Appendix F-1

VISTAS state to VISTAS state Consultation

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Appendix F-1a

NC DEQ Letter to GA EPD DEQ dated January 22, 2021

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

January 22, 2021

Karen Hays
Chief, Air Protection Branch
Georgia Environmental Protection Division
4244 International Parkway, Suite 120
Atlanta, GA 30354

SUBJECT: Reasonable Progress Analyses for the Regional Haze Second Planning Period (2028)

Dear Ms. Hays:

The purpose of this letter is to request that you share your state's reasonable progress evaluation for a source within Georgia that contributes to visibility impairment in the Linville Gorge, Shining Rock, and Swanquarter Wilderness Areas (Class I federal area) located within North Carolina. North Carolina has a strong interest in improving air quality and visibility at these Class I areas and across the State.

As you know, consultation between states is a requirement of the Regional Haze Rule (RHR) located at 40 CFR Part 51, Subpart P – Protection of Visibility under 40 CFR 51.308(f)(2)(ii):

> The State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

As a member of Visibility Improvement – State and Tribal Association of the Southeast (VISTAS), the regional planning organization for the southeastern United States, my staff within the North Carolina Division of Air Quality (NCDAQ) have been working closely with your staff and expect to continue to do so. This collaborative approach to regional haze state implementation plan (SIP) development has been a highly productive endeavor. VISTAS states have leveraged internal resources throughout this process so that final regional haze plans will provide for significant visibility improvement by the end of this second planning period, 2028.

Below is a summary of the general process the NCDAQ followed to determine which sources in Georgia may be contributing to visibility impairment at North Carolina Class I areas in such a manner as to warrant a reasonable progress evaluation.

VISTAS initially used an Area of Influence (AoI) analysis to identify the areas and sources most likely contributing to poor visibility in Class I areas. The AoI analysis used the HYSPLIT

Trajectory Model to determine the origin of the air parcels affecting visibility within each Class I area. This information was spatially combined with emissions data to determine the pollutants, sectors, and individual sources that are likely to be contributing to the visibility impairment at each Class I area. VISTAS analyzed this information to determine that the pollutants and sector with the largest impact on visibility impairment were sulfur dioxide (SO_2) and nitrogen oxides (NOx) from stationary point sources.

Next, VISTAS states used the results of the AoI analysis to identify sources to "tag" for Particulate Matter Source Apportionment Technology (PSAT) modeling. PSAT modeling uses "reactive tracers" to apportion particulate matter among different sources, source categories, and regions. PSAT was implemented with the Comprehensive Air Quality Model with Extensions (CAMx) photochemical model to determine visibility impairment due to individual facilities. PSAT results showed that in 2028 the majority of anthropogenic visibility impairment at Class I areas continues to be from point source SO_2 and NOx emissions.

Using the PSAT data, VISTAS States identified for reasonable progress analysis the sources shown to have a sulfate or nitrate impact on one or more Class I areas that is greater than or equal to 1.00% of the total sulfate plus nitrate point source visibility impairment on the 20% percent most impaired days for that Class I area. While no facilities in Georgia have a nitrate impact greater than 1.00%, one facility in Georgia has a sulfate impact greater than 1.00% on at least one of North Carolina's Class I areas. The projected impact from this facility has been the topic of informal communications between our respective planning staffs. Table 1 lists the Georgia facility that has a sulfate impact greater than 1.00% and provides the 2028 annual SO_2 emissions used in the PSAT analysis for the facility.

Table 1: Georgia Facilities with Greater Than 1.00% Sulfate Impact on North Carolina Class I Areas

Facility Name	Facility ID	Annual SO_2 Emissions Projected for 2028 (Tons)	Class I Area	PSAT Contribution for Sulfate
Georgia Power Company – Plant Bowen	13015-2813011	10,453.41	Linville Gorge Wilderness Area	1.19%
			Shining Rock Wilderness Area	1.35%
			Swanquarter Wilderness Area	1.08%

The NCDAQ requests that you share with us your reasonable progress evaluation for this facility when it is completed. Such evaluation could include updated 2028 emissions estimates, imposition of federally-enforceable SO_2 limitations such that the facility impacts to the North Carolina Class I area is less than 1.00%, other analyses or application of guidance indicating that current controls are sufficient for reasonable progress in this round of planning, results of a four-factor analysis as described in 40 CFR 51.308(f)(2)(i), or other facility-specific information you

deem pertinent to the improvement of visibility impairment at the Linville Gorge, Shining Rock, and Swanquarter Wilderness Areas. Please provide this information by March 15, 2021, so that it may be included in North Carolina's consultation draft of the regional haze SIP for the second planning period.

Please submit the requested reasonable progress analysis to the NCDAQ Planning Section Chief, Randy Strait (randy.strait@ncdenr.gov). Should you have any questions regarding this request, please feel free to contact me at (919) 707-8447 or Randy Strait at (919) 707-8721. I look forward to continuing this collaboration both directly and through VISTAS.

Sincerely,

Michael A. Abraczinskas, Director
Division of Air Quality, NCDEQ

MAA/rps

cc: Tammy Manning, NCDAQ
Randy Strait, NCDAQ

Appendix F-1b

NC DEQ Letter to KY DAQ dated February 1, 2021

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

February 1, 2021

Melissa Duff
Director, Kentucky Division for Air Quality
300 Sower Boulevard
2nd Floor
Frankford, KY 40601

SUBJECT: Reasonable Progress Analyses for the Regional Haze Second Planning Period (2028)

Dear Ms. Duff:

The purpose of this letter is to request that you share your state's reasonable progress evaluation for a source within Kentucky that contributes to visibility impairment in the Great Smoky Mountains National Park and the Joyce Kilmer-Slickrock Wilderness Area (Class I federal areas) located within North Carolina.[1] North Carolina has a strong interest in improving air quality and visibility at these Class I areas and across the State.

As you know, consultation between states is a requirement of the Regional Haze Rule (RHR) located at 40 CFR Part 51, Subpart P – Protection of Visibility under 40 CFR 51.308(f)(2)(ii):

> The State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

As a member of Visibility Improvement – State and Tribal Association of the Southeast (VISTAS), the regional planning organization for the southeastern United States, my staff within the North Carolina Division of Air Quality (NCDAQ) have been working closely with your staff and expect to continue to do so. This collaborative approach to regional haze state implementation plan (SIP) development has been a highly productive endeavor. VISTAS states have leveraged internal resources throughout this process so that final regional haze plans will provide for significant visibility improvement by the end of this second planning period, 2028.

Below is a summary of the general process the NCDAQ followed to determine which sources in Kentucky may be contributing to visibility impairment at North Carolina Class I areas in such a manner as to warrant a reasonable progress evaluation.

[1] Great Smoky Mountain National Park and the Joyce Kilmer-Slickrock Wilderness Area are both located in both Tennessee and North Carolina.

North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

VISTAS initially used an Area of Influence (AoI) analysis to identify the areas and sources most likely contributing to poor visibility in Class I areas. The AoI analysis used the HYSPLIT Trajectory Model to determine the origin of the air parcels affecting visibility within each Class I area. This information was spatially combined with emissions data to determine the pollutants, sectors, and individual sources that are likely to be contributing to the visibility impairment at each Class I area. VISTAS analyzed this information to determine that the pollutants and sector with the largest impact on visibility impairment were sulfur dioxide (SO_2) and nitrogen oxides (NOx) from stationary point sources.

Next, VISTAS states used the results of the AoI analysis to identify sources to "tag" for Particulate Matter Source Apportionment Technology (PSAT) modeling. PSAT modeling uses "reactive tracers" to apportion particulate matter among different sources, source categories, and regions. PSAT was implemented with the Comprehensive Air Quality Model with Extensions (CAMx) photochemical model to determine visibility impairment due to individual facilities. PSAT results showed that in 2028 the majority of anthropogenic visibility impairment at Class I areas continues to be from point source SO_2 and NOx emissions.

Using the PSAT data, VISTAS States identified for reasonable progress analysis the sources shown to have a sulfate or nitrate impact on one or more Class I areas that is greater than or equal to 1.00% of the total sulfate plus nitrate point source visibility impairment on the 20% most impaired days for that Class I area. While no facilities in Kentucky have a nitrate impact greater than 1.00%, one facility in Kentucky has a sulfate impact greater than 1.00% on at least one of North Carolina's Class I areas. The projected impact from this facility has been the topic of informal communications between our respective planning staffs. Table 1 lists the Kentucky facility that has a sulfate impact greater than 1.00% and provides the 2028 annual SO_2 emissions used in the PSAT analysis for the facility.

Table 1: Kentucky Facility with Greater Than 1.00% Sulfate Impact on North Carolina Class I Areas

Facility Name	Facility ID	Annual SO_2 Emissions Projected for 2028 (Tons)	Class I Area	PSAT Contribution for Sulfate*
Tennessee Valley Authority - Shawnee Fossil Plant	21145-6037011	19,505	Great Smoky Mountains National Park	1.32%
			Joyce Kilmer-Slickrock Wilderness Area*	1.38%

* Located in both Tennessee and North Carolina.
** Based on initial PSAT modeling completed by VISTAS.

The NCDAQ requests that you share with us your reasonable progress evaluation for this facility when it is completed. Such evaluation could include updated 2028 emissions estimates, imposition of federally-enforceable SO_2 limitations such that the facility impacts to the North Carolina Class I area is less than 1.00%, other analyses or application of guidance indicating that

current controls are sufficient for reasonable progress in this round of planning, results of a four-factor analysis as described in 40 CFR 51.308(f)(2)(i), or other facility-specific information you deem pertinent to the improvement of visibility impairment at the Great Smoky Mountains National Park and Joyce Kilmer-Slickrock Wilderness Area. Please provide this information by March 15, 2021, so that it may be included in North Carolina's consultation draft of the regional haze SIP for the second planning period.

Please submit the requested reasonable progress analysis to the NCDAQ Planning Section Chief, Randy Strait (randy.strait@ncdenr.gov). Should you have any questions regarding this request, please feel free to contact me at (919) 707-8447 or Randy Strait at (919) 707-8721. I look forward to continuing this collaboration both directly and through VISTAS.

Sincerely,

Michael A. Abraczinskas, Director
Division of Air Quality, NCDEQ

MAA/rps

cc: Leslie Poff, KY Division of Air Quality
Michelle W. Owenby, Director, TN Division of Air Quality
Jimmy Johnston, Deputy Director, TN Division of Air Quality
Tammy Manning, NCDAQ
Randy Strait, NCDAQ

Appendix F-1c

NC DEQ Letter to DAPC dated February 1, 2021

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

February 1, 2021

Michelle W. Owenby
Director, Division of Air Pollution Control
William R. Snodgrass Tennessee Tower, 15th Floor
312 Rosa L. Parks Avenue
Nashville, TN 37243

SUBJECT: Reasonable Progress Analyses for the Regional Haze Second Planning Period (2028)

Dear Ms. Owenby:

The purpose of this letter is to request that you share your state's reasonable progress evaluation for two sources within Tennessee that contribute to visibility impairment in Class I federal areas located within North Carolina. The sources include (1) the TVA Cumberland Fossil Plant that impacts visibility in the Linville Gorge Wilderness Area and Shining Rock Wilderness Area in North Carolina, and (2) Eastman Chemical Company that impacts visibility in the Shining Rock Wilderness Area, Great Smoky Mountains National Park, and Joyce Kilmer-Slickrock Wilderness Area. North Carolina has a strong interest in improving air quality and visibility at these Class I areas and across the State.

As you know, consultation between states is a requirement of the Regional Haze Rule (RHR) located at 40 CFR Part 51, Subpart P – Protection of Visibility under 40 CFR 51.308(f)(2)(ii):

> The State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

As a member of Visibility Improvement – State and Tribal Association of the Southeast (VISTAS), the regional planning organization for the southeastern United States, my staff within the North Carolina Division of Air Quality (NCDAQ) have been working closely with your staff and expect to continue to do so. This collaborative approach to regional haze state implementation plan (SIP) development has been a highly productive endeavor. VISTAS states have leveraged internal resources throughout this process so that final regional haze plans will provide for significant visibility improvement by the end of this second planning period, 2028.

Below is a summary of the general process VISTAS followed to determine which sources in Tennessee may be contributing to visibility impairment at North Carolina Class I areas in such a manner as to warrant a reasonable progress evaluation.

North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

VISTAS initially used an Area of Influence (AoI) analysis to identify the areas and sources most likely contributing to poor visibility in Class I areas. The AoI analysis used the HYSPLIT Trajectory Model to determine the origin of the air parcels affecting visibility within each Class I area. This information was spatially combined with emissions data to determine the pollutants, sectors, and individual sources that are likely to be contributing to the visibility impairment at each Class I area. VISTAS analyzed this information to determine that the pollutants and sector with the largest impact on visibility impairment were sulfur dioxide (SO_2) and nitrogen oxides (NOx) from stationary point sources.

Next, VISTAS states used the results of the AoI analysis to identify sources to "tag" for Particulate Matter Source Apportionment Technology (PSAT) modeling. PSAT modeling uses "reactive tracers" to apportion particulate matter among different sources, source categories, and regions. PSAT was implemented with the Comprehensive Air Quality Model with Extensions (CAMx) photochemical model to determine visibility impairment due to individual facilities. PSAT results showed that in 2028 the majority of anthropogenic visibility impairment at Class I areas continues to be from point source SO_2 and NOx emissions.

Using the PSAT data, VISTAS States identified for reasonable progress analysis the sources shown to have a sulfate or nitrate impact on one or more Class I areas that is greater than or equal to 1.00% of the total sulfate plus nitrate point source visibility impairment on the 20% most impaired days for that Class I area. While no facilities in Tennessee have a nitrate impact greater than 1.00%, two facilities in Tennessee have a sulfate impact greater than 1.00% on four Class I areas in North Carolina. The projected impact from each of these facilities has been the topic of informal communications between our respective planning staffs. Table 1 lists the Tennessee facilities that have a sulfate impact greater than 1.00% and provides the 2028 annual SO_2 emissions used in the PSAT analysis for the facility.

Table 1: Tennessee Facilities with Greater Than 1.00% Sulfate Impact on North Carolina Class I Areas

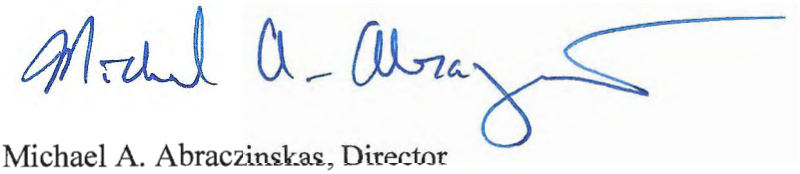
Facility Name	Facility ID	Annual SO_2 Emissions Projected for 2028 (Tons)	Class I Area	PSAT Contribution for Sulfate
TVA Cumberland Fossil Plant	47161-4979311	8,427.33	Linville Gorge Wilderness Area	1.25
			Shining Rock Wilderness Area	1.38
Eastman Chemical Company	47163-3982311	6,420.16	Shining Rock Wilderness Area	1.09
			Great Smoky Mountains National Park*	1.28
			Joyce Kilmer-Slickrock Wilderness Area*	1.37

* Located in both Tennessee and North Carolina.

The NCDAQ requests that you share with us your reasonable progress evaluation for each facility when it is completed. Such evaluation could include updated 2028 emissions estimates, imposition of federally-enforceable SO_2 limitations such that the facility impacts to the North Carolina Class I area is less than 1.00%, other analyses or application of guidance indicating that current controls are sufficient for reasonable progress in this round of planning, results of a four-factor analysis as described in 40 CFR 51.308(f)(2)(i), or other facility-specific information you deem pertinent to the improvement of visibility impairment at the Linville Gorge Wilderness Area, Shining Rock Wilderness Area, Great Smoky Mountains National Park, and Joyce Kilmer-Slickrock Wilderness Area. Please provide this information by March 15, 2021, so that it may be included in North Carolina's consultation draft of the regional haze SIP for the second planning period.

Please submit the requested reasonable progress analysis to the NCDAQ Planning Section Chief, Randy Strait (randy.strait@ncdenr.gov). Should you have any questions regarding this request, please feel free to contact me at (919) 707-8447 or Randy Strait at (919) 707-8721. I look forward to continuing this collaboration both directly and through VISTAS.

Sincerely,



Michael A. Abraczinskas, Director
Division of Air Quality, NCDEQ

MAA/rps

cc: Jimmy Johnston, Deputy Director, TN Division of Air Quality
Tammy Manning, NCDAQ
Randy Strait, NCDAQ

Appendix F-1d

NC DEQ Letter to VA DEQ dated November 6, 2020

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

November 6, 2020

Michael G. Dowd
Air and Renewable Energy Division Director
Virginia Department of Environmental Quality
P.O. Box 1105
1111 East Main St., Suite 1400
Richmond, VA 23218

SUBJECT: Reasonable Progress Analyses for the Regional Haze Second Planning Period (2028)

Dear Mr. Dowd:

The purpose of this letter is to request that you share your state's reasonable progress evaluation for a source within Virginia that contributes to visibility impairment in the Linville Gorge Wilderness Class I federal area (Class I area) located within North Carolina. North Carolina has a strong interest in improving air quality and visibility at this Class I area and across the State.

As you know, consultation between states is a requirement of the Regional Haze Rule (RHR) located at 40 CFR Part 51, Subpart P – Protection of Visibility under 40 CFR 51.308(f)(2)(ii):

> The State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

As a member of Visibility Improvement – State and Tribal Association of the Southeast (VISTAS), the regional planning organization for the southeastern United States, my staff within the North Carolina Division of Air Quality (NCDAQ) have been working closely with your staff and expect to continue to do so. This collaborative approach to regional haze state implementation plan (SIP) development has been a highly productive endeavor. VISTAS states have leveraged internal resources throughout this process so that final regional haze plans will provide for significant visibility improvement by the end of this second planning period, 2028.

Below is a summary of the general process the NCDAQ followed to determine which sources in Virginia may be contributing to visibility impairment at North Carolina Class I areas in such a manner as to warrant a reasonable progress evaluation.

VISTAS initially used an Area of Influence (AoI) analysis to identify the areas and sources most likely contributing to poor visibility in Class I areas. The AoI analysis used the HYSPLIT

Trajectory Model to determine the origin of the air parcels affecting visibility within each Class I area. This information was spatially combined with emissions data to determine the pollutants, sectors, and individual sources that are likely to be contributing to the visibility impairment at each Class I area. VISTAS analyzed this information to determine that the pollutants and sector with the largest impact on visibility impairment were sulfur dioxide (SO_2) and nitrogen oxides (NOx) from stationary point sources.

Next, VISTAS states used the results of the AoI analysis to identify sources to "tag" for Particulate Matter Source Apportionment Technology (PSAT) modeling. PSAT modeling uses "reactive tracers" to apportion particulate matter among different sources, source categories, and regions. PSAT was implemented with the Comprehensive Air Quality Model with Extensions (CAMx) photochemical model to determine visibility impairment due to individual facilities. PSAT results showed that in 2028 the majority of anthropogenic visibility impairment at Class I areas continues to be from point source SO_2 and NOx emissions.

Using the PSAT data, VISTAS States identified for reasonable progress analysis the sources shown to have a sulfate or nitrate impact on one or more Class I areas that is greater than or equal to 1.00% of the total sulfate plus nitrate point source visibility impairment on the 20% percent most impaired days for that Class I area. While no facilities in Virginia have a nitrate impact greater than 1.00%, one facility in Virginia has a sulfate impact greater than 1.00% on at least one of North Carolina's Class I areas. The projected impact from this facility has been the topic of informal communications between our respective planning staffs. Table 1 lists the Virginia facility that has a sulfate impact greater than 1.00% and provides the 2028 annual SO_2 emissions used in the PSAT analysis for the facility.

Table 1: Virginia Facilities with Greater Than 1.00% Sulfate Impact on North Carolina Class I Areas

Facility Name	Facility ID	Contribution to Visibility Impairment, Linville Gorge Wilderness Area	Annual SO_2 Emissions Projected for 2028 (Tons)
Jewell Coke Company LLP	51027-4034811	1.08%	5,090.95

The NCDAQ requests that you share with us your reasonable progress evaluation for this facility when it is completed. Such evaluation could include updated 2028 emissions estimates, imposition of federally-enforceable SO_2 limitations such that the facility impacts to the North Carolina Class I area is less than 1.00%, other analyses or application of guidance indicating that current controls are sufficient for reasonable progress in this round of planning, results of a four-factor analysis as described in 40 CFR 51.308(f)(2)(i), or other facility-specific information you deem pertinent to the improvement of visibility impairment at the Linville Gorge Wilderness Area. Please provide this information by December 15, 2020, so that it may be included in North Carolina's consultation draft of the regional haze SIP for the second planning period.
Please submit the requested reasonable progress analysis to the NCDAQ Planning Section Chief, Randy Strait (randy.strait@ncdenr.gov). Should you have any questions regarding this request,

please feel free to contact me at (919) 707-8447 or Randy Strait at (919) 707-8721. I look forward to continuing this collaboration both directly and through VISTAS.

Sincerely,

Michael A. Abraczinskas, Director
Division of Air Quality, NCDEQ

MAA/rps

cc: Tammy Manning, NCDAQ
Randy Strait, NCDAQ

Appendix F-1e

NC DEQ Letter to WV DAQ dated January 25, 2021

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

January 25, 2021

Laura M. Crowder
Director, Division of Air Quality
West Virginia Department of Environmental Protection
601 57th Street, SE
Charleston, WV 25304

SUBJECT: Reasonable Progress Analyses for the Regional Haze Second Planning Period (2028)

Dear Ms. Crowder:

The purpose of this letter is to request that you share your state's reasonable progress evaluation for two facilities within West Virginia that contribute to visibility impairment in the Swanquarter Wilderness Area (Class I federal area) located within North Carolina. North Carolina has a strong interest in improving air quality and visibility at this Class I area and across the State.

As you know, consultation between states is a requirement of the Regional Haze Rule (RHR) located at 40 CFR Part 51, Subpart P – Protection of Visibility under 40 CFR 51.308(f)(2)(ii):

> The State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

As a member of Visibility Improvement – State and Tribal Association of the Southeast (VISTAS), the regional planning organization for the southeastern United States, my staff within the North Carolina Division of Air Quality (NCDAQ) have been working closely with your staff and expect to continue to do so. This collaborative approach to regional haze state implementation plan (SIP) development has been a highly productive endeavor. VISTAS states have leveraged internal resources throughout this process so that final regional haze plans will provide for significant visibility improvement by the end of this second planning period, 2028.

Below is a summary of the general process the NCDAQ followed to determine which sources in West Virginia may be contributing to visibility impairment at North Carolina Class I areas in such a manner as to warrant a reasonable progress evaluation.

VISTAS initially used an Area of Influence (AoI) analysis to identify the areas and sources most likely contributing to poor visibility in Class I areas. The AoI analysis used the HYSPLIT Trajectory Model to determine the origin of the air parcels affecting visibility within each Class I

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919.707.8400

area. This information was spatially combined with emissions data to determine the pollutants, sectors, and individual sources that are likely to be contributing to the visibility impairment at each Class I area. VISTAS analyzed this information to determine that the pollutants and sector with the largest impact on visibility impairment were sulfur dioxide (SO_2) and nitrogen oxides (NOx) from stationary point sources.

Next, VISTAS states used the results of the AoI analysis to identify sources to "tag" for Particulate Matter Source Apportionment Technology (PSAT) modeling. PSAT modeling uses "reactive tracers" to apportion particulate matter among different sources, source categories, and regions. PSAT was implemented with the Comprehensive Air Quality Model with Extensions (CAMx) photochemical model to determine visibility impairment due to individual facilities. PSAT results showed that in 2028 the majority of anthropogenic visibility impairment at Class I areas continues to be from point source SO_2 and NOx emissions.

Using the PSAT data, VISTAS States identified for reasonable progress analysis the sources shown to have a sulfate or nitrate impact on one or more Class I areas that is greater than or equal to 1.00% of the total sulfate plus nitrate point source visibility impairment on the 20% percent most impaired days for that Class I area. While no facilities in West Virginia have a nitrate impact greater than 1.00%, two facilities in West Virginia have a sulfate impact greater than 1.00% on at least one of North Carolina's Class I areas. The projected impact from these facilities has been the topic of informal communications between our respective planning staffs. Table 1 lists the West Virginia facilities that have a sulfate impact greater than 1.00% and provides the 2028 annual SO_2 emissions used in the PSAT analysis for each facility.

Table 1: West Virginia Facilities with Greater Than 1.00% Sulfate Impact on North Carolina Class I Areas

Facility Name	Facility ID	Annual SO_2 Emissions Projected for 2028 (Tons)	Class I Area	PSAT Contribution for Sulfate
Allegheny Energy Supply Co, LLC-Harrison*	54033-6271711	10,356.24	Swanquarter Wilderness Area	1.806%
Monongahela Power Co-Pleasants Power Station**	54073-4782811	11,501.78	Swanquarter Wilderness Area	1.236%

* Now owned by FirstEnergy.
** Now owned Energy Harbor.

The NCDAQ requests that you share with us your reasonable progress evaluation for these facilities when it is completed. Such evaluation could include updated 2028 emissions estimates, imposition of federally-enforceable SO_2 limitations such that the facility impacts to the North

Carolina Class I area is less than 1.00%, other analyses or application of guidance indicating that current controls are sufficient for reasonable progress in this round of planning, results of a four-factor analysis as described in 40 CFR 51.308(f)(2)(i), or other facility-specific information you deem pertinent to the improvement of visibility impairment at the Swanquarter Wilderness Area. Please provide this information by March 15, 2021, so that it may be included in North Carolina's consultation draft of the regional haze SIP for the second planning period.

Please submit the requested reasonable progress analysis to the NCDAQ Planning Section Chief, Randy Strait (randy.strait@ncdenr.gov). Should you have any questions regarding this request, please feel free to contact me at (919) 707-8447 or Randy Strait at (919) 707-8721. I look forward to continuing this collaboration both directly and through VISTAS.

Sincerely,

Michael A. Abraczinskas, Director
Division of Air Quality, NCDEQ

MAA/rps

cc: Tammy Manning, NCDAQ
Randy Strait, NCDAQ