APPENDIX F-1

Florida Department of Environmental Protection
Division of Air Resource Management

Regional Haze SIP – Florida State-to-State Consultation

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FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Noah Valenstein
Secretary

December 18, 2020

Karen Hays
Branch Chief, Air Protection Branch
Georgia Department of Natural Resources
4244 International Parkway, Suite 120
Atlanta, GA 30354

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

Dear Ms. Hays:

Under the U.S. Environmental Protection Agency's Regional Haze Rule, each state must submit a State Implementation Plan (SIP) that provides for reasonable progress towards achieving natural visibility conditions in Class I areas, including Class I areas in other states.

Florida has within its borders three Class I areas subject to the reasonable progress requirement. These Class I areas are Chassahowitzka Wilderness Area, St. Marks Wilderness Area, and Everglades National Park.

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 Federal area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

To determine which sources in Georgia may be contributing to visibility impairment at Florida Class I areas, the Florida Department of Environmental Protection (Department) is following the process developed in collaboration with the Visibility Improvement State and Tribal Association of the Southeast (VISTAS) states, described below.

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 (NO_X) from 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 emissions.

Using the PSAT data, VISTAS states selected for reasonable progress analysis the sources shown to have a sulfate impact or nitrate impact in one or more Class I areas that is greater than or equal to 1.00 percent of the total sulfate plus nitrate point source visibility impairment on the 20 percent most impaired days for that Class I area. The following Georgia facility meets the selection criteria for Florida Class I areas:

Facility Name	**Facility ID**	**Contribution to Visibility Impairment, Chassahowitzka**	**Contribution to Visibility Impairment, St. Marks**	**2028 Projected SO_2 Emissions**
Georgia Power Company – Plant Bowen	13015-2813011	2.36%	5.04%	10,453.4

The Department asks that Georgia include this source in the response to the reasonable progress requirement and share the results of the analysis with Florida.

The following Florida sources meet the selection criteria for Georgia Class I areas:

Facility Name	**Facility ID**	**Contribution to Visibility Impairment, Okefenokee**	**Contribution to Visibility Impairment, Wolf Island**	**2028 Projected SO_2 Emissions**
Nutrien – White Springs	12047-769711	2.87%	<1.00%	1,557.0
Georgia-Pacific – Foley Cellulose Perry Mill	12123-752411	2.23%	<1.00%	1,520.4
WestRock – Fernandina Beach Paper Mill	12089-753711	1.36%	2.43%	2,606.7
Jacksonville Electric Authority – Northside Generating Station	12031-640211	<1.00%	1.34%	2,150.5

Facility Name	Facility ID	Contribution to Visibility Impairment, Okefenokee	Contribution to Visibility Impairment, Wolf Island	2028 Projected SO_2 Emissions
Seminole Electric Cooperative, Inc. Generating Station	12107-2474411	3.25% (AOI)	1.77% (AOI)	3,713.4

The Department will include these sources in the response to the reasonable progress requirement and share the results of the analyses with Georgia.

For the purpose of consultation requirements of the Regional Haze Rule, the Department requests that Georgia provide a written response. If you have any questions, please call or email Hastings Read at 850-717-9017 (Hastings.Read@floridadep.gov) or Ashley Kung at 850-717-9041 (Ashley.Kung@floridadep.gov).

Sincerely,

Jeff Koerner, Director
Division of Air Resource Management

FLORIDA DEPARTMENT OF Environmental Protection

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Ron DeSantis
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December 18, 2020

Melissa Duff
Director, Division for Air Quality
Kentucky Department for Environmental Protection
300 Sower Boulevard, 2nd Floor
Frankfort, KY 40601

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

Dear Ms. Duff:

Under the U.S. Environmental Protection Agency's Regional Haze Rule, each state must submit a State Implementation Plan (SIP) that provides for reasonable progress towards achieving natural visibility conditions in Class I areas, including Class I areas in other states.

Florida has within its borders three Class I areas subject to the reasonable progress requirement. These Class I areas are Chassahowitzka Wilderness Area, St. Marks Wilderness Area, and Everglades National Park.

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 Federal area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

To determine which sources in Kentucky may be contributing to visibility impairment at Florida Class I areas, the Florida Department of Environmental Protection (Department) is following the process developed in collaboration with the Visibility Improvement State and Tribal Association of the Southeast (VISTAS) states, described below.

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 (NO_X) from 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 emissions.

Using the PSAT data, VISTAS states selected for reasonable progress analysis the sources shown to have a sulfate impact or nitrate impact in one or more Class I areas that is greater than or equal to 1.00 percent of the total sulfate plus nitrate point source visibility impairment on the 20 percent most impaired days for that Class I area. The following Kentucky facility meets the selection criteria for Florida Class I areas:

Facility Name	**Facility ID**	**Contribution to Visibility Impairment, Chassahowitzka**	**2028 Projected SO_2 Emissions**
Tennessee Valley Authority – Shawnee Fossil Plant	21145-6037011	1.05%	19,504.8

The Department asks that Kentucky include this source in the response to the reasonable progress requirement and share the results of the analysis with Florida. There were no Florida sources selected for the Mammoth Cave National Park in Kentucky.

For the purpose of consultation requirements of the Regional Haze Rule, the Department requests that Kentucky provide a written response. If you have any questions, please call or email Hastings Read at 850-717-9017 (Hastings.Read@floridadep.gov) or Ashley Kung at 850-717-9041 (Ashley.Kung@floridadep.gov).

Sincerely,

Jeff Koerner, Director
Division of Air Resource Management

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December 7, 2020

Mr. Hastings Read
Florida Department of Environmental Protection
Division of Air Resource Management
2600 Blair Stone Rd MS 5500
Tallahassee FL 32399-2400

Dear Mr. Read:

Pursuant to our recent telephone conversations concerning the Sanders Lead facility in Troy, Alabama, please find the following updated information concerning controls at the facility and the revised impacts at the St. Marks Class 1 Area for the 2021 Regional Haze SIP update.

As we have discussed, the VISTAS modeling for the 2028 Regional Haze review includes Sanders Lead in Troy, Alabama, which projects an impact of 1.15% for the St Marks Class 1 area from this source on the 20% most impaired days in 2028. This impact was based on the average actual SO_2 emissions prior to 2018 of 7951 TPY.

However, since these projected emissions were included in the data for the VISTAS assessment, Sanders has been required to install an SO_2 scrubber at the facility. This scrubber became operational in late 2019. The use of the scrubber changes emissions and impacts significantly:

1. The allowed emissions are now 315 lb/hour, or 1380 TPY.
2. This 1380 TPY of allowed emissions rates is 82% less than what was put into the RH model. Therefore, the relevant impact level would drop from 1.15% to 0.2%.
3. The allowed emission rate of 315 lb/hour is based on a 3-hour rolling average, with the emissions being measured by a continuous SO2 monitor. This enables long-term emission levels to be totalized.
4. Actual emissions in the 12-month period from November, 2019, to October, 2020, were 605 tons.

As you can see, given the marginal impacts predicted and the significant reductions which have already been required at this facility, an analysis of the current emissions would result in insignificant impacts at the St. Marks area. Thus, a four-factor analysis of this facility is not needed.

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Thank you for considering this information early in the consultation process.

If you have any further questions regarding this issue, please call me at 334-271-7868.

Sincerely,

Ronald W. Gore, Chief
Air Division
ADEM

RWG:lwb

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Richard E. Dunn, Director

Air Protection Branch
4244 International Parkway
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Atlanta, Georgia 30354
404-363-7000

November 24, 2020

Via email to: jeff.koerner@floridadep.gov

Mr. Jeff Koerner
Director, Division of Air Resource Management
Florida Department of Environmental Protection
2600 Blair Stone Rd MS 5500, Tallahassee FL 32399-2400

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

Dear Mr. Koerner,

The purpose of this letter is to request that you share your state's reasonable progress evaluations for sources within Florida that significantly contribute to visibility impairment in Class I federal areas (Class I areas) located within the State of Georgia. These Class I areas are the Cohutta Wilderness Area, Okefenokee Wilderness Area, and Wolf Island Wilderness. Georgia 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 Federal area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

As part of the Visibility Improvement – State and Tribal Association of the Southeast (VISTAS), the regional planning organization for the southeastern United States,[1] my staff within the Georgia Environmental Protection Division (EPD) 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 EPD followed to determine which sources in Florida may be contributing to visibility impairment at Georgia 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

[1] https://www.metro4-sesarm.org/content/vistas-regional-haze-program

Trajectory Model[2] 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 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 NO_x 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 Florida have a nitrate impact greater than 1.00%, five facilities in Florida have a sulfate impact greater than 1.00% on at least one of Georgia's Class I areas. The projected impacts from these facilities have been the topic of informal communications between our respective planning staffs. Table 1 lists the Florida facilities that have a sulfate impact greater than 1.00% and provides SO_2 emission rates used in the PSAT analysis for each facility.

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

Facility Name	Facility ID	Contribution to Visibility Impairment, Cohutta	Contribution to Visibility Impairment, Okefenokee	Contribution to Visibility Impairment, Wolf Island	2028 Projected SO_2 Emissions (tpy)
WHITE SPRINGS AGRICULTURAL CHEMICALS,INC	12047-769711	< 1.00%	**2.77%**	< 1.00%	1,557.04
BUCKEYE FLORIDA, LIMITED PARTNERSHIP	12123-752411	< 1.00%	**2.16%**	< 1.00%	1,520.42
ROCK TENN CP, LLC	12089-753711	< 1.00%	**1.31%**	**2.35%**	2,606.72
JACKSONVILLE ELECTRIC AUTHORITY (JEA)	12031-640211	< 1.00%	< 1.00%	**1.29%**	2,150.50
SEMINOLE ELECTRIC COOPERATIVE, INC.*	12107-2474411	< 1.00%	**3.25%**	**1.77%**	3,713.40

**This facility was not assigned a PSAT tag. Therefore, the contribution to visibility impairment was determined directly from the AoI results.*

[2] https://www.ready.noaa.gov/HYSPLIT.php

EPD requests that you share with us your reasonable progress evaluations for these facilities when they are completed. Such evaluations could include updated 2028 emissions estimates, imposition of federally-enforceable SO_2 limitations such that the facility impacts to Georgia Class I areas are 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 four-factor analyses 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 Cohutta Wilderness Area, Okefenokee Wilderness Area, and Wolf Island Wilderness. Please provide this information by December 31, 2020, so that it may be included in Georgia's consultation draft of the regional haze SIP for the second planning period.

Should your staff have any questions on this request or on Georgia's regional haze state implementation plan development, please contact Dr. James Boylan at (404) 363-7014 or James.Boylan@dnr.ga.gov. I look forward to continuing this collaboration both directly and through VISTAS.

Sincerely,

Karen Hays

Karen Hays, P.E
Chief
Air Protection Branch

cc: Hastings Reed, Florida DEP (Hastings.Read@FloridaDEP.gov)
James Boylan, Georgia EPD (james.boylan@dnr.ga.gov)
Dika Kuoh, Georgia EPD (dika.kuoh@dnr.ga.gov)