are proposed to not attain EPA's 2024 PM2.5 standard, Bucks County hosts several well-trafficked interstate highways such as I-95, I-295, I-276 and I-476. Bucks County also hosts an abundance of industrial facilities in the Southeast region of the county in Bristol, Tullytown, and Morrisville. These areas also contain numerous Environmental Justice (EJ) Areas recognized by DEP, including several census tracts in or above the 95th percentile for EJ indicators. DEP categorized parts of Bensalem's census tract 42017100207 and Bristol's census tract 42017100700 as in the 100th percentile for EJ indicators, and similarly classifies parts of many other nearby census tracts. Bristol, specifically parts of census tract 42017100303 is in the 99th percentile for EJ indicators, as are parts of nearby census tracts 42017100403 and 42017100304.

   The commentator suggested that DEP only considered "the vicinity of at-risk populations within the boundaries of designation request for each of the counties that are exceeding the 2024 primary annual PM2.5 standard." Because DEP does not monitor for PM2.5 pollution anywhere in Bucks County, the abundance of EJ Areas in Southeastern Bucks County were not evaluated in the current designation process.

   Lastly, the commentators concluded that counties contributing to nonattainment at nearby monitors should be included in the relevant nonattainment area. It strains credulity for DEP to exclude Bucks County as a contributing factor in the exceedance of the PM2.5 standard measured at a monitor just outside its border, particularly given the traffic patterns and other sources within the county.

   RESPONSE: DEP appreciates the comment. The air quality monitors within Philadelphia County show violations of the Annual PM2.5 NAAQS, while monitors in Lehigh and Northampton Counties are currently measuring PM2.5 concentrations below the standard. Bucks County is part of the Philadelphia Metropolitan Statistical Area (MSA). To date, the Philadelphia MSA requires three monitors minimum and contains 19 monitoring sites total (ten in Pennsylvania). DEP annually evaluates the placement of air quality monitors in accordance with EPA's monitoring requirements and guidance, including siting in at-risk communities to represent area-wide air quality throughout a metropolitan area.

Designating neighboring counties as part of the non-attainment area requires evidence that their contributions are significant enough to directly influence monitored violations. The importance of transport and formation of pollutants throughout the greater Philadelphia region is recognized. In this case, the primary exceedances occur due to emissions originating within Philadelphia, Delaware, and Montgomery Counties. Any nonattainment designation requires several elements to be addressed, including reasonable further progress, contingency measures, and other elements. There should be an amount of homogeneity of source contributions in any one nonattainment area to adequately meet these objectives. A nonattainment designation also subjects a geographic area to 20 years of maintenance following attainment, as well as federal sanctions should attainment not be achieved. Furthermore, EPA has the right to designate additional nonattainment areas at any time following initial designations. Factors leading to additional designations could be based on monitored data, emissions data, or other findings. The New Source Review (NSR) program also provides a mechanism to ensure that an attainment area is not affected detrimentally by any new sources. The nonattainment designation allows for focused emission reduction measures to address these localized issues effectively.

Also, it is important to note that the values for 2023 were influenced by exceptional events, specifically wildfire smoke. The widespread wildfires in 2023 contributed significantly to elevated PM2.5 levels across the Commonwealth and beyond. However, due to regulatory significance, data from monitors measuring near the standard could not be excluded in the designation process. As a result, the 2023 data may not fully reflect the baseline air quality in these counties under typical conditions. DEP remains committed to improving air quality across the Commonwealth and will continue to work with neighboring counties to ensure regional collaboration on emission reduction strategies, even beyond non-attainment designations.

OPENING STATEMENT

Public Hearing on

PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD (NAAQS)

January 23, 2025, 1:00 PM

Good afternoon. My name is Hitesh Suri. I am an Air Quality Program Specialist. I represent the Pennsylvania Department of Environmental Protection's Air Quality Program at today's hearing.

The U.S. Environmental Protection Agency (EPA) established a revised Primary National Ambient Air Quality Standard (NAAQS) for fine particulates (PM2.5) in February 2024. The annual NAAQS for $PM_{2.5}$ was made more protective and changed from 12 micrograms per cubic meter ($\mu g/m^3$) of air to 9 $\mu g/m^3$. An area does not attain the annual NAAQS if the annual concentration, averaged over 3 years, is more than 9 $\mu g/m^3$. Following promulgation of new or revised air standards, states are given the opportunity to submit recommendations for attainment/nonattainment areas, supported by the most recent quality-assured and quality-controlled monitoring data.

The proposed designation recommendations are based primarily on-air quality ambient monitoring (2021 – 2023), as well as emissions data, meteorology, geography/topography and jurisdictional boundaries. Based on this information, the Pennsylvania Department of Environmental Protection (PADEP or Department) is recommending that EPA designate areas in Greater Pittsburgh; Harrisburg-Carlisle-York; Lancaster County and Greater Philadelphia as "nonattainment". Furthermore, PADEP is recommending that EPA designate the areas monitoring below the standard as "attainment" areas and the remaining areas in Pennsylvania as "unclassifiable/attainment".

PADEP anticipates submitting the recommendations by March 2025. EPA is expected to make final designations in February 2026. PADEP would then have 18 months to develop a plan for any areas designated as nonattainment to meet 2024 Primary PM2.5 NAAQS.

The Department is seeking public comment on its proposed recommendations to EPA for the designation of areas relating to the revised annual health-based NAAQS for PM2.5. Reducing concentrations of this pollutant is important because levels above the health-based standard are a serious human health threat and can cause or contribute to other negative environmental impacts.

This public hearing is convened to receive public comment concerning the proposed recommendations to the EPA for the designation of areas relating to the revised annual health-based NAAQS for PM2.5.

We are asking those who wish to testify today to limit their testimony to 10 minutes. We will take pre-registered witnesses first, and then anyone else who desires to present testimony. We have also asked for two written copies of testimony, if possible. If you wish to submit written testimony only* or have additional written comments, the comment period closes Friday, January 28, 2025. Commentators are encouraged to submit comments using the Department's eComment at www.ahs.dep.pa.gov/eComment (or by email to ecomment@pa.gov.) Written comments may be submitted to the Policy Office, Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, PA 17105 2063. Please use “PA PM2.5 Designations" as the subject line in all written communications. A comment and response document will be prepared to address all oral and written comments.

At this time, we do not have any witnesses present, but the hearing will be open for an hour in case anyone shows up.

This public hearing is hereby closed at 2:00 PM.

1. Summary

Meeting title	DEP Public Hearing: PM 2.5 NAAQS: PA Designation Request: SE Regional Office
Attended participants	2
Start time	1/23/25, 1:04:24 PM
End time	1/23/25, 2:00:43 PM
Meeting duration	56m 19s
Average attendance time	25m 35s

2. Participants

Name	First Join	Last Leave	In-Meeting Duration	Email
Suri, Hitesh	1/21/25, 1:04:26 PM	1/21/25, 1:31:18 PM	26m 52s	hsuri@pa.gov
Martini, Joseph	1/21/25, 1:04:42 PM	1/21/25, 1:31:26 PM	26m 43s	martjos@pa.gov

3. In-Meeting Activities

Name	Join Time	Leave Time	Duration	Email
Suri, Hitesh	1/21/25, 1:04:26 PM	1/21/25, 1:31:18 PM	26m 52s	hsuri@pa.gov
Martini, Joseph	1/21/25, 1:04:42 PM	1/21/25, 1:31:26 PM	26m 43s	martjos@pa.gov

Participant ID (UPN)	Role
hsuri@pa.gov	Organizer
martjos@pa.gov	Presenter

Role
Organizer
Presenter

1. Summary

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Name	First Join	Last Leave	In-Meeting Duration	Email
Suri, Hitesh	1/21/25, 1:04:26 PM	1/21/25, 1:31:18 PM	26m 52s	hsuri@pa.gov
Martini, Joseph	1/21/25, 1:04:42 PM	1/21/25, 1:31:26 PM	26m 43s	martjos@pa.gov
Rebarchak, James	1/21/25, 1:12:11 PM	1/21/25, 2:00:43 PM	48m 32s	jrebarchak@pa.gov
Berardi, Stephanie	1/21/25, 1:12:12 PM	1/21/25, 1:12:26 PM	14s	sberardi@pa.gov

3. In-Meeting Activities

Name	Join Time	Leave Time	Duration	Email
Suri, Hitesh	1/21/25, 1:04:26 PM	1/21/25, 1:31:18 PM	26m 52s	hsuri@pa.gov
Martini, Joseph	1/21/25, 1:04:42 PM	1/21/25, 1:31:26 PM	26m 43s	martjos@pa.gov
Rebarchak, James	1/21/25, 1:12:11 PM	1/21/25, 2:00:43 PM	48m 32s	jrebarchak@pa.gov
Berardi, Stephanie	1/21/25, 1:12:12 PM	1/21/25, 1:12:26 PM	14s	sberardi@pa.gov

Participant ID (UPN)	Role
hsuri@pa.gov	Organizer
martjos@pa.gov	Presenter
jrebarchak@pa.gov	Presenter
sberardi@pa.gov	Presenter

Role
Organizer
Presenter
Presenter
Presenter

OPENING STATEMENT
Public Hearing on
PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD (NAAQS)
January 21, 2025, 1:00 PM

Good afternoon. My name is Steve Hepler. I am an Air Quality Program Specialist with 39+ years of service to the people of Pennsylvania. I represent the Pennsylvania Department of Environmental Protection's Air Quality Program at today's hearing.

The U.S. Environmental Protection Agency (EPA) established a revised Primary National Ambient Air Quality Standard (NAAQS) for fine particulates (PM2.5) in February 2024. The annual NAAQS for $PM_{2.5}$ was made more protective and changed from 12 micrograms per cubic meter ($\mu g/m^3$) of air to 9 $\mu g/m^3$. An area does not attain the annual NAAQS if the annual concentration, averaged over 3 years, is more than 9 $\mu g/m^3$. Following promulgation of new or revised air standards, states are given the opportunity to submit recommendations for attainment/nonattainment areas, supported by the most recent quality-assured and quality-controlled monitoring data.

The proposed designation recommendations are based primarily on-air quality ambient monitoring (2021 – 2023), as well as emissions data, meteorology, geography/topography and jurisdictional boundaries. Based on this information, the Pennsylvania Department of Environmental Protection (PADEP or Department) is recommending that EPA designate areas in Greater Pittsburgh; Harrisburg-Carlisle-York; Lancaster County and Greater Philadelphia as "nonattainment". Furthermore, PADEP is recommending that EPA designate the areas monitoring below the standard as "attainment" areas and the remaining areas in Pennsylvania as "unclassifiable/attainment".

PADEP anticipates submitting the recommendations by March 2025. EPA is expected to make final designations in February 2026. PADEP would then have 18 months to develop a plan for any areas designated as nonattainment to meet the 2024 Primary PM2.5 NAAQS.

The Department is seeking public comment on its proposed recommendations to EPA for the designation of areas relating to the revised annual health-based NAAQS for PM2.5. Reducing concentrations of this pollutant is important because levels above the health-based standard are a serious human health threat and can cause or contribute to other negative environmental impacts.

This public hearing is convened to receive public comment concerning the proposed recommendations to the EPA for the designation of areas relating to the revised annual health-based NAAQS for PM2.5.

We are asking those who wish to testify today to limit their testimony to 10 minutes. We will take pre-registered witnesses first, and then anyone else who desires to present testimony. We have also asked for two written copies of testimony, if possible. If you wish to submit written testimony only, or have additional written comments, the comment period closes Friday, January 28, 2025. Commentators are encouraged to submit comments using the Department's eComment at www.ahs.dep.pa.gov/eComment (or by email to ecomment@pa.gov.) Written comments may be submitted to the Policy Office, Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, PA 17105 2063. Please use "PA PM2.5 Designations" as the subject line in all written communications. A comment and response document will be prepared to address all oral and written comments.

The first witness is...

This public hearing is hereby closed at 1:36:40 PM.

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

INVOICE NO.

PUBLICATIONS AUTHORIZATION AND INVOICE

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Allentown Morning Call 101 North Sixth Street PO Box 1260 Allentown, PA 18105-1260	23-0337560	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO

☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD: ☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20, 2024	John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as follows: Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to be in capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) notice advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occupying similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any contract awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, color, sex, religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of such discrimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement under the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertising in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
2008400000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	12/20/2024			1357.19
2nd Ad				
3rd Ad				
			GRAND TOTAL →	1357.19

Commonwealth of Pennsylvania

County of Lehigh

Before me, the subscriber, a Notary Public in and for said County, personally came The Morning Call who being duly sworn, doth depose and say that he is* _____ the _____ a general newspaper published at _____ that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspap in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charg therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set ir similar matter, in said newspaper.

Sworn and subscribed before me this _____ day of _____ 20____

Christine Duraccio
NOTARY PUBLIC

Commonwealth of Pennsylvania - Notary Seal
CHRISTINE DURACCIO - Notary Public
Lehigh County
My Commission Expires July 2, 2028
Commission Number 1373269

SIGNATURE OF AFFIANT

My commission expires _____

*This affidavit must be made by the Owner, Publisher, or the designated agent of the owner or publisher.

Proof of Publication Notice in the *Morning Call*

Under Act No. 587, Approved May 16, 1929 and its amendments

Sold To:
Department of Environmental Protection - CU00660757
400 Market St 12th Floor
Harrisburg,PA 17101-2301

Bill To:
Department of Environmental Protection - CU00660757
400 Market St 12th Floor
Harrisburg,PA 17101-2301

STATE OF PENNSYLVANIA)
COUNTY OF LEHIGH) SS:

Jim Feher

of THE MORNING CALL, LLC. of the County of Lehigh and State of Pennsylvania, being duly sworn, deposes and says that THE MORNING CALL is a newspaper of general circulation as defined by the aforesaid Act, whose place of business is in the City of Allentown, County of Lehigh and State of Pennsylvania, and that the said newspaper was established in 1888 since which date THE MORNING CALL has regularly issued in said County, and that the printed notice or advertisement attached hereto is exactly the same as was printed and published in regular editions and issues of the said THE MORNING CALL on the following dates, viz::

Dec 20, 2024.

Affiant further deposes that he is the designated agent duly authorized by THE MORNING CALL, LLC., a corporation, publisher of said THE MORNING CALL, a newspaper of general circulation, to verify the foregoing statement under oath, and the affiant is not interested in the subject matter of the aforesaid notice or advertisement, and that all allegations in the foregoing statements as to time, place and character of publication are true.

Designated Agent, THE MORNING CALL, LLC.

Sworn to and subscribed before me on this 21 day of December, 2024

Notary Public

Commonwealth of Pennsylvania - Notary Seal
CHRISTINE DURACCIO - Notary Public
Lehigh County
My Commission Expires July 2, 2028
Commission Number 1373269

Order # - 7739235

Proof of Publication Notice in the *Morning Call*

2026. PADEP would then have 18 months to develop a plan for any areas designated as nonattainment to meet 2024 Primary PM2.5 NAAQS. This proposal is available on the DEP Website at http://www.ahs.dep.pa.gov/eComment.

The Department will provide the opportunity to hold three (3) public hearings if requested, to receive comments on the proposals. The first hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Delaware River room at the Department's Southeast Regional Office, 2 East Main Street, Norristown, PA. The second hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Waterfront room at the Department's Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA. The third hearing will be held from 1:00 PM to 3:00 PM on January 23, 2025, in the Susquehanna Room at the Department's Southcentral Regional Office, 909 Elmerton Avenue, Harrisburg, PA.

Persons wishing to present testimony should contact Amanda Rodriguez at P. O. Box 8468, Harrisburg, PA 17105, (717) 787-7677 or amarodrigu@pa.gov no less than 24 hours in advance of the public hearing to reserve a time. Witnesses will be limited to 10 minutes and should provide two written copies of their comments.

If by noon on Monday, January 20, 2025, no person has expressed an interest in testifying at the hearings, the hearings will be cancelled. The Department will provide public notice on the Bureau of Air Quality webpage at http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx if the hearing is cancelled at any of the above locations. Persons may also contact the Department to find out if the hearing is cancelled by contacting Amanda Rodriguez at (717) 787-7677 or amarodrigu@pa.gov.

Persons with a disability who wish to attend a hearing and require an auxiliary aid, service or other accommodation to participate in the proceeding should contact Amanda Rodriguez at amarodrigu@pa.gov or (717) 787-7677. TDD users may contact the Pennsylvania Hamilton Relay Service at (800) 654-5984 to discuss how the Department can best accommodate their needs.

The Department must receive

legals, public notices

ESTATE NOTICE

Estate of Mary J. Vanek, deceased, late of Allentown, Lehigh County, Pennsylvania. Letters Testamentary have been granted to Mark J. Vanek, who requests all persons having claims or demands against the Estate of the Decedent to make known the same, and all persons indebted to the Decedent to make payments without delay to Mark J. Vanek, Executor, c/o SCHOFFSTALL ELDER LAW Attention: Sally L. Schoffstall, Esquire
Address: 2987 Corporate Court, Suite 200
Orefield PA 18069
#7748813 — 12/20/24, 12/27/24, 1/3/25

ESTATE NOTICE

Estate of Nicole Michele Weill, Deceased late of North Whitehall Twp., Lehigh County, PA. Letters of Administration on the above estate have been granted to the undersigned. All persons having claims against or indebted to the estate should make claims known or forward payment to Christopher Joseph Weill, Administrator, c/o David W. Crosson, Esq., Crosson & Richetti LLC, 609 W Hamilton St., Suite 301, Allentown, PA, 18101
#7734148 — Fri. 12/13 - 12/27/24

PUBLIC NOTICE SCOPING FOR AN ENVIRONMENTAL ASSESSMENT U.S. DEPARTMENT OF VETERANS AFFAIRS DECISION-MAKING PROCESS TO SELECT A PARCEL WHERE A PRIVATE ENTITY WOULD CONSTRUCT AND OPERATE AN OUTPATIENT CLINIC FOR VA TO LEASE IN ALLENTOWN, PENNSYLVANIA

The U.S. Department of Veterans Affairs (VA) is proposing to construct and operate an outpatient clinic (OPC) in Allentown, PA (the Proposed Action). The purpose of the Proposed Action is to provide enhanced and expanded primary care, mental health services, and add a comprehensive array of specialty care outpatient services to serve Veterans in Allentown and the surrounding communities in a modern, state-of-the-art facility. The OPC will be constructed by a private entity for VA to lease and operate at one of the following sites under consideration:
• Site 1 – South Cedar Crest Boulevard
• Site 2 – 935 Blue Barn Road
Additional project details are available in the scoping notice posted at www.cfm.va.gov/environmental. If you have comments on the scope of the EA, the range of alternatives, and environmental issues for in-depth analysis, please email your comments to vacoenvironment@va.gov with the subject line "Allentown OPC EA" by January 20, 2025. VA anticipates publishing the Draft EA for a 30-day public review and comment period in Spring 2025. VA will notify stakeholders, publish a notice of availability of the Draft EA in The Morning Call, and invite comments on the Draft EA at that time.
7739851 12/20/24, 12/22/24

ESTATE NOTICE

ESTATE OF RAYMOND W. GEISLER, SR., Decedent, late Lower Macungie Township, Lehigh County, Pennsylvania. Letters Testamentary have been granted to the undersigned, who requests that all persons having claims or demands against the Estate of the Decedent make known the same, and all persons indebted to said Decedent are requested to make payment in full without delay, to: Estate Representative: TERRY A. GEISLER
Attorney: RICHARD W. SHAFFER, JR.
7736 Main Street, Fogelsville, PA 18051
#7724790 — 12/6/24, 12/13/24, 12/20/24

ESTATE NOTICE

ESTATE OF ROBERT DAVID ACHEY, AKA ROBERT D. ACHEY, deceased, late of North Whitehall Township, Lehigh County, Pennsylvania.
Notice is hereby given that Letters of Administration in the above noted Estate were granted to Sharon Louise Steffens on December 2, 2024. All persons indebted to this Estate are requested to make immediate payment, and those having claims or demands to present the same without delay to: Sharon Louise Steffens, Admin. c/o Vivian I. Zumas, Esquire
712 Main Street
Bethlehem, PA 18018
#7736288 — 12/13/24, 12/20/24, 12/27/24

ESTATE NOTICE

Letters Testamentary have been granted on the Estate of RUTH D. KIEFER, Deceased, late of Allentown, Pennsylvania, who died on October 3, 2024, to Raymond B. Kiefer, Personal Representative. Paul S. Frank, Esquire, One West Broad Street, Suite 700, Bethlehem, PA 18018, is counsel. All persons having claims against the estate are requested to present them in writing and all persons indebted to the estate to make payment to it in care of the Attorney noted above.

King Spry Herman Freund & Faul LLC
By: Paul S. Frank, Esquire
One West Broad Street, Suite 700
Bethlehem, PA 18018 610-332-0390
#7721630 — Fri. 12/6 - 12/20/24

ESTATE NOTICE

ESTATE OF Sandra A. Easterwood, Decedent, late of Coplay, Lehigh County, Pennsylvania. Letters Testamentary have been granted to the undersigned, who requests that all persons having claims or demands against the Estate of the Decedent make known the same, and all persons indebted to said Decedent are requested to make payment in full, without delay, to: Estate Representative: Blaine E. Easterwood and Gwen M. Easterwood aka Gwen M. Sandro
c/o Prokup & Swartz
Attorney: Jon A. Swartz, Esquire
7736 Main Street, Fogelsville, PA 18051
#7747841 — 12/20/24, 12/27/24, 1/3/25

ESTATE NOTICE

All persons having claims against the Estate of Irene M. Bear of Allentown, PA and all persons indebted to the decedent to make payments to Executor Barbara J. Bear without delay. Barbara J. Bear, Executor of the Estate of Irene M. Bear (908) 914 5668
#7726345 — 12/20, 12/27/2024, 1/3/2025

ESTATE NOTICE

ESTATE OF GEORGE JACOB FOX, IV, AKA GEORGE J. FOX, IV, LATE OF SALISBURY TOWNSHIP, COUNTY OF LEHIGH, AND COMMONWEALTH OF PENNSYLVANIA, DECEASED. WHEREAS, Letters Testamentary in the above-named estate have been granted to Joshua Jacob Fox, Executor of the Estate of George Jacob Fox, IV, aka George J. Fox, IV. All persons indebted to the said estate are requested to make immediate payment, and those having claims or demands to present the same without delay to: Joshua Jacob Fox, Executor c/o Gasbouchon & Associates
2140 William Penn Highway
Easton, PA 18045-3727
#7741991 — 12/20/24, 12/27/24, 1/3/25

legals, public notices

PUBLIC NOTICE

Notice is hereby given to all parties in interest that the Telford Borough Council will hold a Public Hearing in the Borough Hall located at 50 Penn Avenue, Telford, PA at 7:30 PM on Monday, January 13, 2025.

This Hearing is scheduled to consider a Conditional Use Application from Alderfer Glass Company, potential buyer of property located at 270 North Third Street, more specifically identified as Montgomery County Tax Map Parcel Number 22-02-02348-005. The property is located within the C-1 Commercial Zoning District.

The applicant is requesting Conditional Use Approval to establish a (C2) Vehicle Sales, Service or Repair Use to conduct a business that will use the existing building for auto glass installation and calibration services, glass, window, and door storage and prepare dispatch service vehicles. The exterior of the building and parking lot will be used for storage of glass and parking of fleet vehicles on the subject property.

This notice is in compliance with the Telford Borough Zoning Ordinance.

Interested parties may appear at the Public Hearing and/or may view the application and any plans relating thereto at the Telford Borough Hall located at 50 Penn Avenue, Telford, PA 18969 during regular business hours.
7728846 12/13 & 12/20/24

CITY OF ALLENTOWN ZONING HEARING BOARD PUBLIC HEARING

NOTICE is hereby given that the Zoning Hearing Board will be held on Monday, January 6, 2025 at 7:30 p.m. for the purpose of hearing the following appeals. The meeting will be held both in person in Council Chambers, Room #111, City Hall, 435 Hamilton Street, Allentown, PA and online. The meeting information will be available at https://allentownpa.legistar.com/Calendar.aspx. You may submit any questions, support, or state an objection ahead of the meeting by emailing public.comment@allentownpa.gov. Please include your name and address when submitting any comments. All comments and questions received by 4 pm on January 6 will be reviewed by the board.

ALL APPELLANTS MUST APPEAR AT MEETING

1. A-2024-00641 2325 S 5th St ANNOUNCEMENT OF DECISION OF CASE TAKEN UNDER ADVISEMENT 12/4/24 NO TESTIMONY OR EXHIBITS TO BE RECEIVED. Appeal of Dorothy Vesterman for variance to establish kennel in a single family dwelling, with use not permitted, located in a Medium Density Residential (R-M) District.
2. A-2024-00750 1310-1312 Turner St. Appeal of 1310 Turner Street LLC for variance to CONVERT VACANT 2ND FLR. TO 2 APTS., with residential conversion being prohibited, having insuff lot width (44' req; 42' prop) and insuff off-street parking (5 spaces req; 2 prop.), being a change and expansion of use granted by the Zoning Hearing Board under Application No. 70603 on August 30, 2020, located in a Medium High Density Residential (R-MH) and Traditional Neighborhood Development Overlay (TNDO) District.
3. A-2024-00793 315-325 Linden St. Appeal of 315 W Linden Street LLC for variance to convert portion of 1st floor into 20 DWELLING UNITS for a total of 106 dwelling units; having insuff min lot area per dwelling unit (1,800 SF/DU req; 531 SF/DU existing; 430.82 SF/DU proposed); being a change and expansion of use granted by the Zoning Hearing Board under Application No. 83078 on 1/13/2011 and No. A-2023-00089 on 8/24/2023, located in a Business Light Industrial (B/LI) and Traditional Neighborhood Development Overlay (TNDO) District.

All persons interested or those desiring to protest against the allowance of the above appeals may appear and be heard. The appeals listed above may be reviewed at the Zoning Office, 4th Floor, City Hall, 435 Hamilton Street, Allentown, Pennsylvania.

All meetings will be video recorded and placed on the city website as public record.

TABATHA TINGLE,
SECRETARY
ZONING HEARING BOARD
7741928 12/20/24, 12/27/24

NOTICE

NOTICE IS GIVEN that the Board of School Directors of Bethlehem Area School District, in Northampton and Lehigh Counties, Pennsylvania (the "School District"), at its meeting held on December 16, 2024, adopted a resolution (the "Resolution"), the caption and summary of which is as follows:

"RESOLUTION INCURRING NONELECTORAL DEBT TO BE EVIDENCED BY ONE OR MORE SERIES OF GENERAL OBLIGATION BONDS OF BETHLEHEM AREA SCHOOL DISTRICT, IN THE MAXIMUM AGGREGATE PRINCIPAL AMOUNT OF $30,000,000, TO UNDERTAKE CAPITAL PROJECTS INCLUDING: (1) ACQUIRING AND RENOVATING AN EXISTING BUILDING FOR VOCATIONAL-TECHNICAL EDUCATION, (2) CONSTRUCTING A NEW ELEMENTARY SCHOOL BUILDING AND OTHER FACILITIES, AND (3) PAYING RELATED COSTS AND EXPENSES; ACCEPTING A PROPOSAL FOR THE PURCHASE OF BONDS IN A PRIVATE SALE BY NEGOTIATION; SETTING FORTH THE MAXIMUM PRINCIPAL AMOUNTS AND YIELD PARAMETERS FOR, AND SUBSTANTIAL FORM OF, THE BONDS; PLEDGING THE FULL FAITH, CREDIT AND TAXING POWER OF THE SCHOOL DISTRICT TO SECURE THE BONDS; APPOINTING A PAYING AGENT AND SINKING FUND DEPOSITORY; AND AUTHORIZING RELATED DOCUMENTS AND ACTIONS."

The proposal to purchase the general obligation bonds (the "Bonds") of the School District, that was accepted under the Resolution, includes a purchase price (including an underwriting discount) of not less than 95% nor more than 125% of the aggregate principal amount of the Bonds issued. The maximum annual interest rate (and yield to maturity) on each of the Bonds is 5.50%.

The Resolution, in final form, no amendments having been made, is available for public inspection in the School District's Education Center, 1516 Sycamore Street, Bethlehem, Pennsylvania, on any business day of the School District between 8:00 A.M. and 4:00 P.M. This Notice is given in accordance with the Pennsylvania Local Government Unit Debt Act.

BETHLEHEM AREA SCHOOL DISTRICT,
Northampton and Lehigh Counties, Pennsylvania
7742047 12/20/24

WANT SOME EXTRA CASH? PRICE IT RIGHT • Describe it adequately, and call our classified department to sell your unwanted items today. Extra cash is as simple as that!
Call 610-820-6565.

legals, public notices

PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD; PUBLIC HEARING

The Pennsylvania Department of Environmental Protection (PADEP or Department) is seeking public comment on its proposed recommendations to the U.S. Environmental Protection Agency (EPA) for the designation of areas not meeting the revised annual health-based National Ambient Air Quality Standards (NAAQS) for fine particulates (PM2.5). Reducing concentrations of this pollutant is important because levels above the health-based standard are a serious human health threat and can cause or contribute to other negative environmental impacts.

EPA established a revised NAAQS for PM2.5 in February 2024. The annual standard for PM2.5 was made more protective and changed from 12 micrograms per cubic meter (µg/m3) of air to 9 µg/m3. An area does not attain the annual standard if the annual concentration, averaged over 3 years, is more than 9 µg/m3. Following promulgation of new or revised air standards, states are given the opportunity to submit recommendations for attainment/nonattainment areas, supported by most recent quality-assured and quality-controlled monitoring data.

The proposed designation recommendations are based primarily on air quality ambient monitoring (2021 - 2023), as well as emissions data, meteorology, geography/topography and jurisdictional boundaries. Based on this information, PADEP is seeking comment on recommending that EPA designate as "nonattainment" areas in Greater Pittsburgh; Harrisburg-Carlisle-York; Lancaster County and Greater Philadelphia. PADEP is also seeking comment on recommending that EPA designate the areas monitoring below the standard as "attainment" areas and the remaining areas in Pennsylvania as "unclassifiable/attainment".

PADEP will be submitting recommendations by March 2025. EPA is expected to make final designations in February 2026. PADEP would then have 18 months to develop a plan for any areas designated as nonattainment to meet 2024 Primary PM2.5 NAAQS. This proposal is available on the DEP Website at http://www.ahs.dep.pa.gov/eComment.

The Department will provide the opportunity to hold three (3) public hearings, if requested, to receive comments on the proposals. The first hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Delaware River room of the Department's Southeast Regional Office, 2 East Main Street, Norristown, PA. The second hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Waterfront room of the Department's Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA. The third hearing will be held from 1:00 PM to 3:00 PM on January 22, 2025, in the Susquehanna Room of the Department's Southcentral Regional Office, 909 Elmerton Avenue, Harrisburg, PA.

Persons wishing to present testimony should contact Amanda Rodriguez at P. O. Box 8468, Harrisburg, PA 17105, (717) 787-7677 or amarodrigu@pa.gov no less than 24 hours in advance of the public hearing to reserve a time. Witnesses will be limited to 10 minutes and should provide two written copies of their comments.

If by noon on Monday, January 20, 2025, no person has expressed an interest in testifying at the hearings, the hearings will be cancelled. The Department will provide public notice on the Bureau of Air Quality webpage at https://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx if the hearing is cancelled at any of the above locations. Persons may also contact the Department to find out if the hearing is cancelled by contacting Amanda Rodriguez at (717) 787-7677 or amarodrigu@pa.gov.

Persons with a disability who wish to attend a hearing and require an auxiliary aid, service or other accommodation to participate in the proceeding should contact Amanda Rodriguez at amarodrigu@pa.gov or (717) 787-7677. TDD users may contact the Pennsylvania Hamilton Relay Service at (800) 654-5984 to discuss how the Department can best accommodate their needs.

The Department must receive comments no later than January 24, 2025. Commentators are encouraged to submit comments using the Department's eComment system at www.ahs.dep.pa.gov/eComment or by email to ecomment@pa.gov. Written comments can be submitted to The Policy Office, Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, PA 17105-2063. Use "PA PM2.5 Designations" as the subject line in written communication.

Jessica Shirley,
Acting Secretary
7739025 12/20/24

PUBLIC NOTICE

NOTICE is hereby given by Board of School Directors of the East Penn School District that they intend to award a Guaranteed Energy Cost Savings Contract to McClure Company at their public meeting on January 13, 2025, at 7:30 p.m. to be held at 800 Pine Street, Emmaus, Pennsylvania 18049. The intent of this contract will be to reduce energy and operational costs at Wescosville Elementary School while greatly improving the facility's infrastructure. If you wish to be heard on the matter, your attendance is required on that date and time.
ROBERT E. SAUL,
TREASURER
7740622 12/20/24, 12/27/24

ESTATE NOTICE

Estate of Viola C. Hartzog aka Viola C. Wagner, late of Bethlehem, Lehigh County, Pennsylvania. Letters of Administration C.T.A. have been granted to the undersigned, who request all persons having claims or demands against the Estate of the Decedent to make known the same, and all persons indebted to the Decedent to make payment without delay to
Shawn A. Wagner, Administrator c/o Jeffrey F. Hussar, Esquire
946 Third Street
Whitehall, PA 18052 Attorney:
Jeffrey F. Hussar, Esq.
946 Third Street
Whitehall, PA 18052
#7745438 — 12/20/24, 12/27/24, 1/3/25

wanted automotive

BUYING UNWANTED VEHICLES • ANY COND • FREE TOWING
610-837-1700
Lehigh Valley CASH for Cars.com

THE MORNING CALL
MEDIA GROUP

PO Box 8020
Willoughby, OH 44096

adbilling@tribpub.com
844-348-2443

Invoice Details

Billed Account Name:	Department Of Environmental Protection
Billed Account Number:	CU00660757
Invoice Number:	106654735000
Invoice Amount:	$1,357.19
Billing Period:	12/16/24 - 12/22/24
Due Date:	12/22/24

INVOICE

Invoice Details

Date	tronc Reference #	Description	Ad Size/ Units	Rate	Gross Amount	Total
12/20/24	ALT106654735	Classified Listings, Online TMC Legal/Public Notices 7739235				1,357.19

Invoice Total: $1,357.19

Account Summary

Current	1-30	31-60	61-90	91+	Unapplied Amount
0.00	0.00	0.00	0.00	0.00	0.00

Please detach and return this portion with your payment.

THE MORNING CALL
MEDIA GROUP

PO Box 8020
Willoughby, OH 44096

Remittance Section

Billed Period:	12/16/24 - 12/22/24
Billed Account Name:	Department Of Environmental Protection
Billed Account Number:	CU00660757
Invoice Number:	106654735000

Return Service Requested

DEPARTMENT OF ENVIRONMENTAL PROTECTION
AMANDA RODRIGUEZ
400 MARKET ST FL 12
HARRISBURG PA 17101-2301

For questions regarding this billing, or change of address notification, please contact Customer Care:

Morning Call
PO Box 8020
Willoughby, OH 44096

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

INVOICE NO.

PUBLICATIONS AUTHORIZATION AND INVOICE

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Altoona Mirror 301 Cayuga Ave PO Box 2008 Altoona, PA 16602	55-0758535	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO
☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD
☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20,2024	John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as follows: Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to be in capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) notice advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occupying similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any contract awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, color, sex, religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of such discrimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement under the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertising in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
2008400000	3522709000	6343200	100

INVOICE (To be completed by publisher):

Inches Inch

	DATE OF INSERTION	ACTUAL NO. OF PRINTED ~~LINES~~	COST PER ~~LINE~~	TOTAL AMOUNT
1st Ad	12-20-24	32"	32.70	1,046.40
2nd Ad				
3rd Ad		1 Affidavit		12.00
			GRAND TOTAL →	$ 1,058.40

Commonwealth of Pennsylvania

County of Blair

Before me, the subscriber, a Notary Public in and for said County, personally came Daniel N. Slep who being duly sworn, doth depose and say that he is* Publisher the Altoona Mirror a general newspaper published at Altoona, PA that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspape in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charge therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set in similar matter, in said newspaper.

Sworn and subscribed before me this 9 day of January 2025

NOTARY PUBLIC

Commonwealth of Pennsylvania - Notary Seal
Debra D. Miller, Notary Public
Blair County
My commission expires July 25, 2025
Commission number 1112043

SIGNATURE OF AFFIANT

My commission expires

*This affidavit must be made by the Owner, Publisher, the designated agent of the owner or publisher.

PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD; PUBLIC HEARING

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Jessica Shirley,
Acting Secretary

December 20, 2024

AltoonaMirror.com

Making It Happen For You. Online.

P.O. Box 2008
Altoona, PA 16603
814-946-7417
or 814-946-7411
www.altoonamirror.com

Statement Number	Billing Date
033449	12/31/24
Account Number	**Billing Period**
L966	DECEMBER 2024
Total Amount Due	
1254.08	

Write Amount Enclosed

Advertising Invoice/Statement

Bill Account Name And Address	Remittance Address
COMMONWEALTH OF PA LOCATION CODE: 78DIST09 PA 16865L966 001254081231242	ALTOONA MIRROR 301 CAYUGA AVE PO BOX 2008 ALTOONA PA 16603 NOTE: ELSA MANGUAL FOR PAYMENT

Please Detach Upper Portion And Return With Payment

Day	Reference	Description	S-A-U Dimensions	Units	Rate	Amount
		PREVIOUS BALANCE				1903.73
11		RECEIVED PAYMENT SEPT				77.40-
13	CC-1034	PAYMENT THANK YOU				1630.65-
20		Air Quality	4 X 8	32	32.70	1046.40
20		1 Affidavit				12.00

Message

Totals			Ageing				Total Amount Due
Display	Other Charges	Credits	Current	30 Days	60 Days	90 Days	
1046.40	12.00	1708.05	1058.40	.00	.00	195.68	1254.08

Statement Number	Billing Date	Terms
033449	12/31/24	Balance due upon receipt of this Invoice/Statement
Account Number	**Billing Period**	
L966	DECEMBER 2024	
Contract Information		
Expiration Date	**Requirement**	**Name Of Advertiser**
		COMMONWEALTH OF PA
Current Month	**Cumulative**	**Salesperson**
		LEGALS

Advertising Invoice/Statement
AltoonaMirror.com
Making It Happen For You. Online.
P.O. Box 2008
Altoona, PA 16603
814-946-7417
or 814-946-7411
www.altoonamirror.com

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

PUBLICATIONS AUTHORIZATION AND INVOICE

INVOICE NO.

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Bucks County Courier Times One Oxford Valley 2300 East Lincoln Highway Suite 500 D	23-0433913	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO
☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD
☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20,2024	John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as follows: Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to be in capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) notice advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occupying similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any contract awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, color, sex, religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of such discrimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement under the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertising in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
2008400000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	12/20/24	195	3.79	739.05
2nd Ad				
3rd Ad			Affidavit	10.00
			GRAND TOTAL →	749.05

Commonwealth of Pennsylvania

County of Bucks

Before me, the subscriber, a Notary Public in and for said County, personally came Vicky Felty who being duly sworn, doth depose and say that he is* legal clerk the Bucks County Courier Times a general newspaper published at Newtown, Bucks Co, PA that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspaper, in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charged therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set in a similar matter, in said newspaper.

Sworn and subscribed before me this 3rd day of February 20 25

Amy Kokott
NOTARY PUBLIC

My commission expires 6/30/2025

Vicky Felty
SIGNATURE OF AFFIANT

AMY KOKOTT
Notary Public
State of Wisconsin

*This affidavit must be made by the Owner, Publisher, or the designated agent of the owner or publisher.

LOCALiQ
Erie Times-News | The Intelligencer
Bucks County Courier Times
The Daily American | Beaver County Times
Pocono Record | Burlington County Times

PO Box 630531 Cincinnati, OH 45263-0531

AFFIDAVIT OF PUBLICATION

Amanda Rodriguez
Pa Dept Environmental Protection
400 Market Street, 12th Floor
Harrisburg PA 17105

STATE OF PENNSYLVANIA, COUNTY OF BUCKS

The Bucks County Courier Times, a newspaper of general circulation, published and having its place of business at Levittown, Bucks County, PA; that said newspaper was established in 1910; that attached hereto is a facsimile of the printed notice which is exactly as printed and published in said newspaper issue dated on:

12/20/2024

That said newspaper was regularly issued and circulated on those dates.

Sworn to and subscribed before on 12/20/2024

Legal Clerk

Notary, State of WI, County of Brown

6/30/2028

My commission expires

Publication Cost:	$749.05		
Tax Amount:	$0.00		
Payment Cost:	$749.05		
Order No:	10854317	# of Copies:	
Customer No:	581834	1	
PO #:			

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

AMY KOKOTT
Notary Public
State of Wisconsin

PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD;

PUBLIC HEARING

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The Department will provide the opportunity to hold three (3) public hearings if requested, to receive comments on the proposals. The first hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Delaware River room at the Department's Southeast Regional Office, 2 East Main Street, Norristown, PA. The

second hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Waterfront room at the Department's Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA. The third hearing will be held from 1:00 PM to 3:00 PM on January 23, 2025, in the Susquehanna Room at the Department's Southcentral Regional Office, 909 Elmerton Avenue, Harrisburg, PA.

Persons wishing to present testimony should contact Amanda Rodriguez at P. O. Box 8468, Harrisburg, PA 17105, (717) 787-7677 or amarodrigu@pa.gov no less than 24 hours in advance of the public hearing to reserve a time. Witnesses will be limited to 10 minutes and should provide two written copies of their comments.

If by noon on Monday, January 20, 2025, no person has expressed an interest in testifying at the hearings, the hearings will be cancelled. The Department will provide public notice on the Bureau of Air Quality webpage at http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx if the hearing is cancelled at any of the above locations. Persons may also contact the Department to find out if the hearing is cancelled by contacting Amanda Rodriguez at (717) 787-7677 or amarodrigu@pa.gov.

Persons with a disability who wish to attend a hearing and require an auxiliary aid, service or other accommodation to participate in the proceeding should contact Amanda Rodriguez at amarodrigu@pa.gov or (717) 787-7677. TDD users may contact the Pennsylvania Hamilton Relay Service at (800) 654-5984 to discuss how the Department can best accommodate their needs.

The Department must receive comments no later than January 24, 2025. Commentators are encouraged to submit comments using the Department's eComment system at www.ahs.dep.pa.gov/eComment or by email to ecomment@pa.gov. Written comments can be submitted to The Policy Office, Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, PA 171052063. Use "PA PM2.5 Designations" as the subject line in written communication.

Jessica Shirley,
Acting Secretary

LocaliQ
Pennsylvania
GANNETT

ACCOUNT NAME	ACCOUNT #	PAGE #
Pa Dept Environmental Protection	581834	1 of 1

INVOICE #	BILLING PERIOD	PAYMENT DUE DATE
0006839775	Dec 1- Dec 31, 2024	January 20, 2025

PREPAY (Memo Info)	UNAPPLIED (Included In amt due)	TOTAL CASH AMT DUE*
$0.00	$0.00	$1,495.24

BILLING ACCOUNT NAME AND ADDRESS

Pa Dept Environmental Protection
400 Market St. Fl. 12
Harrisburg, PA 17101-2301

Legal Entity: Gannett Media Corp.
Terms and Conditions: Past due accounts are subject to interest at the rate of 18% per annum or the maximum legal rate (whichever is less). Advertiser claims for a credit related to rates incorrectly invoiced or paid must be submitted in writing to Publisher within 30 days of the invoice date or the claim will be waived. Any credit towards future advertising must be used within 30 days of issuance or the credit will be forfeited.
All funds payable in US dollars.

BILLING INQUIRIES/ADDRESS CHANGES 1-877-736-7612 or smb@ccc.gannett.com | **FEDERAL ID** 47-2390983

To sign-up for E-mailed invoices and online payments please contact abgspecial@gannett.com. Previous account number: ERIE_128976

Date	Description	Amount
12/1/24	Balance Forward	$0.00

Package Advertising:

Start-End Date	Order Number	Product	Description	PO Number	Package Cost
12/20/24	10854317	LNG Bucks Co Courier Times	HEARING 1-21 AIR QUALITY		$749.05
12/20/24	10854361	ERI Erie Times-News	PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY S		$746.19

As an incentive for customers, we provide a discount off the total invoice cost equal to the 3.99% service fee if you pay with Cash/Check/ACH. Pay by Cash/Check/ACH and Save!

Total Cash Amount Due	$1,495.24
Service Fee 3.99%	$59.66
*Cash/Check/ACH Discount	-$59.66
*Payment Amount by Cash/Check/ACH	$1,495.24
Payment Amount by Credit Card	$1,554.90

PLEASE DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT

ACCOUNT NAME	ACCOUNT NUMBER	INVOICE NUMBER	AMOUNT PAID
Pa Dept Environmental Protection	581834	0006839775	

CURRENT DUE	30 DAYS PAST DUE	60 DAYS PAST DUE	90 DAYS PAST DUE	120+ DAYS PAST DUE	UNAPPLIED PAYMENTS	TOTAL CASH AMT DUE*
$1,495.24	$0.00	$0.00	$0.00	$0.00	$0.00	$1,495.24

REMITTANCE ADDRESS (Include Account# & Invoice# on check)

Gannett Pennsylvania LocaliQ
PO Box 630531
Cincinnati, OH 45263-0531

TO PAY WITH CREDIT CARD PLEASE CALL:
1-877-736-7612

TOTAL CREDIT CARD AMT DUE
$1,554.90

To sign up for E-mailed invoices and online payments please contact abgspecial@gannett.com

0000581834000000000000006839775001495246623 5

Download file in native format

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 05-2010

PUBLICATIONS AUTHORIZATION AND INVOICE

INVOICE NO.

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)
Delaware County Daily Times
639 South Chester Road
Swarthmore, PA 10981

FEDERAL I.D. NO./SOC. SEC. NO.
13-3405136

FROM: (NAME AND ADDRESS OF AGENCY) AGENCY
Amanda Rodriguez
PA DEP - Bureau of Air Quality
400 Market Street, 12th Floor
Harrisburg PA 17105-8468

TELEPHONE NO.
717-787-9702

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO
☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD
☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION
December 20,2024

SIGNATURE FOR AGENCY
John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as follows: Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to be in capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) notice advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occupying similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any contract awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, color, sex, religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of such discrimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement under the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertising in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
2008400000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	12/20/24	3 x 7.625		672 53
2nd Ad				
3rd Ad				
			GRAND TOTAL →	672 53

Commonwealth of Pennsylvania

County of Montgomery

Before me, the subscriber, a Notary Public in and for said County, personally came MARY D. Allison who being duly sworn, doth depose and say that he is* designated Agent of the Daily Times a general newspaper published at Exton PA that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspaper in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charged therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set in similar matter, in said newspaper.

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV 06-2010

PUBLICATIONS AUTHORIZATION AND INVOICE

INVOICE NO.

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Erie Times-News 205 West 12th Street Erie, PA 16534	25-0839114	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO

☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD

☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20, 2024	John Krueger

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Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
2008400000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	12/20/24	193	3.83	739.19
2nd Ad				
3rd Ad			Affidavit	7.00
			GRAND TOTAL →	746.19

Commonwealth of Pennsylvania

County of Erie

Before me, the subscriber, a Notary Public in and for said County, personally came Nicole Jacobs who being duly sworn, doth depose and say that he is* Legal Clerk the Erie Times-News a general newspaper published at Erie, PA that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspaper, in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charged therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set in a similar matter, in said newspaper.

Sworn and subscribed before me this 20th day of December 20 24

Amy Kokott
NOTARY PUBLIC

My commission expires 6/30/2025

Nicole Jacobs
SIGNATURE OF AFFIANT

*This affidavit must be made by the Owner, Publisher, or the designated agent of the owner or publisher.

AMY KOKOTT
Notary Public
State of Wisconsin

LOCALiQ
Erie Times-News | The Intelligencer
Bucks County Courier Times
The Daily American | Beaver County Times
Pocono Record | Burlington County Times

PO Box 630531 Cincinnati, OH 45263-0531

AFFIDAVIT OF PUBLICATION

Amanda Rodriguez
Pa Dept Environmental Protection
400 Market Street, 12th Floor
Harrisburg PA 17105

STATE OF PENNSYLVANIA, COUNTY OF ERIE

The Erie Times-News is a newspaper of general circulation, whose principal place of business is at 205 W 12th Street, Erie, Pennsylvania. That a copy of the printed notice, hereto attached, is exactly as the same was printed and published in the regular edition of the Erie Times-News, published in the issue dated:

12/20/2024

Sworn to and subscribed before on 12/20/2024

Legal Clerk

Notary, State of WI, County of Brown

6/30/2025
My commission expires

Publication Cost:	$746.19	
Tax Amount:	$0.00	
Payment Cost:	$746.19	
Order No:	10854361	# of Copies:
Customer No:	581834	1
PO #:		

THIS IS NOT AN INVOICE!

Please do not use this form for payment remittance.

AMY KOKOTT
Notary Public
State of Wisconsin

PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD; PUBLIC HEARING

The Pennsylvania Department of Environmental Protection (PADEP or Department) is seeking public comment on its proposed recommendations to the U.S. Environmental Protection Agency (EPA) for the designation of areas not meeting the revised annual health-based National Ambient Air Quality Standards (NAAQS) for fine particulates (PM2.5). Reducing concentrations of this pollutant is important because levels above the health-based standard are a serious human health threat and can cause or contribute to other negative environmental impacts.

EPA established a revised NAAQS for PM2.5 in February 2024. The annual standard for PM2.5 was made more protective and changed from 12 micrograms per cubic meter (µg/m3) of air to 9 µg/m3. An area does not attain the annual standard if the annual concentration, averaged over 3 years, is more than 9 µg/m3. Following promulgation of new or revised air standards, states are given the opportunity to submit recommendations for attainment/nonattainment areas, supported by most recent quality-assured and quality-controlled monitoring data.

The proposed designation recommendations are based primarily on-air quality ambient monitoring (2021 – 2023), as well as emissions data, meteorology, geography/topography and jurisdictional boundaries. Based on this information, PADEP is seeking comment on recommending that EPA designate as "nonattainment" areas in Greater Pittsburgh; Harrisburg-Carlisle-York; Lancaster County and Greater Philadelphia. PADEP is also seeking comment on recommending that EPA designate the areas monitoring below the standard as "attainment" areas and the remaining areas in Pennsylvania as "unclassifiable/attainment". PADEP will be submitting recommendations by March 2025. EPA is expected to make final designations in February 2026. PADEP would then have 18 months to develop a plan for any areas designated as nonattainment to meet 2024 Primary PM2.5 NAAQS. This proposal is available on the DEP Website at http://www.ahs.dep.pa.gov/eComment.

The Department will provide the opportunity to hold three (3) public hearings if requested, to receive comments on the proposals. The first hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Delaware River room at the Department's Southeast Regional Office, 2 East Main Street, Norristown, PA. The second hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the

Waterfront room at the Department's Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA. The third hearing will be held from 1:00 PM to 3:00 PM on January 23, 2025, in the Susquehanna Room at the Department's Southcentral Regional Office, 909 Elmerton Avenue, Harrisburg, PA.

Persons wishing to present testimony should contact Amanda Rodriguez at P. O. Box 8468, Harrisburg, PA 17105, (717) 787-7677 or amarodrigu@pa.gov no less than 24 hours in advance of the public hearing to reserve a time. Witnesses will be limited to 10 minutes and should provide two written copies of their comments.

If by noon on Monday, January 20, 2025, no person has expressed an interest in testifying at the hearings, the hearings will be cancelled. The Department will provide public notice on the Bureau of Air Quality webpage at http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx if the hearing is cancelled at any of the above locations. Persons may also contact the Department to find out if the hearing is cancelled by contacting Amanda Rodriguez at (717) 787-7677 or amarodrigu@pa.gov.

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The Department must receive comments no later than January 24, 2025. Commentators are encouraged to submit comments using the Department's eComment system at www.ahs.dep.pa.gov/eComment or by email to ecomment@pa.gov. Written comments can be submitted to The Policy Office, Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, PA 171052063. Use "PA PM2.5 Designations" as the subject line in written communication.

Jessica Shirley,
Acting Secretary
(12-10854361-NT-20)

LocaliQ
Pennsylvania
GANNETT

ACCOUNT NAME	ACCOUNT #	PAGE #
Pa Dept Environmental Protection	581834	1 of 1

INVOICE #	BILLING PERIOD	PAYMENT DUE DATE
0006839775	Dec 1- Dec 31, 2024	January 20, 2025

PREPAY (Memo Info)	UNAPPLIED (Included in amt due)	TOTAL CASH AMT DUE*
$0.00	$0.00	$1,495.24

BILLING ACCOUNT NAME AND ADDRESS

Pa Dept Environmental Protection
400 Market St. Fl. 12
Harrisburg, PA 17101-2301

Legal Entity: Gannett Media Corp.
Terms and Conditions: Past due accounts are subject to interest at the rate of 18% per annum or the maximum legal rate (whichever is less). Advertiser claims for a credit related to rates incorrectly invoiced or paid must be submitted in writing to Publisher within 30 days of the invoice date or the claim will be waived. Any credit towards future advertising must be used within 30 days of issuance or the credit will be forfeited.
All funds payable in US dollars.

BILLING INQUIRIES/ADDRESS CHANGES 1-877-736-7612 or smb@ccc.gannett.com | **FEDERAL ID** 47-2390983

To sign-up for E-mailed invoices and online payments please contact abgspecial@gannett.com. Previous account number: ERIE_128976

Date	Description	Amount
12/1/24	Balance Forward	$0.00

Package Advertising:

Start-End Date	Order Number	Product	Description	PO Number	Package Cost
12/20/24	10854317	LNG Bucks Co Courier Times	HEARING 1-21 AIR QUALITY		$749.05
12/20/24	10854361	ERI Erie Times-News	PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY S		$746.19

As an incentive for customers, we provide a discount off the total invoice cost equal to the 3.99% service fee if you pay with Cash/Check/ACH. Pay by Cash/Check/ACH and Save!

Total Cash Amount Due	$1,495.24
Service Fee 3.99%	$59.66
*Cash/Check/ACH Discount	-$59.66
*Payment Amount by Cash/Check/ACH	$1,495.24
Payment Amount by Credit Card	$1,554.90

PLEASE DETACH AND RETURN THIS PORTION WITH YOUR PAYMENT

ACCOUNT NAME	ACCOUNT NUMBER	INVOICE NUMBER	AMOUNT PAID
Pa Dept Environmental Protection	581834	0006839775	

CURRENT DUE	30 DAYS PAST DUE	60 DAYS PAST DUE	90 DAYS PAST DUE	120+ DAYS PAST DUE	UNAPPLIED PAYMENTS	TOTAL CASH AMT DUE*
$1,495.24	$0.00	$0.00	$0.00	$0.00	$0.00	$1,495.24

REMITTANCE ADDRESS (Include Account# & Invoice# on check)	TO PAY WITH CREDIT CARD PLEASE CALL:	TOTAL CREDIT CARD AMT DUE
Gannett Pennsylvania LocaliQ PO Box 630531 Cincinnati, OH 45263-0531	1-877-736-7612	$1,554.90
	To sign up for E-mailed invoices and online payments please contact abgspecial@gannett.com	

0000581834000000000000006839775001495246623 5

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

INVOICE NO.

PUBLICATIONS AUTHORIZATION AND INVOICE

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Harrisburg Patriot News 2020 Technology Parkway Suite 300 Mechanicsburg, PA 17050	23-1304402	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO

☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD

☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only	79	December 12, 2024	10945678

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20, 2024	John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as follows: Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to be in capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) notice advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occupying similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any contract awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, color, sex, religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of such discrimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement under the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertising in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
2008400000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	December 19, 2024	79		733.56
2nd Ad				
3rd Ad				
			GRAND TOTAL →	733.56

~~Commonwealth of Pennsylvania~~ State of New Jersey

County of Hunterdon

Before me, the subscriber, a Notary Public in and for said County, personally came Loretta Doran who being duly sworn, doth depose and say that he is* Account Executive - Classified the Patriot-News a general newspaper published at 1900 Patriot Drive, Mechanicsburg, PA 17050 that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspaper, in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charged therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set in a similar matter, in said newspaper.

Sworn and subscribed before me this 19th day of December 20 24

NOTARY PUBLIC

My commission expires 3/8/2026

SIGNATURE OF AFFIANT

*This affidavit must be made by the Owner, Publisher, or the designated agent of the owner or publisher.

JEANETTE KRYZYMALSKI
NOTARY PUBLIC OF NEW JERSEY
Commission # 50033947
My Commission Expires 3/8/2026

PA MEDIA GROUP

Patriot News

LEGAL AFFIDAVIT

AD#: 0010945678

State of New Jersey,) ss
County of Hunterdon)

Loretta Doran being duly sworn, deposes that he/she is principal clerk of PA Media Group; that Patriot News is a public newspaper published in the city of Mechanicsburg, with general circulation in Cumberland and Dauphin and surrounding counties, and this notice is an accurate and true copy of this notice as printed in said newspaper, was printed and published in the regular edition and issue of said newspaper on the following date(s):

Patriot News 12/19/2024

Principal Clerk of the Publisher

Sworn to and subscribed before me this 19th day of December 2024

JEANETTE KRYZYMALSKI
NOTARY PUBLIC OF NEW JERSEY
Commission # 50033947
My Commission Expires 3/8/2026

Notary Public

PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD; PUBLIC HEARING

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Jessica Shirley,
Acting Secretary

PA Media Group
1900 Patriot Dr
Mechanicsburg, PA 17050

PA MEDIA GROUP

Patriot News

DEPARTMENT OF ENVIRONMENTAL
PROTECTION, AIR QUALITY
400 MARKET ST
HARRISBURG, PA 17101

AD#: 0010945678

Sales Rep: Marjorie Dill
Account Number:249758
AD#: 0010945678

Remit Payment to:
PA Media Group
Dept 77571
P.O. Box 77000
Detroit, MI 48277-0571

Date	Position	Description	P.O. Number	Ad Size	Costs
12/19/2024	Misc Public Notic PA	PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024		2 x 79 L	
				Affidavit Notary Fee - 12/19/2024	$5.00
				Basic Ad Charge - 12/19/2024	$728.56
				Total	$733.56

FOR QUESTIONS CONCERNING THIS AFFIDAVIT, PLEASE CALL 717-255-8119

PA MEDIA GROUP

PO Box 2168
Grand Rapids, MI 49501-2168

Client	DEPARTMENT OF ENVIRONMENT
Billed Account #	60077
Client Account #	60077
Invoice #	2795025
Date	12/31/2024
Due	Upon Receipt
Current Invoice Due	$733.56

DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY
400 MARKET ST
HARRISBURG, PA 17101

Payments & Billing Inquires
Jodie Koster, +1 616-222-1013
jkoster@advancelocal.com

Date	Order #	Description	Amount
12/19/2024	0010945678	Tearsheet/Affidavit	$5.00
12/19/2024	0010945678	Patriot News 2 x 79 lines	$726.06
12/19/2024	0010945678	Inventory 2 x 79 lines	$2.50

Current Invoice	$733.56
Payment(s)	$0.00
Credit(s)	$0.00
Current Invoice Due	$733.56
Total Account Balance*	$733.56

*Includes Current Invoice Due and any unpaid Prior Period Invoice(s) Due

PLEASE DETACH AND RETURN LOWER PORTION WITH YOUR REMITTANCE

PA MEDIA GROUP

BU 44000

Client	DEPARTMENT OF ENVIRONMENT
Billed Account #	60077
Client Account #	60077
Invoice #	2795025
Date	12/31/2024
Due	Upon Receipt
Current Invoice Due	$733.56

Amount Paid _____

DEPARTMENT OF ENVIRONMENTAL PROTECTION
AIR QUALITY
400 MARKET ST
HARRISBURG, PA 17101

REMIT TO:
PA Media Group
Dept 77571
PO Box 77000
Detroit, MI 48277-0571

44000 0000000000060077 0000000000060077 0000073356 0002795025 9

Download file in native format

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

INVOICE NO.

PUBLICATIONS AUTHORIZATION AND INVOICE

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Reading Eagle 345 Penn Street PO Box 582 Reading, PA 19603-0582	24-0676050	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO
☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD
☐ CLASSIFIED ☒ LEGAL NOTI

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION: December 20, 2024

SIGNATURE FOR AGENCY: John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as fo Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature t capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occ similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any c awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, col religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of su crimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisemen the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advert in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	
200840000	3522709000	6343200	1

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	12/20/24	182.00		536.3
2nd Ad				
3rd Ad				
			GRAND TOTAL →	536.3

Commonwealth of Pennsylvania

County of Berks

Before me, the subscriber, a Notary Public in and for said County, personally came Pamela J Kerr who being duly sworn, doth depose and say that he is* a principle clerk the Reading Eagle a general newspaper published at Reading, PA that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is n [illegible] higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

INVOICE NO.

PUBLICATIONS AUTHORIZATION AND INVOICE

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Scranton Times-Tribune 149 Penn Avenue Scranton, PA 18503	24-0717470	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO
☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD
☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20, 2024	

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as follows: Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to be in capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) notice advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occupying similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any contract awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, color, sex, religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of such discrimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement under the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertising in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
200840000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	12/20/24	192 Lines	$4.78	$917.76
2nd Ad		$5.00 flat affidavit		
3rd Ad				
			GRAND TOTAL →	$922.76

Commonwealth of Pennsylvania

County of Lackawanna

Before me, the subscriber, a Notary Public in and for said County, personally came Jessica Escalante who being duly sworn, doth depose and say that he is* Billing Clerk the Scranton Times a general newspaper published at Scranton that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspap in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charg therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set ir similar matter, in said newspaper.

Sworn and subscribed before me this 7th day of January 2025

Danielle Campbell
NOTARY PUBLIC

My commission expires 12/18/27

Jessica Escalante
SIGNATURE OF AFFIANT

Commonwealth of Pennsylvania - Notary Seal
Danielle Campbell, Notary Public
Lackawanna County
My commission expires December 18, 2027
Commission number 1441244
Member, Pennsylvania Association of Notaries

*This affidavit must be made by the Owner, Publisher, or the designated agent of the owner or publisher.

The Scranton Times (Under act P.L. 877 No 160. July 9,1976)
Commonwealth of Pennsylvania, County of Lackawanna

Account # 649530
Order # 82831500
Ad Price: 922.76

PA DEPARTMENT OF ENVIRONMENTAL PROTECTION
400 MARKET STREET 12TH FLOOR
HARRISBURG PA 17105

PROPOSED DESIGNATION RECO
Jessica Escalante
Being duly sworn according to law deposes and says that (s)he is Billing clerk for The Scranton Times, owner and publisher of The Scranton Times, a newspaper of general circulation, established in 1870, published in the city of Scranton, county and state aforesaid, and that the printed notice or publication hereto attached is exactly as printed in the regular editions of the said newspaper on the following dates:

12/20/2024

Affiant further deposes and says that neither the affiant nor The Scranton Times is interested in the subject matter of the aforesaid notice or advertisement and that all allegations in the foregoing statement as time, place and character or publication are true _____.

Sworn and subscribed to before me
this 2nd day of January A.D., 2025

_____
(Notary Public)

Commonwealth of Pennsylvania - Notary Seal
Danielle Campbell, Notary Public
Lackawanna County
My commission expires December 18, 2027
Commission number 1441244
Member, Pennsylvania Association of Notaries

NEPA - SCRANTON TIMES
PO BOX 8003
WILLOUGHBY OH 44096-8003

(860) 241-3054
ADDRESS SERVICE REQUESTED

4914000982 PRESORT PBPS001 <>

PA DEPARTMENT OF ENVIRONMENTAL PROTECTI
400 MARKET STREET FL 12
HARRISBURG PA 17101-2301

Send Payment To:

NEPA - SCRANTON TIMES
PO BOX 8003
WILLOUGHBY OH 44096-8003

1| Billing Period	2| Advertiser/Client Name		4| Page Number
12/2024	PA DEPARTMENT OF ENVIRO		1
21| Current Net Amount Due	23| PAY THIS AMOUNT	6| Billed Account Number	
922.76	922.76	649530	

ADVERTISING INVOICE

10| Date	11| Newspaper Reference	12|13|14| Description-Other Comments/Charges	15| SAU Size 16| Billed Units	17| Times Run 18| Rate	19| Gross Amount	20| Net Amount
12/20/24	82831500 CLL	PROPOSED DESIGNATION 12/20 STIN/INTR STTT/CL	1X192.00 192.00	1 4.78	922.76	922.76

Statement of Account - Aging of Past Due Amounts

21| Current Net Amount Due	22| 30 Days	60 Days	Over 90 Days	*Unapplied Amount	23| Total Amount Due
922.76	0.00	0.00	0.00		922.76

PLEASE PROVIDE US WITH YOUR EMAIL ADDRESS IN ORDER FOR YOU TO RECEIVE YOUR ELECTRONIC TEARSHEETS
PLEASE RESPOND TO AR-PA@NORTHEASTPUBS.COM

* UNAPPLIED AMOUNTS ARE INCLUDED IN TOTAL AMOUNT DUE

24| Invoice Number	25| Advertiser Information			
	1| Billing Period	6| Billed Account Number	7| Advertiser/Client Number	2| Advertiser/Client Name
1224649530	12/2024	649530	649530	PA DEPARTMENT OF ENVIR

Download file in native format

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

INVOICE NO.

PUBLICATIONS AUTHORIZATION AND INVOICE

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)
Wilkes-Barre Times Leader
90 E Market Street
Wilkes-Barre, PA 18711-0250

FEDERAL I.D. NO./SOC. SEC. NO.
84-231-8335

FROM: (NAME AND ADDRESS OF AGENCY) AGENCY
Amanda Rodriguez
PA DEP - Bureau of Air Quality
400 Market Street, 12th Floor
Harrisburg, PA 17105-8468

TELEPHONE NO.
717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO
☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD
☐ CLASSIFIED ☒ LEGAL NOTIC

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20, 2024	John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as fol Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occu similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any co awarded to it he under, said vendor will not discriminate against any employee or other persons on account of race, color religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of suc crimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertis in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
200840000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	December 20, 24	~~90~~ 210 lines	3.30	693
2nd Ad	Notary/Online charge		14.00	$ 14
3rd Ad				
			GRAND TOTAL →	707

Commonwealth of Pennsylvania

County of Luzerne

Before me, the subscriber, a Notary Public in and for said County, personally came Linda Byrnes who being duly sworn, doth depose and say that he is* Classified manager the Times Leader a general newspaper published at Wilkes-Barre PA that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said new in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not

COMMONWEALTH OF PENNSYLVANIA
STD-521 REV. 06-2010

PUBLICATIONS AUTHORIZATION AND INVOICE

INVOICE NO.

PUBLICATIONS AUTHORIZATION (To be completed by agency):

TO: (NAME AND ADDRESS OF NEWSPAPER)	FEDERAL I.D. NO./SOC. SEC. NO.	FROM: (NAME AND ADDRESS OF AGENCY) AGENCY	TELEPHONE NO.
Williamsport Sun-Gazette 252 West Fourth Street PO Box 728 Williamsport, PA 17703-0728	24-0736730	Amanda Rodriguez PA DEP - Bureau of Air Quality 400 Market Street, 12th Floor Harrisburg, PA 17105-8468	717-787-7677

HEREWITH IS ENCLOSED COPY FOR PUBLICATION OF ADVERTISEMENT FOR PROPOSALS TO

☐ EMPLOY ☐ PURCHASE ☐ CONTRACT ☐ SELL

TYPE OF AD

☐ CLASSIFIED ☒ LEGAL NOTICE

PUBLISH ADVERTISEMENT (NO. OF TIMES)	MAXIMUM NO. OF LINES	DATE	ORDER NO.
1 Time Only		December 12, 2024	

DATES OF INSERTION	SIGNATURE FOR AGENCY
December 20, 2024	John Krueger

You, as vendor, are authorized to publish this advertisement in your newspaper, subject to the terms of this order, as follows: Advertisement to be published in regular advertising columns, no position specified; caption of two lines and signature to be in capitals and subject matter and title of officer to be set solid in type regularly used by your newspaper for public (legal) notice advertising; charge to be made at the rate charged to and paid by commercial advertisers for matter similarly set and occupying similar space; advertisement to be run in the editions specified above. Vendor agrees that, in the performance of any contract awarded to it hereunder, said vendor will not discriminate against any employee or other persons on account of race, color, sex, religious creed, ancestry, age or national origin and that the Commonwealth, upon receipt of satisfactory evidence of such discrimination, shall have the right to cancel said contract. Return this copy at once if you will not accept this advertisement under the terms set forth.

Return original and two copies (signed by the editor or publisher) to the agency listed above. Proof of advertising in the form of a tear sheet must be stapled to original and copies. Original must be notarized.

Commonwealth to be billed only for actual number of printed lines published.

SAP FUND	COST CENTER	GENERAL LEDGER ACCOUNT CODE	%
200840000	3522709000	6343200	100

INVOICE (To be completed by publisher):

	DATE OF INSERTION	ACTUAL NO. OF PRINTED LINES	COST PER LINE	TOTAL AMOUNT
1st Ad	12/20/2024	208		456.72
2nd Ad				
3rd Ad				
			GRAND TOTAL →	456.72

Commonwealth of Pennsylvania

County of Lycoming

Before me, the subscriber, a Notary Public in and for said County, personally came John Leeser who being duly sworn, doth depose and say that he is* Publisher the Sun Gazette a general newspaper published at Williamsport, PA that the advertisement, of which tearsheet is attached hereto, was published in the regular advertising columns of said newspaper, in the editions of said newspaper, in all respects as ordered and invoiced above; and that the Commonwealth is not charged therefor at a rate higher than is charged any ordinary advertiser for a similar amount of matter occupying similar space and set in a similar matter, in said newspaper.

Sworn and subscribed before me this 23rd day of December 2024

Beth A. Miller
NOTARY PUBLIC

SIGNATURE OF AFFIANT

My commission expires _____

*This affidavit must be made by the Owner, Publisher, or the designated agent of the owner or publisher.

Commonwealth of Pennsylvania - Notary Seal
BETH A MILLER - Notary Public
Lycoming County
My Commission Expires June 4, 2028
Commission Number 1297751

PROPOSED DESIGNATION RECOMMENDATIONS FOR THE 2024 PRIMARY ANNUAL FINE PARTICULATE MATTER (PM2.5) NATIONAL AMBIENT AIR QUALITY STANDARD; PUBLIC HEARING

The Pennsylvania Department of Environmental Protection (PADEP or Department) is seeking public comment on its proposed recommendations to the U.S. Environmental Protection Agency (EPA) for the designation of areas not meeting the revised annual health-based National Ambient Air Quality Standards (NAAQS) for fine particulates (PM2.5). Reducing concentrations of this pollutant is important because levels above the health-based standard are a serious human health threat and can cause or contribute to other negative environmental impacts.

EPA established a revised NAAQS for PM2.5 in February 2024. The annual standard for PM 2.5 was made more protective and changed from 12 micrograms per cubic meter (g/m3) of air to 9 g/m 3 . An area does not attain the annual standard if the annual concentration, averaged over 3 years, is more than 9 g/m 3 . Following promulgation of new or revised air standards, states are given the opportunity to submit recommendations for attainment/nonattainment areas, supported by most recent quality-assured and quality-controlled monitoring data.

The proposed designation recommendations are based primarily on-air quality ambient monitoring (2021 - 2023), as well as emissions data, meteorology, geography/topography and jurisdictional boundaries. Based on this information, PADEP is seeking comment on recommending that EPA designate as "nonattainment" areas in Greater Pittsburgh; Harrisburg-Carlisle-York; Lancaster County and Greater Philadelphia. PADEP is also seeking comment on recommending that EPA designate the areas monitoring below the standard as "attainment" areas and the remaining areas in Pennsylvania as "unclassifiable / attainment".

PADEP will be submitting recommendations by March 2025. EPA is expected to make final designations in February 2026. PADEP would then have 18 months to develop a plan for any areas designated as nonattainment to meet 2024 Primary PM 2.5 NAAQS. This proposal is available on the DEP Website at http://www.ahs.dep.pa.gov/eComment.

The Department will provide the opportunity to hold three (3) public hearings if requested, to receive comments on the proposals. The first hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Delaware River room at the Department's Southeast Regional Office, 2 East Main Street, Norristown, PA. The second hearing will be held from 1:00 PM to 3:00 PM on January 21, 2025, in the Waterfront room at the Department's Southwest Regional Office, 400 Waterfront Drive, Pittsburgh, PA. The third hearing will be held from 1:00 PM to 3:00 PM on January 23, 2025, in the Susquehanna Room at the Department's South-central Regional Office, 909 Elmerton Avenue, Harrisburg, PA.

Persons wishing to present testimony should contact Amanda Rodriguez at P. O. Box 8468, Harrisburg, PA 17105, (717) 787-7677 or amarodrigu@pa.gov no less than 24 hours in advance of the public hearing to reserve a time. Witnesses will be limited to 10 minutes and should provide two written copies of their comments.

If by noon on Monday, January 20, 2025, no person has expressed an interest in testifying at the hearings, the hearings will be cancelled. The Department will provide public notice on the Bureau of Air Quality webpage at http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx if the hearing is cancelled at any of the above locations. Persons may also contact the Department to find out if the hearing is cancelled by contacting Amanda Rodriguez at (717) 787-7677 or amarodrigu@pa.gov.

Persons with a disability who wish to attend a hearing and require an auxiliary aid, service or other accommodation to participate in the proceeding should contact Amanda Rodriguez at amarodrigu@pa.gov or (717) 787-7677. TDD users may contact the Pennsylvania Hamilton Relay Service at (800) 654-5984 to discuss how the Department can best accommodate their needs.

The Department must receive comments no later than January 24, 2025. Commentators are encouraged to submit comments using the Department's eComment system at www.ahs.dep.pa.gov/eComment or by email to ecomment@pa.gov. Written comments can be submitted to The Policy Office, Department of Environmental Protection, Rachel Carson State Office Building, P.O. Box 2063, Harrisburg, PA 171052063. Use "PA PM2.5 Designations" as the subject line in written communication.

Jessica Shirley,
Acting Secretary

SUN-GAZETTE

Invoice

Column Software PBC
PO Box 208098
Dallas, TX 75320-8098
help.column.us

Bill to
DEP-Bureau of Air Quality

Invoice number	48C0F766-0012
Notice ID	uAZwmGxB4GzNJ2umuJE9
Order Number	L1D022
Publisher	Williamsport Sun-Gazette
Date of issue	Dec 12, 2024
Date due	Jan 12, 2025
Amount due	**$456.72**

Description	Qty	Unit price	Amount
12/20/2024: Custom Notice	1	405.20	405.20
Affidavit Fee	1	10.00	10.00

=== Notes ===
Notice Name: 2024 Primary Annual Fine Particulate Matter
Order Number: L1D022

=== How to pay this invoice ===
Column Software PBC accepts online payment via credit or debit card, or ACH bank transfers. Please click here to pay online:
https://www.column.us/invoices/C62ncxo6njx5suz2sKHJ/pay

Please note that, once paid, the merchant name on your billing statements will be Column Software PBC.

Select organizations may also pay via check. Checks will result in processing delays and should not be used if your notice requires upfront payment. Please pay the exact amount due, write your invoice number 48C0F766-0012 on the memo, include a printed copy of your Invoice PDF, make the check payable to Column Software PBC, and mail to the address above.

Net Subtotal	$415.20
Tax	0.00
Processing Fee	41.52
Amount due	$456.72

Oregon
Tina Kotek, Governor

Department of Environmental Quality
Agency Headquarters
700 NE Multnomah Street, Suite 600
Portland, OR 97232
(503) 229-5696
FAX (503) 229-6124
TTY 711

January 24, 2025

Dan Opalski
Acting Regional Administrator
U.S. EPA, Region 10
1200 Sixth Street, Suite 900
Seattle, WA 98101

Re: Initial Area Designation Recommendations for the Revised $PM_{2.5}$ NAAQS

Dear Acting Administrator Opalski,

I am presenting my recommendations for initial area designations in the State of Oregon for the revised annual fine particulate matter ($PM_{2.5}$) National Ambient Air Quality Standard (NAAQS), as required in the Final Rule published in the Federal Register (89 FR 16202) on March 6, 2024.

To inform these recommendations, the Oregon Department of Environmental Quality (DEQ) analyzed $PM_{2.5}$ data collected in 2022, 2023 and 2024, and collected from ambient monitoring sites in the State and Local Air Monitoring Stations (SLAMS) network. At these sites, data is collected using a Federal Reference Method or Federal Equivalent Method monitor operated in accordance with 40 CFR 58. Because wildfire smoke regularly impacts air quality in Oregon, DEQ excluded smoke-impacted $PM_{2.5}$ data that met criteria set forth in the 2016 Exceptional Event Rule (codified in 40 CFR 50.1, 50.14 and 51.930). To support data exclusion, DEQ submitted an exceptional event report for 2022 $PM_{2.5}$ data to EPA Region 10 on November 9, 2023. DEQ will also submit a report for 2023 $PM_{2.5}$ data by February 7, 2025, and another report for 2024 $PM_{2.5}$ data by September 30, 2025.

Based on these quality-assured and federally-certified monitoring data, all SLAMS sites will meet the revised annual $PM_{2.5}$ standard of 9.0 $\mu g/m^3$ upon EPA concurrence of Oregon's exceptional events for 2022, 2023 and 2024. Thus, I recommend the entire state be designated "attainment/unclassifiable".

If you have any questions, please contact Michael Orman, Air Quality Planning Section Manager for the DEQ, at (503) 229-5177.

Sincerely,

Leah K. Feldon

Leah Feldon
Director