



United States Department of the Interior

NATIONAL PARK SERVICE
WASHINGTON, D.C. 20240

IN REPLY REFER TO:

N3615(492)

PROPERTY OF
Science and Resources Management
Sig Bend National Park, Idaho

JUN 24 1980

Memorandum

To: Superintendents of Class I Areas under the Clean Air Act
(See attached list)

From: ^{Acting} Director

Subject: Identification of Integral Vistas for Visibility Protection

Congress, in the Clean Air Act Amendments of 1977, recognized the need to protect the exceptional visibility in our national parks and declared as a national goal "the remedying of existing, and prevention of any future impairment of visibility in mandatory class I areas". Section 169A of the Act required EPA to promulgate regulations to assure fulfillment of this national goal.

On May 22, 1980, pursuant to the requirements of the Clean Air Act, the Environmental Protection Agency (EPA) issued a proposed regulatory program to protect visibility in mandatory class I air quality areas. Forty eight NPS areas will be affected by this program which broadens the powers and responsibility of the NPS in protecting scenic vistas from external threats. Visibility protection for vistas within class I areas, that is, from one point in the park to another, is already covered in the Prevention of Significant Deterioration provisions of the Clean Air Act. Our new responsibilities will include the protection of vistas from within our class I areas to areas outside the park boundary which are integral to the visitor's experience or to the purpose for which the area was established.

The visibility regulations will be one of the fundamental tools by which the Park Service will have the opportunity to protect the parks from major external threats -- uncontrolled energy and industrial development in the vicinity of class I parks. It is vitally important that we seize upon this opportunity to preserve and enhance the visibility and scenic beauty of these areas for the enjoyment of present and future generations.

The Park Service is directly responsible for several crucial components of the regulatory program. As Federal land managers we have an affirmative responsibility to protect the visibility values of our class I areas. To do this we must initially identify all vistas which are viewed from within the park to a feature or scenic area outside the boundary of the park. These vistas -- termed "integral vistas" -- must be important to either the visitor's experience or to the fundamental purpose for which the area

Year of
the
Visitor

was established. Well substantiated identification of these integral vistas will afford NPS the opportunity to protect these scenic resources from those abuses which can be reasonably attributed to existing sources of impairment and from future degradation from major proposed energy and industrial sources of pollution in the vicinity of our parks.

I am forwarding for your review a copy of the proposed EPA regulations, background material on the proposed regulations, as well as the draft guideline document entitled "Procedure for Identifying Integral Vistas". Please review the guideline document to evaluate if it is useful in meeting your particular needs for identifying the integral vistas in your area. If, upon your review, these guidelines appear to be deficient in any way -- particularly if any key vistas fail to be identified by the draft criteria -- provide me with written comments by July 17 so that we may notify EPA before the close of the comment period.

When the final regulations are issued in November we will have only 90 days to complete and submit our identification of integral vistas. Due to this short time frame ending in February, and the inclement nature of weather at that time of the year which makes some key vistas inaccessible, I want to seize upon the opportunity given to us by the regulations by identifying all integral vistas as soon as possible. Therefore it is critical that we begin our review and identification of vistas before the final regulations are issued. It will be the responsibility of the Superintendents to see that the integral vistas of their parks are properly identified and substantiated. I look forward to seeing a list of preliminary identifications and supporting documentation by late August. As a starting point for the identification process, I am including the Preliminary Visibility Workbook prepared by your area in 1978. These workbooks already identify many of the vistas in your area to which the factors in the guideline document can be applied. If necessary, do not hesitate to identify additional vistas that may have been inadvertently overlooked in the preliminary workbooks.

Within the next few weeks, members of the Regional Offices and the WASO Air Quality team will be in contact with you to provide guidance and technical assistance in conducting the identifications. Detailed workplans and instructions will be forwarded to you at that time. It is essential that integral vistas be identified in a consistent fashion in all NPS units. They must be well substantiated and soundly justified if they are to withstand challenges from all those who may object to this opportunity for protection. The protection of our scenic vistas depends upon the integrity of this effort.

If you have questions regarding any of these materials or instructions, please contact Dave Shaver in the WASO Air Quality Office - Denver at (303) 234-6419.

(Signed) IRA J. HUTCHISON

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All Regional Directors
Manager, Denver Service Center

Class I Areas under the Clean Air Act

Acadia National Park
Arches National Park
Badlands National Park
Bandelier National Monument
Big Bend National Park
Black Canyon of the Gunnison National Monument
Bryce Canyon National Park
Canyonlands National Park
Capitol Reef National Park
Carlsbad Caverns National Park
Chiricahua National Monument
Crater Lake National Park
Craters of the Moon National Monument
Everglades National Park
Glacier National Park
Grand Canyon National Park
Grand Teton National Park
Great Sand Dunes National Monument
Great Smoky Mountains National Park
Guadalupe Mountain National Park
Haleakala National Park
Hawaii Volcanoes National Park
Isle Royale National Park
Joshua Tree National Monument
Kings Canyon National Park
Lassen Volcanic National Park
Lava Beds National Monument
Mammoth Cave National Park
Mesa Verde National Park
Mount McKinley National Park
Mount Ranier National Park
North Cascades National Park
Olympic National Park
Petrified Forest National Park
Pinnacles National Monument
Point Reyes National Seashore
Redwoods National Park
Rocky Mountain National Park
Saguaro National Mounment
Sequoia National Park
Shenandoah National Park
Theodore Roosevelt National Park
Virgin Islands National Park
Voyaguers National Park
Wind Cave National Park
Yellowstone National Park
Yosemite National Park
Zion National Park

VISIBILITY INFORMATION SHEET

US Environmental Protection Agency (EPA) recently issued regulations which are intended to correct and prevent visibility-reducing air pollution in national parks and scenic areas. Under the 1977 amendments to the Clean Air Act, 48 National Park Service areas, (national parks, monuments and wilderness therein) are classified as Class I air quality areas. This is most stringent air quality designation and allows only minimal degradation.

In these new regulations EPA said national visibility goals should be achieved by first cleaning up the "obvious" existing sources of visibility impairment, and also scrutiny of new pollutant sources. The second phase would attack the problem of regional haze usually caused by multiple sources. EPA regulations provide for states to formulate a plan to control visibility reducing pollutants.

Under the Act, EPA was to have issued these regulation last August. However, when the agency missed the deadline, Friends of the Earth brought a court suit and won. EPA is issuing these regulations now in compliance with a court order ordered schedule. *Consent Agreement*

The National Park Service manages 48 of the 158 Class I areas in the United States. A recent survey of federal land managers indicated that in approximately one-third of the Class I areas, visibility quality is frequently "undesirable."

NPS is worried about the problem of gradual obscuration of park scenic vistas. "If I were to rank threats to the parks, air pollution and visibility degradation would be number 1", former Park Service director, William Whalen told members of the National Audubon Society last summer.

NPS supports EPA in recommending that the views extending outside Class I also areas be protected. However, EPA limited these views to those seen from points and overlooks within the Class I area. These views or "integral vistas" would be selected by a set of criteria, including consideration of the vista's importance to visitor enjoyment and to the purposes for which the area was established.

NPS believes the integral vista concept should be broader to include important integral vistas of parks features seen from points outside the area. These "out to in" views that NPS believes merit protection would include traditional views for example, the panorama of the Grand Tetons and Olympic Mountains.

Identification of these integral vistas would not automatically preclude sources from being built near Class I areas. If analysis of the visibility impacts indicated that the impairment would not be adverse, the NPS would not object to the new source permit application being granted.

NPS believes that the highest priority of visibility protection is evaluating the effects of new sources on visibility.

Many of the national parks in the west are likely to be effected by development of energy projects and population growth. Although available visibility models are new and still evolving, NPS believes their use is critical to adequately evaluate the effects of these new sources.

Existing sources that significantly impair visibility will be required to apply best retrofit technology (BART). NPS is concerned that many sources will escape the retrofit requirement since many sources are too old, or the controls may be deemed too expensive. Sources over 15 years old will not have to retrofit. In addition, EPA has included in the BART decision making, cost considerations which may, in our current economic climate be judged by EPA and the states to outweigh environmental improvement.

NPS believes these EPA regulations represent a good first step in protecting the quality of visibility. However, NPS is still worried that a solution to the problem of regional haze, left out of the recent regulations, be addressed by EPA soon in future regulations. The problem of regional haze requires further attention by EPA and NPS in further cooperative research on monitoring and modeling techniques. NPS encourages EPA to diligently develop adequate air quality models and visibility monitoring techniques so that the air quality in parks and scenic areas can be protected.

VISIBILITY: EPA SCHEDULE AND DRAFT REGULATIONS

I. EPA Visibility Rulemaking Schedule

Proposed Regulations	May 18, 1980
Public Hearings (Washington, D.C., & Salt Lake City)	June 30 & July 2
Close of Public Comment Period	July 31
Final Regulations	November 15, 1980

II. Draft EPA Regulations

Phased Program:

Phase I aimed at impairment which can be easily traced to a source
-- "plume blight"
Phase II will address regional haze issue when the tools for analysis
become available.

Integral Vista Identification:

FLM must identify out-of-area vistas which are an important part of
the Class I area. Based on the purposes for which the area was
established or the visitor experience.

Visibility Impairment and Existing Source Identification:

FLM must identify Class I areas which are presently impaired and
if possible should identify the sources causing the impairment.

BART (Best Available Retrofit Technology) Determination:

States must require BART on existing sources causing impairment
(3 - 5 power plants)

FLM should participate in the determination of best available technology
FLM must concur before any BART exemption is effective.

New Source Reviews:

FLM must determine whether a new source will have an "adverse impact"
on air quality related values, including visibility.

Monitoring and Modeling Requirements:

FLM will need to conduct monitoring to determine existing visibility
and to assess long-term visibility trends.
Modeling will be necessary to determine the impacts of new sources and
to address the regional haze/multi-source visibility problem.

VISIBILITY BRIEFING DOCUMENT

Background

The Clean Air Act requires EPA to develop a program for the protection of visibility in Class I areas. Section 169A of the Act requires EPA to provide guidelines to the States for visibility protection of mandatory Class I Federal areas where it has been determined that visibility is an important value. The Department of the Interior (DOI) has identified 156 Class I areas where visibility is an important value deserving protection. Visibility protection for Class I areas is also provided by the Prevention of Significant Deterioration (PSD) program. These Clean Air Act requirements broaden the power and responsibility of the Federal Land Manager (FLM). However, the program is consistent with the basic National Park Service mandate.

On November 30, 1979, EPA initiated formal visibility development by publishing an advance notice of Proposed Rulemaking (44 FR 69116). The notice provided information on the key components of the regulatory program and outlined tentative EPA staff positions on the issues. The proposed regulatory package is scheduled to be published in mid-May and final regulations are due in November 1980. The timing for this regulatory development is constrained by a consent agreement between EPA and the Friends of the Earth.

The National Park Service and Fish and Wildlife Service have been participating with the other Federal Land Managers and EPA in the development of the visibility regulatory program. Comments on the visibility program development and on the draft regulatory package have been provided to EPA through the interagency visibility working group.

The Secretary has requested that the Assistant Secretary for Fish and Wildlife and Parks continue to direct departmental efforts in developing a position on the proposed visibility regulations. This responsibility will be carried out through an ad hoc task force lead by the National Park Service Air Quality Office, with representatives from the Fish and Wildlife Service, the Bureau of Land Management, the Solicitor's Office, the Bureau of Indian Affairs, the Office of Environmental Project Review, and the Office of Policy Analysis.

Key visibility issues for the Federal Land Managers (FLM) include: the role of the FLM in the identification of "integral vistas" and the identification of existing sources which are impairing visibility; the determination of "significant impairment" from existing sources and "adverse impact" from new sources; the determination of best available retrofit technology (BART) for existing sources; and monitoring and modeling requirements of the program.

The EPA is proposing a phased program for visibility protection. Phase I is directed only at impairment clearly attributable to a source and regional haze problems will be addressed at some later date in Phase II regulations. The major issues of concern regarding the draft EPA regulations are noted below.

I. Visibility Protection for "Integral Vistas"

Background: EPA's preliminary position is that vistas located outside the Class I area boundary which can be viewed from inside the area and which are an integral part of the visibility value of the area should be included and protected by the visibility program.

- An FLM work group composed of NPS, FWS, BLM and Forest Service representatives has developed a process and criteria for the identification of integral vistas. This will be part of the EPA regulatory package.
- "Integral vista" concept includes vistas which are important to the visitor's enjoyment of the area or to the purposes for which the area was established.
- The FLM will be responsible for identifying the vistas to EPA and the States.
- The States must incorporate integral vistas in the SIP and provide for protection.

Recommendation: The integral vista concept should encompass consideration of all views that are important to the use and enjoyment of the area, including those views into the park from areas outside the park boundary (out-in vistas).

- The draft regulations do not provide for protection of the out to in vistas
- The regulations should be expanded to include protection of out-in and should provide criteria for identification of out-to-in vistas.
- DOI Solicitor's Office believes there is adequate legal basis for protection of integral vistas and that there is no legal basis for distinction between out-to-in vistas and in-to-out.

II. Existing Source Impairment

Background: The proposed regulations require the FLM to identify, within 90 days of promulgation, all major stationary sources that are reasonably anticipated to cause or contribute to visibility impairment in the Class I area. The State must perform an analysis of best available retrofit technology (BART) for all major sources identified by the FLM.

- impairment must be reasonably attributed to the source by visual observation or other monitoring techniques
- requires coordination with the State in identification

Recommendation: We should support the concept that the FLM identify the sources and that the State be required to use the FLM source identification for purposes of determining where BART analysis are necessary.

III. Best Available Retrofit Technology (BART)

Background: The SIP must require all major sources which cause or contribute to visibility impairment in a Class I area to install, operate, and maintain best available retrofit technology.

- BART means an emission limitation based on the highest degree of reduction achievable for each pollutant emitted by a major stationary source.
- BART determination requires an examination of technological feasibility, economic impact, energy and nonair quality environmental impacts, and the degree of visibility improvement expected.
- BART, as defined in Phase I of the regulations, will affect only a small number of sources, mostly large powerplants in the southwest. More sources may be covered by later phases of the regulation.

Recommendation: The FLM should be actively involved with the States in the BART determination. The draft EPA regulations do not specify the FLM role in the BART process. We need to get this clarified in the regulation.

- EPA is required to promulgate BART guidelines for fossil-fuel fired powerplants over 750 MW. The current EPA regulation is inadequate and only specifies the process to be followed, not emission limits. We should push for EPA to specify BART emission limits for powerplants, with case-by-case exemptions if necessary.

IV. "Significant Impairment" and "Adverse Impact" Determination

Background: Section 169A(c) provides for the EPA Administrator to allow exemptions from the BART requirements for existing sources

- source must show that it does not emit any air pollutant which may be reasonably anticipated to cause or contribute to a significant impairment of visibility in a Class I area
- significant impairment means impairment which compromises the visual values (line, form, color, texture, etc.) of the area. The determination must consider such factors as frequency, extent, time of occurrence, intensity, and duration of the impairment.
- the legislative history shows that this exemption is intended to apply to "smaller isolated sources" in remote locations.
- BART exemption does not take effect unless the appropriate FLM concurs with the Administrator's determination.

Section 165(d) requires the FLM to determine whether the emissions from a proposed new source will have an adverse impact on visibility.

- FLM must demonstrate to the permitting authority (State or EPA) that the emissions will cause an adverse impact and the permit should not be issued even though the Class I PSD increment will be met.
- FLM may exempt a source from Class I allowable increments when the source demonstrates to the FLM's satisfaction that there will be no adverse impact.

Recommendation: We need to formulate a definition of what will constitute an unacceptable impact and the process which will be used to make these determinations. The EPA regulations do not now clearly define the role and authority of the FLM in this determination and this needs to be corrected. In addition, we will need to have the resources available to make these determinations expeditiously in the future.

V. Treatment of New Pollution Sources

Background: The major impact of the visibility regulations over the next few years will be in the new source permitting area. An NPS Study revealed that over 90 new sources will apply for permits to locate near Park Service Class I areas over the next two years. The visibility impairment must be assessed under the FLM's affirmative responsibility to prevent adverse impacts in Class I areas through the PSD process.

- Draft EPA regulations require the permitting agency to notify the FLM within 30 days of receipt of a permit application for any proposed new major emitting facility.
- The FLM has 30 days to identify additional vistas for visibility impact assessment.
- The State/new source must perform a visibility analysis.
- If the FLM demonstrates (to the satisfaction of the permitting agency) an adverse impact on visibility, the permit will not be issued.

Recommendation: We need to make sure the regulations spell out the requirements for new source visibility assessments and define the roles of the FLM, the State, and EPA.

- A new source guidance document needs to be incorporated as a part of the visibility package. Current EPA plans call for draft guidance to be issued around July 1, 1980.
- EPA should modify PSD regulations to incorporate guidance on new source visibility impact assessment.

VI. Program Surveillance/Monitoring

Background: Monitoring guidelines are a necessary element of a visibility regulatory program. These guidelines are normally a part of EPA regulations. Guidelines are necessary to define the requirements for data collection in support of PSD applications and to ensure consistency among EPA, the States, and FLM's in terms of the type and amount of monitoring required.

- Draft EPA regulations require states to develop a monitoring strategy and to provide procedures for the consideration of monitoring data in permit reviews and long-term plans.
- Draft EPA regulation package did not include monitoring guidance or recommended reference techniques.

Recommendation: EPA must develop monitoring guidance as a part of the regulatory package and the package should define the responsibilities of the permit applicant, the permitting agency, and the FLM for collecting and analyzing monitoring data.

- guidance document should recommend monitoring techniques for use in given situations and provide guidance on the technologies available

VII. Development and Use of Regional Models

Background: EPA does not believe the modeling state-of-the-art has sufficiently progressed to allow regional visibility modeling.

This is the major reason for the EPA decision to develop a phased program with regional haze problems delayed until a later date.

- current EPA guidelines do not provide recommendations for specific long range transport and diffusion models
- very little model comparison work has been done and model validation results are fragmentary

Recommendation: We should push EPA on the development and further validation of regional models. The phase I regulations should set out the schedule for development and validation of regional models and a date for promulgation of phase II, regional haze regulations.

SECTION BY SECTION OVERVIEW OF PROPOSED VISIBILITY REGULATIONS

§51.300 Purpose & Applicability

The purpose of the regulation is to establish a visibility protection program to assure progress toward the national goal of preventing any future, and remedying any existing, visibility impairment in Federal class I areas as required by Section 169A of the Clean Air Act. The program will be implemented through State emission limitations on existing sources and through review and control of the visibility impacts of new sources.

The requirement for an assessment of new source visibility impacts is applicable to all states. In addition, thirty-six states will be required to revise their State Implementation Plans (SIP) to include programs to protect and enhance visibility in class I areas located in or near their boundaries.

§51.301 Definitions

Key definitions in this section:

1. "Existing Major Stationary Source" means a source which has the potential to emit 250 tons per year of a pollutant and is included in the list of twenty-eight major source categories and which was built before August 7, 1977 and put into operation after August 7, 1962. The source categories include power plants, pulp mills, cement plants, smelters, iron and steel plants, aluminum plants, refineries, fuel conversion plants, etc.

This term defines the sources which are covered by the retrofit provisions (BART) of the visibility program.

2. "Best-Available Retrofit Technology" (BART) means an emission limit based on the best system of pollution control available for each pollutant considering factors such as the costs of compliance, existing pollution control equipment, energy impacts, the remaining useful life of the source, and the anticipated degree of improvement in visibility.

A BART analysis must be performed for each "Existing Major Stationary Source" which is identified as causing a "visibility impairment" which is "reasonably attributable" to the source.

3. "Visibility Impairment" means any humanly perceptible change in visibility from that which would have existed in the absence of man-made air pollution.

This term defines the scope of the program and sets the level of national goal. Key elements of the definition are that the impairment must be perceptible by a human observer and must be caused by man-made pollution.

Perceptible levels may be measured physically in terms of visual range, contrast or coloration changes.

4. "Significant Impairment" is defined as visibility impairment from an existing source which interferes with management and visitor enjoyment of a class I area, considering extent, intensity, frequency, and duration of the impairment and visitor use and access.
5. "Reasonably Attributable" means impairment which can be attributed to a source by human observation or other monitoring technique. This term is the mechanism which implements the first phase of the visibility program by narrowing the scope of the BART regulations to address only plume type problems.
6. "Integral Vista" means a vista which is located outside the area boundaries, but which can be viewed from within the class I area, and which is important to the visitor experience or the fundamental purpose of the area. This term defines the visibility resource which is to be protected by the program.
7. "Adverse Impact" is that impairment from a new source, which is found to be adverse using the same criteria as for significant impairment.

§51.302 Implementation Control Strategies

Each State to which this program applies must submit a revised implementation plan (SIP) no later than nine months after promulgation of final regulations. Prior to adopting SIP revisions the State must consult with affected Federal Land Managers and must conduct a public hearing.

The revised SIP must contain:

1. An identification of all Class I areas to be protected, including all integral vistas;
2. Emission limitations representing BART for each existing major stationary source identified by the State, in consultation with the Federal Land Manager, as causing or contributing to visibility impairment;
3. A long-term strategy for making progress toward the national goal; and
4. An assessment of visibility impairment in each class I area and a discussion of how each element of the plan addresses the impairment.

§51.303 Exemptions from Control

Any existing source identified for retrofit under BART may apply to EPA for an exemption.

The source must demonstrate to the satisfaction of EPA that it does not cause significant impairment of visibility in any mandatory class I area. An exemption can only be granted by EPA if it receives concurrence by the Federal Land Manager

§51.304 Identification of Integral Vistas

The Federal Land Manager or the State may identify integral vistas to be afforded visibility protection. Integral vistas are those vistas which are important to the visitor's experience or to the purpose for which the area was established. These vistas must be identified in accordance with the EPA guideline "Criteria for the Identification of Integral Vistas." Vistas identified within 90 days of the effective date of the final regulations will get visibility protection in the initial SIP revision. Vistas which are identified later may be submitted annually to the States for protection. All integral vistas for mandatory class I areas must be identified by 1985.

§51.305 Monitoring

This section requires the State plan to include a monitoring strategy for evaluating visibility in all class I areas. The strategy must consider the monitoring guidance provided by EPA. The plan must establish procedures for the collection and use of monitoring data as a part of the new source permit process.

§51.306 Long-Term Strategy

The State plan must include a long-term (10-15 years) strategy for making reasonable progress toward the national goal of remedying existing visibility impairment and preventing future impairment.

The strategy must consider such things as emission reductions from ongoing pollution control programs, existing source retirement schedules, and smoke management techniques. Review of new source visibility impacts must be included as part of the long-term strategy. The plan must provide for a periodic review and revision (at least every 3 years) of the long-term strategy and a report to the public on progress toward the national goal. The report must include an assessment of progress toward remedying existing impairment, including an evaluation by the Federal Land Manager, and an identification of additional measures that may be necessary to assure reasonable progress toward the national goal.

§51.307 New Source Review

This section requires the State to provide written notice to the Federal Land Manager within 30 days of receipt of a permit application for any proposed new major emitting facility. The notification to the land manager must include the analysis of anticipated visibility impacts on both class I areas and integral vistas.

Integral vistas to be protected from "adverse impact" are those vistas which have been identified by the Federal Land Manager prior to the calendar year in which a new source makes an application.

The State plan must provide for consideration of any demonstration by the Federal Land Manager of adverse visibility impacts caused by a new source. Where the permitting agency agrees that an adverse impact would occur, a permit will not be issued. EPA will provide consultation and mediation in cases of disputes between the State and the Federal Land Manager.

CLARIFICATION OF APPLICABILITY OF EPA
VISIBILITY REGULATIONS TO MAJOR EXISTING
ENERGY RELATED SOURCES

Visibility regulations for BART - (Best available retrofit technology) are intended to include for consideration the following types of energy related facilities that may cause or contribute to visibility impairment in a Class I area.

1. Fossil fuel power plants
2. Coal cleaning plants (thermal dryers)
3. Fossil fuel boilers (of more than 250 million Btu hour input)
4. Fuel conversion plants
5. Petroleum refineries

These existing facilities must also meet two more criteria.

- 1) must not have been in operation prior to August 7, 1962, and was in existence on August 7, 1977.
- 2) have the potential to emit 250 tons per year or more of any pollutant regulated under the Clean Air Act.

Once the FLM has consulted with the state to identify such sources, the state will determine on a case - by - case basis any BART requirements. According to EPA regulations, the state must include in its consideration existing polluted controls, the cost of additional pollution controls, the energy and environmental impact of the controls, and the degree of improvement of visibility.

A recent study by EPA* has identified 12 facilities, all coal - fired power plants that would potentially be affected by visibility retrofit regulations.

SOURCES POTENTIALLY AFFECTED BY
VISIBILITY REGULATIONS

State	Source	Affected Class I Area	Distance
Arizona	Navajo	Grand Canyon	97.7 km
New Mexico	Four Corners	Mesa Verde	62.7 km
Nevada	Mohave	Joshua Tree	183.0 km
Colorado	Comanche	Rocky Mountains	82.0 km
Colorado	Hayden	Flat Tops	64.0 km
New Mexico	San Juan	Mesa Verde	49.8 km
Washington	Centralia	Mount Ranier	72.0 km
West Virginia	Mt. Storm	Otter Creek	42.2 km
New Jersey	B.F. England	Brigantine	31.4 km
South Carolina	Williams	Cape Romain	46.2 km

*Source: "Preliminary Assessment of Economic Impact of Visibility Regulations" (Draft), Office of Planning & Evaluation Environmental Protection Agency, May 1980.

FLM responsibility for determining "adverse" impact for
new source reviews under proposed visibility regulations

1. No numerical standard for visibility is defined in the regulations due to EPA's belief that inadequate data is available at this time to support development of such a standard. EPA has also, expressed concern that setting a uniform standard may be inappropriate given varying visibility conditions at Class I areas across the country, and that it might be inconsistent with the Act's intent to analyze visibility impacts on a source - by source basis.
2. Instead, on a source - by - source basis, the FLM is to determine whether the proposed new source will have an "adverse" (or unacceptable) impact on visibility in the Class I area. This determination will be based on appropriate meteorological data, modeling techniques, and an analysis of possible visibility impairment. The legislative history of the Clean Air Act Amendments confirms the case - by - case approach:

"Each case of Class I intrusion must be analyzed on an individual basis, with the decision on whether or not a permit is issued resting with the State."

S. Rep. No. 95 - 127, 1st Session, p.36, (1977)

3. Factors to be considered in determining "adverse" include: extent, intensity and duration of visibility impairment, frequency and time of occurrence of the impairment, correlation between times of visitor use and access to the Federal Class I area, and natural conditions.
4. The FLM must demonstrate to the satisfaction of the permitting authority whether the source will have an adverse impact on visibility, considering the factors above ie., visibility impairment which interferes with the management, protection, preservation or visitor enjoyment of the Class I area.

In making this determination, the legislative history provides the following guidance:

The FLM "should assume an aggressive role in protecting the air quality values of land areas under this jurisdiction. In case of doubt the land manager should err on the side of protecting the air quality values for future generations."

S. Rep. No. 95 - 127, 1st Session. 36 (1977) (emphasis added).

5. A visibility impact analysis would address both integral vistas and Class I areas identified as potentially affected by the emissions from the proposed new source.
6. The "FLM" is currently defined by EPA in the proposed regulations as the Secretary of the Department with authority over any Class I area or their designated agents.

7. If the permitting authority (the state or EPA) agrees with the FLM that the new source will have an adverse visibility impact, then the permitting authorities will deny the permit. If the permitting authority disagrees, the permitting authority must provide the FLM with a written explanation of its findings. The SIP is to provide for consultation with EPA where there is a dispute between the state and the FLM.

Limitations of Phase I of the Visibility Program

8. Experience with visibility impact analyses indicates that within a 30 - 50 mile proximity to Class I areas, proposed sources may cause a "plume blight" visibility impairment. This is the type of impairment addressed in the phase I visibility regulations. At distances greater than 50 miles the source may contribute to regional haze problems, but is not likely to cause the plume blight problems which are addressed in this phase of the regulations. For example, based upon recent analyses, NPS has determined that the 800 Mw Hunter Power Plant expansion in Utah, within 48 miles of Capitol Reef NP will not adversely affect visibility at Cathedral Valley overlook.

CRITERIA FOR THE IDENTIFICATION OF INTEGRAL VISTAS

(DRAFT MAY 1980)

CRITERIA FOR THE IDENTIFICATION OF INTEGRAL VISTAS

This document was prepared by the U.S. Forest Service, Bureau of Land Management, National Park Service, and Fish and Wildlife Service. EPA solicits comments on all aspects of this document. Although these Federal Land Managers have agreed on these criteria for identifying integral vistas, some feel the logic network in Attachment A should be used to apply the criteria. Accordingly, EPA specifically solicits comment on whether use of a logic network such as this one should be required as part of this document.

Step 1: Selection of vistas for consideration

For any Class I area, the number of vistas, from either developed or undeveloped vantage points, greatly exceeds the number of vistas which need to be thoroughly evaluated for visibility protection. Selection of vistas to be evaluated in Step 2, therefore, will rely on the background knowledge and best judgement of the Federal Land Manager (FLM) responsible for the Class I area in applying the following criteria.

As an aid to the Federal Land Manager in selecting vistas initially for consideration, two overall criteria are to be applied: the importance of the vista to the objectives for which the area was created and the contribution of the vista to the visitor enjoyment of the area. Vistas for which any of the factors listed below apply should be included in the vistas selected for evaluation in Step 2:

1. Vistas which are important to the objectives for which the area was created; in particular, vistas or landscape feature(s) identified in relevant legislation and legislative history.

2. Vistas which significantly contribute to visitor enjoyment of the area.
 - a. Vistas identified in the 1978 Federal Land Managers review of Class I areas for which visibility is an important value.
 - b. Vistas which have received emphasis or attention in management plans, visitor surveys or studies, leaflets, maps, books, magazines or newspaper articles, reports on the area, pictures on postcards, TV or radio references, visual resource surveys, or movies or slide shows (include examples of the above items when the evaluation is submitted).
 - c. Vistas that have developed observation points along roads or trails or vistas for which a developed observation point is planned.
 - d. Vistas which are viewed from prominent topographic points in predominantly flat terrain in undeveloped areas.
 - e. Vistas from popular view points in undeveloped areas.
 - f. Vistas which have particular or unusual scenic quality or of cultural or historical value.
 - g. Vistas which have been recommended by significant public comment for visibility protection.

The Federal Land Manager responsible for the Class I area will in many cases be familiar enough with the area to spend one day or less in this initial selection of vistas to be evaluated in detail in Step 2.

As an additional aid to the Federal Land Manager, vistas may be aggregated and considered as one vista where more than one observer point overlooks the same vista. Figure 1 gives an example of how a Class I area may be reviewed as an entire unit to select vistas for consideration. During the vista selection (Step 1) the Federal Land Manager should also keep in mind the following points:

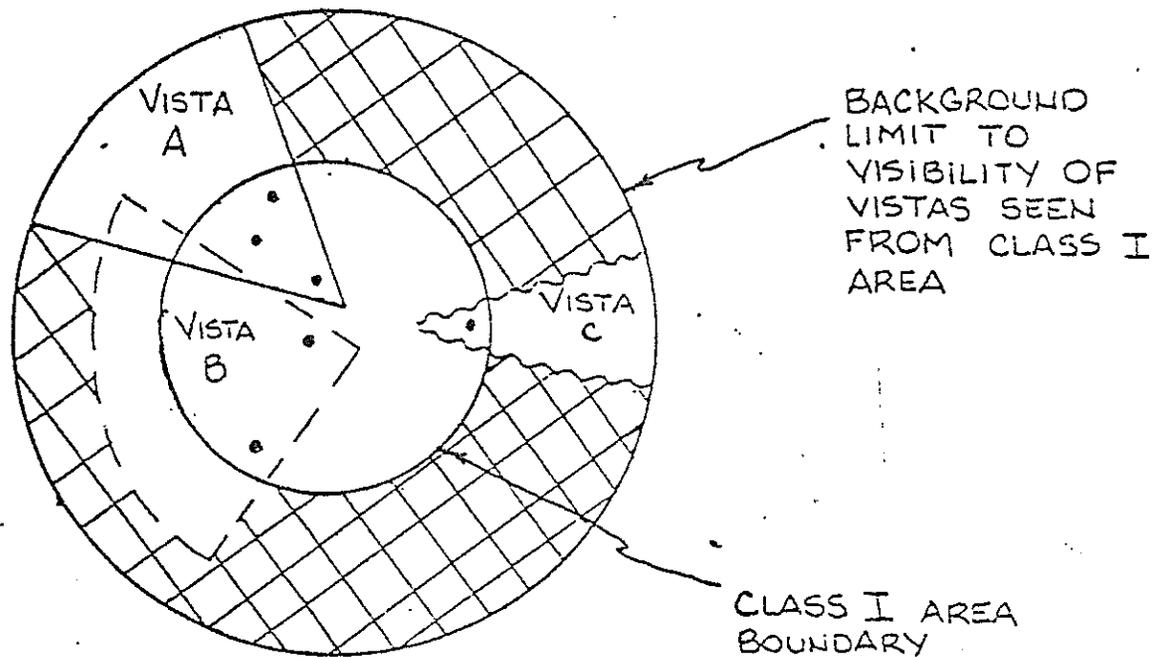
- a. Characteristic landscapes naturally differ between parts of the country. All landscapes, such as flatlands, shore, water, or hills, are to be considered.
- b. Although natural visibility conditions differ with geographic location, season, and time of day, the identification of integral vistas should not be affected by these differences. For example, visibility is generally more limited in humid regions in the East than in arid areas of the West. Identification should depend primarily on whether the vista meets the criteria discussed in this document.
- c. Normal access to observation points may be limited in certain seasons or by level of effort required to reach the observation point. Such a limitation does not in itself eliminate the vista from consideration, but should be reported in the vista evaluation if selected.

- d. Vistas may include either of 2 basic types: focal point or panoramic. A focal point vista is one that directs the eye toward and focuses primarily upon one or more landscape features or visual elements. A panoramic vista is one that sweeps over a broad area and provides an essentially unobstructed or complete view of multiple visual elements.

Step 2: Identification of vistas integral to visitor experience on the Class I area.

For each vista or aggregate vista considered, a separate Vista Evaluation (Form 1) shall be prepared. Each Vista Evaluation shall be accompanied by the supporting narrative statements requested; by the examples, maps and documentation indicated; and by a Vista Description. Instructions for completion of the Vista Evaluation are in Appendix 1. Each of the important landscape elements in the integral vista shall be described as part of the vista description so that later determinations may be made of the sensitivity of the vista, and the important landscape elements comprising it, to air quality.

FIGURE 1. SCHEMATIC DIAGRAM OF AGGREGATION
OF VISTAS FROM A CLASS I AREA



- # Indicates no vistas selected for evaluation.
- Indicates observer points (1 or more per vista).

APPENDIX 1: INSTRUCTIONS FOR COMPLETION OF THE

VISTA EVALUATION (FORM 1)

The top of Form 1 should be completed as directed below for each line item.

Name of the Class I Area. Indicate the name of the Class I area from which the vista being analyzed would be viewed, e.g., Canyonlands NP or Bridger Wilderness area.

Agency: Indicate the name of the agency responsible for the management of the Class I area.

Name or Description of the Vista: Indicate the name of the vista, if named, or a brief description of the physiography. A full description of the landscape, including foreground, middleground, or background features in the vista shall be included in the narrative section.

Observation point(s): The point or points within the Class I area from which a vista is viewed. The point(s) shall be a map of the area which shall be submitted with the Vista Evaluation Form.

Viewing Direction and Horizontal Viewing Angle: The true azimuth (in degrees) from the observation point(s) to the horizontal limits of the vista.

Distance Zones: The distance in miles or kilometers from observation point(s) to the limits of the foreground, and background. The background should include the farthest point in the vista. Use the distance range for these zones as defined in the FS/BLM VRM.

Visual Resource Inventory System: If the area has been analyzed under a visual resource inventory system, such as VIEWIT or VIS, the information should be used in this analysis and the system name indicated on this line.

Map Scale: Use appropriate map to show observation point(s) and vista. Where possible locate all identified vistas on one map of the Class I area. Indicate scale used (not less than 1/4 inch to 1 mile) on this line.

The rest of Form I should be completed by marking in the box adjacent to each criterion which applies to the vista under consideration. Each applicable criterion must be supported by narrative statements as directed. As much detail and quantification as possible should be used in the narrative. Examples (such as leaflets and trail maps), or other documentation (such as visitor surveys, and legislation) shall be submitted with the Vista Evaluation, wherever practicable. If impractical to submit examples (e.g., 16 mm motion picture), list these in the narrative anyway as additional factors considered in the evaluation.

Agency _____ Background to _____ mi/km
 Visual Resource Inventory _____ Map Scale: _____ mi/km
 System: _____ Foreground to _____ mi/km
 Middleground to _____ mi/km

Name of Class I area: _____ Viewing direction and (horizontal) angle: _____
 From _____ to _____
 Name of brief description _____
 of vista: _____

DESCRIPTION OF VISTA (Provide for all vistas) on accompanying narrative, describe in standard landscape terms the distinctive features of the landscape, such as landscape character, scenic beauty, or other notable quality of the vista. Identify the most prominent of these qualities as they relate to the composition of the vista. A landscape architect or visual resource specialist shall supervise the determination of these qualities using standard visual resource inventory techniques.

PRINCIPAL CONTENT OF VISTA (Select One)

- Vista is primarily of cultural or historical importance.
- Vista is primarily of scenic importance

LEGISLATION RELATING TO VISTA (Select all applicable criteria)

- Vista was specifically mentioned in enabling legislation for the Class I area or in the House, Senate or Conference Committee Reports pertaining to the enabling legislation. Examine the enabling legislation and accompanying legislative history to determine the purpose for which the area was created and the importance of vistas. Include copy of legislation or appropriate quotations with references in the supporting narrative.
- Legislation other than enabling legislation requires protection of the vistas. Include copy of legislation or appropriate quotations with references (e.g., Wilderness Act or Clean Air Act) in the supporting narrative.
- Other legislation or legislative history (such as floor debates reported in the Congressional record) mentions vista or implies protection of vista. Include in the narrative quotations with references and reasons for determination of Congressional intent.

SIGNIFICANCE OF VISTA (Select all applicable criteria)

- Vista is known or recognized by the public through exposure in various media. State in the narrative the source of exposure (e.g., movie, photographs by well known photographers, posters, travel brochures) and the extent to which the vista is known or recognized (e.g., Devil's Tower vista shown in the movie Close Encounters seen by X number of people throughout the United States). Use specific data whenever possible.
- Vista is visited by persons from outside the local area. (In this criterion local visitation is defined as within 2 hours commuting distance; visitation to the area is assumed to be representative of vista visitation). State in the supporting narrative the source of data, distances traveled, and percent of visitors to the area traveling each distance range.
- Vista has cultural or historical importance. (This criterion includes all vistas which were marked as "primarily of cultural or historical importance," under PRINCIPAL CONTENT OF VISTA, and may also include vistas marked as primarily of scenic importance, where these vistas also possess cultural or historical values). State in the supporting narrative the reason for and extent of the cultural or historical values. For example, a vista may be part of a traditional religious ceremony of a local group of native Americans.

VISITOR EXPERIENCE (Select all applicable criteria)

- Management of the Class I area emphasize the importance of the vista to the visitor experience. Management emphasis of a vista includes development (e.g., trails to observation points, pullouts, telescopes) to enhance the visitor's enjoyment of a vista, agency media exposure of vista (e.g., showing vista in leaflets or slide shows), and interpretive activities (e.g., attendants at observer points guided tours). Report in the supporting narrative all evidence of management emphasis of the vista, including examples (such as leaflets where practical).
- Management plans indicate future emphasis of vista. Document in the supporting narrative the management emphasis planned, citing the specific planning report and quoting applicable sections. Follow guidelines in the criterion above for management emphasis.
- Vista is sought out by visitors to the Class I area. In the supporting narrative, report the number of visitors to the vista or the proportion of visitors to the Class I area which observe the vista. Cite source of data (e.g., visitor use survey taken in 1975). If data is not available, the number or proportion of visitors may be estimated and any evidence supporting the estimate (e.g., trash collection from pullout) provided. Where access to an observation point is difficult, the amount of energy expended by the visitor to enjoy the vista is more important than the number of visitors. Report the access and the number or estimated number of visitors.
- Vista is important to visitors at the observation point. Visitor comments at observation points (e.g., comments in log books or to visitor surveys) are direct indications of visitor reaction to vista. Indirect indications of visitor reaction to vista may be inferred from visitor activity (e.g., photography sketching) at observation points. Describe the visitor reaction to vista and the source (direct or indirect indications) of this information (e.g., visitor survey, direct observation of X number of hours during X season(s) of year). Include in the narrative statistics or quotations and references for these.

RECOMMENDATION (Select One)

- The vista is integral to visitor experience of the Class I area. Include in the supporting narrative reasons why the vista is integral to visitor experience, using the criteria in this evaluation. State why the criteria applicable to the vista outweigh criteria not applicable and other, if any, factors contributing to the recommendation.
- The vista is not integral to visitor experience. (These vistas will not proceed to be analyzed for sensitivity to air quality.)

Signature of FIRM completing this evaluation _____

Decision Guide

Name of Class I Area: _____

Name or Brief Description of Vista: _____

Land Managing Agency: _____

Resource Inventory System: _____

Viewing Direction and Horizontal Angle: from _____ to _____

Viewing Distance Zones: Foreground to _____ mile/km

Vertical Viewing Angle: from _____ to _____

Middleground to _____ mile/km

Background to _____ mile/km

Step 1. LEGISLATION

a. Vista was specifically mentioned in enabling legislation for the Class I area or in the House, Senate or Conference Committee Reports pertaining to the enabling legislation. Other legislation requires protection of the vista. Proceed to 4a.

b. Other legislation or legislative history (i.e., floor debates reported in the Congressional Record) mentions vista or implies protection. Proceed to 2.

c. No reference to vista is made in enabling or other legislation. Proceed to 2.

Step 2. SIGNIFICANCE OR QUALITY OF THE VISTA

a. Vista is of international or national significance. Proceed to 4a.

b. Vista has special cultural or historic significance to the area or is of predominant "Distinctive" source quality. Proceed to Step 3.

c. Vista has none of the qualities described in Step 2a through 2c. Proceed 4b.

Step 3. VISITOR EXPERIENCE

a. The vista contributes significantly to the quality of the visitor's experience. Proceed to 4a.

b. The vista does not contribute significantly to the quality of the visitor's experience. Proceed to 4b.

Step 4. RECOMMENDATION

a. The vista is recommended as integral to the area.

b. The vista is not recommended.