



November 5, 2020

Ms. Karen Hayes

Georgia Department of Natural Resources  
Environmental Protection Division – Air Protection Branch  
4244 International Parkway, Suite 120  
Atlanta, GA 30354

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

Dear Ms. Hayes,

The purpose of this letter is to request that you share your state's reasonable progress evaluations for sources within Georgia that contribute to visibility impairment in Class I federal areas (Class I areas) located within South Carolina. This Class I area is the Cape Romain Wildlife Refuge. South 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 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,<sup>1</sup> my staff within the South Carolina Department of Health and Environmental Control (Department) 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 Department followed to determine which sources in Georgia may be contributing to visibility impairment at South Carolina Class I areas in such a manner as to warrant a reasonable progress evaluation.

VISTAS initially used an Area of Influence (Aol) analysis to identify the areas and sources most likely contributing to poor visibility in Class I areas. The Aol analysis used the [HYSPLIT Trajectory Model](#) to determine the origin of the air parcels affecting visibility within each Class I area.<sup>2</sup> 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 and nitrogen oxides from point sources.

Next, VISTAS states used the results of the Aol 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

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<sup>1</sup> <https://www.metro4-sesarm.org/content/vistas-regional-haze-program>

<sup>2</sup> <https://www.ready.noaa.gov/HYSPLIT.php>

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<sub>2</sub> and NO<sub>x</sub> 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%, two facilities in Georgia have a sulfate impact greater than 1.00% on South Carolina's Class I area. The projected impact from these facilities have been the topic of informal communications between our respective planning staffs. Table 1 lists the Georgia facilities that have a sulfate impact greater than 1.00% and provides SO<sub>2</sub> emission rates used in the PSAT analysis for the facilities.

**Table 1: Georgia Facilities with Greater Than 1.00% Sulfate Impact on South Carolina Class I Area**

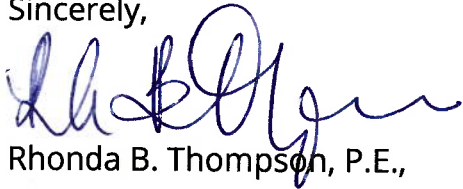
<b>Facility Name</b>	<b>Facility ID</b>	<b>Contribution to Visibility Impairment, Cape Romain Wildlife Refuge</b>	<b>2028 Projected SO<sub>2</sub> Emissions</b>
GA Power Company – Plant Bowen	13015-2813011	3.53%	10,453 tpy
International Paper – Savannah	13051-3679811	1.28%	3,945 tpy

The Department 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<sub>2</sub> limitations such that the facility impacts to South Carolina 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 Cape Romain Wildlife Refuge. Please provide this information by December 18, 2020, so that it may be included in South Carolina's consultation draft of the regional haze SIP for the second planning period.

Should your staff have any questions on this request or on South Carolina's regional haze state implementation plan development, please contact Mary Peyton Wall at [wallmp@dhec.sc.gov](mailto:wallmp@dhec.sc.gov) or 803-898-4064. I look forward to continuing this collaboration both directly and through VISTAS.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Rhonda B. Thompson', is written over the typed name.

Rhonda B. Thompson, P.E.,  
Chief, Bureau of Air Quality

cc: James Boylan, PhD, Georgia EPD

Heinz Kaiser, Director, Division of Emissions Evaluation and Support, BAQ

Steve McCaslin, Director, Division of Air Permitting, BAQ

Mary Peyton Wall, Manager, Regulation and SIP Management Section, BAQ