

Georgia Environmental Protection Division

Air Protection Branch

4244 International Parkway • Suite 120 • Atlanta • Georgia 30354

404/363-7000 • Fax: 404/363-7100

Judson H. Turner, Director

Ms. Sandra V. Silva (*via e-mail*)
U.S. Fish and Wildlife Service
7333 W. Jefferson Avenue, Ste.375
Lakewood, CO 80235-2017
sandra_v_silva@fws.gov

APR 26 2013

Re: Georgia's Regional Haze Periodic Progress Report

Dear Ms. Silva:

With this letter, the Georgia Environmental Protection Division (EPD) is submitting for USFWS' review and comment a copy of Georgia's draft periodic progress report for visibility improvement, which is required under subparagraph 40 CFR 51.308(g) of the regional haze rule. This report addresses the progress made toward Georgia's 2018 reasonable progress goals for visibility in Class I areas during the first five-year period after the 2000 – 2004 baseline period for visibility assessment.

Georgia EPD is providing the opportunity for comment on the progress report as part of the consultation process between the states and Federal Land Managers (FLMs), which is required in 40 CFR §51.308(i). The consultation must include the opportunity for the FLMs to discuss their:

- assessment of visibility impairment in the Class I area; and
- recommendations on the development of the reasonable progress goal and on the development and implementation of strategies to address visibility impairment

We look forward to your review and comment on the progress report. Should you or your staff have any questions, please feel free to contact me at 404-363-7014. Please e-mail acknowledgment of receipt of this transmittal to me at the e-mail address shown below. Please provide electronic documentation of your review, including any comments, not later than 60 days from receipt of this transmittal. If you would like to send a hard copy of your review/comments, please send it to:

Jimmy Johnston
Georgia EPD – Air Branch
4244 International Parkway, Suite 120
Atlanta, Georgia 30354
jimmy.johnston@dnr.state.ga.us

Ms. Sandra V. Silva (continued)

Thank you for your attention to this matter.

Sincerely,



James P. Johnston, P.E.
Program Manager
Planning and Support Program

CAC:JK:klc

c: Scott Davis (w/out enclosures)
EPA Region 4

Tim Allen (with enclosures)
U.S. Fish and Wildlife Service
tim_allen@fws.gov

James Capp (w/out enclosures)
EPD, Air Protection Branch

Attachments:

- Progress Report narrative
- Appendices A – J

Georgia Environmental Protection Division

Air Protection Branch

4244 International Parkway • Suite 120 • Atlanta • Georgia 30354

404/363-7000 • Fax: 404/363-7100

Judson H. Turner, Director

Ms. Susan Johnson (via e-mail)
Policy, Planning, and Permit Review Branch
National Park Service
PO Box 25287
Denver CO 80225
susan_johnson@nps.gov

APR 26 2013

Re: Georgia's Regional Haze Periodic Progress Report

Dear Ms. Johnson:

With this letter, the Georgia Environmental Protection Division (EPD) is submitting for NPS' review and comment a copy of Georgia's draft periodic progress report for visibility improvement, which is required under subparagraph 40 CFR 51.308(g) of the regional haze rule. This report addresses the progress made toward Georgia's 2018 reasonable progress goals for visibility in Class I areas during the first five-year period after the 2000 – 2004 baseline period for visibility assessment.

Georgia EPD is providing the opportunity for comment on the progress report as part of the consultation process between the states and Federal Land Managers (FLMs), which is required in 40 CFR §51.308(i). The consultation must include the opportunity for the FLMs to discuss their:

- assessment of visibility impairment in the Class I area; and
- recommendations on the development of the reasonable progress goal and on the development and implementation of strategies to address visibility impairment.

We look forward to your review and comment on the progress report. Should you or your staff have any questions, please feel free to contact me at 404-363-7014. Please e-mail acknowledgment of receipt of this transmittal to me at the e-mail address shown below. Please provide electronic documentation of your review, including any comments, not later than 60 days from receipt of this transmittal. If you would like to send a hard copy of your review/comments, please send it to:

Jimmy Johnston
Georgia EPD – Air Branch
4244 International Parkway, Suite 120
Atlanta, Georgia 30354
jimmy.johnston@dnr.state.ga.us

Ms. Susan Johnson, continued

Thank you for your attention to this matter.

Sincerely,



James P. Johnston, P.E.
Program Manager
Planning and Support Program

CAC:JK:klc

c: Scott Davis (w/out enclosures)
EPA Region 4

Patricia Brewer, NPS (with enclosures)
patricia_f_brewer@nps.gov

James Capp (w/out enclosures)
EPD, Air Protection Branch

Attachments:

- Progress Report narrative
- Appendices A – J

Georgia Environmental Protection Division

Air Protection Branch

4244 International Parkway • Suite 120 • Atlanta • Georgia 30354

404/363-7000 • Fax: 404/363-7100

Judson H. Turner, Director

Chuck Sams (via e-mail)
US Forest Service
1730 Peachtree Rd NW
Atlanta Ga 30309
csams@fs.fed.us

APR 26 2013

Re: Georgia's Regional Haze Periodic Progress Report

Dear Mr. Sams:

With this letter, the Georgia Environmental Protection Division (EPD) is submitting for USFS' review and comment a copy of Georgia's draft periodic progress report for visibility improvement, which is required under subparagraph 40 CFR 51.308(g) of the regional haze rule. This report addresses the progress made toward Georgia's 2018 reasonable progress goals for visibility in Class I areas during the first five-year period after the 2000 – 2004 baseline period for visibility assessment.

Georgia EPD is providing the opportunity for comment on the progress report as part of the consultation process between the states and Federal Land Managers (FLMs), which is required in 40 CFR §51.308(i). The consultation must include the opportunity for the FLMs to discuss their:

- assessment of visibility impairment in the Class I area; and
- recommendations on the development of the reasonable progress goal and on the development and implementation of strategies to address visibility impairment.

We look forward to your review and comment on the progress report. Should you or your staff have any questions, please feel free to contact me at 404-363-7014. Please e-mail acknowledgment of receipt of this transmittal to me at the e-mail address shown below. Georgia EPD is also sending a hard copy of the progress report to you at the address shown above.

Please provide electronic documentation of your review, including any comments, not later than 60 days from receipt of this transmittal. If you would like to send a hard copy of your review/comments, please send it to:

Jimmy Johnston
Georgia EPD – Air Branch
4244 International Parkway, Suite 120
Atlanta, Georgia 30354
jimmy.johnston@dnr.state.ga.us

Mr. Chuck Sams (continued)

Thank you for your attention to this matter.

Sincerely,



James P. Johnston, P.E.
Program Manager
Planning and Support Program

CAC:JK:klc

c: Scott Davis (w/out enclosures)
EPA Region 4

Bret Anderson (with enclosures)
USFS, Denver
baanderson02@fs.fed.us

Betty Mathews (with enclosures)
USFS, Georgia
bamathews@fs.fed.us

Anthony Matthews (with enclosures)
USFS, Florida
jmattheaws@fs.fed.us

James Capp (w/out enclosures)
EPD, Air Protection Branch

Attachments:

- Progress Report narrative
- Appendices A – J



United States Department of the Interior



FISH AND WILDLIFE SERVICE
National Wildlife Refuge System
Branch of Air Quality
7333 W. Jefferson Ave., Suite 375
Lakewood, CO 80235-2017

IN REPLY REFER TO:
FWS/ANWS-AR-AQ

RECEIVED

June 13, 2013

JUN 21 2013

Mr. Jimmy Johnston
Georgia Environmental Protection Division
Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, Georgia 30354

PLANNING & SUPPORT
AIR PROTECTION BRANCH

Re: Georgia Draft Regional Haze Five Year Progress Report

Dear Mr. Johnston:

The U. S. Fish and Wildlife Service and the National Park Service have reviewed Georgia's draft regional haze five year review. We conclude that Georgia Air Protection Branch has met the minimum requirements outlined in 40 CFR 51.308 (g) to review progress in improving visibility at Class I areas.

Georgia has demonstrated that visibility improvement by 2018 should be greater than the 2018 reasonable progress goals for Class I areas in Georgia. You have provided IMPROVE monitoring data that demonstrate that ammonium sulfate continues to be the most important pollutant contributing to visibility impairment on the 20% worst days at Class I areas in the state and as of 2010 sulfate contributions have decreased significantly. Visibility improvement by 2009 was greater than 2009 projections by VISTAS (the Regional Planning Organization for the Southeast). In Georgia's long term strategy, you relied on the State's Multipollutant rule to reduce sulfur dioxide (SO₂) emissions from Electric Generating Units (EGU). In this review Georgia has demonstrated that actual EGU SO₂ emissions in 2009 were 37% lower than EGU emissions projected for 2009 under the Multipollutant bill.

Additional EGU reductions are required by 2018. Georgia Power has announced retirement of coal fired power plants that were not anticipated in the VISTAS 2018 emissions projections. Georgia also requires SO₂ reductions from several non-EGU industrial sources for reasonable progress prior to 2018.

You have focused this progress report on SO₂ emissions and sulfate at Class I areas in Georgia. Below we suggest additional topics that would be helpful to discuss in this progress report:

- The role of fire in 2006-2010 compared to 2000-2004 for Okefenokee National Wildlife Refuge. In 2000-2004, fire (organic carbon and elemental carbon) was a major

TAKE PRIDE
IN AMERICA 

contributor to visibility impairment on the 20% worst visibility days. Fire was also important in 2007 at Okefenokee, but less important in 2006 and 2008-2010 (Appendix B). VISTAS projected that fire would also be major contributor on the 20% worst days in future years and as a result, that there would be less visibility improvement at Okefenokee than for other Class I areas in the Southeast. Less fire in the actual data than projected would also contribute to greater visibility improvement than projected for Okefenokee.

- EGU emissions trends for nitrogen oxides (NO_x) as well as SO₂. The data are readily available. While nitrate is not a major contributor to visibility impairment, VISTAS modeling showed that NO_x emissions levels influenced formation of secondary organic aerosols, which are important to visibility.
- The VISTAS emissions sensitivity analyses provided insight to which pollutants are most important to reduce and could be cited in your review.
- A more comprehensive discussion of the impact of sources in Georgia on Class I areas in neighboring states. Other VISTAS states have included VISTAS Area of Influence analyses and identification of specific sources that are major contributors to neighboring Class I areas. Your finding that Georgia is not impeding other states meeting their reasonable progress goals would be stronger if these data and analyses are included.
- A comparison of the state's progress to the reasonable progress goals. EPA's guidance for the periodic progress review indicates that once a state has set reasonable progress goals, visibility progress should be measured toward these goals rather than the uniform rate of progress that was used as the reference point in the first state implementation plan.

We appreciate the opportunity to work closely with Georgia to improve visibility in our Class I national parks and wilderness areas. If you have questions, please contact Tim Allen (303-914-3802) of the U.S. Fish and Wildlife Service or Pat Brewer (303-969-2153) of the National Park Service.

Sincerely,



Meredith A. Bond
Deputy Chief
Branch of Air Quality
U.S. Fish and Wildlife Service



Susan Johnson
Chief, Policy, Planning, and Permit Review
Air Resources Division
National Park Service



United States
Department of
Agriculture

Forest
Service

Chattahoochee-Oconee
National Forests
Supervisor's Office

1755 Cleveland Highway
Gainesville, GA 30501
(770) 297-3000

M. Kelly

File Code: 2580

Date: MAY 31 2013

Mr. Jimmy Johnson
Program Manager, Air Protection Branch
Planning and Support Program
Georgia Department of Natural Resources
4244 International Parkway, Suite 120
Atlanta, GA 30354

Dear Mr. Johnson:

The USDA Forest Service has completed our review of the document entitled "Pre-Draft Regional Haze Periodic Progress Report State Implementation Plan". We appreciated the opportunity to review the document and the chance to once again work cooperatively with your staff.

I concur with your findings that the Georgia Air Protection Branch is on track to meet the reasonable progress goal for the Cohutta Wilderness, a federally mandated Class I area. The current projections of sulfur dioxide emissions from the coal-fired utilities in Georgia and other sources in southeastern United States are significantly lower than were originally projected for 2018 in the Regional Haze State Implementation Plan. Therefore, we agree with your conclusion that no additional controls are necessary for the first planning period for emission sources in Georgia in order to achieve reasonable progress in visibility for the Cohutta Wilderness.

We look forward to our continued close cooperation toward the national goal of no "man-made" visibility impairment to the Class I areas in our region by 2064.

Sincerely,

BETTY A. MATHEWS
Forest Supervisor

cc: Bill Jackson, Charles E Sams, Bret A Anderson



Draft Regional Haze Periodic Progress Report
Comments from USFWS and NPS and Georgia EPD responses

Comment 1. The role of fire in 2006 – 2010 compared to 2000 – 2004 for Okefenokee National Wildlife Refuge. In 2000 – 2004, fire (organic carbon and elemental carbon) was a major contributor to visibility impairment on the 20% worst visibility days. Fire was also important in 2007 at Okefenokee, but less important in 2006 and 2008 – 2010 (Appendix B). Vistas projected that fire would also be major contributor on the 20% worst days in future years and as a result, that there would be less visibility improvement at Okefenokee than for other Class I areas in the Southeast. Less fire in the actual data than projected would also contribute to greater visibility improvement than projected for Okefenokee.

Response: Georgia's strategy to meet the 2018 visibility goals at Class I areas involved SO₂ reductions from point sources. It did not include PM_{2.5} emission reductions from fires. Since fire emissions vary from year to year (some years can be higher, some years can be lower), the VISTAS modeling assumed that there would be identical fires in Georgia in 2002, 2009, and 2018. Georgia's actual SO₂ emission reductions have been far greater than those projected in the Georgia Regional Haze SIP. As a result, visibility impairment measurements at Georgia's Class I areas are well below the glide slope and projected visibility goals. Even if fire activity increases in the future, we feel that our SO₂ emission reductions will more than compensate for any degradation in visibility due to increased fire activity.

Comment 2. EGU emissions trends for nitrogen oxides (NO_x) as well as SO₂. The data are readily available. While nitrate is not a major contributor to visibility impairment, VISTAS modeling showed that NO_x emissions levels influenced formation of secondary organic aerosols, which are important to visibility.

Response: NO_x trends are shown graphically in Figures 4-5 and 4-6. NO_x emissions from EGU sources in Georgia and in the VISTAS states decreased by 62.6 percent and 69.0 percent, respectively, between 2002 and 2011. Statements to this effect have been added to Section 4.2.

Comment 3. The VISTAS emissions sensitivity analyses provided insight to which pollutants are most important to reduce and could be cited in your review.

Response: The sensitivity analysis is referenced in the first paragraph of Section 1.4. The original regional haze SIP section number in which the sensitivity analysis was presented has been added.

Comment 4. A more comprehensive discussion of the impact of sources in Georgia on Class I areas in neighboring states. Other VISTAS states have included VISTAS Area of Influence analyses and identification of specific sources that are major contributors to neighboring Class I areas. Your finding that Georgia is not impeding other states meeting their reasonable progress goals would be stronger if these data and analyses are included.

Comment 4 (continued)

Response: The discussion of the impact of Georgia sources on Class I areas outside Georgia is included in Section 5.0 of the report to address the requirement of 40 CFR 51.308(g)(6) for an assessment of the adequacy of the current strategy with regard to in-state and out-of-state Class I areas. Section II.F of EPA's April 2013 guidance for progress reports states that "... EPA views this requirement as a qualitative assessment, in light of emissions and visibility trends and other readily available information." Thus, there appears to be no requirement in the regulation or recommendation in the guide to include Area of Influence analyses in the progress report.

However, Georgia EPD agrees that the presentation of control status for Georgia sources that both impact non-Georgia Class I areas and have control requirements adds value to the assessment of the implementation plan elements and strategies. Therefore, Tables 2-2 and 2-3 have been expanded to link controlled sources to impacted non-Georgia Class I areas and the associated discussion in Section 5.0 has also been revised.

Comment 5. A comparison of the state's progress to the reasonable progress goals. EPA's guidance for the periodic progress review indicates that once a state has set reasonable progress goals, visibility progress should be measured toward these goals rather than the uniform rate of progress that was used as the reference point in the first state implementation plan.

response: Table 3-1 compares progress to Georgia's 2010 interpolation of the 2009 and 2018 predictions (reasonable progress goals). Figures 3-1 through 3-4 compare progress to the 2009 and 2018 predictions (goals). Section 3.0 and Table 3.1 have been revised to clarify that the predicted values are the reasonable progress goals.