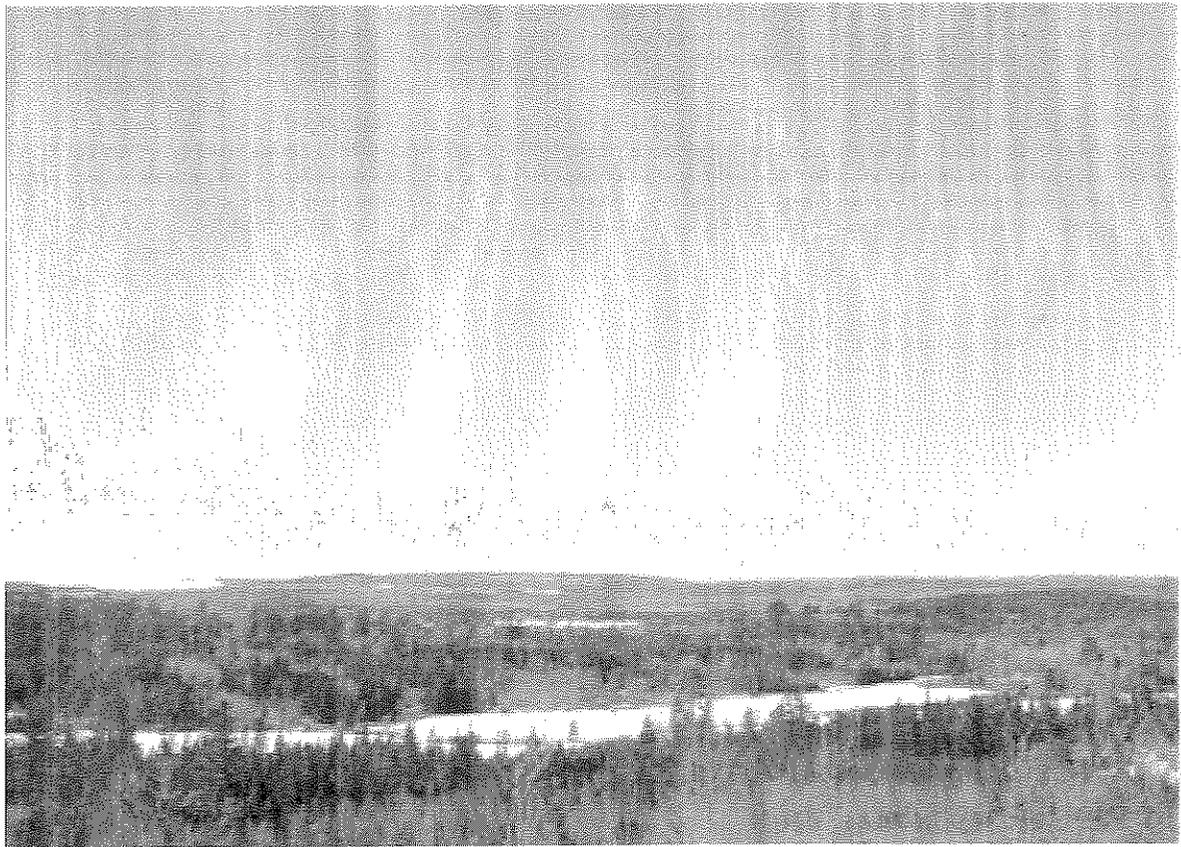


Draft

STATE IMPLEMENTATION PLAN
FOR
REGIONAL HAZE



State of Maine
Department of Environmental Protection

8/5/10

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Introduction

1.1 What is Regional Haze?

Haze is a form of air pollution that impairs visibility over a wide region, and is a problem affecting many areas throughout the U.S., especially national parks and wilderness areas. Average visual range in many parks in the western U.S. is 100–150 kilometers, or about one-half to two-thirds of the visual range that would exist without manmade air pollution. In most of the eastern half of the U.S., the average visual range is less than 30 kilometers, or about one-fifth of the visual range that would exist under natural conditions. Surveys have shown that visitors to national parks and wilderness areas consistently rank visibility and clear scenic vistas as one of the most important aspects of their experience.

The particle pollution that causes haze also poses a threat to human health, and it can cover an area of several hundred miles. Hazy days of summer are a result of human activity formed by emissions from many sources in a wide geographic area. The emissions come from power plants, factories, and vehicles that combine with moisture in the air. Haze is not just a summertime problem, it can occur at any time of the year.

Air pollution, including particulates (soot) and related gases (sulfur dioxide and nitrogen dioxide) can scatter and absorb light, limiting the distance that one can see and obscuring color and clarity. Visibility can often be reduced over large regions, and is therefore called regional haze.

Visibility impairment can be quantified using three different, but mathematically related measures: light extinction per unit distance (e.g., Mm^{-1})¹; visual range (i.e., how far one can see); and deciviews (dv), a useful metric for measuring increments of visibility change that are just perceptible to the human eye. Each can be estimated from the ambient concentrations of individual particle constituents, taking into account their unique light-scattering (or absorbing) properties and making appropriate adjustments for relative humidity. Assuming natural conditions, visibility in the Northeast and Mid-Atlantic is estimated to be about 23 Mm^{-1} , which corresponds to a visual range of about 106 miles or 8 dv. Under current polluted conditions in the region, average visibility ranges from 103 Mm^{-1} in the south to 55 Mm^{-1} in the north; these values correspond to a visual range of 24 to 44 miles or 23 to 17 dv, respectively. On the worst 20 percent of days, visibility impairment in Northeast and Mid-Atlantic Class I areas ranges from about 25 to 30 dv.

The principal pollutants that affect fine particle formation, and thus contribute to regional haze, are sulfur oxides (SO_x), organic carbon (OC), nitrogen oxides (NO_x), volatile organic compounds (VOC), ammonia (NH_3), and particles with an aerodynamic diameter less than or equal to 10 and $2.5 \mu\text{m}$ (i.e., primary PM_{10} and $\text{PM}_{2.5}$). In the eastern U.S.

¹ In units of inverse length. An inverse megameter (Mm^{-1}) is equal to one over one thousand kilometers.

ammonium sulfate, formed from sulfur oxides and ammonia, is responsible for more than 50 percent of regional visibility impairment, and most regional control efforts are directed at reducing emissions of sulfur oxides.

1.2 Clean Air Act Regional Haze Requirements

Regional haze and visibility were first addressed in amendments to the Clean Air Act in 1977, when Congress added Section 169 (42 U.S.C. 7491) establishing forth the following national visibility goal:

“Congress hereby declares as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory Class I Federal areas which impairment results from man-made air pollution.”

The "Class I" designation was given to each of 158 areas in existence as of August 1977 that met the following criteria:

- all national parks greater than 6000 acres
- all national wilderness areas and national memorial parks greater than 5000 acres
- one international park

In 1980, Bradwell Bay, Florida, and Rainbow Lake, Wisconsin, were excluded for purposes of visibility protection as federal Class I areas. Figure 1-1 illustrates the 156 national park and wilderness areas that remain as Class I visibility protection areas.

Over the following years modest steps were taken to address the visibility problems in Class I areas. The control measures taken mainly addressed Plume Blight from specific pollution sources and did little to address regional haze issues in the Eastern United States.

When the CAA was amended in 1990, Congress added Section 169B (42 U.S.C. 7492), authorizing further research and regular assessments of the progress made so far. In 1993, the National Academy of Sciences concluded that “current scientific knowledge is adequate and control technologies are available for taking regulatory action to improve and protect visibility.”

In addition to authorizing creation of visibility transport commissions and setting forth their duties, Section 169B(f) of the CAA mandated creation of the Grand Canyon Visibility Transport Commission (GCVTC) to make recommendations to EPA for the region affecting the visibility of the Grand Canyon National Park. The Grand Canyon Visibility Transport Commission (Commission) submitted its report to EPA in June 1996, following four years of research and policy development. The Commission report, as well as the many research reports prepared by the Commission, contributed invaluable information to EPA in its development of the federal regional haze rule.

Figure 1-1
Locations of Federally Protected Mandatory Class I Areas

Mandatory Class I Areas



Produced by NPS Air Resources Division

1.3 The Federal Regional Haze Rule

The federal requirements that states must meet to achieve national visibility goals are contained in Title 40: Protection of Environment, Part 51 – Requirements for Preparation, Adoption, and Submittal Of Implementation Plans, Subpart P – Protection of Visibility (40 CFR 51.300-309)². Known more simply as the Regional Haze Rule, these regulations were adopted on July 1, 1999, and went into effect on August 30, 1999. The rule seeks to address the combined visibility effects of various pollution sources over a large

² The specific requirements for States’ regional haze SIPs are set forth in 40 CFR 51.308, Regional Haze Program Requirements.

geographic region, with the result that all states – even those without Class I areas – are required to participate in haze reduction efforts.

In consultation with the states and tribes, EPA designated five Regional Planning Organizations (RPO) to assist with the coordination and cooperation needed to address the haze issue. The Mid-Atlantic / Northeast states, including the District of Columbia, formed the Mid-Atlantic / Northeast Visibility Union (MANE-VU).³

EPA's Regional Haze Rule was the subject of considerable controversy, and was challenged on several legal grounds. On May 24, 2002 the U.S. Court of Appeals for the District of Columbia Circuit ruled on the challenge brought by the American Corn Growers Association against EPA's Regional Haze Rule of 1999. The Court remanded the BART provisions of the rule to EPA, and denied industry's challenge to the haze rule goals of natural visibility and no degradation requirements. On June 15, 2005, EPA finalized a rule addressing the Court's remand.

On February 18, 2005, the U.S. Court of Appeals for the District of Columbia Circuit issued another ruling vacating the Regional Haze Rule in part and sustaining it in part. For more information see *Center for Energy and Economic Development v. EPA*, no. 03-1222, (D.C. Cir. Feb. 18, 2005) (“*CEED v. EPA*”). In this case, the court granted a petition challenging provisions of the Regional Haze Rule governing the optional emissions trading program for certain Western States and Tribes (the WRAP Annex Rule).

EPA's subsequent final rulemaking provided the following changes to the Regional Haze Regulations:

1. Revised the regulatory text in 40 CFR Section 51.308(e)(2)(i) in response to the *CEED* court's remand, to remove the requirement that the determination of BART “benchmark” be based on cumulative visibility analyses, and to clarify the process for making such determinations, including the application of BART presumptions for EGUs as contained in Attachment Y to 40 CFR 51.
2. Added new regulatory text in 40 CFR Section 51.308(e)(2)(vi), to provide minimum elements for cap and trade programs or alternative measures in lieu of BART.
3. Revised regulatory text in 40 CFR Section 51.309, to reconcile the optional framework for certain Western States and Tribes to implement the recommendations of the Grand Canyon Visibility Transport Commission (GCVTC) with the *CEED* decision.

³ A description of MANE-VU and a full list of its members is described in the Regional Planning Section of this SIP.

1.4 Regional Haze Planning After the Vacatur of CAIR

On March 10, 2005, EPA issued the Clean Air Interstate Rule (CAIR). This important federal rule was designed to achieve major permanent reductions in sulfur dioxide (SO₂) and nitrogen oxides (NO_x) emissions in the eastern United States through a cap-and-trade system using emission allowances. As promulgated, CAIR permanently caps emissions originating in 28 eastern states and the District of Columbia (Figure 1-2). Although Maine was not designated as a participating CAIR state, this program would greatly affect future air quality in the state.

According to EPA's CAIR website, SO₂ emissions in the affected states would be reduced by more than 70 percent from 2003 levels, and NO_x emissions by more than 60 percent from 2003 levels, upon full implementation of CAIR (See <http://www.epa.gov/cair/>). Resulting improvements in air quality would yield \$85 to \$100 billion in health benefits and nearly \$2 billion in visibility benefits per year by 2015, and premature mortality would be substantially reduced across the eastern U.S.

This program came to an abrupt end, however, on July 11, 2008, when the U.S. Court of Appeals for the District of Columbia Circuit found that CAIR violated basic provisions of the Clean Air Act. The Court vacated CAIR in its entirety and remanded to EPA to promulgate a new rule consistent with the court's opinion. On September 24, 2008, EPA petitioned the D.C. Circuit for a rehearing or rehearing en banc on the vacatur of CAIR. Thereafter, the D.C. Circuit issued an order requesting briefs on the issue of whether any party is seeking vacatur of CAIR, and whether the court should stay its vacatur until EPA promulgates a revised rule. Maine, along with more than 20 other states, filed an amicus brief in support of staying the court decision vacating CAIR while EPA promulgates a revised rule that complies with the Court's decision. The states argued that because they "reasonably relied on CAIR in formulating long-term plans for improving air quality, in the short term, even a flawed rule is better than none at all."

The vacatur of CAIR presented a major difficulty for the individual states in attempting to comply with the Regional Haze Rule. Because CAIR formed the regulatory underpinnings for most of the emission reductions that would produce visibility improvements in mandatory Class I areas, the probable demise of CAIR left a structural void around which states must build their regional haze SIPs. While all states have depended in varying degree on CAIR in the preparation of their Regional Haze SIPs, some Southeast states have relied almost entirely on CAIR to demonstrate compliance with the Regional Haze Rule. As a major ramification, the vacatur of CAIR invalidated EPA's decision that CAIR satisfies the requirements for Best Available Retrofit Technology (BART) for the affected sources. The vacatur of CAIR also called into question the validity of MANE-VU's and other RPO's emission inventories and air quality modeling studies already completed for the member state's regional haze SIPs.

In describing Maine's present situation, it may be helpful to note that the remand of CAIR without vacatur is a complicating factor for the long-term, but does not present an impediment to making visibility progress in the near term. The salient points to consider are as follows:

- Because Maine is a non-CAIR state, CAIR does not directly affect any of Maine's proposed in-state visibility improvement control strategies.
- Maine will meet its "fair share" of emission reductions in comparison with other MANE-VU states and the original CAIR states, as Maine's long-term strategy demonstrates (See Section 12).
- Sources in upwind states release most of the pollutants contributing to visibility impairment at Maine's Class I areas. Therefore, Maine will continue to be dependent on mitigative actions by other states if visibility goals are to be achieved for these Class I areas.
- By the time the first regional haze SIP progress report, in 2013, the regulatory framework for the CAIR replacement should be clearer, and new modeling results should be available. It should then be possible to fine-tune regional haze plans to address any rule that EPA has promulgated to replace CAIR. Maine is committed to reviewing and updating its regional haze SIP as new information becomes available.

Given the D.C. Circuit's remand without vacatur of CAIR, Maine has chosen to retain appropriate references to CAIR in the completion of its Regional Haze SIP. We believe this will help to maintain continuity with the large body of completed work- much of it based on CAIR- that serves as the foundation for regional haze planning in the MANE-VU states.⁴

1.5 Maine Class I Areas

Maine has three Class I areas: 1) Acadia National Park; 2) Moosehorn National Wildlife Refuge Wilderness Area; and 3) Roosevelt Campobello International Park (See Figure 1-3).

1.5.1 Acadia National Park

When Acadia National Park was designated in 1919, it was called Lafayette National Park and was the first national park designated east of the Mississippi River. Created with 6,000 acres of land, the park changed its name in 1929 and now encompasses about 40,000 acres of mixed ecology including Atlantic shoreline, mixed hardwood forests, spruce and fir forests, mountains, lakes and islands. Facilities at the

⁴ On July 6, 2010, EPA proposed its replacement for CAIR. Known as the "Transport Rule," this rule is expected to provide emission reductions equivalent to the vacated CAIR..

park include 45 miles of carriage roads for walking and biking with 27 miles of scenic driving, plus 120 miles of hiking only trails, 2 campgrounds, a restaurant and 3 gift shops. Acadia averages 3 million visitors each year with the majority visiting during July and August (almost 700,000 visitors per month) and the fewest during December, January, and February (almost 38,000 visitors per month). Open year round, Acadia provides an abundance of recreational opportunities. The average park visitor stays at Acadia 1-4 days.

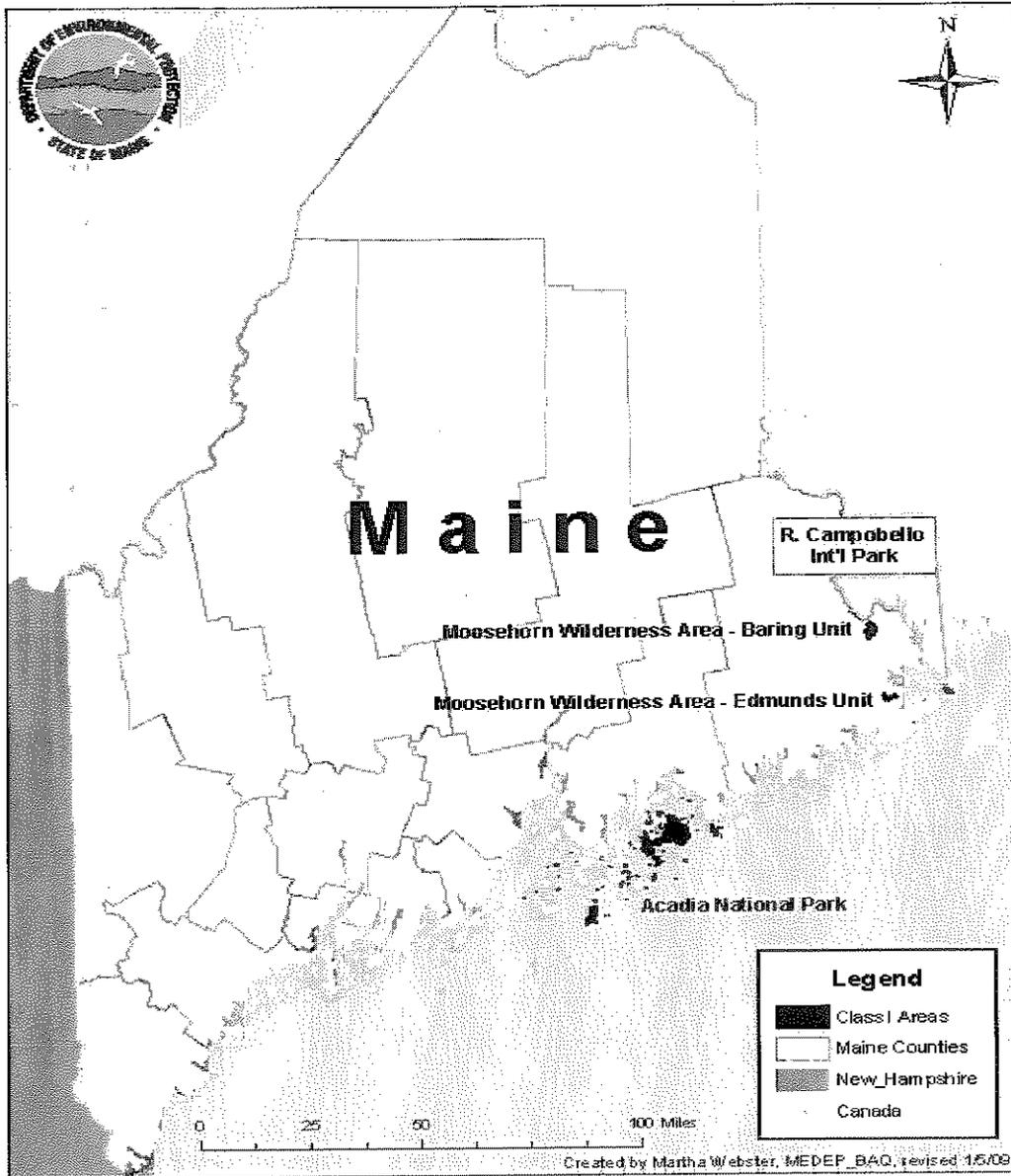
1.5.2 Moosehorn Wilderness Area, Moosehorn National Wildlife Refuge

Moosehorn National Wildlife Refuge, which was officially established in 1937, is comprised of two units, the Baring Unit (17,200 acres) and the Edmunds Unit (7,200 acres). Within the refuge, a combined 7,460 acres of land (2780 acres from the Edmunds Unit and 4680 acres from the Baring Unit) are protected as a Class I wilderness area. The refuge includes rocky shores, rolling forested hills, lakes, bogs, and marshes that provide protected habitat and breeding grounds for migratory land and water birds. Moosehorn was the first migratory bird refuge to be established in what is now a chain of refuges extending south to Florida. It features American bald eagles, and the American woodcock among the more than 220 species of birds that have been spotted here. While birding is the primary attraction of Moosehorn Refuge, visitors also utilize over 50 miles of roads and trails for hiking, biking, cross country skiing, and snowmobiling. Non-motorized boats are also allowed access to streams and lakes in the refuge for fishing. In November, the refuge is open for white-tailed deer hunting. Education programs also draw visitors to the refuge, where wildlife biologists invite visitors to join them on bird banding operations.

1.5.3 Roosevelt Campobello International Park

Roosevelt Campobello International Park is the only international park in North America. The park is located on Campobello Island in Canada, but is of historical significance to the U.S. as the life-long summer home of President Franklin Delano Roosevelt. U.S. President Lyndon Johnson and Canadian Prime Minister Lester Pearson established the park on January 22, 1964 by international agreement. The park remains a symbol of neighborly relations between the U.S. and Canada, and of the importance of FDR's achievements to both nations. The Roosevelt Campobello International Commission manages the park. Commission members are appointed by the Governor General of the Council of Canada and by the U.S. President. The agreement splits equally all costs of development, operation, and management. The park itself is a mixture of historic cottages and scenic natural landscapes. There are 8.4 miles of scenic roads in the park and 8 miles of walking paths. The grounds of the park include coastal headlands, rocky shores, beaches, wetlands, fields, forest, and the landscaped gardens of the cottages. The mix of habitat is excellent for a variety of migratory and shore birds. While the historic cottages are only open from Memorial Day to Columbus Day, the natural areas and visitor center are open year round.

Figure 1-3
Maine Class I Areas

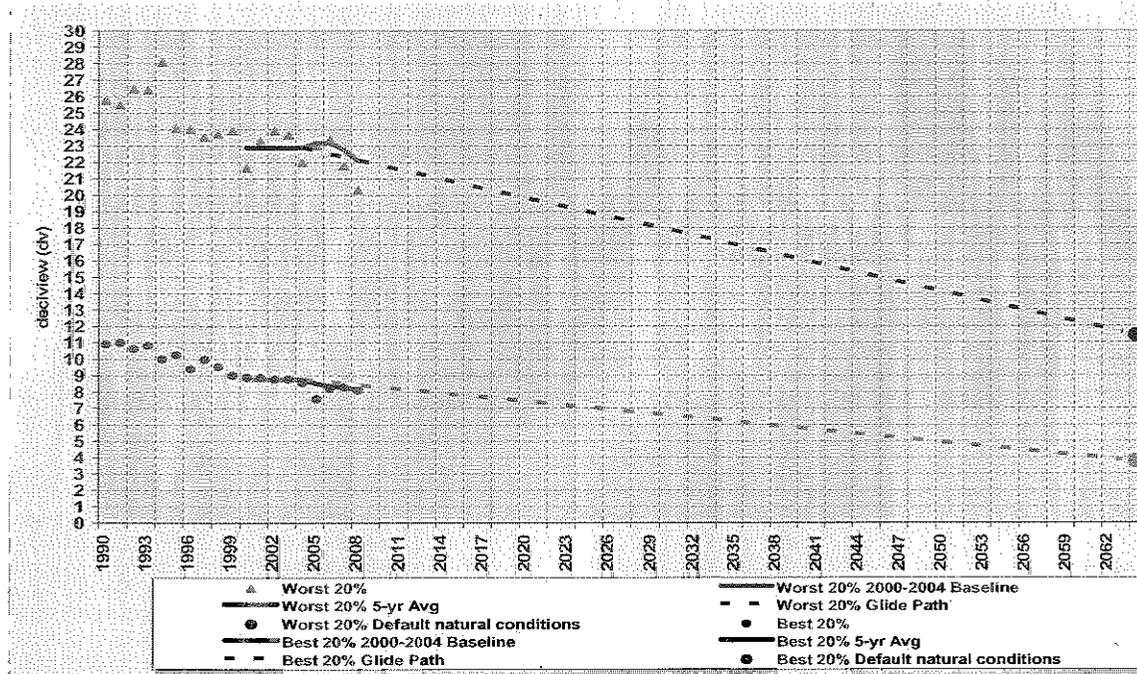


This unique historic, natural area attracts approximately 150,000 visitors annually, with most arriving in August. The National Park Service recommends visitors plan on 2 to 4 hours to view the cottages, and 8 or more hours for full appreciation of the natural areas. In addition to the historic setting, several recreational activities are permitted on the island. There are no admission fees for this park, although donations are accepted.

1.6 Visibility Trends at Maine Class I Areas

Figures 1-4 and 1-5 present recent visibility trends, baseline and natural conditions (in deciviews) at Acadia National Park, Moosehorn National Wildlife Refuge and Roosevelt Campobello International Park Class I areas for the 20 percent greatest and least impaired visibility days. The figures also illustrate the uniform rate of progress ‘glide path’ needed to reach natural background level goal established by the Clean Air Act. As of 2008, visibility conditions at all Class I areas in Maine are currently at or below the uniform rate of progress glide path.

**Figure 1-4
Visibility Trends at Acadia National Park**

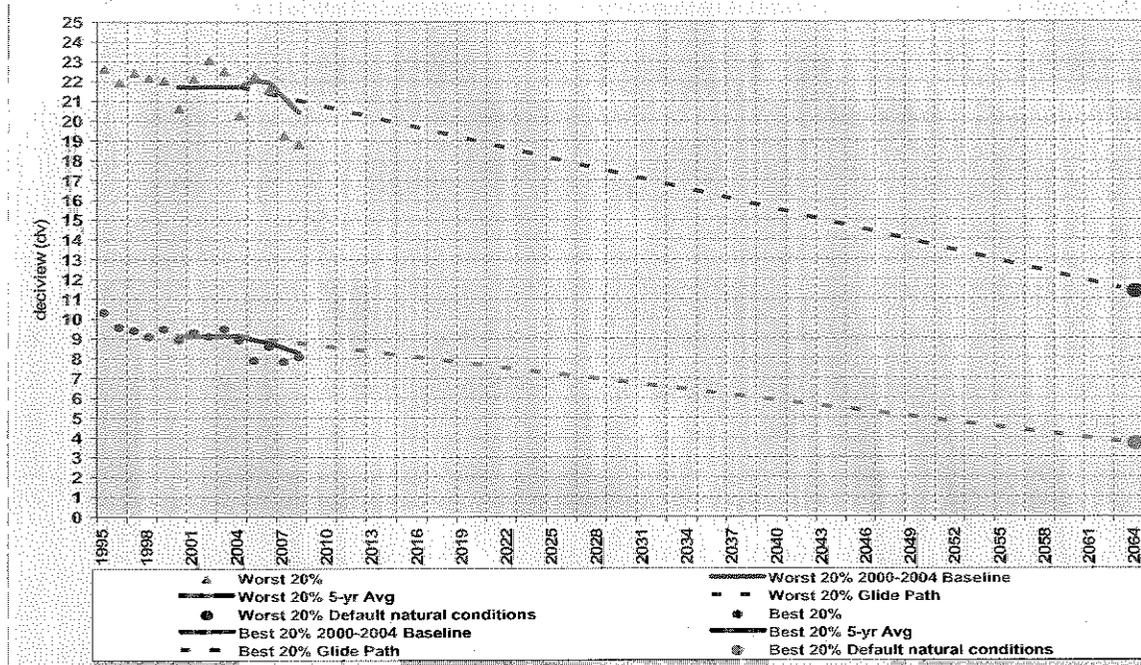


1.7 Sources of Regional Haze at Maine Class I Areas

In order to identify states where emissions are most likely to influence visibility in MANE-VU Class I areas, MANE-VU identified and evaluated the major contributors to regional haze at MANE-VU Class I areas as well as Class I areas in nearby regional planning organizations (RPOs). The MANE-VU findings are available in a report produced by the Northeast States for Coordinated Air Use Management (NESCAUM) entitled “Contributions to Regional Haze in the Northeast and Mid-Atlantic United States,” August 2006, also known as the “Contribution Assessment” (Attachment A).

Based on that work, MANE-VU concluded that it was appropriate to define an area of influence including all of the states participating in MANE-VU, plus other states that contributed at least 2% of the modeled sulfate ion at MANE-VU Class I areas in 2002. Figures 1-6 and 1-7 illustrate modeled annual sulfate ion contribution at Acadia

Figure 1-5
Visibility Trends at Moosehorn National Wildlife Refuge and Roosevelt Campobello International Park⁵



National Park and Moosehorn National Wildlife Refuge in 2002 based on the use of REMSAD (Regional Modeling System for Aerosols and Deposition) modeling. The REMSAD modeling clearly shows that Maine Class I Areas are most influenced by emissions from the northern states and Canada⁶.

Rather than relying solely on a grid-based source model, such as REMSAD, Maine utilized a variety of analytical and assessment tools to determine the sources of visibility impairment at Maine Class I areas, including Lagrangian (air parcel-based) source dispersion models, as well as a variety of data analysis techniques that include source apportionment models, back trajectory calculations, and the use of monitoring and inventory data. Using these techniques, the states in Table 1-1 were identified as causing or contributing two percent or more of the visibility impairment in Acadia National Park, Moosehorn National Wildlife Refuge, and Roosevelt Campobello International Park.

Additional information about procedures by which monitoring data and other information were used in determining the contribution of emissions from within these State to regional haze visibility impairment at MANE-VU Class I areas is included in Section 7 of the Maine State Implementation Plan for Regional Haze and in the MANE-VU Contribution Assessment in (Attachment A). Additional information on the sources of

⁵ The Moosehorn National Wildlife Refuge IMPROVE monitor is also used for Roosevelt Campobello International Park.

⁶ Note that the large "other" fraction of sulfates includes all sources outside the analysis domain, which includes some portions of the VISTAS and CENWRAP RPO, Northern and Western Canada, in addition to all other (e.g., intercontinental) sources of SO₂.

SO₂ emissions and why sulfur is the key pollutant targeted by MANE-VU and Maine is included in Section 8, Emissions Inventory.

Figure 1-6
Modeled Annual Sulfate Contribution at Acadia National Park in 2002
(percent contribution)

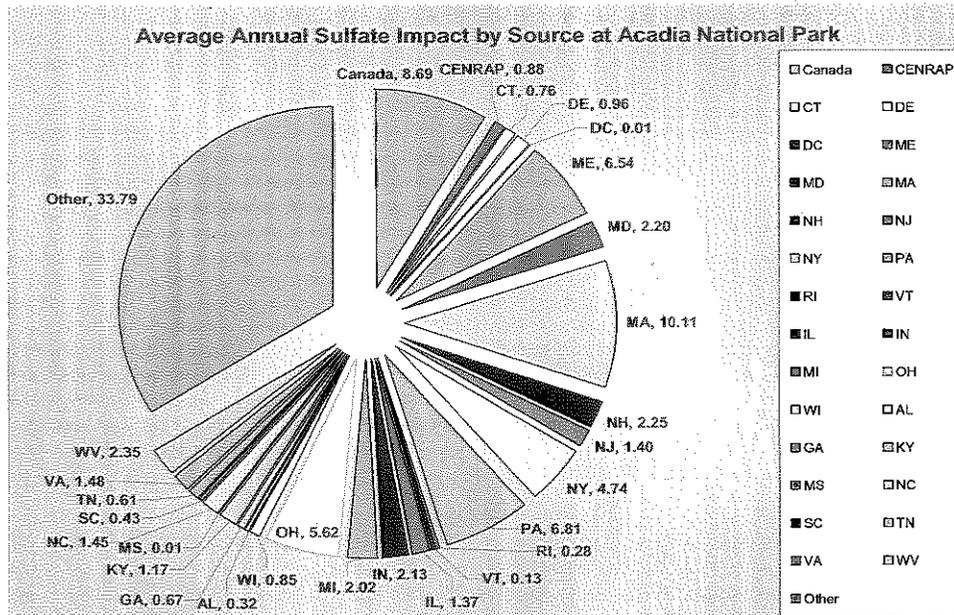
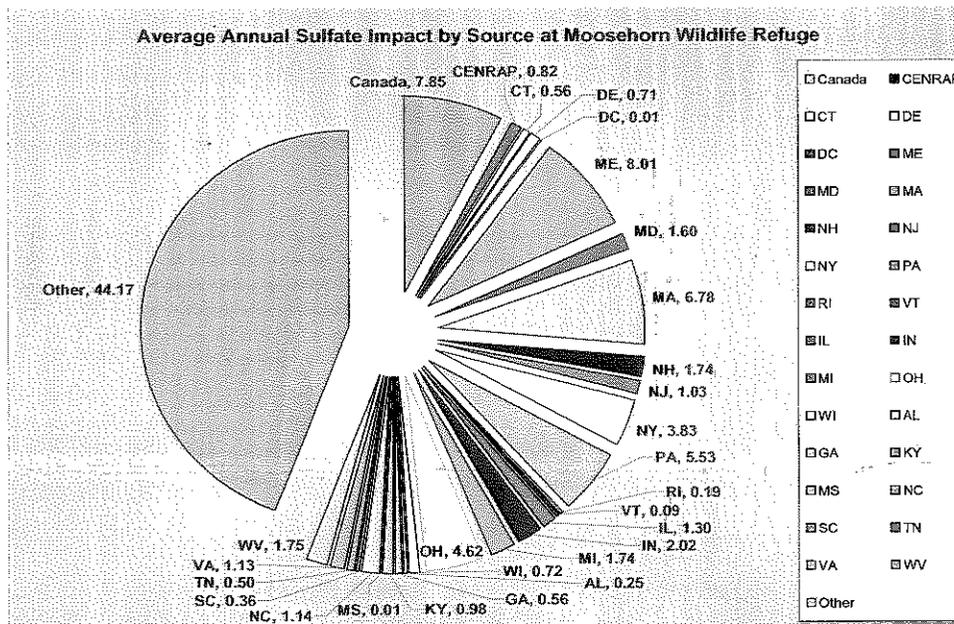


Figure 1-7
Modeled Annual Sulfate Contribution at Moosehorn National Wildlife Refuge and Roosevelt/Campobello International Park
(percent contribution)



1.8 Class I Areas Affected

In accordance with 40 CFR Section 51.308(d)(4)(iii), emissions sources within the State of Maine affect Class I areas in Maine along with the Great Gulf and Presidential-Dry River Wilderness Areas in New Hampshire⁷.

**Table 1-1
States that Contribute to Visibility Impairment at Maine Class 1 Areas**

State	Assessment Technique					
	MANE-VU Member	REMSAD	Q/D	Calpuff NWS	Calpuff MM5	% Time Upwind
Connecticut	X					
Delaware	X					
District of Columbia	X					
Georgia			X			
Illinois			X	X		X
Indiana		X	X	X	X	X
Kentucky			X	X	X	X
Maine	X	X		X		
Maryland	X	X	X			
Massachusetts	X	X	X	X	X	
Michigan		X	X	X	X	X
New Hampshire	X	X		X	X	
New Jersey	X					
New York	X	X	X	X	X	X
North Carolina			X		X	
Ohio		X	X	X	X	X
Pennsylvania	X	X	X	X		X
Rhode Island	X					
Tennessee					X	
Vermont	X					
Virginia					X	
West Virginia		X	X	X	X	X

⁷ The modeled annual sulfate ion impact of Maine emissions at the Great Gulf and Presidential-Dry Wilderness Areas in New Hampshire is more than 2% of all modeled sulfate ion impacts.

2. General Planning Provisions and Commitment to Future Submittal

In accordance with 40 CFR Section 51.308(a) and (b), Maine is submitting this SIP to meet the requirements of EPA's Regional Haze Rule. This SIP addresses the core requirements of 40 CFR Section 51.308(d) and the Best Available Retrofit Technology (BART) components of 40 CFR Section 50.308(e). In addition, this SIP addresses requirements pertaining to regional planning, and state/tribe and Federal Land Manager (FLM) coordination and consultation.

40 CFR Section 51.308(f) requires the State of Maine to submit its SIP revision by July 31, 2018 and every ten years thereafter. Maine acknowledges and commits to this schedule.

40 CFR Section 51.308(g) requires Maine to submit a report to EPA every 5 years that evaluates progress toward the reasonable progress goal for each mandatory Class I area located within the state and each mandatory Class I area located outside the state that may be affected by emissions from within the state. Maine commits to submitting the first progress report, in the form of a SIP revision, no later than December 17, 2012.

Pursuant to 40 CFR Section 51.308(d)(4)(v), Maine also commits to making periodic updates to the emissions inventory (see Section 7), and will complete these updates to coincide with the progress reports.

Lastly, pursuant to 40 Section CFR 51.308(h), Maine will submit a determination of adequacy of its regional haze SIP revision whenever a progress report is submitted. Depending on the findings of its five-year review, Maine will take one or more of the following actions at that time, whichever actions are appropriate or necessary:

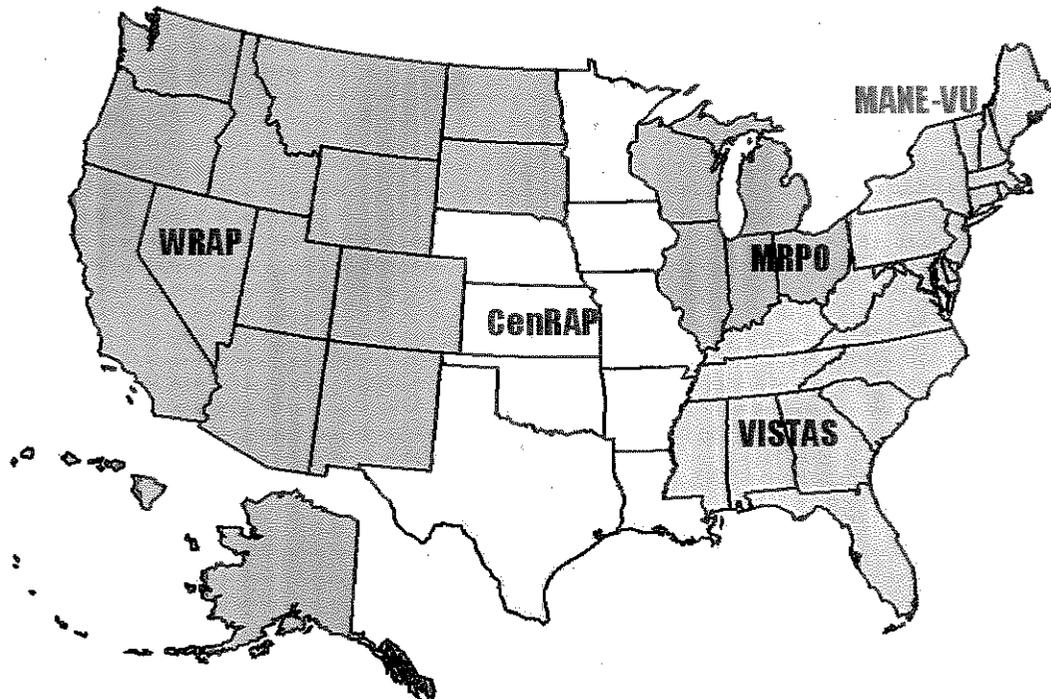
- If Maine determines that the existing State Implementation Plan requires no further substantive revision in order to achieve established goals for visibility improvement, it will provide to the EPA Administrator a negative declaration that further revision of the existing plan is not needed.
- If Maine determines that its implementation plan is, or may be, inadequate to ensure reasonable progress as a result of emissions from sources in one or more other state(s) which participated in the regional planning process, it will provide notification to the EPA Administrator and to those other state(s). Maine will also collaborate with the other state(s) through the regional planning process for the purpose of developing additional strategies to address any such deficiencies in its plan.
- If Maine determines that its implementation plan is, or may be, inadequate to ensure reasonable progress as a result of emissions from sources in another country, it will provide notification, along with available information, to the EPA Administrator.
- If Maine determines that the implementation plan is, or may be, inadequate to ensure reasonable progress as a result of emissions from sources within the State,

it will revise its implementation plan to address the plan's deficiencies within one year from this determination.

3. Regional Planning

In 1999, EPA and affected States/Tribes agreed to create five Regional Planning Organizations (RPOs) to facilitate interstate coordination on State Implementation Plans (SIPs) for regional haze. The RPOs and states/tribes within each RPO are required to consult on the development of emission management strategies directed towards visibility improvement in affected Class1 areas. Figure 3-1 illustrates the five RPOs—MANE-VU (Mid-Atlantic/Northeast Visibility Union), VISTAS (Visibility Improvement State and Tribal Association of the Southeast), MRPO (Midwest Regional Planning Organization), CenRAP (Central Regional Air Planning Association), and WRAP (Western Regional Air Partnership). As shown, Maine is part of MANE-VU.

Figure 3-1
EPA Designated Regional Planning Organizations (RPOs)



3.1 MANE-VU

MANE-VU's work is managed by the Ozone Transport Commission (OTC) and carried out by the OTC, the Mid-Atlantic Regional Air Management Association (MARAMA), and the Northeast States for Coordinated Air Quality Management (NESCAUM). The states, tribes and federal agencies comprising MANE-VU are listed in Table 3-1. Individuals from the states, tribes and federal agencies, along with the professional staff

from OTC, MARAMA, and NESCAUM, make up the various committees and workgroups.

**Table 3-1
MANE-VU Members**

1. Connecticut	10. Pennsylvania
2. Delaware	11. Penobscot Nation
3. District of Columbia	12. Rhode Island
4. Maine	13. St. Regis Mohawk Tribe
5. Maryland	14. Vermont
6. Massachusetts	15. U.S. Environmental Protection Agency*
7. New Hampshire	16. U.S. National Park Service*
8. New Jersey	17. U.S. Fish and Wildlife Service*
9. New York	18. U.S. Forest Service*

*Non-voting members

MANE-VU established an active committee structure to address both technical and non-technical issues related to regional haze. The primary committees are:

- The Technical Support Committee (TSC), charged with assessing the nature and magnitude of the regional haze problem within MANE-VU, interpreting the results of technical work, and reporting on such work to the MANE-VU Board; and
- The Communications Committee, charged with developing approaches to inform the public about the regional haze problem in the region and making any recommendations to the MANE-VU Board to facilitate that goal.

In addition to the formal working committees, there are also three standing working groups of the TSC. They are broken down by topic area: Emissions Inventory, Modeling, and Monitoring/Data Analysis Workgroups.

MANE-VU also established a Policy Advisory Group (PAG), which met on an as-needed basis to provide advice to decision-makers on policy questions. Ultimately, decisions are made by the MANE-VU Board.

3.2 Regional Consultation

On May 10, 2006, MANE-VU adopted the “Inter-RPO State/Tribal and FLM Consultation Framework” (Attachment B). The Inter-RPO State/Tribal and FLM Consultation Framework established the principles presented in Figure 3-2, which were applied to the consultation and SIP development process by the MANE-VU states and tribes. The MANE-VU consultations addressed (among others) regional haze baseline

determinations, natural background levels, and the development of reasonable progress goals, all of which are discussed at length in later sections of this SIP.

Figure 3-2
Summary of MANE-VU Principles for Regional Haze Planning

- 1) All State, Tribal, RPO, and Federal participants are committed to continuing dialogue and information sharing in order to create understanding of the respective concerns and needs of the parties.
- 2) Continuous documentation of all communications is necessary to develop a record for inclusion in the SIP submittal to EPA.
- 3) States alone have the authority to undertake specific measures under their SIP. This inter-RPO framework is designed solely to facilitate needed communication, coordination and cooperation among jurisdictions but does not establish binding obligation on the part of participating agencies.
- 4) There are two areas which require State-to-State and/or State-to-Tribal consultations (“formal” consultations): (i) development of the reasonable progress goal for a Class I area, and (ii) development of long-term strategies. While it is anticipated that the formal consultation will cover the technical components that make up each of these policy decision areas, there may be a need for the RPOs, in coordination with their State and Tribal members, to have informal consultations on these technical considerations.
- 5) During both the formal and informal inter-RPO consultations, it is anticipated that the States and Tribes will work collectively to facilitate the consultation process through their respective RPOs, when feasible.
- 6) Technical analyses will be transparent, when possible, and will reflect the most up-to-date information and best scientific methods for the decision needed within the resources available.
- 7) The State with the Class I area retains the responsibility to establish reasonable progress goals. The RPOs will make reasonable efforts to facilitate the development of a consensus between the State with a Class I area and other States affecting that area. In instances where the State with the Class I area can not agree with such other States that the goal provides for reasonable progress, actions taken to resolve the disagreement must be included in the State’s regional haze implementation plan (or plan revisions) submitted to the EPA Administrator as required under 40 CFR §51.308(d)(1)(iv).
- 8) All States whose emissions are reasonably anticipated to contribute to visibility impairment in a Class I area, must provide the Federal Land Manager (“FLM”) agency for that Class I area with an opportunity for consultation, in person, on their regional haze implementation plans. The States/Tribes will pursue the development of a memorandum of understanding to expedite the submission and consideration of the FLM’s comments on the reasonable progress goals and related implementation plans. As required under 40 CFR §51.308(i)(3), the plan or plan revision must include a description of how the State addressed any FLM comments.
- 9) States/Tribes will consult with the affected FLMs to protect the air resources of the State/Tribe and Class I areas in accordance with the FLM coordination requirements specified in 40 CFR §51.308(i) and other consultation procedures developed by consensus..
- 10) The consultation process is designed to share information, define and document issues, develop a range of options, solicit feedback on options, develop consensus advice if possible, and facilitate informed decisions by the Class I States.
- 11) The collaborators, including States, Tribes and affected FLMs, will promptly respond to other RPO’s/States’/Tribes’ requests for comments.

The following points highlight several of the many ways MANE-VU member states and tribes have cooperatively addressed regional haze.

- **Budget Prioritization:** MANE-VU developed a process to coordinate MARAMA, OTC and NESCAUM staff in developing budget priorities, project rankings, and federal grant requests.
- **Issue Coordination:** MANE-VU establishes a conference call and meeting schedule for each of its committees and workgroups. In addition, the MANE-VU Directors regularly discuss pertinent issues.
- **SIP Policy and Planning:** MANE-VU states/tribes collaborated on the development of a SIP Template and the technical aspects of the SIP development process.
- **Capacity Building:** To educate its staff and members, MANE-VU included technical presentations on conference calls and organized workshops with nationally recognized experts. Presentations on data analysis, BART work, inventory topics, modeling, control measures etc. were an effective education, and coordination tool.
- **Routine Operations:** MANE-VU staff at OTC, MARAMA, and NESCAUM established a coordinated approach to: budget, grant deliverables/due-dates, workgroup meetings, inter-RPO feedback, etc.

40 CFR Section 51.308(d)(3)(i) requires the State of Maine to consult with other States/Tribes to develop coordinated emission management strategies. This requirement applies both where emissions from the State/Tribe are reasonably anticipated to contribute to visibility impairment in Class I areas outside the State/Tribe, and when emissions from other States/Tribes are reasonably anticipated to contribute to visibility impairment in Class I areas within the State/Tribe.

Maine consulted with other states and tribes by participation in the MANE-VU and inter-RPO processes that developed technical information necessary for development of coordinated strategies. Strategy development considered the impacts of the state and tribe's emissions on Class I areas within and outside the state or tribe and culminated in the adoption by MANE-VU on June 20, 2007 of the "Statement of the Mid-Atlantic/Northeast Visibility Union (MANE-VU) Concerning a Request for a Course of Action by States Within MANE-VU Toward Assuring Reasonable Progress."

The consultations between the MANE-VU states and other states/tribes and provinces occurred throughout much of 2007. Documentation of consultation meetings and calls is summarized below, in Figure 3-3, with further documentation provided in Attachment C.

Figure 3-3 Summary of Consultations

- MANE-VU Intra-Regional Consultation meeting, March 1, 2007
 - At this meeting, MANE-VU members reviewed the requirements for regional haze plans, preliminary modeling results, the work being done to prepare the MANE-VU report on reasonable progress factors, and control strategy options under review.
- MANE-VU Intra-State Consultation meeting, June 7, 2007
 - At this meeting the MANE-VU Class I states adopted a statement of principles, and all MANE-VU members discussed draft statements concerning reasonable controls within and outside of MANE-VU. Federal Land Managers also attended the meeting, which was open to stakeholders.
- MANE-VU Conference Call, June 20, 2007
 - On this call, the MANE-VU states concluded discussions of statements concerning reasonable controls within and outside MANE-VU and agreed on the statements called the MANE-VU “Ask,” including a statement concerning controls within MANE-VU, a statement concerning controls outside MANE-VU, and a statement requesting a course of action by the U.S. EPA. Federal Land Managers also participated in the call. Upon approval, all statements as well as the statement of principles adopted on June 7 were posted and publicly available on the MANE-VU web site. The MANE-VU “Ask” was determined to represent Maine’s needs for meeting Regional Haze rule requirements and was thus adopted as the Maine Regional Haze “Ask”.
- MANE-VU Class I States’ Consultation Open Technical Call, July 19, 2007
 - On this call, the MANE-VU / Maine “Ask” was presented to states in other RPOs, RPO staff, and Federal Land Managers, and an opportunity was provided to request further information. This call was intended to provide information to facilitate informed discussion at follow-up meetings.
- MANE-VU Consultation Meeting with MRPO, August 6, 2007
 - This meeting was held at LADCO offices in Chicago, Illinois and was attended by representatives of both MANE-VU and MRPO states as well as staff. The meeting provided an opportunity to formally present the MANE-VU / Maine “Ask” to MRPO states and to consult with them regarding the reasonableness of the requested controls. Federal Land Manager agencies also attended the meeting.
- MANE-VU Consultation Meeting with VISTAS, August 20, 2007
 - This meeting was held at State of Georgia offices in Atlanta and was attended by representatives of both MANE-VU and VISTAS states as well as staff. The meeting provided an opportunity to formally present the MANE-VU / Maine “Ask” to VISTAS states and to consult with them regarding the reasonableness of the requested controls. Federal Land Manager agencies also attended the meeting.
- MANE-VU – Midwest RPO Consultation Conference Call, September 13, 2007
 - This call was a follow-up to the meeting held on August 6 in Chicago and provided an opportunity to further clarify what was being asked of the MRPO states. The flexibility in the “Ask” was explained. Both MRPO and MANE-VU staff agreed to work together to facilitate discussion of further controls on ICI boilers and EGUs.
- MANE-VU Air Directors’ Consultation Conference Call, September 26, 2007
 - This call allowed MANE-VU members to clarify their understanding of the “Ask” and to provide direction to modeling staff as to how to interpret the “Ask” for purposes of estimating visibility impacts of the requested controls.

3.3 Maine-Specific Consultation

On February 26, 2007, Maine sent letters formally requesting consultation under the Regional Haze Rule to each state shown through modeling to contribute to at least 2 percent of the sulfates to the Class I Areas in Maine and/or states located within MANE-VU (See Table 3-2). As a matter of procedure, every member state (plus the District of Columbia) of MANE-VU was requested to consult with Maine. Additional states from outside of MANE-VU were also requested to join our consultation, based on the results of the MANE-VU Contribution Assessment (Attachment A).

Table 3-2
States Contributing to Visibility Impairment at Class I Areas in Maine
(By Regional Planning Organization)

MANE-VU	VISTAS	MRPO
Connecticut	Georgia	Illinois
Delaware	Kentucky	Indiana
District of Columbia	North Carolina	Michigan
Maine	Tennessee	Ohio
Maryland	Virginia	
Massachusetts	West Virginia	
New Jersey		
New York		
Pennsylvania		
Rhode Island		
Vermont		

Formal inter-regional consultation meetings took place on August 6, 2007 in Rosemont, Illinois (for Midwestern states) and on August 20, 2007 in Atlanta (for Southern states). Consultation continues with the Midwestern states, seeking common approaches for reducing power plant emissions beyond the levels defined under the federal Clean Air Interstate Rule (CAIR), controls on industrial boilers, and cleaner burning fuels for mobile sources. While this consultation was mostly focused on the health benefits of reducing ozone and small particles, the measures would also result in visibility improvements.

3.4 The MANE-VU "Ask"

In addition to having a set of guiding principles for consultation (as described in Figure 3-2, above), MANE-VU needed a consistent technical basis for emission control strategies to combat regional haze. After much research and analysis, on June 20, 2007, MANE-VU adopted a set of documents (See Attachment D), which provide the technical basis for consultation among the interested parties and define the basic strategies for controlling pollutants that cause visibility impairment at Class I areas in the eastern United States:

- “Statement of the Mid-Atlantic / Northeast Visibility Union (MANE-VU) Concerning a Course of Action within MANE-VU toward Assuring Reasonable Progress”
- “Statement of the Mid-Atlantic / Northeast Visibility Union (MANE-VU) Concerning a Request for a Course of Action by States outside of MANE-VU toward Assuring Reasonable Progress”
- “Statement of the Mid-Atlantic / Northeast Visibility Union (MANE-VU) Concerning a Request for a Course of Action by the U.S. Environmental Protection Agency (EPA) Towards Assuring Reasonable Progress”

Together, these documents are known as the MANE-VU “Ask.” Maine believes that these documents outline reasonable strategies for visibility improvement as required by the Clean Air Act, and fully supports the language and substance of these documents. The MANE-VU “Ask” is therefore the Maine “Ask”. The particular emission management strategies that comprise the Ask are described, in detail, below.

3.5 Meeting the “Ask” – MANE-VU States

The member states of MANE-VU stated their intention to meet the terms of the “Ask” in their SIPs. Maine conditionally supports the SIPs of each of its fellow MANE-VU members, with this support contingent upon the adoption and implementation of regional haze emission control measures and programs satisfying the MANE-VU “Ask”. The Ask for member states calls for each state to pursue the adoption and implementation of the following “emission management” strategies, as appropriate and necessary:

- **Timely implementation of BART requirements** in accordance with 40 CFR 51.308(e);
- **A low sulfur fuel oil strategy in the inner zone states** (New Jersey, New York, Delaware and Pennsylvania, or portions thereof) to reduce the sulfur content of: distillate oil to 0.05% sulfur by weight (500 ppm) by no later than 2012, of #4 residual oil to 0.25% sulfur by weight by no later than 2012, of #6 residual oil to 0.3 – 0.5% sulfur by weight by no later than 2012, and to further reduce the sulfur content of distillate oil to 15 ppm by 2016;
- **A low sulfur fuel oil strategy in the outer zone states** (the remainder of the MANE-VU region) to reduce the sulfur content of distillate oil to 0.05% sulfur by weight (500 ppm) by no later than 2014, of #4 residual oil to 0.25 – 0.5% sulfur by weight by no later than 2018, and of #6 residual oil to no greater than 0.5 % sulfur by weight by no later than 2018, and to further reduce the sulfur content of distillate oil to 15 ppm by 2018, depending on supply availability;
- **A targeted EGU strategy** for each of the top 100 electric generating unit (EGU) emission points or stacks, identified by MANE-VU as contributing to visibility impairment at each mandatory Class I area in the MANE-VU region. (The

combined list for all seven MANE-VU Class I Areas contains 167 distinct emission points. Consequently, this strategy is sometimes referred to as the 167-stack strategy.) The targeted EGU strategy calls for a ninety-percent or greater reduction in sulfur dioxide (SO₂) emissions from all identified units. If it is infeasible to achieve that level of reduction from specific units, equivalent alternative measures will be pursued in such state⁸; and

- **Continued evaluation of other control measures**, including energy efficiency, alternative clean fuels, and other measures to reduce SO₂ and nitrogen oxide (NO_x) emissions from all coal-burning facilities by 2018 and new source performance standards for wood combustion. These measures and other measures identified will be evaluated during the consultation process to determine if they are reasonable and cost-effective.

3.6 Meeting the “Ask” – Maine

Maine, being a MANE-VU member state, adopted the “Statement of the Mid-Atlantic/Northeast Visibility Union (MANE-VU) Concerning a Course of Action Within MANE-VU Toward Assuring Reasonable Progress” at the MANE-VU Board Meeting on June 7, 2007. Maine intends to meet the terms of this agreement by controlling its BART eligible sources with timely control strategies as well as adopting the low sulfur limits for “outer zone” MANE-VU states and targeted EGU strategies in the near future.

Maine has already obtained statutory authority to modify the sulfur in fuel limits in accordance with the MANE-VU Ask. The 124th Second Regular Session of the Maine Legislature (2010) adopted LD 1662, “An Act To Improve Maine's Air Quality and Reduce Regional Haze at Acadia National Park and Other Federally Designated Class I Areas,” which implements the MANE-VU low sulfur fuel strategy in Maine. This legislation establishes a statewide sulfur limit for distillate fuels of 50 ppm in 2016, and 15 ppm in 2018. For residual (#6) fuel oil, the statewide sulfur limit will be reduced to 0.5% in 2018.

Maine has one oil-fired EGU (Wyman Station Unit #4) that is on the list of top 100 contributing EGUs, and this unit will use lower-sulfur fuel oil to comply with BART requirements by 2013. At this point in time, Maine does not believe that SO₂ emissions from this unit can be cost-effectively controlled at the 90-percent level of the Ask through add-on controls such as flue gas desulfurization because of the very low capacity factor⁹. In lieu of add-on controls for this unit, Maine will be requiring the use of 0.5 percent low-sulfur fuel oil providing an 84 percent reduction from baseline SO₂ emissions¹⁰. For more details, refer to Section 12.0, Long Term Strategy.

⁸ For additional information on the targeted EGU strategy, see section 10.4.3, and Attachment W.

⁹ The capacity factor for this unit averaged 11.35% during the period 2000-2007.

¹⁰ Baseline (uncontrolled) sulfur concentrations for #6 fuel are assumed to be 3,000 ppm, or 3.0%.

3.7 Meeting the “Ask” – States Outside of MANE-VU

For consulting states outside the MANE-VU region, Maine agrees with the MANE-VU “Ask” requesting pursuit of the adoption and implementation of the following control strategies, as appropriate and necessary:

- **Timely implementation of BART requirements**, as described for the MANE-VU states;
- **A targeted EGU strategy**, as described for the MANE-VU states, for the top 167 EGU stacks contributing the most to visibility impairment at mandatory Class 1 areas in the MANE-VU region, or an equivalent SO₂ emission reduction within each state¹¹;
- **Installation of reasonable control measures on non-EGU sources by 2018** to achieve an additional 28% reduction in non-EGU SO₂ emissions beyond current on-the-books/on-the-way (OTB/OTW) measures, resulting in an emission reduction that is equivalent to that from MANE-V’s low-sulfur fuel oil strategy; and
- **Continued evaluation of other measures** including measures to reduce SO₂ and nitrogen oxide (NOx) emissions from all coal-burning facilities by 2018 and promulgation of new source performance standards for wood combustion. These measures and other measures identified will be evaluated during the consultation process to determine if they are reasonable.

Maine looks for each consulting states to specifically address their responses to each element of the Maine/MANE-VU “Ask” in their Regional Haze SIPs.

Maine is concerned that non-MANE-VU states may not be inclined to easily adopt our “Ask” due to associated costs, conflicts, and relative lack of benefit within their jurisdictions. During consultations, MANE-VU members thought that some non-MANE-VU states were not going to pursue reductions beyond CAIR controls and BART.

There are some positive exceptions, however. Many states of the MRPO are working with MANE-VU states to investigate the potential for widespread low sulfur fuel use and controls on industrial boilers. Unfortunately, the low sulfur oil strategy does not lend itself very well to wide-spread application within the VISTAS states because they do not have the same degree of oil use and inventory infrastructure. States of both regions claim

¹¹ While many of the 167 identified stacks will be controlled under the Clean Air Interstate Rule (CAIR), cap and trade programs such as CAIR cannot, as currently formulated, ensure that specific stacks or contributing states will adequately reduce their emission contribution (as discussed in the July 11, 2008 U.S. Court of Appeals for the District of Columbia Circuit decision on CAIR). The MANE-VU strategy is designed to provide a guarantee that those units having the greatest impact on visibility in the MANE-VU region will be adequately controlled. It should also be noted that the MANE-VU strategy also includes stacks located in non-CAIR states (e.g., Wyman Station in Yarmouth, Maine).

that a substantial portion of the top 167 contributing EGU stacks will be controlled. However, instead of taking concrete actions on uncontrolled or under-controlled facilities, many of these states appear to be satisfied with meeting CAIR requirements and not looking beyond CAIR for additional emission reductions.

3.8 Meeting the “Ask” - EPA

Although the CAIR rule will result in substantial reductions in sulfur dioxide emissions from power plants in the Eastern United States, power plants will remain a significant source of visibility impairing pollutants in Maine and other MANE-VU Class I states. Maine supports the “Statement of the Mid-Atlantic / Northeast Visibility Union (MANE-VU) Concerning a Request for a Course of Action by the U.S. Environmental Protection Agency (EPA) Towards Assuring Reasonable Progress,” which requests that EPA work with the eastern RPOs to develop a proposal for tightening the CAIR program to achieve an additional 18% reduction in SO₂ by no later than 2018. ”

3.9 Technical Ramifications of Differing Approaches

MANE-VU states intended to develop a modeling platform that was common in terms of meteorology and emissions with each of the other nearby RPOs. The RPOs worked hard to form a common set of emissions with similar developmental assumptions. Even with the best of intentions, it became difficult to keep up with each RPO’s updates and corrections. Each rendition of emissions inventory improved its quality, but because when even a single update was made to one RPO’s emissions, each of the other RPOs then needed to adopt the updates. With each rendition, the revised emissions had to be re-blended with the full set of emission files for all associated RPOs in the modeling domain.

The RPOs also took differing perspectives on which version of the EGU dispatching model (IPM) to use. At the beginning of the process, Integrated Planning Model (IPM) version 2.1.9 was available, and EPA agreed to its use for emissions preparation. IPM version 3.0 subsequently became available and became EPA’s preferred version because of its updated fuel costs. MRPO adopted IPM v3.0 for its use, but VISTAS stayed with IPM v2.1.9. Rather than develop non-comparative datasets for its previous IPM analyses, MANE-VU opted to also remain with IPM v2.1.9. Therefore, for each of the three eastern RPOs, differing emissions assumptions eventually worked their way into the final set of modeling assumptions.

MANE-VU’s final modeling takes into account on-the-books/on-the-way (OTB/OTW) emissions programs for 2018, and goes further by also including additional reasonable controls in its region, as developed through the Maine/MANE-VU “Ask”. It should be noted that other RPOs may not have included such measures in their final modeling and as a result may have been able to complete their analyses ahead of the MANE-VU member states. In these instances, there will be an inconsistency in that these states will not have adequately addressed our “Ask” in their SIPs.

3.10 Consultation Issues

40 CFR Section 51.308(d)(1)(iv) describes another consultation requirement for Class I States only. If a contributing State does not agree with a Class I State on its reasonable progress goal, the Class I State must describe in its SIP submittal the actions taken to resolve the disagreement.

While states without Class I areas are required to consult at the request of states with Class I areas, the Regional Haze Rule does not actually require that the states agree on a common course of action. Instead, if agreement cannot be reached, the disagreement needs to be described in each state's SIP along with a description of the actions taken to resolve the disagreement. As expected, most states willingly consulted with Maine and took Maine's regional haze "Ask" under serious consideration. In fact, all of the MANE-VU states worked together to strategize on how to develop a common approach to meeting the "Ask". All states involved in these discussions found that working together helped them to develop plans that would produce region-wide haze and health benefits. Lowering ambient PM_{2.5} concentrations helped all the MANE-VU states meet the NAAQS as well as having direct benefits to public health and welfare.

Some states in the MRPO and VISTAS regions had interpretations of the requirements for BART and for establishing reasonable progress goals which differed from those in the MANE-VU states. Some states claimed that CAIR alone set the standard for reasonableness. By this rationale, any measure more expensive than CAIR (on a cost-per-ton basis) would not be reasonable. A uniform rate of progress was all that some states felt was required; and if that set of conditions could be met with CAIR, then no other measures need be considered. Maine is also concerned that some states may have performed modeling for the establishment of reasonable progress goals without including the effects of a rigorous BART determination for BART-eligible sources. It is apparent that the various regions of the country have differing interpretations of how the Regional Haze Rule should be applied.

In a letter to MANE-VU dated April 25, 2008 (Attachment E), VISTAS indicates that most actions beyond CAIR by states within this region would not be reasonable. MANE-VU takes a more rigorous position with respect to additional control measures – including the belief that controls on ICI boilers and use of low-sulfur fuels are reasonable measures and that it is not reasonable to assume reductions from EGUs for planning purposes unless they are explicitly incorporated into State Implementation Plan. More specifically, MANE-VU believes that a sector-wide average of 50 percent control on coal-fired boilers and 75 percent control on oil-fired boilers are reasonable targets that can be achieved cost-effectively. MANE-VU also believes that low sulfur fuels – even though they are less widely available in the Southeast U.S. than in the Northeast – still represent a reasonable control measure in light of the widespread requirement for use of such fuels throughout the MANE-VU region. The reasonableness of these additional controls is examined more fully in Section 11.0, Reasonable Progress Goals.

West Virginia expressed concern that while MANE-VU included a 28 percent reduction from the non-EGU sector, they (West Virginia) did not have any measures to meet this additional reduction requirement. West Virginia also indicated that the implementation of CAIR would provide significant emission reductions above and beyond those modeled by MANE-VU, and that these reductions should be creditable toward the 28 percent non-EGU sector “Ask”. Maine believes that these additional EGU emission reductions should be creditable towards meeting the non-EGU emission reductions measure included in the MANE-VU “Ask,” as long as they are not offset by additional increases in EGU emissions under the CAIR or other cap and trade program.

During the consultation process, disagreements were worked through as best as possible and are summarized below:

Issue: BART analyses and projected controls were not fully incorporated in the VISTAS emissions inventory provided to MANE-VU. VISTAS stated they would further review BART applicable controls.

Resolution: In MANE-VU’s modeling to determine reasonable progress goals, MANE-VU made no adjustments to controls in the VISTAS region to reflect application of BART beyond the information that VISTAS provided.

Issue: The low sulfur oil strategy adopted by MANE-VU elicited concerns from MRPO and VISTAS as being unreasonable because of the limited availability of low-sulfur fuel oil and the historically lower usage of this fuel within their regions.

Resolution: MANE-VU agreed to modify the “Ask” to reflect a greater degree of flexibility and provide for alternative measures that would produce a comparable rate of emission reductions. Accordingly, the “Ask” for non-MANE-VU states was modified to provide for an overall 28 percent reduction in SO₂ emissions, wherever they were found to be reasonable. In MANE-VU’s modeling to determine reasonable progress goals, SO₂ emissions from non-EGU sources in non-MANE-VU contributing states were reduced by this same amount.

Issue: MANE-VU received no response from other RPOs concerning non-EGU control measures that they considered reasonable.

Resolution: As a default position, MANE-VU’s modeling included emission adjustments for those regions based on MANE-VU’s own analysis of which non-EGU control measures were reasonable (See Section 11, Reasonable Progress Goals).

Issue: The targeted EGU strategy was thought by some non-MANE-VU states to be too restrictive and too difficult to achieve. MANE-VU recognized that a 100 percent compliance with this portion of the “Ask” was unlikely to occur because the CAIR trading market would probably dominate. However, MANE-VU had hoped that non-MANE-VU states would make a more concerted effort toward meeting this request. MANE-VU did receive a partial list of facilities that were expected to comply.

Resolution: For the top contributing EGU stacks located within the MANE-VU, MRPO, and VISTAAS regions, expected emission reductions resulting from the “Ask” were distributed among facilities on the basis of recommendations received during inter- and intra-regional consultations. To maintain the CAIR emissions budget as predicted by the modeling, excess emission reductions (also predicted by the modeling) were uniformly added back to EGUs in all three regions.

While CAIR is the primary determinant of which EGUs among the top 167 stacks are to be fitted with emission controls, at the same time, MANE-VU recognized that these units are the primary sources affecting visibility in the MANE-VU states. For the initial planning, MANE-VU expects that, over time, these actual facilities will need to be controlled if significant improvements in visibility at affected Class I areas are to be realized.

MANE-VU believes that the goals of the “Ask” will be attained only by means of binding obligations to EGU emission reductions beyond what CAIR was expected to provide. MANE-VU therefore maintains that additional federal action is needed to achieve the visibility benefits shown to be feasible through sensitivity modeling (See Attachment P, “MANE-VU Modeling for Reasonable Progress Goals: Model Performance Evaluation, Pollution apportionment and Control Measure Benefits,” Feb. 7, 2008) and demonstrated to be available at reasonable cost (See Attachment S, Alpine Geophysics, LLC, “Documentation of 2018 Emissions from Electric Generating Units in the Eastern United States for MANE-VU’s Regional Haze Modeling,” Revised Final Draft, April 28, 2008).

MANE-VU’s position on this issue is formally expressed in its “Statement of the Mid/Atlantic/Northeast Visibility Union (MANE-VU Concerning a Request for a Course of Action by the U.S. Environmental Protection Agency (EPA) toward Assuring Reasonable Progress” adopted June 20, 2007. This statement, more commonly known as MANE-VU’s National “Ask,” is included in Attachment D. Although other RPOs did not adopt all of the same philosophies or processes for their regional haze Sips, the consultation process maintains a central role in regional haze planning. Maine is pleased with the significant opportunities identified for ongoing consultation with other states concerning long-term strategies, not only for regional haze mitigation, but also for improved air quality in general.

Maine and other MANE-VU states are committed to continuing consultation with states in the MRPO and VISTAS regions, through participation in the State Collaborative process, in which new regional control strategies are discussed to reduce future emissions of multiple pollutants of common regional concern.

4. State/Tribe and Federal Land Manager Coordination

40 CFR Section 51.308(f) requires the State of Maine to submit its SIP revision by July 31, 2018 and every ten years thereafter.

40 CFR Section 51.308(i) requires coordination between States/Tribes and the Federal Land Managers (FLMs). Opportunities have been provided by MANE-VU for FLMs to review and comment on each of the technical documents developed by MANE-VU and included in this SIP. Maine has provided agency contacts to the FLMs as required. In the development of this Regional Haze Plan, the FLMs were consulted in accordance with the provisions of 40 CFR Section 51.308(i)(2). The State of Maine has provided the FLMs an opportunity for consultation, in person and at least 60 days prior to holding any public hearing on the SIP. This SIP was submitted to FLMs on May 25, 2010 for formal review and comment.

In accordance with 40 CFR Section 51.308(i)(3) the State of Maine has received comments regarding the SIP from FLMs. Comments received from the Federal Land Managers on the Plan were addressed. The comments and responses are included in Attachment F of this plan.

40 CFR Section 51.308(i)(4) requires procedures for continuing consultation between the State/Tribe and FLMs on the implementation of the visibility protection program. The State of Maine will consult with the Federal Land Manager(s) on the status of the following implementation items:

1. Implementation of emissions strategies identified in the SIP as contributing to achieving improvement in the worst-day visibility
2. Summary of major new source permits issued
3. Status of State/Tribe actions to meet commitments for completing any future assessments or rulemakings on sources identified as likely contributors to visibility impairment, but not directly addressed in the most recent SIP revision
4. Any changes to the monitoring strategy or monitoring stations status that may affect tracking of reasonable progress
5. Work underway for preparing the 5-year review and / or 10-year revision
6. Items for FLMs to consider or provide support for in preparation for any visibility protection SIP revisions (based on a 5-year review or the 10-year revision schedule under EPA's RHR)
7. Summary of topics discussion (meetings, emails, other records) covered in ongoing communications between the State/Tribe and FLMs regarding implementation of the visibility program.

The consultation will be coordinated with the designated visibility protection program coordinators for the National Park Service, U. S. Fish and Wildlife Service and the U.S. Forest Service, and will consist of an annual report to the respective FLMs, along with an opportunity for an in-person or teleconference consultation.

40 CFR Section 51.308(g) requires the State of Maine to submit a report to the EPA every 5 years evaluating progress towards the reasonable progress goal for each Class I Federal area located within the State and in each Class I area located outside the State that may be affected by emissions from within the State. The first progress report is due 5 years from submittal of the initial implementation plan and must be in the form of implementation plan revisions.

In accordance with 40 CFR Section 51.308(h), at the time of the report submission, the State of Maine will also submit a determination of the adequacy of its existing Regional Haze SIP revision.