

# **Appendix F-2b**

**VISTAS Consultation with IN Office of Air Quality**

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### Correspondence Record

<b>Date</b>	<b>From</b>	<b>To</b>	<b>Description</b>
June 22, 2020	VISTAS	IN Office of Air Quality	Request for Regional Haze Reasonable Progress Analysis for Indiana Sources Impacting VISTAS Class I Area
February 12, 2021	IN Office of Air Quality	VISTAS	Email correspondence between IN Office of Air Quality and VISTAS





## Visibility Improvement State and Tribal Association of the Southeast

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June 22, 2020

Keith Baugues, Assistant Commissioner  
Indiana Office of Air Quality  
100 North Senate Avenue, IGCN 1003  
Indianapolis, Indiana 46204

RE: Request for Regional Haze Reasonable  
Progress Analyses for Indiana Sources  
Impacting VISTAS Class I Areas

Dear Mr. Baugues:

The Regional Haze Regulation 40 CFR § 51.308(d) requires each state to “address regional haze in each mandatory Class I Federal area located within the State and in each mandatory Class I Federal area located outside the State which may be affected by emissions from within the State.” 40 CFR § 51.308(f) requires states to submit a regional haze implementation plan revision by July 31, 2021. As part of the plan revision, states must establish a reasonable progress goal that provides for reasonable progress towards achieving natural visibility conditions for each mandatory Class I Federal area (Class I area) within their state. 40 CFR § 51.308(d)(1) requires that reasonable progress goals “must provide for an improvement in visibility for the most impaired days over the period of the implementation plan and ensure no degradation in visibility for the least impaired days over the same period.”

In establishing reasonable progress goals, states must consider the four factors specified in § 169A of the Federal Clean Air Act and in 40 CFR § 51.308(f)(2)(i). The four factors are: 1) the cost of compliance, 2) the time necessary for compliance, 3) the energy and non-air quality environmental impacts of compliance, and 4) the remaining useful life of any potentially affected sources. Consideration of these four factors is frequently referenced as the “four-factor analysis.”

To assist its member states, the Visibility Improvement State and Tribal Association of the Southeast<sup>1</sup> (VISTAS) and its contractors conducted technical analyses to help states identify

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<sup>1</sup> The VISTAS states are Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.

sources that significantly impact visibility impairment for Class I areas within and outside of the VISTAS region. 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. This Aoi analysis involved running the HYSPLIT Trajectory Model to determine the origin of the air parcels affecting visibility within each Class I area. This information was then spatially combined with emissions data to determine the pollutants, sectors, and individual sources that are most likely contributing to the visibility impairment at each Class I area. This information indicated that the pollutants and sector with the largest impact on visibility impairment were sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) from point sources. Next, VISTAS states used the results of the Aoi analysis to identify sources to “tag” for PM (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 photochemical model (CAMx Model) to determine visibility impairment due to individual sources. PSAT results showed that in 2028 the majority of visibility impairment at VISTAS Class I areas will continue 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, sources shown to have a sulfate or nitrate impact on one or more Class I areas 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 each Class I area. This analysis has identified the following sources in Indiana that meet this criterion:

- Indianapolis Power & Light Petersburg (18125-7362411)
- Gibson (18051-7363111)
- Indiana Michigan Power DBA AEP Rockport (18147-8017211)

Information regarding projected 2028 SO<sub>2</sub> and NO<sub>x</sub> emissions and visibility impacts on VISTAS Class I areas is shown in the tables attached to this letter (Attachment 1).

As required in 40 CFR § 51.308(d)(1)(i)(A), VISTAS, on behalf of Alabama, Georgia, Kentucky, North Carolina, Tennessee, and West Virginia, requests that Indiana conduct, or require that the sources in question initiate, and share when completed, the results of a reasonable progress analysis for each noted source with VISTAS. This will be helpful to the VISTAS states as they begin the formal Federal Land Manager consultation process for their individual draft Regional Haze Plans in early 2021. So that the VISTAS states can include the results of your state's reasonable progress analyses in developing the long-term strategies for Class I areas in their states, we request that you submit this information to VISTAS no later than October 30, 2020. If any reasonable progress analyses cannot be completed by this date, please provide, no later than this date, notice of an attainable date for completion of the analysis. If you determine that a four-factor analysis is not warranted for one or more of the identified sources, please provide the rationale for this determination by the requested date.

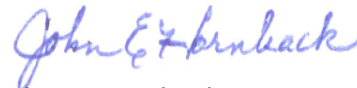
In developing projected 2028 emissions for these sources, VISTAS utilized ERTAC\_16.1 emissions projections with additional input from LADCO. Please review these projections to

verify that they are reasonable. Should you be aware of significantly different emission projections for 2028 for any of the sources or pollutants, please provide revised estimates within thirty (30) days of the date of this letter. The applicable VISTAS states will review any revised emission estimates, determine if reasonable progress analyses are not needed to meet their regional haze obligations, and notify you accordingly.

Updated 2028 emission projections, if necessary, the results of your state's reasonable progress analyses for the requested sources, and any necessary ongoing communications should be sent via email to [vistas@metro4-sesarm.org](mailto:vistas@metro4-sesarm.org).

Should you have any questions concerning this request, please contact me through September 30, 2020, at 404-361-4000 or [hornback@metro4-sesarm.org](mailto:hornback@metro4-sesarm.org).

Sincerely,



John E. Hornback  
Executive Director  
Metro 4/SESARM/VISTAS

Attachment

Copies: Ron Gore, Alabama Air Division  
Karen Hays, Georgia Air Protection Branch  
Melissa Duff, Kentucky Division for Air Quality  
Mike Abraczinskas, North Carolina Division of Air Quality  
Michelle Walker Owenby, Tennessee Division of Air Pollution Control  
Laura Crowder, West Virginia Division of Air Quality  
Zac Adelman, Lake Michigan Air Directors Consortium

**Attachment 1: Projected 2028 SO<sub>2</sub> and NO<sub>x</sub> Emissions and VISTAS Class I Area Impacts**

**Table 1.** Indianapolis Power & Light Petersburg (18125-7362411)

Modeled SO<sub>2</sub> = 9,422.1 tpy, Modeled NO<sub>x</sub> = 5,355.6 tpy

Impacted VISTAS Class I Areas	Sulfate PSAT (Mm <sup>-1</sup> )	Nitrate PSAT (Mm <sup>-1</sup> )	Total EGU & non-EGU Sulfate + Nitrate (Mm <sup>-1</sup> )	Sulfate PSAT % Impact	Nitrate PSAT % Impact
Sipsey Wilderness Area	0.258	0.026	16.370	1.57%	0.16%
Mammoth Cave National Park	0.264	0.068	25.289	1.04%	0.27%

**Table 2.** Gibson (18051-7363111)

Modeled SO<sub>2</sub> = 12,999.6 tpy, Modeled NO<sub>x</sub> = 8,620.0 tpy

Impacted VISTAS Class I Areas	Sulfate PSAT (Mm <sup>-1</sup> )	Nitrate PSAT (Mm <sup>-1</sup> )	Total EGU & non-EGU Sulfate + Nitrate (Mm <sup>-1</sup> )	Sulfate PSAT % Impact	Nitrate PSAT % Impact
Sipsey Wilderness Area	0.270	0.029	16.370	1.65%	0.18%
Mammoth Cave National Park	0.411	0.084	25.289	1.63%	0.33%
Shining Rock Wilderness Area	0.151	0.008	12.313	1.23%	0.07%
Linville Gorge Wilderness Area	0.138	0.008	12.884	1.07%	0.07%
Great Smoky Mountains NP	0.146	0.037	13.916	1.05%	0.27%
Cohutta Wilderness Area	0.137	0.002	13.229	1.03%	0.02%
Joyce Kilmer-Slickrock Wilderness	0.139	0.029	13.694	1.02%	0.21%
Otter Creek Wilderness	0.193	0.009	19.077	1.01%	0.05%

**Table 3.** Indiana Michigan Power DBA AEP Rockport (18147-8017211)

Modeled SO<sub>2</sub> = 10,779.0 tpy, Modeled NO<sub>x</sub> = 8,475.1 tpy

Impacted VISTAS Class I Areas	Sulfate PSAT (Mm <sup>-1</sup> )	Nitrate PSAT (Mm <sup>-1</sup> )	Total EGU & non-EGU Sulfate + Nitrate (Mm <sup>-1</sup> )	Sulfate PSAT % Impact	Nitrate PSAT % Impact
Sipsey Wilderness Area	0.327	0.050	16.370	1.99%	0.31%
Mammoth Cave National Park	0.426	0.085	25.289	1.68%	0.33%
Cohutta Wilderness Area	0.181	0.005	13.229	1.37%	0.04%
Shining Rock Wilderness Area	0.156	0.012	12.313	1.27%	0.09%
Great Smoky Mountains NP	0.166	0.035	13.916	1.19%	0.25%
Joyce Kilmer-Slickrock Wilderness	0.154	0.030	13.694	1.12%	0.22%
Linville Gorge Wilderness Area	0.142	0.012	12.884	1.10%	0.09%
Otter Creek Wilderness	0.191	0.007	19.077	1.00%	0.04%



**From:** [Chad LaFontaine](#)  
**To:** [McLeod, Doris \(DEO\)](#); [Strait, Randy P](#); [James Johnston](#); [Boylan, James](#)  
**Subject:** [External] FW: VISTAS Interstate Consultation Letters  
**Date:** Thursday, February 25, 2021 3:12:14 PM

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See the Indiana responses below.

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**From:** DELONEY, SCOTT <[SDELONEY@idem.IN.gov](mailto:SDELONEY@idem.IN.gov)>  
**Sent:** Friday, February 12, 2021 2:30 PM  
**To:** Chad LaFontaine <[clafontaine@metro4-sesarm.org](mailto:clafontaine@metro4-sesarm.org)>  
**Cc:** STUCKEY, MATT <[MSTUCKEY@idem.IN.gov](mailto:MSTUCKEY@idem.IN.gov)>  
**Subject:** Re: VISTAS Interstate Consultation Letters

Hi Chad. LADCO is had to rerun the model and we do not expect to have final results for a few more weeks. We have been working on a detailed response to your request, but having the final results in hand is important for us to properly characterize the impacts of the EGUs identified. We really appreciate your patience on this matter. Right now it looks like early March for a detailed response.

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**From:** Chad LaFontaine <[clafontaine@metro4-sesarm.org](mailto:clafontaine@metro4-sesarm.org)>  
**Sent:** Friday, February 12, 2021 3:23 PM  
**To:** DELONEY, SCOTT <[SDELONEY@idem.IN.gov](mailto:SDELONEY@idem.IN.gov)>  
**Cc:** STUCKEY, MATT <[MSTUCKEY@idem.IN.gov](mailto:MSTUCKEY@idem.IN.gov)>  
**Subject:** RE: VISTAS Interstate Consultation Letters

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I hope you all are well. I'm following up on the email below at the request of the VISTAS states. Some of the states have gotten far along in their SIP development and are being asked by EPA about their consultation information and whether they have followed up appropriately. Please provide any update on the information you indicated below. Let me know if you need additional information from me.

Thank you,

Chad LaFontaine, P.E.  
Executive Director  
Metro 4/SESARM  
1252 W Government St. Unit 1375  
Brandon, MS 39043  
(cel) 601-624-6015  
[clafontaine@metro4-sesarm.org](mailto:clafontaine@metro4-sesarm.org)

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**From:** DELONEY, SCOTT <[SDELONEY@idem.IN.gov](mailto:SDELONEY@idem.IN.gov)>

**Sent:** Thursday, October 22, 2020 12:45 PM

**To:** Chad LaFontaine <[clafontaine@metro4-sesarm.org](mailto:clafontaine@metro4-sesarm.org)>

**Cc:** Baugues, Keith <[KBaugues@idem.IN.gov](mailto:KBaugues@idem.IN.gov)>; STUCKEY, MATT <[MSTUCKEY@idem.IN.gov](mailto:MSTUCKEY@idem.IN.gov)>

**Subject:** Re: VISTAS Interstate Consultation Letters

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**Mr. LaFontaine, I am responding on behalf of Assistant Commissioner Keith Baugues and Deputy Assistant Commissioner Matt Stuckey to provide an update on where Indiana is with regard to your request. We are working closely with LADCO to identify and complete a detailed analysis of sources within the region that contribute to Class 1 areas throughout the country, including those within the VISTAS region. This work includes modeling, source and sector tagging, and 4-factor analyses for affected sources.**

**Unfortunately, we are not going to have our technical work complete within a timeframe that allows us to adequately respond to your request by 10/30/2020. However, we do expect to have everything complete and quality assured well ahead of the Regional Haze SIP deadline. We will be responding to your request via formal letter with technical support documentation in early 2021.**

**Please be advised that Keith is retiring, effective 10/30/2020. Matt will be the primary contact for Indiana in the interim. If you would like additional information or clarification concerning this matter, feel free to contact me or Matt. Thank you.**

### **COVID-19 Resources:**

- **Indiana State Dept. of Health (ISDH) COVID-19 Call Center:** Call 877-826-0011 (available 8:00 am- 5:00pm daily).
- **Anthem NurseLine:** Call 800-337-4770 or visit the [Anthem NurseLine](#) online for a FREE symptom screening. Available to anyone with an Anthem health plan (this includes State of IN employees)
- **Anthem Employee Assistance Program (EAP):** Available to full-time state employees and their household members regardless of health plan participation. Call 800-223-7723 or visit [anthemeap.com](http://anthemeap.com) (enter State of Indiana) for crisis counseling, help finding child/elder care, legal/financial consultation and much more.

Scott Deloney, Chief

Air Programs Branch  
IDEM-OAQ

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**From:** Chad LaFontaine <[clafontaine@metro4-sesarm.org](mailto:clafontaine@metro4-sesarm.org)>

**Sent:** Thursday, October 15, 2020 3:17 PM

**To:** [Montgomery@adeq.state.ar.us](mailto:Montgomery@adeq.state.ar.us) <[Montgomery@adeq.state.ar.us](mailto:Montgomery@adeq.state.ar.us)>; Bybee, Darcy <[darcy.bybee@dnr.mo.gov](mailto:darcy.bybee@dnr.mo.gov)>; Baugues, Keith <[KBaugues@idem.IN.gov](mailto:KBaugues@idem.IN.gov)>; STUCKEY, MATT <[MSTUCKEY@idem.IN.gov](mailto:MSTUCKEY@idem.IN.gov)>; [bhodaibosi@epa.state.oh.us](mailto:bhodaibosi@epa.state.oh.us) <[bhodaibosi@epa.state.oh.us](mailto:bhodaibosi@epa.state.oh.us)>; [vtrivedi@pa.gov](mailto:vtrivedi@pa.gov) <[vtrivedi@pa.gov](mailto:vtrivedi@pa.gov)>

**Subject:** VISTAS Interstate Consultation Letters

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Directors,

I hope you all are well. On June 22, 2020, the former Executive Director of Metro 4/SESARM sent you a letter on behalf of the VISTAS states asking that one or more major point sources in your state undergo a reasonable progress analysis and a four-factor analysis if warranted. I've been asked to provide you with a reminder of the information request date of October 30, and to provide you with updated contact information for any deliverable. If you have any questions or need to discuss further, please let me know.

I am the new Metro 4/SESARM Executive Director replacing John Hornback. I have worked with many of you as the former Air Director for Mississippi. Please direct responses to me at the contact information below. I look forward to receiving your information and thank you for your efforts.

Chad LaFontaine, P.E.  
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