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LEGAL ISSUES ASSOCIATED WITH PROTECTING PARK RESOURCES: AIR QUALITY AND RELATED VALUES

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EXTERNAL DEVELOPMENT AFFECTING THE NATIONAL PARKS: PRESERVING "THE BEST IDEA WE EVER HAD"

A short course sponsored by the Natural Resources Law Center
University of Colorado School of Law
September 14-16, 1986
I. Introduction

A. Summary. Air Pollution can threaten the values and purposes of parks, and National Park Service (NPS) research and monitoring already reveals the reality of the threat. The Clean Air Act (CAA) provides many opportunities and some tools to protect park resources. The CAA, however, does not currently address several air pollution situations affecting park air quality and related values. The NPS Organic Act calls for the protection of park values and purposes. The Organic Act, however relies for enforcement of its mandate on regulation and trespass or nuisance actions, which may not be available where air polluting activities on lands outside park boundaries are threatening park values and purposes. Other laws that may provide opportunities for park protection against air pollution in special circumstances (e.g., the Surface Mining Control and Reclamation Act) are not specifically discussed herein.

B. References. Detailed references are cited throughout the outline.

The views expressed herein are those of the author and do not necessarily represent the position of the National Park Service or the Department of the Interior.
II. Examples of Air Pollution Affecting Units of the National Park System

A. Effects. Air pollution can damage and destroy the very resources and values that the parks were created to protect and preserve.

1. Ambient Air Quality. NPS monitoring reveals ozone concentrations approaching or exceeding the National Ambient Air Quality Standards (NAAQS) in several park units, including remote "rural" parks as well as parks closer to urban areas. Sulfur dioxide concentrations, although below the NAAQS, are unexpectedly high in certain units. "Known Ambient Air Quality in National Parks," May 1985, NPS document prepared for hearings before the Subcommittee on National Parks and Recreation of the House Committee on Interior and Insular Affairs, May 20-21, 1985. Manmade visibility impairment, caused primarily by sulfates in most areas, affects all park units in the lower 48 United States virtually all the time. Letter from Susan Recce to Charles L. Elkins, November 14, 1985; Impacts of Air Pollution on National Park Units: Hearings Before the Subcomm. on National Parks and Recreation of the House Comm. on Interior

2. Vegetation Resources. NPS research has found visible ozone injury on vegetation in over 75 percent of the 44 park units studied, including units where the current ozone NAAQS has not been exceeded. In certain units, many of the sampled trees of a sensitive species show ozone injury. NPS research on quaking aspen suggests that elevated ozone concentrations in certain park units may have already brought about the elimination of sensitive genotypes. Letter from John P. Christiano to David McKee, June 25, 1986; May 1985 Congressional Hearings on Park Air Quality, supra, at 535-538 ("Known Air Pollution Effects on Vegetation in National Parks, May 1985"). NPS research has also discovered elevated levels of toxic trace elements in park vegetation, and significant decreases in lichen abundance and diversity in a few areas probably from sulfur dioxide pollution. Id.

3. Visibility Resources. In excess of 90 percent of
the time, scenic views are affected by anthropogenic pollution in the form of regional haze at all NPS monitoring stations. In addition, in ten mandatory class I park units, NPS has identified specific visibility impairment that is suspected of being reasonably attributable to certain identified sources. Letter from Susan Recce to Charles L. Elkins, supra; Letter from Bruce Blanchard to EPA Docket Number A-85-26, March 24, 1986; May 1985 Congressional Hearings on Park Air Quality, supra, at 539-548. Sulfates are the single most important contributor to visibility impairment in park units except in the northwestern United States, where fine carbon plays a more prominent role. For example, sulfates are responsible for 40-60 percent of the visibility impairment in the Colorado Plateau parks, and for over 70 percent of the impairment in Shenandoah National Park. As for general visibility trends, National Weather Service data shows that summertime visibility over much of the eastern United States has decreased since 1948 more than fifty percent to a current visual range of less than 25 kilometers. In the Great Smoky Mountains, median summer visibility is less than 10 kilometers. Although visibility in California's urban and industrial

4. Aquatic Resources. The National Academy of Sciences this year attested to the existence of a cause-effect relationship between sulfur dioxide emissions and sulfates found in certain lakes and streams. See, generally, Acid Deposition: Long-Term Trends, supra. NPS research has documented the vulnerability to acidification of many park lakes and streams, with the subsequent threatened loss of biological species dependent on the potentially affected aquatic resources. "Pollution in Parks," 6 Park Science Special Supplement (Summer, 1986), at 10-13; May 1985 Congressional
Hearings on Park Air Quality, supra, at 46-50, 55-56, 241-54. The NPS has also documented instances of temporary increases in the acidity of park lakes and streams following acid rain events. *May 1985 Congressional Hearings on Park Air Quality, supra,* at 552-53 ("Known Air Pollution Effects on Aquatic Systems in National Park Units, May 1985"). Finally, research in Shenandoah National Park has now confirmed that a monitored stream, predicted for near-term acidification based on the limited sulfate absorption capacity of its associated soils, has recently acidified, becoming five times more acidic over a six-year period. "Pollution in Parks," *supra,* at Supplement 12-13; *May 1985 Congressional Hearings on Park Air Quality, supra;* Presentation by Dr. James Galloway, Meeting of the Joint Committee on Acid Rain, Virginia General Assembly, Shenandoah National Park, August 28, 1985.

5. Cultural Resources. The research strongly indicates that bronze, marble, limestone, and certain sandstones deteriorate at a much faster rate in the presence of sulfur dioxide in the air and acidity in precipitation. Many cultural resources in the National Park System are thus
susceptible to the effects of air pollution. For example, in the northeastern United States alone, there are approximately 50,000 historic stone buildings, 12,000 of which are particularly susceptible to acid rain damage. Nationwide, there are approximately 20,000 historic monuments, about half of which are bronze. See, generally, Report of Materials Effects Task Group, 1985 National Acid Precipitation Assessment Program Annual Report (in print). The research also indicates that airborne particulates promote deterioration of marble and bronze statues. M. Del Monte, C. Sabbioni, O. Victori, "Airborne Carbon Particles and Marble Deterioration," 15 Atmos. Environ. 645 (1980)

B. Sources. The air pollution that affects parks can come from large individual sources or, cumulatively, from many small or regional sources. It can originate as emissions from nearby or far-distant sources or anywhere in-between.

1. NPS modeling and trajectory analysis is being applied to locate the source regions, and sometimes the specific sources, emitting the pollution that impacts parks. The NPS employs state-of-the-art approaches to these source-receptor problems. See,

2. The following are examples of source-receptor relationships documented by NPS research:

a. Back-trajectory residence time analyses have been performed to determine sources and pathways of polluted air impacting six parks in the Colorado Plateau region as well as Theodore Roosevelt, Big Bend, and Glacier National Parks. See, e.g., Malm, William C., et al., "Origins of Atmospheric Sulfur at Chaco Culture National Historic Park," Proceedings of

b. The NPS has recently begun to apply a technique called "principal component analysis" to identify more precisely the source regions and particular facilities emitting the pollutants that impact parks. Johnson, C. and W. Malm, "Identifying Visibility-Reducing Pollution Sources Using Principal Component Analysis," presented at the Air Pollution Control Association Specialty Conference on "Visibility Protection: Research and Policy Aspects," Grand Teton National Park, Wyoming, September
c. Predictive dispersion modeling using a long-range transport model has been applied with very good results to eastern parks and in the Northern Great Plains area, and is currently being prepared for application in central California. See, e.g., Henderson, Donald, "Regional Sulfur and Oxidant Modeling," supra; Henderson, D., et al., "Long-Distance Transport of Man-Made Air Pollutants," supra. Such modeling shows, for example, that during certain elevated sulfate and ozone episodes in Shenandoah and Acadia National Parks, most of the air pollution originated outside Virginia and Maine, respectively. Under different meteorological conditions, however, local sources made significant contributions to pollution episodes, particularly at Shenandoah, Mammoth Cave, and Great Smoky Mountains National Parks. See, e.g., "Eastern National Parks Modeling Study," May 1985, NPS document prepared for hearings before Subcomm. on National Parks and Recreation of the House Comm. on Interior and Insular Affairs, May 20-21, 1985; Stewart, Douglas A., et al.,

d. NPS is developing and applying a mesoscale model for the types of complex terrain often characteristic of parks. This model is especially useful for evaluating the contribution of local sources of air pollution under varying topographical and meteorological conditions. Henderson, D., 6 Park Science, supra; Arritt, R.W., et al., "Numerical Studies of Thermally and Mechanically Forced Circulations over Complex Terrain," presented at the 79th Annual Meeting of the Air Pollution Control Association, Minneapolis, Minnesota, June 22-27, 1986; Henderson, D., et al., "Long Distance Transport of Man-made Air Pollutants," 5 Park Science 6 (Winter 1985).

III. Legal Responsibilities and Opportunities for Protection of Park Air Quality and Related Values

A. "By and large, air pollution which adversely affects
NPS units has its source outside those units and, therefore, outside the area of DOI's general park regulatory jurisdiction. Accordingly, the authority of the Secretary of the Interior to address the harmful effects of air pollution within NPS units largely depends upon the extent to which existing law empowers the Secretary to regulate, control or otherwise affect air polluting activities outside NPS units which create those harmful effects within them." Memorandum from Associate Solicitor to Director, National Park Service on "Protection of National Park System Units from the Adverse Effects of Air Pollution," September 20, 1985 (hereinafter referred to as "Solicitor's Office Memorandum, 1985"), reprinted in May 1985 Congressional Hearings on Park Air Quality, supra, at 371-401.

B. The Clean Air Act and the National Park Service Organic Act constitute "the basis for the National Park Service's general policy of promoting and pursuing measures to safeguard the resources and values of park units from the adverse impacts of air pollution." Ross, Molly, "The Clean Air Act and National Parks," 6 Park Science Special Supplement 4 (Summer 1986).

IV. The Clean Air Act. The Clean Air Act (CAA), 42 U.S.C. 7401, et seq., provides the clearest grant of authority to
protect parks from the harmful effects of air pollution. "Solicitor's Office Memorandum, 1985," supra.

A. CAA Goals. A basic goal of the CAA is safe and acceptable ambient air quality—

1. Nationwide, through the attainment and maintenance of National Ambient Air Quality Standards (NAAQS) to protect public health (primary NAAQS) and welfare (secondary NAAQS) (id. 7409 (NAAQS), 7408 (air quality criteria), 7602 (h) (broad definition of "welfare"));

2. In "clean air areas," through the Prevention of Significant Deterioration (PSD) provisions (id. 7470-7479) plus, in special clean air areas, the Protection of Visibility provisions (id. 7491);


B. CAA Measures. In pursuit of these goals, the CAA imposes various performance and emission restrictions on individual sources. See, e.g., id. 7410(a)(2)(B)
C. CAA Means. To implement the various measures, the CAA relies on State Implementation Plans (SIP's), or substitute plans promulgated by the Environmental Protection Agency (EPA). Id. 7410, 7471, 7502.

D. Opportunities for Park Protection. Although the CAA gives the Federal Land Manager authority to require protection of park values only in limited circumstances (id. 7475 (d)(2)(C)(iii); see, also, id. 7410 (a)(2)(H)(ii)), the CAA provides many opportunities---e.g., through requirements for public comment, public hearings, and consultations with affected Federal Land Managers---to influence CAA actions toward the objective of park protection. See, e.g., id. 7408 and 7409 (establishment of NAAQS), 7410 (adoption of SIP's), 7421 (consultation requirements), 7474 (redesignation), 7475 (PSD permits), 7476 (establishment of increments or equivalents for pollutants other than sulfur dioxide and particulate matter), 7491 (visibility protection), 7503 (nonattainment permits).
E. **Focus on PSD.** The PSD title, Part C of the CAA (id. 7470-7491), is an important authority for park resource protection. See, e.g., id. 7470(2) (purpose "to preserve, protect, and enhance the air quality in national parks, ...[and other units of the National Park System]"). PSD addresses resource protection through the establishment of ceilings on additional amounts of air pollution over baseline levels in clean air areas, the protection of the air quality related values of certain special areas, and additional protection for the visibility value of certain special areas. Ross, "The Clean Air Act and National Parks," supra; see, also, Ross, Molly N., "The Sky Has No Limits: Air Pollution and Biosphere Reserves," Proceedings of the Conference on the Management of Biosphere Reserves, Great Smoky Mountains National Park Biosphere Reserve, Gatlinburg, Tennessee, November 27-29, 1984.

1. **Protection for Class I Areas.** Within the "clean air regions" of the country, "class I" areas receive the highest degree of air quality protection. Forty-eight areas within the National Park System are designated class I.

a. **Designation of Class I Areas.** The CAA
designated 158 areas "class I," including national parks over 6,000 acres and national wilderness areas over 5,000 acres, in existence on August 7, 1977. Id. 7472(a). These "mandatory" class I areas may not be redesignated to a less protective classification. Id. 7474(a). States and Indian governing bodies may redesignate class II (and class III areas) to "class I." Id. 7474.

b. Class I Increment. Once "baseline" is triggered by submission of the first permit application from a "major emitting facility," Part C allows only the smallest "increment" of certain pollutants—to date, only sulfur dioxide and particulate matter—to be added to the air. Id. 7473, 7479(4)(definition of "baseline concentration"), 7479(1)(definition of "major emitting facility"). The "adverse impact test," discussed below, qualifies the application of the class I increment ceilings.

c. Adverse Impact Test. In addition to the increment ceiling, Part C establishes a site-specific resource test, known as the "adverse
"impact test," to determine whether emissions from the new source will have an "adverse impact" on the "air quality related values" (AQRV's) of the class I area, as follows:

- If the Federal Land Manager (id. 7602(i)) determines, and satisfies the permitting authority, that the new source will adversely impact the class I area's AQRV's—even though the new source's emissions will not contribute to an increment violation—a PSD permit shall not be issued.

- If the Federal Land Manager certifies that the new source will not adversely impact the class I area's AQRV's—even though the new source's emissions will contribute to an increment violation—the permitting authority may issue a PSD permit. Id. 7475(d)(2)(c).

The "adverse impact test" imposes an "affirmative responsibility" on the Federal Land Manager to protect the AQRV's of the class I areas (id. 7475(d)(2)(B)) and, "[i]n the case
of doubt,...[to] err on the side of protecting the...[AQRV's] for future generations." S. Rep. No. 127, 95th Cong., 1st Sess. 35-36 (1977). "AQRV's" include all values of an area dependent upon and affected by air quality, such as scenic, cultural, biological, and recreational resources, as well as visibility itself. Id.; see, also, 42 Fed. Reg. 57,481 (1977), and 43 Fed. Reg. 15,016 (April 10, 1978). The current working definition of "adverse impact" is any impact that---

- Diminishes the area's national significance,
- Impairs the structure and functioning of ecosystems, and/or
d. **Visibility Protection.** The "national goal" of Park C's visibility protection program is "prevention of any future, and remedying of any existing, impairment of visibility in mandatory class I federal areas which impairment results from manmade air pollution." 42 U.S.C. 7491(a). EPA is still developing parts of the regulatory program required to assure "reasonable progress" toward the national visibility goal. *Id.* 7491; 40 C.F.R. 51.300, *et seq.* To date, EPA's regulatory program addresses "plume blight" and other visibility impairment "reasonably attributable" to a specific source or sources. See 45 Fed. Reg. 80,084 (December 2, 1980) (codified at 40 C.F.R. 51.300, *et seq.*). In accordance with a court settlement in *Environmental Defense Fund v. Gorsuch*, No. C82-6850 RPA (N.D. Cal., filed 1982, settled 1984, settlement amended 1986), EPA last year issued regulations implementing the new source review and visibility monitoring requirements (50 Fed. Reg. 28,544 (July 12, 1985)). Over the next few years, EPA must issue regulations concerning "best available retrofit technology" for major existing sources that impair visibility in mandatory class I
areas as well as "long-term (10-15 year) strategies" for moving toward the national visibility goal. See 49 Fed. Reg. 20,647 (May 16, 1984) (N.B. settlement agreement amended, 1986). EPA need not issue regulations implementing the 1980 regulatory requirements for consideration of "integral vistas" associated with mandatory class I areas, since the Federal Land Managers last year declined EPA's regulatory invitation to finalize rulemaking identifying these resources for incorporation in SIP's. See 45 Fed. Reg. 80,084 (Dec. 2, 1980) (codified in 40 C.F.R. 51.300, et seq.; 46 Fed. Reg. 3646 (Jan 15, 1981); Letter from Susan Recce to Charles L. Elkins, November 14, 1985; Memorandum from Assistant Secretary, Fish and Wildlife and Parks, to Director, National Park Service, dated October 25, 1985, concerning "Integral Vistas"; Memorandum from Director to Regional Directors, dated October 24, 1985, concerning "Integral Vistas." "Integral vistas" are views from inside a mandatory class I area looking outward to specific important panoramas or landmarks beyond the class I area's boundaries, which views have scenic, scientific, or

e. **Summary of Protection for Class I Areas.** The CAA "...creates several opportunities and tools for protecting the resources and values of class I areas. New pollution after baseline in class I areas is generally limited to the small class I increment, the Federal Land Manager must determine whether major new sources will adversely impact the areas, and measures must be developed to protect the visibility of class I areas from manmade pollution impairment. The States must develop their PSD plans with Federal Land Manager consultation and a public hearing. Major new sources must undergo an equally public permit review, involving air quality monitoring; analysis of resource impacts; application of 'best available control technology'; and effective emission ceilings based on the class I increment, national ambient standards, adverse impacts threshold, or possibly visibility impairment threshold,"
whichever is the lowest. Existing sources may be regulated to protect visibility or to remedy a violation of an increment, national ambient standard, or arguably class I resource protection." Ross, "The Clean Air Act and National Parks," supra, at 5.

2. Protection for Class II Areas. The CAA designates as "class II" all "clean air regions" of the country not designated class I. 42 U.S.C. 7472 (b). Of the 337 units of the National Park System, over 289 units are class II. For example, the national park areas established in Alaska in 1980 are class II. See Solicitor's Office Memorandum, 1985, supra; May 1985 Congressional Hearings on Park Air Quality, supra, at 113-114.

a. Redesignation of Class II Areas. A State (or Indian governing body, where appropriate) may redesignate any area within its jurisdiction to class I. In 1980, the Federal Land Manager found that 44 of the 95 national monuments, primitive areas, and preserves studied pursuant to the CAA (id. 7474 (d)) possessed AQRV's as important attributes and merited consideration for redesignation to class I. 45 Fed. Reg.
43,002 (June 25, 1980); See Kerr-McGee Chemical Corp. v. Dept. of the Interior, 19 ERC 1372 (9th Cir., 1983). The CAA prohibits redesignating to the less protective "class III" designation certain so-called "class II floor areas" (also known as "mandatory class II areas"), including many units of the National Park System. 42 U.S.C. 7474(a).

b. Protective Measures. The class II increment ceilings on additional pollution over baseline concentrations (to date, only sulfur dioxide and particulate matter, but see id. 7476) allow moderate development in class II areas. For class II areas, the CAA does not establish a site-specific resource test to ensure that a new source will not adversely affect a park or other special conservation unit, a variance from the class II increment to provide relief to a nonoffensive source, or a notification process to alert the Federal Land Manager to a permit application from a source with the potential to impact a class II area. Whatever additional protection might be desirable for class II park areas must be sought through persuasion in CAA proceedings or through

3. Class III Areas. Redesignation of "clean air regions" to class III could allow for substantial air pollution increases over baseline concentrations, subject—as with all increments—to NAAQS ceilings. 42 U.S.C. 7473. The redesignation process itself (id. 7474(b)), as well as subsequent new source reviews (id. 7475), provide opportunities to argue for protection of park values.

F. Nonattainment Areas. As a general matter, the CAA does not establish an explicit role (other than consultation—see id. 7421; 40 C.F.R. 51.240, et seq.) for the Federal Land Manager of park units that are in,
or affected by, the "dirty air (nonattainment) areas" of the country. One limited exception provides for new source review for a major source proposing to locate in a nonattainment area in one of the 36 States covered by EPA's visibility regulations (see 40 C.F.R. 51.300(b)(2)), if the new source might impact the visibility of a mandatory class I area. 40 C.F.R. 51.307, 52.28. Nevertheless, the nonattainment provisions in Part D of the CAA, 42 U.S.C. 7501, et seq., provide opportunities to argue for park protection in various public proceedings. For example, the State must hold a public hearing prior to promulgating a nonattainment implementation plan, which is a plan for attaining all national ambient air quality standards "as expeditiously as practicable," most primary standards by 1982, and primary standards for ozone and carbon monoxide by 1987. The nonattainment plan must demonstrate "reasonable further progress" toward the national ambient standards in the interim; provide for reasonably available control technology on sources in the area; analyze effects on air quality, welfare, health, society, and economics; and require a public hearing prior to issuing a permit for a new source. Id. 7502, 7501, 7504. To obtain a permit, new sources in urban areas must secure from other facilities "emission offsets" greater than the
new source's proposed emissions; in addition, a new source's control technology must comply with the "lowest achievable emission rate" for such a source. Id. 7503.

G. As currently interpreted or implemented, the CAA does not address several park resource protection concerns, such as the following---

- The individual and cumulative impacts of sources not subject to PSD permit requirements, such as "minor" sources, most sources located in nonattainment areas, existing sources, and sources located in foreign countries;

- Regional loading of pollutants, characteristic of regional haze, ozone, and acid deposition;

- Long-range transport of pollutants, also characteristic of regional haze, ozone, and acid deposition.

See, generally, Joseph, David B. and Molly N. Ross, "Visibility Programs and Regulatory Issues within the National Park Service," presented at the 78th Annual Meeting of the Air Pollution Control Association.
Detroit, Michigan, June 16-21, 1985; Ross, "The Clean Air Act and National Parks," supra at 5; Solicitor's Office Memorandum, 1985, supra at 6, 8; Memorandum from American Law Division, Congressional Research Service, to House Committee on Interior and Insular Affairs, concerning "Comments on Department of the Interior Memorandum of September 20, 1985 Entitled 'Protection of National Park System Units from the Adverse Effects of Air Pollution,'" November 19, 1985 (hereinafter referred to as "CRS Opinion, 1985"), reprinted in May 1985 Congressional Hearings on Park Air Quality, supra, at 560-586.

National Park Service Organic Act. In strong terms, the NPS Organic Act, 16 U.S.C. 1, et seq., mandates that the values and purposes of all units of the National Park System be conserved unimpaired for the enjoyment of future generations. See, especially, id. 1, 1a-1, 1c. At this time, however, the enforceability of this mandate is unclear with respect to air polluting activities outside parks that affect park air quality and related values.

A. A Strong Mandate. In the 1916 statute creating the National Park Service, Congress declared that the "fundamental purpose" of units of the National Park
"to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Id. 1.

In 1970, Congress amended the Organic Act to underscore that

"individually and collectively, these [park] areas derive increased national dignity and recognition of their superb environmental quality through their inclusion jointly with each other in one national park system preserved and managed for the benefit and inspiration of all the people of the United States..." Id. la-1.

In the most recent amendment to the Organic Act,

"Congress reaffirm[ed], declare[d], and direct[ed] that the promotion and regulation of the various areas of the National Park
System...shall be consistent with and founded in the [fundamental] purpose [of the 1916 act]...to the common benefit of all the people of the United States. The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress." Id.

The legislative history of the above statutes reinforces the strong protection mandate of the Organic Act's plain language, as illustrated in the following passages:

"The Secretary has an absolute duty, which is not to be compromised, to fulfill the mandate of the 1916 Act to take whatever action and seek whatever relief as will safeguard the units of the National Park System." S. Rep. No. 528, 95th Cong., 1st Sess. 9 (1978).
"The Secretary is to afford the highest standard of protection and care to the natural resources within...the National Park System. No decision shall compromise these resource values except as Congress may have specifically provided." Id. at 14.


B. Extraterritorial Applicability. There is general consensus that protection of park values and purposes can require regulation of external activities that may adversely affect these values and purposes. See, generally, Memorandum from Under Secretary to Assistant Secretaries for Fish and Wildlife and Parks and for Land and Minerals Management, May 28, 1986; "CRS Opinion, 1985"; "Solicitor's Office Memorandum, 1985"; "Solicitor's Office Memorandum, 1986"; Sierra Club v. Andrus, supra. The Organic Act, however, does not provide an explicit mechanism to enforce park protection extraterritorially. Citing the strong protection mandate of the Organic Act, the Federal Government has used regulation as well as trespass or nuisance actions against activities on private or State
lands that threatened park values and purposes.

C. Regulation. The Organic Act charges the Secretary of the Interior to "make and publish such rules and regulations as he may deem necessary or proper for the use and management" of the units of the National Park System. 16 U.S.C. 3, la-1, lc. The case law supports the constitutionality, typically under the Property Clause (U.S. Const. art. IV, sec. 3), of regulations that address activities on private or State lands if they are necessary to protect the property of the United States or the designated purposes of such property. See, e.g., Camfield v. United States, 167 U.S. 518 (1897); United States v. Alford, 274 U.S. 264 (1927); Kleppe v. New Mexico, 426 U.S. 529 (1976). Thus, the courts have upheld laws and regulations that restrict activities on non-Federal land within parks, wilderness areas, other conservation units. See, e.g., United States v. Brown, 552 F.2nd 817 (8th Cir. 1977), cert. denied, 431 U.S. 949 (1977); Minnesota v. Block, 660 F.2nd 1240 (8th Cir. 1981), cert. denied, 455 U.S. 1007; Shepard, Blake, "The Scope of Congress' Constitutional Power under the Property Clause: Regulating Non-Federal Property to Further the Purposes of National Parks and Wilderness Areas," 11 Environmental Affairs 479 (1984). Although dicta in
certain court opinions suggest that Congress has the constitutional power to authorize regulation of private activity beyond park boundaries to protect park values and purposes, and the language of the Organic Act (16 U.S.C. 3) can be read broadly to apply extraterritorially, it is unclear whether the judiciary would uphold such extraterritorial regulation without additional statutory authorization.

D. Trespass and Nuisance Actions. The Federal Government has brought trespass and nuisance actions to protect parks from adverse activities on non-Federal lands. See United States v. Atlantic-Richfield Co., 478 F. Supp. 1215 (1979) (an air pollution case); United States v. County Board of Arlington County, 487 F. Supp. 137 (1979); see, also, Sierra Club v. Andrus, supra ("...[I]n the event of a real and immediate...threat to the scenic, natural, historic or biotic resource values..., the Secretary must take appropriate actions...[which] may include...bringing trespass or nuisance actions if appropriate"). The legislative history of the 1978 amendment to the Organic Act supports such litigation, as follows:

"This restatement of these highest principles of management is also intended to serve as the
basis for any judicial resolution of competing private and public values and interests in the areas surrounding...areas of the National Park System." S. Rep. No. 528, supra at 8.

Not only are trespass and nuisance actions cumbersome and perhaps untimely (see "Solicitor's Office Memorandum, 1985," at 23), however, but also and

"[m]ore importantly, there currently is substantial doubt as to the availability of these remedies in this context because Congress has addressed air quality protection in NPS units—as elsewhere—comprehensively in the Clean Air Act (CAA) and the regulatory scheme mandated therein."

Id.; "CRS Opinion, 1985," at 21-27.

E. Pre-emption of Trespass and Nuisance Actions. The Supreme Court's decision concerning the Clean Water Act's pre-emption of Federal common law nuisance in Illinois v. City of Milwaukee, 451 U.S. 304 (1981), suggests that the CAA might similarly pre-empt Federal common law trespass and nuisance actions to protect park values and purposes. See "Solicitor's Office
Memorandum, 1985"; "CRS Opinion, 1985" (CRS suggests that State common law actions may still be available; see, also, International Paper Co. v. Ouellette, 776 F.2d. 55 (2nd Cir. 1985), cert. granted, ___ U.S._ (1985)). The courts have not ruled on this question yet, however, in situations not covered by the CAA where parks are indeed threatened. See, e.g., section IV.G. of this outline, supra; see, generally, Bleiweiss, Shell J., "Environmental Regulation and the Federal Common Law of Nuisance: A Proposed Standard of Preemption," 7 Harvard Environmental Law Review 41 (1983). If presented with this question, the courts will probably have to review the following types of issues:

1. The post-CAA "reaffirm[ation]" of the "fundamental purpose" of the Organic Act, along with strong language on the "protection of "values and purposes" contained in the 1978 Amendment to the Organic Act, 16 U.S.C. 12-1. As already noted, the legislative history of this language recognizes the need, as appropriate, for "judicial resolution of competing private and public values and interests..." S. Rep. 528, supra at 8.

2. The general legal presumption against repeals by
implication, especially when later legislation reaffirms the earlier statutory language.


Summary and Conclusion

A. Air pollution can damage and destroy the very resources and values that the parks were created to protect and preserve. NPS monitoring reveals air pollution concentrations of concern in various park units. NPS research has documented air pollution effects of concern on park vegetation, visibility, streams and lakes, and cultural resources. NPS research on the sources of air pollution impacting park units reveals with increasing specificity individual and cumulative (or regional) sources located anywhere from the park's boundaries to hundreds of miles away (or farther).

B. The Clean Air Act provides many opportunities to influence regulatory actions for the purpose of protecting park resources. The Federal Land Manager can require protection of park resources only in limited situations, however, such as refusing to certify "no adverse impact" for a major new source
whose emissions would cause or contribute to an exceedance of the class I increment for sulfur dioxide or particulate matter. Currently, the CAA does not address several park resource protection concerns, including the impacts of sources not subject to PSD permit requirements, regional pollutant loading, and long-distant transport of pollutants.

C. The NPS Organic Act calls in strong language for protection of park values and purposes. It does not, however, contain an explicit enforcement provision addressing harmful activities on lands outside park boundaries. Constitutionally, Federal regulation could probably address such activities, and the Organic Act contains language that could be read to address such activities. Nevertheless, extra-boundary regulation is unlikely and vulnerable to judicial challenge without additional statutory authorization.

D. Trespass and nuisance actions against extraterritorial activities have been used to protect park values and purposes. The continued availability of such actions in the context of air pollution is uncertain, however, in light of the Supreme Court's 1981 decision in Illinois v. City of Milwaukee.
In Reply Refer To: NPS.CW.0264

SEP 20 1985

Memorandum

To: Director, National Park Service
From: Associate Solicitor
Subject: Protection of National Park System Units from the Adverse Effects of Air Pollution

This memorandum is written in response to your request for an analysis of the legal authority of the Department of the Interior (DOI) to protect units of the National Park System (NPS) from the adverse effects of air pollution.

Since its creation in 1916 the National Park Service has been charged with the responsibility of managing NPS units in such a way as to "conserve the scenery and the natural and historic objects and the wildlife therein . . . ." (See 16 U.S.C. §§ 1, 3.) That responsibility was reaffirmed in 1978. (See id. § 1a-1.) This memorandum examines the legal tools to carry out that responsibility insofar as it entails the protection of NPS units from the adverse effects of air pollution.

By and large, air pollution which adversely affects NPS units has its source outside those units and, therefore, outside the area of DOI's general park regulatory jurisdiction. Accordingly, the authority of the Secretary of the Interior to address the harmful effects of air pollution within NPS units largely depends upon the extent to which existing law empowers the Secretary to regulate, control or otherwise affect air polluting activities outside NPS units which create those harmful effects within them.

CLEAN AIR ACT

The clearest grant of authority to the Secretary to protect NPS units from the harmful effects of air pollution generated outside those units is contained in the Clean Air Act (CAA). (See 42 U.S.C. § 7401, et seq.)

The CAA addresses air pollution at several levels. Initially, it requires the Administrator of the Environmental Protection Agency (EPA) to prescribe primary and secondary national ambient air quality standards for each air pollutant for which air quality criteria are established. (See id. § 7409(a).) Primary standards are designed to protect the public health from air...
pollution; secondary standards to protect the public welfare. (See id. § 7409(b).) These standards represent air quality goals applicable nationwide.

With respect to regions of the country which already have relatively clean air, the CAA imposes controls on additional air pollution. The prevention of significant deterioration (PSD) of air quality in certain units of the NPS is addressed in Part C of the CAA. (See id. §§ 7470-7491.) Of particular relevance to such units are the statutory statements of Congressional purpose in section 7470:

(2) to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value;

(3) to insure that economic growth will occur in a manner consistent with the preservation of existing clean air resources;

and

(5) to assure that any decision to permit increased air pollution in any area to which this section applies is made only after careful evaluation of all consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.

To those ends Congress has prescribed maximum allowable increases over baseline concentrations—and maximum allowable concentrations—for particulate matter and sulfur dioxide air pollution in three classes of the presumably cleaner air quality control regions of the country. (See id. §§ 7407, 7473(a),(b).) While Congress did not prescribe similar limitations for other air pollutants, it did require the Administrator of EPA, after study and no later than August 7, 1979, to promulgate regulations to prevent the significant deterioration of air quality which would result from the emissions of hydrocarbons, carbon monoxide, photochemical oxidants, and nitrogen oxides. (See id. § 7476(a).) In addition, it required the Administrator to promulgate PSD regulations for other pollutants within two years after national ambient air quality standards are promulgated for those other pollutants. (Ibid.) To date the Administrator has adopted such regulations only for particulate matter and sulfur dioxide air pollution.
Control of additional air pollution is to be accomplished by a permit system generally supervised by the states pursuant to EPA-approved implementation plans designed to prevent significant deterioration of air quality in those regions. (See id. §§ 7410, 7471, 7475.)

Of the foregoing "clean air" quality control regions, "class I" areas are to receive the greatest protection from additional air pollution. (See id. § 7473(b)(1).) Depending upon existing levels of air pollution, the maximum allowable increases in concentration of controlled pollutants which are permitted in class I areas can provide significantly greater protection for these regions than is provided generally under the national ambient air quality standards. Progressively greater increases of air pollution are permitted in class II and class III areas. (See id. § 7473(b)(2), (3).)

Class I areas include all of the following which were in existence on August 7, 1977: international parks, national wilderness areas and memorial parks which exceed 5,000 acres in size, and national parks which exceed 6,000 acres in size. (Id. § 7472(a).) Unless redesignated as class I or class III areas pursuant to section 7474 of that title, all other NPS units—including national monuments, smaller national parks, memorial parks and wilderness areas, and all NPS units designated after August 7, 1977—are class II areas. (Id. § 7472(b).)

Further, certain NPS units may be redesignated only as class I or class II. These units include all national monuments, primitive areas, preserves, recreation areas, wild and scenic rivers, lakeshores and seashores which exceed 10,000 acres in size (id. § 7474(a)(1)) and all national parks and wilderness areas established after August 7, 1977, which exceed 10,000 acres in size (id. § 7474(a)(2)).

Baseline concentrations of each pollutant for which a ceiling has been promulgated must be established before these provisions will have any effect on additional air pollution. Baseline concentrations are set in each air quality control region at the level of concentration of each regulated air pollutant existing at the time that the first application for permission to construct a "major emitting facility" is submitted to the state containing that region. (See id. §§ 7475(a), 7479(4).)

A major emitting facility is one of a specific list of stationary sources which emits or has the potential to emit at least one hundred tons per year of any air pollutant. (See id. § 7479(1).) Sources of air pollution which are not included in that specific list are not considered major emitting facilities subject to these regulations unless they have the potential to emit at least two hundred fifty tons per year of those pollutants. (Ibid.) Further, only emissions which come from a "point source"—such as a smoke stack—are included in the two hundred fifty ton per year threshold calculation unless the EPA
Administrator promulgates a regulation specifically including in that calculation emissions that otherwise "escape" a facility, such as "fugitive emissions." (See id. § 7602(j); Alabama Power Co. v. Costle, 636 F.2d 323, 368-370 (1979).) Where no major emitting facility covered by these requirements has sought permission for construction, the PSD provisions of the CAA provide NPS units no protection against additional air pollution.

New major sources of air pollution which are subject to this permit process are required to perform detailed air quality impact analyses prior to filing a permit application, to install the best available control technology, and to conduct monitoring as necessary after operation of the facility has commenced. (Id. § 7475(a)(2)-(4), (a)(6)-(8), (e)(1)-(3).)

In addition, when a new major emitting facility may affect a federal "class I" area, the statute provides for notification of the responsible federal land manager and imposes upon him a particular duty to protect the air quality related values of the area. Section 7475(d)(2) provides:

(A) The [EPA] Administrator shall provide notice of the permit application to the Federal Land Manager and the Federal official charged with direct responsibility for management of any lands within a class I area which may be affected by emissions from the proposed facility.

(B) The Federal Land Manager and the Federal Official charged with direct responsibility for management of such lands shall have an affirmative responsibility to protect the air quality related values (including visibility) of any such lands within a class I area and to consider, in consultation with the Administrator, whether a proposed major emitting facility will have an adverse impact on such values.

In connection with NPS units the "Federal Land Manager" is the Secretary of the Interior (See id. § 7602(i)) or his delegate within the Department of the Interior (see Reorganization Plan No. 3 of 1950, 5 U.S.C. Appendix). The "Federal official charged with direct responsibility for management" of such lands presumably would be the park superintendent or comparable official.

The "affirmative responsibility" of these federal officials is delineated in some detail. If either official files a notice alleging that emissions from the proposed major emitting facility "may cause or contribute to" a change in the air quality in the class I area, a permit to construct the facility may not issue unless the owner or operator of the facility demonstrates that any resulting pollution will not exceed the maximum increases allowable under the statute. (42 U.S.C. § 7475(d)(2)(C)(i).) Further, even if the maximum allowable increases will not be
exceeded by the proposed facility, a permit still may not issue if the Secretary demonstrates to the satisfaction of the state in which the facility is to be located that such facility nonetheless will have an "adverse impact on the air quality-related values (including visibility) of such" area. (Id. § 7475(d)(2)(C)(ii).)

Correspondingly, if the owner or operator of the proposed facility demonstrates to the satisfaction of the Secretary that the emissions from the facility will not have an adverse impact on such values of that area, then the state may issue a construction permit notwithstanding the fact that the emissions will cause or contribute to increases in pollutant concentrations which exceed those otherwise allowable in the area. (Id. § 7475(d)(2)(C)(iii).)

The "air quality-related values" which are to be protected from the adverse impact of a proposed major emitting facility are not defined under the Clean Air Act. They are, however, discussed in the Senate report accompanying the bill from which the adverse impact determination provision of the 1977 Amendments was taken verbatim. The Senate report states:

[T]he term "air quality related values" of Federal lands designated as class I includes the fundamental purposes for which such lands have been established and preserved by the Congress and the responsible Federal agency. For example, under the 1916 Organic Act to establish the National Park Service (16 U.S.C. § 1), the purpose of such national park lands "is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." (S. Rep. No. 95-127, 95th Cong., 1st Sess. 36 (1977).)

Similarly, in the preamble to its proposal of the regulations governing the prevention of significant deterioration of these values, EPA noted:

According to the legislative history of the Amendments, the term "air quality related values" includes the fundamental purpose for which such lands have been established and preserved by the Congress. In addition to visibility, which is specifically cited in the Amendments, other "air quality related values" that may be considered include odor, damage to flora and fauna, geologic and cultural characteristics, acid rain and climate. (42 Fed. Reg. 57,481 (1977).)
In announcing initiation of the study required by 42 U.S.C. § 7474(d) to determine the importance of air quality related values to national monuments and preserves, the Department of the Interior defined the phrase as follows:

Air quality related values are all those values possessed by an area except those that are not affected by changes in air quality and include all those assets of an area whose vitality, significance, or integrity is dependent in some way upon the air environment. These values include visibility and those scenic, cultural, biological, and recreation resources of an area that are affected by air quality. (43 Fed. Reg. 15,016 (1978).)

By imposing upon the federal land manager the affirmative responsibility of protecting air quality related values of class I areas from adverse impact by any proposed major emitting facility, and by giving him a participatory role in that protection, the CAA provides the Secretary of the Interior with specific means for the protection of some NPS units from certain additional air pollution generated by enumerated sources.

The portion of the CAA regulating new major emitting facilities has been judicially construed to apply only to those facilities which are to be constructed in "clean air" areas. (See Alabama Power Co. v. Costle, supra, 636 F.2d at 368.) It does not apply to the construction of new major emitting facilities in nonattainment (non-clean air) areas, even if they will have an adverse impact on NPS units located in nearby class I areas.

Neither do these PSD/adverse impact protections extend: 1) to class II areas, which comprise the bulk of NPS units, 2) to existing emitting facilities, or 3) to facilities smaller than those designated in the statute.

Subpart II of part C of the CAA deals with visibility protection in certain NPS units. It is both broader and narrower in scope than subpart I. It is broader because it addresses existing as well as future visibility impairment; it is narrower because its protections are afforded only to "mandatory class I areas" i.e., statutorily defined class I areas that cannot be redesignated as a less protected class. In addition, it limits the role of the Secretary of the Interior in the process of protecting visibility in NPS units to a consultative one.
In this regard, Congress has declared 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 manmade air
pollution. (42 U.S.C. § 7491(a)(1).)

The statute directs the Administrator of EPA to promulgate
regulations to carry out this national goal (see id.
§ 7491(a)(4)) and, after consultation with the Secretary of the
Interior, to promulgate "a list of mandatory class I Federal
areas in which he determines visibility is an important value." (Id. § 7491(a)(2).) The "mandatory class I Federal areas"
designated here are the specific NPS units described in section
7472(a) as not being subject to redesignation to another class.

Regulations adopted by EPA pursuant to the CAA require state
implementation plans to provide for notice to the Secretary of
the Interior of the anticipated impacts on visibility in any
Federal Class I area of any of those new major emitting
facilities subject to the PSD permit process. (See 40 C.F.R.
§ 51.307(a)(1).) These plans also must provide for
"[c]onsideration" of any analysis by the Secretary indicating
that the new source will adversely affect a class I area. (See
id. § 51.307(a)(3).) Unlike the PSD regulations, those
pertaining to visibility protection also pertain to govern new
sources proposing to locate in non-attainment (non-"clean air")
areas, if they will have an impact on visibility in any mandatory
Class I area. (See id. § 51.307(b)(2).)

Apart from the consultative and analytical roles assigned to the
Secretary of the Interior, the statute entrusts to the states the
implementation of the national goal of preventing and remedying
visibility impairment. Pursuant to regulations to be adopted by
the EPA Administrator, state implementation plans must be
designed to accomplish "reasonable progress" toward that national
goal. (Id. § 7491(b)(2).) (EPA's regulations require each state
plan to include a long-term (10-15 years) strategy for achieving
that "reasonable progress." (40 C.F.R. § 51.306(a)(1).) In
determining the reasonableness of its progress, each state is
authorized to consider the cost, energy and other "nonair
quality" impacts of measures which it might require for the
reduction or prevention of visibility impairment. (42 U.S.C.
§ 7491(g)(1), (2).)

Pursuant to the statutory authority cited, the EPA Administrator
has defined "visibility impairment" to mean "any humanly
perceptible change in visibility (visual range, contrast,
coloration) from that which would have existed under natural
conditions." (40 C.F.R. § 51.301(x).) Presumably, such
visibility impairment could be caused by a variety of manmade air
pollutants.
Existing regulations also afford the Secretary of the Interior a role in the identification of a specific resource described in the regulations which may be affected by air pollution and which may be found worthy of protection by the states in their implementation plans. The regulations define "visibility in any mandatory Class I Federal area" to include "any integral vista associated with that area" (id. § 51.301(y)) and authorize the Secretary of the Interior to identify integral vistas for consideration by the states in their implementation plans (id. § 51.304(a)). An "integral vista" is defined to mean "a view perceived from within the mandatory Class I Federal area of a specific landmark or panorama located outside the boundary of the mandatory Class I Federal area." (Id. § 51.301(n).) (The validity of these regulations is being challenged in pending litigation.)

Under the regulations, the state is only required to consider in its cost/benefit analysis the harmful effects of air pollution upon any integral vista within its boundaries which has been identified by the Secretary according to criteria adopted by him. (Id. § 51.304(a), (d).) These criteria include, but are not limited to, "whether the integral vista is important to the visitor's visual experience" of the area. (Id. § 51.304(a).) Once an integral vista is identified properly, it is for the state to determine how much, if any, protection it should be afforded.

The Secretary's opportunity to identify integral vistas for consideration by the states in this process expires under current regulations on December 31, 1985. Absent identification by the Secretary, each state would be authorized to determine for itself which vistas, if any, are integral to any of the mandatory Class I Federal areas within its boundaries, and should be considered for protection. Pursuant to this regulatory scheme, on January 15, 1981, DOI published a proposed guideline of criteria for the identification of integral vistas and a preliminary list of specific integral vistas identified according to those criteria. (See 46 Fed. Reg. 3646.)

The opportunity afforded the Secretary to identify adverse impacts on class I areas and associated integral vistas for their possible protection by the states represents DOI's primary role in the implementation of the national goal of preventing and reducing visibility impairment in the class I Federal areas described in the statute. Whether visibility in mandatory class I areas and associated integral vistas identified by him receive any protection from air pollution will depend upon the judgments of the concerned states in weighing the benefits of protection against its costs.

There are other laws upon which the Secretary may be able to rely to some extent in any effort to protect NPS units from air pollution. Unlike the CAA, none of these authorities focusses on
air quality protection. On the other hand, some of them may afford the Secretary a more substantial role in their implementation than the CAA does.

NATIONAL PARK SERVICE ORGANIC ACT

The National Park Service Organic Act (16 U.S.C. § 1, et seq.) provides that the Park Service

shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations . . . by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations. (Id. § 1.)

Section 3 of that title directs the Secretary of the Interior to "make and publish such rules and regulations as he may deem necessary or proper for the use and management" of such areas.

In 1978 Congress amended NPS legislation to reassert that the various areas of the NPS should be maintained in a manner consistent with the purpose established in title 16 U.S.C. § 1. More specifically, it declared:

Congress further reaffirms, declares, and directs that the promotion and regulation of the various areas of the National Park System . . . shall be consistent with and founded in the purpose established by section 1 [of title 16], to the common benefit of all the people of the United States. The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress. (16 U.S.C. § 1a-1.)
The Organic Act was enacted pursuant to the Property Clause of the United States Constitution, which empowers Congress "to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States." (U.S. Const. art. IV, § 3, Cl.2.)

Two early United States Supreme Court decisions confirmed Congress' authority under the Property Clause to regulate activity occurring on non-federal property. (See Camfield v. United States, 167 U.S. 518 (1897) [upholding federal statute construed to prohibit fences on private land which had the effect of enclosing federal lands]; United States v. Alford, 274 U.S. 264 (1927) [upholding federal statute construed to prohibit the building of fires on private land near federal land without extinguishing them thereafter].)

The Court acknowledged the continued existence of that extraterritorial legislative authority of Congress more recently in Kleppe v. New Mexico, 426 U.S. 529 (1976). While the Court declined to define the limits of congressional power in that context, because the case before it did not demand that delineation, it nonetheless reiterated that "regulations under the Property Clause may have some effect on private lands not otherwise under federal control." (Id. at 546)

Several subsequent federal appellate decisions have upheld the application of federal laws and implementing regulations to non-federal lands within the boundaries of federal areas to further the purposes for which those federal areas are held. As the Ninth Circuit has observed:

[The Property Clause] grants to the United States power to regulate conduct on non-federal land when reasonably necessary to protect adjacent federal property or navigable waters. (United States v. Lindsey, 595 F.2d 5, 6 (9th Cir. 1979).)

Pursuant to that analysis, statutes and regulations prohibiting or regulating activities within a federal conservation area regularly are applied to private inholdings.

For example, in Free Enterprise Canoe Renters Ass'n v. Watt, 711 F.2d 852 (8th Cir. 1983), the Eighth Circuit upheld the application to non-federal land of a National Park Service regulation prohibiting the "'delivery or retrieval within the boundaries of Ozark National Park Scenic Riverways' of rented watercraft without a permit." (Id. at 856.) The court declared:

It is undisputed that the United States acted within its constitutional authority in attempting to regulate the business activities of the members of the [plaintiff] Association as they affect the ONSR, even
though members themselves may never enter federally owned property, but strictly keep to state or county roads and rights-of-way within the ONSR. (Id. at 855-856.)

In reaching that conclusion, the court cited its earlier construction of the Property Clause in State of Minnesota by Alexander v. Block, 660 F.2d 1240 (8th Cir. 1981), cert. denied, 455 U.S. 1007, in which it had concluded that "[u]nder this authority to protect public land, Congress' power must extend to regulation of conduct on or off the public land that would threaten the designated purpose of federal lands." Id. at 1249 (footnote omitted). See also United States v. Richard, 636 F.2d 236, 240 (8th Cir. 1980)(per curiam) ("federal regulation may exceed federal boundaries when necessary"), cert. denied, 450 U.S. 1033 . . . (1981) . . . (711 F.2d at 856.)

Accordingly, the Free Enterprise court affirmed both the criminal convictions of Association members for violating the regulation by retrieving canoes from non-federal land situated within the boundaries of the federal area without a permit, and the denial of the Association's civil claim for an injunction against the enforcement of that regulation on non-federal lands. (Id. at 858.)

In State of Minnesota by Alexander v. Block, supra, 660 F.2d 1240, the court similarly had upheld the application of federal law barring the use of motorized craft within a federally designated wilderness area to lands and waters under state jurisdiction falling within the boundaries of that area. In explanation of Congress' authority to regulate activities on non-federal land, the court reasoned:

Congress clearly has the power to dedicate federal land for particular purposes. As a necessary incident of that power, Congress must have the ability to insure that these lands be protected against interference with their intended purposes. As the Supreme Court has stated, under the property clause "[Congress] may sanction some uses and prohibit others, and may forbid interference with such as are sanctioned." McKelvey v. United States, 260 U.S. 353, 359 . . . (1922) (emphasis added). (660 F.2d at 1249.)

Applying that analysis to the federal statutes under attack in that case, the court observed:
Thus, if Congress enacted the motorized use restrictions to protect the fundamental purpose for which the [wilderness area] had been reserved, and if the restrictions . . . reasonably relate to that end, we must conclude that Congress acted within its constitutional prerogative. (Id. at 1250.)

Concluding that the motorized use restrictions were a small part of an elaborate system of regulation considered necessary to preserve the area as a wilderness, the court held "that Congress acted within its power under the Constitution to pass needful regulations respecting public lands." (Id. at 1251, footnote omitted.)

Still earlier, the same court held that under the Property Clause Congress could prohibit hunting on waters within the boundaries of Voyageurs National Park in Minnesota, even though the waters were subject to state jurisdiction. (United States v. Brown, 552 F.2d 817, 821 (8th Cir. 1977) cert. denied, 431 U.S. 949 (1977).) In Brown, the court upheld a conviction for violating Park Service regulations against hunting in a national park. (Id. at 819.) The hunter conceded that he was hunting ducks from a boat on waters within the park, but argued that the regulation did not apply to his conduct because the waters were owned by the state. In an alternative holding the court rejected this defense. The court declared:

Assuming arguendo that the state did not cede jurisdiction over the waters in the park, we further conclude that the federal regulations prohibiting hunting in Voyageurs Park were a constitutional exercise of congressional power under the Property Clause. (Id. at 821, footnote omitted.)

It would thus appear that by the adoption of the Organic Act, as amended, Congress has delegated to the Secretary of the Interior the general authority to impose reasonable regulations upon private inholdings in NPS units for the protection of those units and the primary purposes for which they were established and are maintained. Other specific examples of such delegation appear in 16 U.S.C. § 1902 ("all activities resulting from the exercise of valid existing mineral rights on patented or unpatented mining claims within any area of the National Park System shall be subject to such regulations prescribed by the Secretary of the Interior as he deems necessary or desirable for the preservation and management of those areas."); and 16 U.S.C. 1a-2(h) (authorizing the Secretary to "promulgate and enforce regulations concerning boating and other activities on or relating to waters located within areas of the National Park System, including waters subject to the jurisdiction of the United States . . . .")
However, most air pollution harmful to NPS units does not originate within NPS units. The issue is whether NPS Organic Act authority may be applied to air polluting activities occurring outside those units.

The court decisions do not yet recognize congressional delegations of regulatory authority to federal land managers—such as the Secretary—as including extra-territorial jurisdiction for the protection of lands within their jurisdiction. However, it has been suggested that existing laws governing regulatory jurisdiction over inholdings could support that recognition.

The general responsibilities of the Secretary of the Interior have long been recognized by the Supreme Court:

The Secretary is the guardian of the people of the United States over the public lands. The obligations of his oath of office oblige him to see that the law is carried out, and that none of the public domain is wasted or is disposed of to a party not entitled to it. (Knight v. U.S. Land Association, 142 U.S. 161, 181 (1891).)

That prescription, considered in light of the Court's acknowledgment that Congress may "forbid interference with" the particular purposes and uses for which it has dedicated federal land (see McKelvey v. United States, 260 U.S. 353, 359 (1922), logically would appear to be as supportive of the Secretary's efforts to protect NPS units from external threats as it has been found applicable to internal threats.

Indeed, the analyses of the Eighth and Ninth Circuits discussed above in the latter context seem equally appropriate to the former. There is no obvious reason why the "power to regulate conduct on non-federal land when reasonably necessary to protect adjacent federal property" (see United States v. Lindsey, supra, 595 F.2d at 6) should extend to internally-adjacent, but not externally-adjacent non-federal lands in comparable promixity to the federal holdings. Similarly, the court's explanation of congressional authority to regulate inholdings in State of Minnesota, supra, 660 F.2d at 1249-1250, seems equally suited to external threats.

In State of Minnesota the court first noted the Supreme Court's recent reminder that "regulations under the Property Clause may have some effect on private lands not otherwise under Federal control." (Kleppe v. New Mexico, supra, 426 U.S. at 546.) It pointed out that in Kleppe the high court had relied upon Camfield v. United States, in which it had concluded many years earlier.
that Congress possessed the power to control
cconduct occurring off federal property
through its "power of legislating for the
protection of the public lands, though it may
thereby involve the exercise of what is
ordinarily known as the police power, so long
as such power is directed solely to [the
public lands'] own protection." Camfield v.
United States, supra, 167 U.S. at 526 .
(State of Minnesota, supra, 660 F.2d at
1249.)

From this premise, the court continued:

Under this authority to protect public land,
Congress' power must extend to regulation of
conduct on or off the public land that would
threaten the designated purpose of federal
lands. Congress clearly has the power to
dedicate federal land for particular
purposes. As a necessary incident of that
power, Congress must have the ability to
insure that these lands be protected against
interference with their intended purposes .
Thus, if Congress enacted the .
restrictions to protect the fundamental
purpose for which the [federal area] had been
reserved, and if the restrictions .
reasonably relate to that end, we must
conclude that Congress acted within its
constitutional prerogative. (Id. at 1249-
1250, footnote omitted.)

Despite the logical applicability of the foregoing analysis to
external threats, it must be acknowledged that the courts have
yet to recognize secretarial regulatory authority under existing
law to protect NPS units from those threats. While the
Secretary's responsibilities have been identified, his means of
acquitting them have not.

The tension between the clearly perceived secretarial duty and
the less clearly delineated authority to acquit it is apparent in
three successive opinions of the U.S. District Court for the
Northern District of California in a case brought to compel the
Secretary to use his powers to protect Redwood National Park from
damage allegedly caused or threatened by certain logging
operations on privately owned land on the periphery of the park.

In the first of the three, in denying Interior Department motions
to dismiss the action and for summary judgment, the court cited
both the Organic Act and the Redwood National Park Act (16 U.S.C.
§§ 79a-79j) as empowering the Secretary to protect the park from
the threats perceived. (Sierra Club v. Department of Interior,
376 F. Supp. 90, 93 (N.D.Cal. 1974).) However, it was the specific mandate of the Redwood legislation upon which the court relied to discern specifically enforceable duties.

We are of the opinion that the terms of the statute, especially § 79c(e), authorizing the Secretary "in order to afford as full protection as is reasonably possible to the timber, soil, and streams within the boundaries of the park"—"to acquire interests in land from, and to enter into contracts and cooperative agreements with, the owners of land on the periphery of the park and on the watersheds tributary to streams within the park"—impose a legal duty on the Secretary to utilize the specific powers given to him whenever reasonably necessary for the protection of the park and that any discretion vested in the Secretary concerning time, place and specifics of the exercise of such powers is subordinate to his paramount legal duty imposed . . . to protect the park. (376 F. Supp. at 96.)

In the second opinion, after trial, the court described the issue for decision as whether the Secretary had taken reasonable steps to protect the resources of Redwood National Park and, if not, whether his failure to do so was arbitrary, capricious or an abuse of discretion. (Sierra Club v. Department of Interior, 398 F. Supp. 284, 286 (N.D.Cal. 1975).) In reaching its conclusion that the Secretary had not carried out his responsibilities properly, the court noted:

[The] conduct of the Secretary must be considered in the light of a very unique statute—a statute which did more than establish a national park; it also expressly vested the Secretary with authority to take certain specifically stated steps designed to protect the Park from damage caused by logging operations on the surrounding privately owned lands. (398 F. Supp. at 286.)

Accordingly, while once again citing both the Organic Act and the Redwood National Park Act in support of its general conclusion, the court's order setting forth the specific "reasonable steps" that the Secretary might be obliged to take "within a reasonable time" to acquit his statutory responsibilities included only those actions identified in the "unique" Redwood park enabling legislation, to wit: acquiring interests in land and/or entering into cooperative agreements with adjoining landowners (see 16 U.S.C. § 79c(e)), and modifying park boundaries (see id. § 79b(a)). (398 F. Supp. at 294.)
The remainder of the court's order revealingly included within possible secretarial action requests to Congress for additional funds and for clarification as to "whether the powers and duties of defendants, as herein found, are to remain or should be modified." (398 F. Supp. at 294) In short, when it came to implementing its determination that the Secretary was obliged to act to carry out his statutory duties, the court implicitly acknowledged that additional congressional action would be necessary before the Secretary would be empowered to do anything to that end not specified in the Redwood legislation.

Finally, in its third opinion, issued approximately a year later--after the Secretary reported essentially that he had apprised Congress of the state of the matter, and had neither funds nor authority to take the other actions proposed by the court in its second opinion--the court purged the Secretary of his previously found failure. (Sierra Club v. Department of Interior, 424 F. Supp. 172, 175-176 (N.D.Cal. 1976).) The court observed:

The court further finds that, in order adequately to exercise its powers and perform its duties in a manner adequately to protect the Park, Interior now stands in need of new Congressional legislation and/or new Congressional appropriations. "Id. at 175.

Thus, it would seem clear that the Redwood cases did not support the notion that the Organic Act endows the Secretary with extensive extra-territorial jurisdiction which would allow him to protect NPS units from threats originating on lands without them. To the contrary, the clear implication of these cases is that the Secretary's extra-territorial power is limited to that expressly identified by Congress.

At least partly in response to the Redwood cases, Congress amended the Organic Act in 1978, adopting what is now 16 U.S.C. § 1a-1. In submitting a draft bill to Congress for the purpose of expanding Redwood National Park, the Secretary of the Interior had sought express authority to regulate timbering activities on non-federal lands adjacent to the park in order to protect park resources from those activities. (See H. Rep. No. 95-531, 95th Cong., 1st Sess. 32-34 (August 5, 1977); S. Rep. No 528, 95th Cong. 1st Sess. 18-20 (Oct. 21, 1977).) Whether the Secretary's motivation in so doing was to clarify existing authorities or to create new ones is not clear. In any event, while the measure was adopted by the House of Representatives, it was rejected by the Senate on the ground that the problems to be addressed at Redwood National Park were "too urgent to place reliance on such a new concept" (i.e., legislation authorizing extra-territorial regulations). (S. Rep. No. 528, supra, 8.) Instead, Congress enacted the language now contained in section 1a-1.
In *Sierra Club v. Andrus*, 487 F. Supp. 443 (D.D.C. 1980), the court addressed the claim that the Secretary had failed to carry out his duties under the newly amended Organic Act, *inter alia*. The claim was based upon the Secretary's failure to assert and protect federal reserved water rights alleged to be threatened by various energy-related developments external to NPS units which sought to establish water rights under state law.

The court first identified the responsibilities of the Secretary by reference to the legislative history of the 1978 amendment to the Organic Act set forth in title 16 U.S.C. § 1a-1:

"The Secretary has an absolute duty, which is not to be compromised, to fulfill the mandate of the [Organic] Act to take whatever actions and seek whatever relief as will safeguard the units of the National Park System." *Senate Report* 95-528, 95th Cong., 1st Sess., 9 (October 21, 1977) . . . .

Thus, it seems clear that in the event of a real and immediate water supply threat to the scenic, natural, historic or biotic resource values of the [NPS units there involved], the Secretary must take appropriate action. However, nowhere in either 16 U.S.C. §§ 1 or 1a-1 is there a specific direction as to how the protection of Park resources and their federal administration is to be effected . . . . The Court concludes that defendants have broad discretion in determining what actions are best calculated to protect Park resources. (487 F. Supp. at 448.)

The court then enumerated actions that the Secretary might take if the threats alleged by plaintiffs were found to be "real and immediate."

Such actions may include, but are not limited to: 1) asserting reserved water rights, 2) acquiring water rights and rights-of-way, 16 U.S.C. § 17j-2 (1976), 3) denying the land exchange and rights-of-way which may constitute or aid a threat to Park resources, 43 U.S.C.A. §§ 1716, 1761, 1765 (West Supp. 1979), or 4) bringing trespass or nuisance actions if appropriate. (Ibid.)

However, because the court found that there was no real or immediate threat to the Park resource alleged by plaintiffs to be in jeopardy—i.e., reserved water rights—it concluded that the Secretary's failure to assert those rights had a rational basis and dismissed the actions. (Id. at 450.)
It is arguable that the court's discussion of actions that the Secretary might take to protect Park resources was dictum because of its preliminary conclusion that no threat existed which required any action on his part. Even if that discussion was not dictum, however, two things must be acknowledged: Most of the actions described—reserved water rights assertion, acquisition of rights and denial of exchanges or rights to others—were authorized specifically by independent legislative or clearly established common law sources. For the remaining possible actions—bringing trespass or nuisance actions, if appropriate—the court offered no further explanation to demonstrate their viability. While it is understandable that it would not engage in extended analysis of the possibility of such actions in view of its conclusion that no actions were required, the court's reference to reliance upon these common law remedies provides no guidance in their possible use for the protection of NPS units from external threats. (These remedies are discussed further below.)

In addition to the foregoing constitutional and statutory concerns, there is an administrative one. Traditionally, the exercise of regulatory jurisdiction pursuant to the Organic Act has been limited to activities occurring within the boundaries of NPS units. While that past practice does not automatically bar a more expansive interpretation of the Act to authorize extraterritorial regulation, it seems reasonable to suppose that the validity of such regulation would be subjected to challenge in the courts by newly affected parties. In such challenge, both the Secretary of the Interior's long standing interpretation of his regulatory power under the Organic Act as relating to activities within the boundaries of NPS units and the absence of recent judicial extension of federal regulatory power generally under the Property Clause would militate against acceptance of that broader interpretation. Under the circumstances, the utility of the administrative reinterpretation of the Organic Act to support new regulation of park-threatening activities on non-federal lands outside the boundaries of NPS units remains untested and uncertain.

It is also possible that the Organic Act may be used in conjunction with other law to provide an additional means for the protection of NPS units from external threats. That possibility arises when the language of 16 U.S.C. § 1a-1 is considered in light of the Secretary's statutory duties relating to the administration of federal lands other than NPS units.

For example, federally owned coal located without the boundaries, but in the vicinity of, NPS units may be leased in the discretion of the Secretary of the Interior. (30 U.S.C. § 201(a).) The manner in which that discretion is exercised obviously may have an effect on nearby NPS units. The question is whether the mandate of the Organic Act has any bearing on the Secretary's exercise of that discretion.
In the context of the "promotion and regulation" of NPS units consistently with the original Act's purpose, the relevant language reads:

The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress. (16 U.S.C. § 1a-1.)

The legislative history of section 1a-1 does not clarify the limits of its application. On the one hand, it could be argued from the context of the statute that the policy set forth therein relates solely to the regulation of activities occurring within NPS units as those activities may bear upon the purposes for which such lands have been dedicated. If so, the statute provides no additional guidance for dealing with external threats.

On the other hand, because of its inherent ambiguity, the statute could be construed to relate to the total range of programmatic discretion vested in the Secretary under a variety of laws, including the coal leasing statutes. How the Secretary exercises that discretion could have relevance to the "promotion" of NPS units. If that interpretation were substantiated, the statutory policy could be useful in the Secretary's attempt to protect NPS units from external threats originating on other lands under his jurisdiction.

However, the latter interpretation would itself generate further interpretive problems. The last clause of the excerpt quoted from section 1a-1 excepts from the generally protective thrust of the statute those activities which "may have been or shall be directly and specifically provided by Congress." The question is: To which statutorily authorized activities does this exception apply?

It can be argued that all laws authorizing the Secretary to undertake or oversee developmental activities—such as the coal leasing or surface mine permitting statutes—are "directly and specifically provided by Congress," and so excepted from the policy defined in section 1a-1. Another reading of the exception would limit it to those secretarial duties mandated by Congress. The narrowest interpretation of the exception would require statutory acknowledgement of the possible adverse consequences of authorized or mandated activities to NPS units before it became applicable. In these last cases there could be little question that Congress meant the exception to apply.
Neither section la-1 nor its legislative history speaks directly to the issue, however, and it would appear that resolution of conflicts between the directive of section la-1 and other statutory authorities must be undertaken on an ad hoc basis pending judicial clarification. For all of the foregoing reasons, the Organic Act, whether utilized independently or in conjunction with other laws, currently is neither a certain nor an expeditious tool for the protection of NPS units from the harmful effects of air pollution originating outside those units.

Other statutory programs administered by the Secretary have specific reference to the protection of NPS units. The Surface Mining Control and Reclamation Act is one.

SURFACE MINING CONTROL AND RECLAMATION ACT

The primary protections for NPS units under this Act (30 U.S.C. § 1201, et seg.) can be found in section 1272. Insofar as relevant to our inquiry, section 1272(e) provides that after August 3, 1977, and subject to "valid existing rights", no surface coal mining operations which did not exist on that date shall be permitted:

(1) on any lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including study rivers designated under section 1276(a) of title 16 and National Recreation Areas designated by Act of Congress;

. . . .

(3) which will adversely affect any publicly owned park or places included in the National Register of Historic Sites unless approved jointly by the regulatory authority and the Federal, State, or local agency with jurisdiction over the park or the historic site;

. . . .

(5) . . . within three hundred feet of any . . . public park . . . .

It should be emphasized that these prohibitions against new surface coal mining within the NPS units identified (including private inholdings within the boundaries of these units), and within a three-hundred foot buffer zone surrounding any "public park," and on other land when it will "adversely affect" the public lands indicated, are subject to an important exception:
Each of the three mining prohibitions set forth is subject to "valid existing rights." Until recently, those rights generally were defined as follows:

A person possesses valid existing rights for an area protected under section [1272(e)] on August 3, 1977, if the application of any of the prohibitions contained in that section to the property interest that existed on that date would effect a taking of the person's property which would entitle the person to just compensation under the Fifth and Fourteenth Amendments to the United States Constitution; (30 C.F.R. § 761.5(a).)

In addition,

A person possesses valid existing rights if the person proposing to conduct surface coal mining operations can demonstrate that the coal is both needed for, and immediately adjacent to, an ongoing surface coal mining operation which existed on August 3, 1977. A determination that coal is "needed for" will be based upon a finding that the extension of mining is essential to make the surface coal mining operation as a whole economically viable; (Id. § 761.5(c).)

However, in a recent round of litigation challenging the Secretary's regulations under this Act, both regulatory definitions were remanded for his reconsideration upon a finding by the district court that he had failed to comply with the notice and comment requirements of the Administrative Procedures Act. (In Re: Permanent Surface Mining Regulation Litigation, No. 79-1144 (D.D.C. March 22, 1985) (Mem. Op. at pp. 4-11, 18-20).) Pending promulgation of acceptable regulations defining "valid existing rights," it is virtually impossible to provide any reasonably accurate analysis of the degree of protection provided NPS units by the foregoing prohibitions against certain surface coal mining.

Apart from such "valid existing rights," the prohibitions against mining within the federal areas identified and within 300 feet of public parks are fairly straightforward. Less clear is the regulation of surface coal mining in areas outside these units which will "adversely affect any publicly owned park." (30 U.S.C. § 1272(e)(3).) The Act sets forth no specific indication as to when surface coal mines may be found to threaten such adverse effect.

For example, one relevant provision directs coal operators "to effectively control erosion and attendant air and water pollution . . . ." (Id. § 1265(b)(4).) However, an attempt by the
Secretary to protect air quality by regulating all fugitive dust emissions from surface coal mines under this provision was struck down by the court as an overbroad interpretation of the statute. (In Re: Permanent Surface Mining Regulation Litigation, No. 73-1144 (D.D.C. May 16, 1980) (Mem. Op. at pp. 27-29).) The court ruled that only air pollution related to erosion could be regulated under this statute, notwithstanding the Secretary's apparent assertion that in this context "most sources of air pollution stem from surface mining operations unrelated to erosion activities." (Id. at p. 28.) The court observed: "Moreover, if Congress wanted the Secretary to develop regulations protecting air quality, it could have done so in a straightforward manner." (Id. at p. 29.) In a subsequent opinion, the court reaffirmed its ruling, relying on the Act itself (see 30 U.S.C. § 1292(a)) to conclude that "EPA has the authority to regulate fugitive dust from surface mines under the Clean Air Act . . . ." (July 6, 1984 mem. opn. at p. 34.)

In the only reported case of which we are aware that raised the issue of park protection in the context of section 1272, former Secretary of the Interior Andrus concluded that surface coal mine fugitive dust at levels expected to result from a mining operation in the Alton Coal Fields in close proximity to Bryce Canyon National Park would not adversely affect the park. He did not, however, exclude consideration of such dust in ascertaining adverse effects. In addition, he concluded that other aspects of the mining operation (including noise and unsightliness) would adversely affect the park and, accordingly, determined that such land was "unsuitable" for mining. That decision was upheld by the United States District Court in Utah Intern. v. Dept. of Interior of the U.S., 553 F. Supp. 872 (C.D. Utah 1982).

In addition to the three specific prohibitions set forth in section 1272(e), supra, the Act authorizes any person "having an interest which is or may be adversely affected" by surface coal mining to petition the Secretary of the Interior to have an area designated as unsuitable for mining. (30 U.S.C. § 1272(c).) Similarly, the Secretary is himself directed to determine whether there are federal lands which are unsuitable for surface coal mining. (Id. § 1272(b).) Insofar as relevant here, a determination of unsuitability would require a finding that the mining operations will "affect fragile or historic lands in which such operations could result in significant damage to important historic, cultural, scientific, and esthetic values and natural systems." (Id. § 1272(a)(3)(B).) The Alton decision upheld in Utah Intern., supra, was precipitated by a petition filed pursuant to section 1272(c) by several individuals and groups interested in environmental protection.

Although "valid existing rights" are not expressly exempted from the statutory unsuitability petition process, a recent ruling of the Interior Board of Surface Mining Appeals has incorporated that exemption into the process. In that ruling the Board concluded that land which is open to surface coal mining as a
result of valid existing rights cannot be designated unsuitable for mining pursuant to a petition filed under section 1272(c). (See In Re: Shavers Fork Watershed Unsuitability Petition, IBSMA 81-64, 4 IBSMA 192, 197 (Dec. 10, 1982).)

It is apparent that the current applicability of the "valid existing rights" exemption to both the specific prohibitions against surface coal mining set forth in section 1272(e) and the unsuitability petition process of section 1272(c) contributes to the substantial uncertainty concerning the amount of protection from air pollution available to NPS units under the Surface Mining Control and Reclamation Act, as that Act was construed by the May 16, 1980, and July 6, 1984, opinions in In Re: Permanent Surface Mining Regulation Litigation, supra.

COMMON LAW ACTIONS

It has been suggested that protection of NPS units from external threats—such as air pollution—could be accomplished through traditional common law actions like those for nuisance or trespass, where appropriate. (See Sierra Club v. Andrus, supra, 487 F. Supp. at 488.) (Because the same principles apply to the availability of both remedies, we will limit our discussion to the former.) Initially, it must be noted that such remedies are cumbersome and by their nature can be invoked only after the damage is done or appears inevitable.

More importantly, there currently is substantial doubt as to the availability of these remedies in this context because Congress has addressed air quality protection in NPS units—as elsewhere—comprehensively in the Clean Air Act (CAA) and the regulatory scheme mandated therein. This legislative initiative impinges upon both federal common law and state common law governing these remedies.

In the early 1900's the United States Supreme Court utilized federal common law to resolve interstate air and water pollution problems, without labeling it as such. (See Georgia v. Tennessee Copper Co., 206 U.S. 230 (1907); Missouri v. Illinois, 200 U.S. 496 (1906).) In 1971 the Tenth Circuit invoked the federal common law by name to address a claim by the State of Texas that pesticide runoff from the State of New Mexico was polluting its waters, declaring: "Federal common law and not the varying common law of the individual States is . . . a basis for dealing in uniform standard with the environmental rights of a State against improper impairment by sources outside its domain." (Texas v. Pankey, 441 F.2d 236, 241 (10th Cir., 1971).)

Subsequently, the Supreme Court adopted the same approach in another interstate water pollution dispute. "When we deal with air or water in their ambient or interstate aspects, there is a federal common law." (Illinois v. City of Milwaukee (Milwaukee I) 406 U.S. 91, 103 (1972), footnote omitted.) It explained that the courts had fashioned a federal common law "where there is an
overriding federal interest in the need for a uniform rule of decision or where the controversy touches basic interests of federalism . . . ." (Id. at 105, n. 6.)

Shortly after Milwaukee I was decided, Congress passed the 1972 Amendments to the Federal Water Pollution Control Act (FWPCA), which created a permit system for the discharge of pollutants into interstate waters. (See 33 U.S.C. §§ 1251-1376.) In a subsequent stage of the water pollution dispute between Illinois and Milwaukee, the Supreme Court ruled that the federal common law of nuisance had been supplanted in the water pollution field by the adoption of the FWPCA. (Milwaukee v. Illinois (Milwaukee II), 451 U.S. 304, 317 (1981).) The court declared:

Federal common law is a "necessary expedient," . . . and when Congress addresses a question previously governed by a decision rested on federal common law the need for such an unusual exercise of lawmaking by federal courts disappears. (Id. at 314, citation omitted.)

The Court noted that the Pankey case, upon which it relied extensively in Milwaukee I, had itself observed that "federal common law applies 'until the field has been made the subject of comprehensive legislation or authorized administrative standards . . . ." (Ibid., quoting Texas v. Pankey, supra, 441 F.2d at 241.) The appropriate question, the Milwaukee II court said, was "whether the legislative scheme 'spoke directly to a question' . . . not whether Congress had affirmatively proscribed the use of federal common law." (451 U.S. at 315.)

The Court concluded that in context of the problem before it,

Congress has not left the formulation of appropriate federal standards to the courts through application of often vague and indeterminate nuisance concepts and maxims of equity jurisprudence, but rather has occupied the field through the establishment of a comprehensive regulatory program supervised by an expert administrative agency. (Id. at 317.)

Further, with respect to the content of the legislative approach to the problem perceived, the Court declared:

Although a federal court may disagree with the regulatory approach taken by the agency with responsibility for issuing permits under the Act, such disagreement alone is no basis for the creation of federal common law . . . .
The question is whether the field has been occupied, not whether it has been occupied in a particular manner. (Id. at 323, 324.)

Two months later, in a case rejecting the common law claims of fishermen against various governmental entities for damage to fishing grounds caused by discharges and ocean dumpage of sewage and other waste, the Court laid to rest any doubt in the matter.

The Court has now held that the federal common law of nuisance in the area of water pollution is entirely preempted by the more comprehensive scope of the FWPCA . . . . (Middlesex Cty. Sewerage Auth. v. Sea Clammers, 452 U.S. 1, 21-22 (1981).)

While the Supreme Court has yet to address the issue of preemption of any federal common law of nuisance in the area of air pollution, the foregoing analysis of the closely analogous problem in the water pollution area would seem controlling. The CAA, like the FWPCA, establishes a comprehensive regulatory program supervised by the same expert administrative agency--EPA. Whatever objections may be posed to the manner in which Congress has elected to regulate air pollution under that program, it can hardly be denied that Congress has addressed the question directly.

On this reasoning, at least one federal court has dismissed a nuisance action for damages brought by the United States against a landfill operator, declaring:

Since Congress has addressed the problem of air pollution in the Clean Air Act, I find that the statute pre-empts plaintiff's federal common-law claim for nuisance.


Similarly, in successive opinions, the Second Circuit affirmed dismissal of federal common law nuisance claims brought against EPA (New England Legal Foundation v. Costle, 632 F.2d 936 (2 Cir. 1980)) and a lighting company (New England Legal Foundation v. Costle, 666 F.2d 30 (2 Cir. 1981)) for the latter's use of a high sulfur fuel after EPA approval. While the court did not reach the "broad question of whether the Clean Air Act totally preempts federal common law nuisance actions based on the emission of chemical pollutants into the air" (id. at 32), its analysis followed the rationale underlying preemption determinations:

Our affirmance is specifically on the ground that the EPA's approval of [the lighting company's] use of high sulphur fuel precludes
appellants from maintaining a common law nuisance action against [the company].

(Ibid.)

It has been suggested that the CAA's "saving" clauses may preserve federal common law remedies. However, there would seem to be little basis for so concluding.

In the section of the CAA authorizing "citizen suits," there is the following provision:

Nothing in this section shall restrict any right which any person (or class of persons) may have under any statute or common law to seek enforcement of any emission standard or limitation or to seek any other relief . . . .

(42 U.S.C. § 7604(e).)

In Milwaukee II, however, the Supreme Court rejected the claim that practically identical language--substituting the word "effluent" for "emission"--contained in the citizen-suit section of the FWPCA (33 U.S.C. § 1365(e)) had the saving effect also argued for in that case. The Court noted:

The subsection is common language accompanying citizen-suit provisions and we think it means only that the provision of such suit does not revoke other remedies. It most assuredly cannot be read to mean that the Act as a whole does not supplant formerly available federal common-law actions . . . .

(451 U.S. at 329; accord Kin-Buc, Inc., supra, 532 F. Supp. at 703.)

It is suggestive of a "substantive" approach to preemption analysis that the Court found federal common law preempted by the FWPCA notwithstanding fairly specific evidence to the contrary in the relevant legislative history. As the Milwaukee II dissent argued:

[T]he Court ignores express statements of legislative intent that contradict its position. The Senate Report accompanying the 1972 legislation explicitly describes the congressional intent informing [33 U.S.C. § 1365(e)]:

"It should be noted, however, that the section would specifically preserve any rights or remedies under any other law. Thus, if damages could be shown, other remedies would remain available. Compliance with requirements under

This deliberate preservation of all remedies previously available at common law makes no distinction between the common law of individual States and federal common law. (451 U.S. at 343, Blackmun, J., dissenting, footnote omitted.)

Apparently, the Milwaukee II majority was guided by the appropriateness of the statutory solution—because of the latter's comprehensive approach to a complex problem requiring oversight by an expert administrative agency—in finding federal common law had been preempted in the area of water pollution control by the FWPCA, notwithstanding evidence of contrary congressional intent. A similar approach would seem likely with respect to air pollution and the CAA.

The CAA also contains the following provision:

[T]his chapter [title 42 U.S.C. §§ 7401-7642] shall not be construed as superseding or limiting the authorities and responsibilities, under any other provision of law, of the [EPA] Administrator or any other Federal official, department or agency. (42 U.S.C. § 7610(a).)

It may be argued that this provision could be read to preserve the Secretary's option to utilize common law remedies—such as nuisance actions—to address sources of air pollution outside NPS units which threaten those units. By comparison, the FWPCA's similar "saving" clause is more qualified, preserving only "the authority or functions of any officer or agency of the United States not inconsistent with this chapter . . . ." (33 U.S.C. § 1371(a).)

Neither Milwaukee II nor Seaclammers discussed the effect of section 1371(a) on their respective conclusions that the FWPCA preempted federal common law in the area of water pollution. Those preemption determinations, however, at least implicitly reject any "saving" effect of that section. Nonetheless, because of the more comprehensive "saving" language of the CAA provision embodied in 42 U.S.C. § 7610(a), it can be argued that the
Court's implicit determination that 33 U.S.C. § 1371(a) does not preserve federal common law actions has less bearing on any similar argument which might be made under the CAA.

However, it seems unlikely that the Supreme Court would conclude Congress preserved the viability of judicially created federal common law rights of action, such as those for nuisance, in this general formulation. If the Court was willing to find pre-emption of federal common law by the FWPCA notwithstanding the specific contrary legislative history noted by the dissent in Milwaukee II (and discussed above), it would seem unlikely to be swayed by the argument that the CAA sought to preserve federal common law by the general language of section 7610(a). (It would seem reasonable to suppose that the contrary view of a federal district court which had relied upon the court of appeal decision vacated in Milwaukee II (see United States v. Atlantic-Richfield Co., 478 F. Supp. 1215, 1219 (D. Mont. 1979)) has lost its foundation. (See Kin-Buc, Inc. supra, 532 F. Supp. at 702.))

Considering the tenor of the Court's preemption analysis under the FWPCA and the similarly comprehensive approach to air pollution under the CAA, little reliance can be placed upon sections 7604(e) and 7610(a) as preservers of a federal common law of nuisance in this context.

There are other differences between the CAA and the FWPCA, of course, and only judicial interpretation can determine whether the former, like the latter, has "occupied the field" to the exclusion of federal common law. It is our opinion, however, that the Secretary cannot rely with confidence upon any federal common law of nuisance in any effort to protect NPS units from the adverse effects of air pollution generated outside the boundaries of those units.

By implication Milwaukee II raises—but does not analyze or resolve—the possibility of the existence of another body of law which may support nuisance actions for relief from air pollution: the common law of the States. For comparison in discussing pre-emption of federal common law by federal statutes the Court observed:

Contrary to the suggestions of respondents, the appropriate analysis in determining if federal statutory law governs a question previously the subject of federal common law is not the same as that employed in deciding if federal law pre-empts state law. In considering the latter question "'we start with the assumption that the historic public powers of the States were not to be superseded by the Federal Act unless that was the clear and manifest purpose of Congress.'" Jones v. Rath Packing Co., 430 U.S. 519, 525 (1977) (quoting Rice v. Santa Fe Elevator
Corp., 331 U.S. 218, 230 (1947)). While we have not hesitated to find pre-emption of state law, whether express or implied, when Congress has so indicated, see Ray v. Atlantic Richfield Co., 435 U.S. 151, 157 (1978), or when enforcement of state regulations would impair "federal superintendence of the field," Florida Lime & Avocado Growers, Inc. v. Paul, 373 U.S. 132, 142 (1963), our analysis has included "due regard for the presuppositions of our embracing federal system, including the principle of diffusion of power not as a matter of doctrinaire localism but as a promoter of democracy."
San Diego Building Trades Council v. Garmon, 359 U.S. 236, 243 (1959). Such concerns are not implicated in the same fashion when the question is whether federal statutory or federal common law governs, and accordingly the same sort of evidence of a clear and manifest purpose is not required. Indeed, as noted, in cases such as the present "we start with the assumption" that it is for Congress not federal courts, to articulate the appropriate standards to be applied as a matter of federal law. (Milwaukee II, supra, 451 U.S. at 316-317, footnote omitted.)

The Court's general comparison did not expressly address the possibility that state common law may survive its conclusion of preemption of federal common law by the federal legislation. The dissent, however, did:

By eliminating the federal common law of nuisance in this area, the Court in effect is encouraging recourse to state law whenever the federal statutory scheme is perceived to offer inadequate protection against pollution from outside the State, either in its enforcement standards or in the remedies afforded. This recourse is now inevitable under a statutory scheme that accords a significant role to state as well as federal law. But in the present context it is also unfortunate, since it undermines the Court's prior conclusion that it is federal rather than state law that should govern the regulation of interstate water pollution. Illinois v. Milwaukee, 406 U.S., at 102. Instead of promoting a more uniform federal approach to the problem of alleviating interstate pollution, I fear that today's decision will lead States to turn to their own courts for statutory or common-law
assistance in filling the interstices of the federal statute. (451 U.S. at 353-354, Blackmun, J. dissenting.)

It is unclear whether the dissent's characterization of the availability of state common law would be accepted by the Court if the issue were presented for decision. As indicated, the majority discussed it only to describe the relative ease of finding preemption of federal common law.

However, it is suggested that the very progression of pollution problem-solving discussed above--from state common law to federal common law to federal legislation--precludes reliance at this stage on the common law of the states relating to nuisance actions. Apparently, the impetus for the development of federal common law in this area was the inadequacy of differing concepts of state common law doctrines to deal with ambient pollutants. (See Texas v. Pankey, supra, 441 F.2d at 241.) As Milwaukee I suggested: "When we deal with air or water in their ambient or interstate aspects, there is a federal common law" because of the "overriding federal interest in the need for a uniform rule of decision . . . ." (Milwaukee I, supra, 406 U.S. at 103, 105, n. 6; see Hinderlider v. La Plata Co., 304 U.S. 92, 110 (1938).) In short, where federal concerns mandate the application of federal common law, state common law is superseded.

That analysis has lost none of its force by the Court's subsequent conclusion that federal legislation removed the need for federal common law. Rather, the congressional initiative presumably addressed the same problem of disparate state common law doctrines, but in a more uniform and comprehensive manner. Under the circumstances, it would appear that an attempt to revert to the earlier reliance upon state common law is unlikely to succeed.

Accordingly, on the basis of existing court decisions, substantial doubt exists as to the availability of federal or state common law actions for nuisance (or trespass) as means to protect NPS units from the adverse effects of air pollution generated outside those units.

CONCLUSION

Various laws may be utilized by the Department of the Interior to some extent to protect NPS units from the harmful effects of air pollution. None provides complete protection.

Some authorities seem better suited for the task than others. Other authorities may have been preempted by the Clean Air Act. That Act addresses the problem of air pollution in NPS units and elsewhere comprehensively, and affords the Secretary opportunities to participate in that protection.
To a certain extent the effectiveness of existing law to deal with this problem will be determined case by case in the litigation process. Statutory mandates will have to be interpreted by the Secretary in the context of specific problems. Ultimately, those judgments will be tested and resolved in the courts, where the Justice Department is responsible for defending the interests of the United States. How those actions are prosecuted and defended will play a role in the development of the law for the protection of NPS units from the harmful effects of air pollution.

Keith E. Eastin
TO : House Committee on Interior and Insular Affairs
FROM : American Law Division
SUBJECT : Comments on Department of the Interior Memorandum of September, 20, 1985 Entitled "Protection of National Park System Units from the Adverse Effects of Air Pollution"

You have asked for CRS review of the above-captioned memorandum regarding the Department of the Interior's authority under existing law to protect air quality in National Park System (NPS) units. The memorandum concludes that "[v]arious laws may be utilized by the Department of the Interior to some extent to protect NPS units from the harmful effects of air pollution. None provides complete protection." Laws discussed in the memorandum consist of the Clean Air Act (especially prevention of significant deterioration and visibility protection), National Park Service Organic Act, constitutional property power, Surface Mining Control and Reclamation Act, and federal and state common law.

Our response to the Interior memorandum takes the form of selected comments rather than exhaustive, point-by-point evaluation. ALD attorneys contributing to this memorandum were Robert Meltz (Clean Air Act), Pamela Baldwin (National Park Service Organic Act and other park management authorities), and George Costello (common law).
Clean Air Act

The Interior memorandum quite appropriately notes the statutory limits in the Clean Air Act's (CAA) program for protecting air quality in the national parks. To recapitulate, limits in the prevention of significant deterioration (PSD) system include the following.

1. It is restricted to only two pollutants: particulates and sulfur dioxide. EPA has ignored the express requirement in CAA section 166 that PSD regulations be promulgated for hydrocarbons, carbon monoxide, ozone, and nitrogen oxides by 1979, and for lead by 1980.

2. No NPS units created after August 7, 1977, can be "mandatory class I". Such units will start out as Class II, and, if they do not meet the criteria in CAA section 164(a)(1)-(2), can be downgraded by states to Class III. NPS units that can be downgraded to Class III include 224 out of the total 337 units. (In fact, however, the redesignation process has rarely been used.)

3. Federal land managers play only an advisory role in redesignation; states may act independently of and inconsistently with the federal recommendation. 1/

4. The PSD system confers no relief from the emissions of existing sources -- i.e., those in existence before the first application for a PSD permit in the area is received from a "major emitting facility." A facility must emit a considerable amount of pollution (100 tons/yr, or 250 tons/yr, depending on the source) before it is deemed "major."

5. The "affirmative responsibility" imposed on the Secretary of the Interior to protect "air-quality related values" is limited to Class I areas. Yet Class II areas, notes the Interior memorandum, "comprise the bulk of NPS units." Moreover, the process through which this responsibility is to be exercised -- part of the review of applications for construction permits, submitted for proposed major emitting facilities seeking to locate in PSD areas -- is a cumbersome,

1/ CAA § 164(b)(2). See Kerr-McGee Chemical Corp. v. Dep't of the Interior, 709 F.2d 597 (9th Cir. 1983).
highly complex one and is unlikely to be invoked often. A state governor may grant variances from maximum allowable increases of SO2 concentrations, despite the opposition of the Secretary, if the President finds the variance to be in the national interest.

6. The preconstruction review process noted in the preceding paragraph does not even apply if the proposed source's site is not within a PSD area, even if the NPS unit it might adversely affect is within a PSD area.  

7. The visibility protection scheme in the CAA is limited to mandatory class I areas (48 out of the total 337 units in the NPS), and the Secretary of the Interior is given solely an advisory function.

In sum, the PSD tools conferred by the CAA for protection of NPS air quality are confined to only certain NPS units, to certain pollutants, and to certain emission sources proposed for certain locations.

Even where the Secretary of the Interior's PSD authorities do come into play, the Act does not specify what, if any, enforcement tools the Secretary possesses. For example, could the Secretary sue to invalidate a state permit for construction of a major emitting facility, granted on the basis of a questionable determination by the state that the proposed source will not cause concentrations exceeding the maximum allowable increases? The Act is silent on such questions, providing an explicit enforcement role only for EPA, the states, and citizens (per the citizen suit provision).

It is an interesting question, apparently as yet undecided, whether the Department of the Interior could use the citizen-suit provision

in the CAA as authority to enforce the Act's PSD requirements, or indeed to enforce any emission limitations imposed on sources under state implementation plans. A literal reading of the provision does suggest its availability — any "person" may bring a citizen suit, and the Department is included within the CAA's definition of "person." Yet a court could well interpret the key enforcement section of the CAA, which speaks of enforcement only by EPA, as reflecting a congressional intent that EPA be the sole voice of the federal government in matters of CAA enforcement.

Where the threat to national-park air quality stems from pollution sources that are (a) numerous, and (b) out-of-state, the CAA provides no effective mechanism for forcing abatement of emissions from such sources. Section 110(a)(2)(E) does require state plans to —

prohibit any stationary source within the State from emitting any air pollutant in amounts which will (I) prevent attainment or maintenance by any other State of any ... national ... ambient air quality standard, or (II) interfere with [required PSD measures in the downwind State's implementation plan].

However, the language of this provision, with its focus on individual sources, suggests the difficulty of invoking it to deal with regionwide pollution sources. The principal interstate-pollution provision in the CAA, section 126, is also geared to threats from individual out-of-state

3/ CAA § 304.
4/ CAA § 302(e).
5/ CAA § 113.
sources, a fact attested to by the failure to date of efforts to use section 126 for abatement of regional emissions causing acid rain. In any event, section 126 can be invoked only by states and their political subdivisions, not federal agencies, and only for ensuring maintenance of ambient standards, not PSD increments.

There is, finally, an inherent tension in the institutional arrangement created by the CAA. In the realm of air quality, the federal agency specially charged with protecting the national parks (Interior) has, for the most part, only a consultative role. The federal agency with all the enforcement authority (EPA) has a broad spectrum of air-quality concerns, of which national-park air quality is but one. States, too, have their own priorities and economic needs, with which national-park air quality must often compete. Indeed, which PSD areas should be mandatory class I, whether states should have sole redesignation authority, etc., were issues closely watched by states during enactment of the 1977 CAA amendments.

National Park Service Organic Act and Other Park Management Authorities

Congress created the National Park Service in 1916 to promote and regulate the parks "by such means and measures as conform to the fundamental purpose of the said parks, monuments, and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

The General Authorities Act of 1970 articulated some of the values for which units were added to the NPS, defined the system, and clarified certain park management authorities. As will be discussed further in the part of this memorandum on common law actions, it is a well-established principle that the United States may bring suit to protect its property, in much the same way as any other property owner can. This authority seems to have been implicit in the park laws since the purposes of parks were set out in 1916. In 1978, Congress amended the 1970 Act by elaborating further on the management of the NPS in language that expressly mentioned protecting System lands:

Congress further reaffirms, declares, and directs that the promotion and regulation of the various areas of the National Park System, as defined in section 2 of this Act, shall be consistent with and founded in the purpose established by the first section of the Act of August 25, 1916, to the common benefit of all the people of the United States. The authorization of activities shall be construed and the protection, management, and administration of these areas shall be conducted in light of the high public value and integrity of the National Park System and shall not be exercised in derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress.

The intent and necessity for this language has generated controversy. The language was part of legislation that was primarily designed to provide greater protection to the Redwood National Park in California. That park had been es-

established in 1968, but logging activities on lands outside the park but within the same watershed were threatening the trees within the park.

The 1968 legislation establishing the park had authorized the Secretary to acquire interests in lands by donation, or to "enter into contracts and cooperative agreements with owners of land on the periphery of the park and on watersheds tributary to streams within the park designed to assure that the consequences of forestry management, timbering, land use, and soil conservation practices conducted thereon, or of the lack of such practices, will not adversely affect the timber, soil, and streams within the park as aforesaid." The new park was to be managed in accordance with the 1916 legislation. However, these measures did not prove adequate to protect the redwoods from the erosion and sedimentation that resulted from timbering on lands within the watershed of the park, the Secretary of the Interior did not undertake any other actions, and hence Congress considered various means to secure greater protection.

H.R. 3813 was introduced on February 22, 1977. The bill as reported with amendment by the House Committee on Interior and Insular Affairs reflected the proposed draft submitted by the administration that strengthened the authority of the Secretary in several significant respects. In addition to including additional acreage within the Redwood National Park, the bill also expanded the authority of the Secretary to enter into contracts and cooperative agreements with landowners and other entities outside the park. Section 1(a)(6) authorized the Secretary to review state regulatory provisions applicable to zones critical

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9/ Id. § 3(e).
to protection of the Park and, if they were insufficient, directly regulate
the use of the lands: "the Secretary is authorized to promulgate and enforce
reasonable regulations of and restrictions on harvesting of timber and land
rehabilitation and management practices within such zones, necessary to pro­
vide continuing protection to the lands and other resources within the park
... ."

Furthermore: "The Secretary is further directed to request the Attorney
General of the United States to initiate an action for injunctive relief to
prohibit any violation or anticipated violation of regulations adopted here­
der or to otherwise require the rehabilitation of privately owned lands or
to require other land use practices necessary for the protection of the in­
terests of the United States through action of law. Such an action will lie
upon a showing of present or likely damage to established park resources with­
out regard to any other provision of law or standard of conduct."

Section 1(b) contained the language amending the 1970 Act, regarding
protection of the parks.

In sum, the bill contained three devices by which activities on private
lands outside the park boundaries might be controlled: zones within which
the Secretary could regulate; authority for suits to enforce any such reg­
ulations or "to otherwise require the rehabilitation of privately owned lands"
or to "require other land use practices necessary for the protection of the
interests of the United States"; and authority (in the new language amending
the 1970 Act) for actions to "protect" parks.

The transboundary effects of the regulatory zones and judicial actions
to enforce such regulations are express and clear. The transboundary effects
of authorizing suits to abate or control land use practices on private land even aside from the existence of an express federal regulatory program also is expressly stated, but the underlying reasoning in support of the provisions would certainly be of interest as the express stating of authority for such suits was definitely noteworthy.

The intended transboundary applicability of the 1978 amendment of the 1970 Act is not clear on its face. The language could have been intended only to guide actions of the Secretary within parks -- perhaps to emphasize that activities to "promote" the parks under the 1916 Act must also always be protective of park values and purposes. It could also possibly apply to all actions of the Secretary in his capacity as the administrator responsible for management of the NPS, and in his other capacities relating to federal lands (e.g., as administrator of the federal mineral-leasing program). It could also refer to actions of the Secretary and of all federal entities. It could also refer to protective actions of the Secretary to be taken even as to activities on nonfederal lands that threatened NPS units.

The House committee report focused primarily on the new authority to regulate private lands within the critical zones, and indicated that these provisions had been approved by both the Solicitor's Office at the Department of the Interior and the Department of Justice. This legal analysis is not available to us at this time. The report further notes that "a similar approach has previously been adopted by the Congress with regard to fires on areas surrounding National Forest lands; with regard to mining in various National Park Ser-

vice areas; and, with regard to surface mining activities on certain private lands. "It is with this background that the Committee adopted the regulatory provisions in H.R. 3813." 11/

The regulatory provisions were those submitted by the Administration. In its report on the proposal, the Department of the Interior related the provisions authorizing the Secretary to request the Attorney General to seek injunctive relief only to violations of the Secretary's regulations in the special zones. The report did not comment on the remainder of the broad suit provisions.

As to the regulatory authority, the report stated: "We do not however, view such authority as setting a precedent for Federal Regulation of private lands adjacent to other parks in the absence of equally exceptional circumstances." 12/

The report did not illuminate whether the amendment to the 1970 Act was intended to have transboundary effects, saying only:

The proposed legislation also provides for an amendment to the General Authorities Act of 1970 to further define the Secretary of the Interior's duties and limitations with regard to the administration of the National Park System. This provision provides that the protection, management and administration of the various areas of the system, as previously defined, must be consistent with those high purposes originally established by Congress with the creation of the National Park Service in 1916. While this standard of decisionmaking should be self evident, we feel that the continued pressure upon the National Park System today makes a restatement and reenforcement of these basic premises very appropriate. 13/

11/ Id. at 27.
12/ Id. at 33.
13/ Id.
When the legislation was considered on the floor, an amendment in the nature of a substitute became the focus of the debate. Congressman Philip Burton, a sponsor and member of the Committee on Interior and Insular Affairs, noted that the provisions for regulatory authority had been deleted in the substitute:

More particularly, if the members of the committee will recall, the subcommittee bill carried a provision for regulatory authority, which I thought was justified given the circumstances. Along with that regulatory authority went certain injunctive authority for the Attorney General and other collateral legal tools. The Senate, in facing this matter, decided that the potential risk of the precedent perhaps outweighed the justification of this proposal. So, the Senate, in adopting the same basic 48,000-acre design that the House developed — that was also the design of the administration — substituted for the regulatory authority certain abilities of the Secretary to acquire land in a 30,000 acre park protection zone, and as a result then dropped the variety of legal tools that the House committee recommended in its bill.

It appeared to me that this compromise achieved essentially the protection of the Redwood Creek Basin. . . . Because we can achieve an equivalent result, I thought it wise to accept the Senate views, with a refinement, in that respect. 14/

It is interesting to note that in his remarks, Rep. Burton linked the authorization of injunctive suits with the authority of the Secretary to have promulgated regulations controlling uses on private lands within the designated

zones, even though the language was not so limited and the provision amending the 1970 Act was retained. The Congressman's remarks may imply, therefore, that an ability to enjoin activities on private lands is not intended to be conferred by the 1970 Act amendment language. On the other hand, perhaps his remarks referred only to that part of the injunction language that was related to the regulatory authority, and were not addressed to the rest of the language; language that perhaps was seen as merely restating the existing authority of the Secretary.

The remainder of the House debate did not return to these issues.

The Senate version, S. 1976, was introduced on August 1, 1977 by Senator Cranston. As introduced, the Senate bill also initially reflected the suggestions of the Department of Interior.

In setting out the original administration-suggested provisions affecting private lands, Sen. Cranston said:

Furthermore, the bill enhances the authority of the Secretary to protect the resource value of Redwood National Park by authorizing him to carry out a land rehabilitation program on lands upstream and adjacent to the park. Contracts or cooperative agreements would be authorized to initiate, develop, and implement such a program on lands contributing significant sedimentation because of past land use practices and to reduce risk of further damage to streamside areas adjacent to Redwood Creek. The Secretary is also authorized to establish zones where regulations are needed to protect the park resources from activities and interference occurring on non-Federal lands, and to enforce reasonable timber harvesting, land rehabilitation, and management practices where the existing State of California regulations are found insufficient to achieve the necessary protection. Secretary Andrus, in his transmittal letter to the Congress, noted in this regard that these steps were considered necessary because of the extraordinarily fragile ecology of the Redwood Creek watershed, particu-
larly the Tall Trees Grove. The Secretary further noted, however, that this grant of authority would not be viewed as establishing a precedent for Federal regulation of private lands adjacent to other parks in the absence of equally exceptional circumstances. 15/

The Committee on Energy and Natural Resources, to whom the bill was referred deleted the provisions on the regulatory zones, and injunctions, but retained the language amending the 1970 Act. The committee report notes that the regulatory authority was a "new approach" and that authority for the Secretary to acquire additional lands in a critical zone if harmful uses were occurring would better solve the problem. However, the Committee report also seemed to indicate that the reiteration of the high value of National Park lands contained in the amendment to the 1970 Act could serve as a basis for judicial intervention in uses of private lands detrimental to parks:

It is the sense of the committee that there will be a continuing need to protect the expanded Redwood National Park from actions on private lands located within the same ecological units as the park.

In part this need can be met by the exercise of the authorities provided by existing section 3(e) of the 1968 Act. The Committee intends that the authorities provided therein will be exercised as necessary to protect the park.

In part, this need can also be met by the initiation of legal action against activities that threaten the park ... .

In this regard, the committee strongly endorses the Administration's proposed amendment to the Act of August 18, 1970, concerning the management of the National Park System, to refocus and insure that the basis for decisionmaking concerning the System continues to be the criteria provided by 16 U.S.C. § 1 — that is . . . [report quotes lc] This restate­ment of these highest principles of management is also intended to serve as the basis for any ju­dicial resolution of competing private and public values and interests in the areas surrounding Red­wood National Park and other areas of the National Park System.

The committee recognizes, however, that neither section 3(e) nor legal action have been totally suc­cessful in protecting park resources. It also rec­ognizes that Secretary Andrus has strongly testified that the acquisition of the additional 48,000 acres will not, by itself, protect these expanded park re­sources. The administration proposed a standby reg­ulation approach to this problem. It is the sense of this Committee that the situation at Redwood Na­tional Park is one where a standby acquisition, or protection, zone is more appropriate.

The regulation concept is recognized to be a new approach to these adjacent land type problems for National Park Service areas. We believe the problems at Redwood National Park are too urgent to place reliance on such a new concept.

Accordingly, the committee has deleted the regulation provisions of S. 1976 and, in lieu thereof, has substituted a "Park Protection Zone" . . . . 16/

In the section-by-section analysis of the report, it again is noted that the committee deleted the provisions requested by the administration for standby regulatory authority in favor of standby acquisition authority as set forth in the explanation on committee amendment 2.

In discussing the amendment to the Act of 1970, the report indicates that the committee was concerned that:

Litigation with regard to Redwood National Park and other areas of the system may have blurred the responsibilities articulated by the 1916 Act creating the National Park Service.

Accordingly, this provision suggested by the administration would appear to be particularly appropriate. The Secretary is to afford the highest standard of protection and care to the natural resources within Redwood National Park and the National Park System. No decision shall compromise these resource values except as Congress may have specifically provided. 17/

In explaining the committee's deletion of the regulatory authority and the addition of new acquisition authority, Sen. Abourezk stated: "I believe the Secretary possesses sufficient authority to protect our national parks under current law. I urge the Secretary to use the acquisition authority in the park protection zone judiciously. If retained in the final bill, I would say the content is clear that the authority given is not a regulatory club, but rather a last resort to prevent physical damage to park resources." 18/

This explanation is somewhat contradictory in that if the current law provides sufficient authority for the Secretary to protect our national parks by somehow abating harmful actions on private lands, it is difficult to see why the power to condemn those lands was necessary. Or, if condemnation authority was necessary because it was not the policy of the federal government

17/ Id. at 14.

to control uses of private lands, then it is difficult to understand in what way current law, lacking as it does specific management directives, is sufficient to protect the parks. The floor discussions do not shed further light on the understanding of how current authority and the new language amending the 1970 Act related to the Secretary's ability to protect the parks from activities on private lands outside park boundaries.

The conference report provides no additional clarification. 10

On balance, although the issue is not free from ambiguity, it appears the 1978 Amendment of the 1970 Act was intended to clarify that the values and purposes for which the NPS System was established were intended to provide the basis for their management and protection, including protection from external threats. This was undoubtedly implicit in the 1916 and 1970 acts. Therefore, when Congress reiterated that the "high public value" of these lands should guide all activities associated with their management and protection, Congress arguably was attempting to prod the Secretary into more vigorous action. The references in the legislative history to the adequacy of current law and to the indications of "blurred responsibility" revealed by the Redwood National Park (RNP) litigation (discussed below) appear to indicate that the intent may have been to precipitate more suits to protect the parks from harmful outside activities. This interpretation is quite harmonious with the deletion of the express authority for the Secretary to directly regulate private lands outside the

parks and to sue for enforcement of such regulation. Congress could have considered the indirect control of private land use through judicial injunction of harmful practices much more acceptable in that in the latter situation the federal government would be acting much as any other landowner. Given the reluctance of the Department to pursue such actions in the past, one may question the adequacy of the spare and general language chosen. However, the sufficiency of the language is an issue separate from its intent.

In the litigation surrounding the RNP that was referenced in the legislative history of the 1978 Act, environmental groups had filed suit to compel the Secretary to take action to protect the Park from harmful logging activities on nearby lands. In three stages of the same case, the federal district court for the northern district of California found the Secretary's performance of his duties to manage the NPS to be judicially reviewable, that he had failed to carry out those duties, but that ultimately he had complied with the order of the court to do so.

In its discussion of the three stages of the litigation that preceded the 1978 legislation, the Interior memorandum makes several statements as to the reasoning and conclusions reached by the court that do not appear warranted from the cases.

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The Interior memorandum at 14-15 correctly notes that in case 1, the court cited both the National Park Service Organic Act of 1916 and the RNP Act as empowering the Secretary to protect the Park, but focused on the RNP Act to discern specifically enforceable duties. At trial in the second case, the memorandum at 15 states that "while once again citing both the Organic Act and the RNP Act in support of its general conclusion, the court's order setting forth the specific 'reasonable steps' that the Secretary might be obliged to take within a reasonable time to acquit his statutory responsibilities included only those actions identified in the 'unique' Redwood park enabling legislation . . . ." Yet the court's opinion makes it clear that the Secretary should exercise all powers vested in him by law, and particularly those detailed in the RNP Act; and that he should perform all the duties imposed by law including in particular those specific ones set out in the RNP Act -- a very different emphasis. Perhaps the court was merely indicating, and properly so, that it would not speculate as to the precise nature of the actions the Secretary might be obligated to take under the general statute if the Secretary also had failed to carry out specifically enumerated statutory duties.

Similarly, the Interior memorandum at 16 indicates that in stating that the Secretary might seek clarification of the situation from Congress, the court had "implicitly acknowledged that additional Congressional action would be necessary before the Secretary would be empowered to do anything to that end not specified in the Redwood legislation." As to the third case, the memorandum states at 16 that because the Secretary "had neither

23/ 398 F. Supp. at 293 (emphasis added).
funds nor authority to take the other actions proposed by the court in its second opinion -- the court purged the Secretary of his previously found failure . . . . Thus it would seem clear that the Redwood cases did not support the notion that the Organic Act endows the Secretary with extensive extra-territorial jurisdiction which would allow him to protect NPS units from threats originating on lands without them. To the contrary, the clear implication of these cases is that the Secretary's extra-territorial power is limited to that expressly identified by Congress." (Emphasis added.)

This conclusion does not necessarily follow from a reading of the cases in question, which in fact indicate the contrary. At the time of the second case, the Secretary was supported by the general park management authorities and the specifics of the RNP Act, which at that time authorized him to modify the boundaries of the Park and negotiate agreements with the logging companies. Neither of the latter efforts was productive, in part because of lack of effort by the Secretary and in part because of lack of funds. No actions had been taken to attempt to carry out the general duties of the Secretary. By the time of the third case, it was quite clear that the Secretary had attempted to reach agreements with the timber companies and that those efforts had failed because the companies had not cooperated. It was also clear, however, that the Secretary had undertaken other measures that could only be under his general authorities to accomplish park purposes in general and those of the RNP in particular. The Secretary had, for example, recommended alternative courses of action that required additional funding, which OMB had declined to request, and which therefore the Secretary could not implement. Interior also indicated it requested new additional regulatory power over peripheral timber operations to solve the problem of
the logging activities without additional federal monies. There is a significant difference between requesting legislation because one lacks authority altogether and requesting legislation because one lacks the funds to carry out existing authority. The third case also indicates that Interior had by that time recommended to the Justice Department that litigation be instituted to restrain peripheral timber practices which imminently endanger the Park, a recommendation that was "under consideration." There was no elaboration as to the nature of the suits recommended, but since the Secretary had so few specific powers under the RNP Act, it appears reasonable to assume that such suits would be based on his more general management and protection duties under either the RNP Act or the 1916 and 1970 Acts. In either case, the Secretary was not returning to Congress because he was powerless to act at all under current authorities, but rather because certain of the actions he by then sought to pursue were stymied for other reasons, e.g., that litigation on behalf of the Department is conducted through the Justice Department, which may or may not proceed.

Therefore, it is not clear that the Redwood cases do not support the notion that the Organic Act endows the Secretary with some extra-territorial jurisdiction. That power may not be "extensive", but the cases do not indicate that it is limited to that expressly identified by Congress. While the Secretary may not have authority to zone and directly regulate private lands uses of which are harmful to parks, he does appear to have both the duty and the power to seek judicial intervention to abate such uses.


25/ Id.
The Interior memorandum does correctly note that another district court has found the Secretary's duty to be quite clear and that that duty could require the assertion of federal rights in judicial proceedings — for example, by bringing trespass or nuisance actions if appropriate. Whether these common law causes of action would be available for relief from air pollution originating outside the parks is discussed in the following section.

**Common Law**

The Department of the Interior memorandum appropriately concludes that "substantial doubt exists as to the availability of federal or state common law actions ... as a means to protect NPS units from the adverse effects of air pollution generated outside those units." The memorandum also notes that different principles apply to application of federal common law as opposed to state common law. The argument that federal common law cannot apply is strong; applicability of state common law is more open to dispute.

The Supreme Court's decisions in *City of Milwaukee v. Illinois* ("*Milwaukee II*"


28/ 453 U.S. 1 (1981).) and *Middlesex County Sewerage Authority v. National Sea Clammers Association* stand for the broad proposition that there is no room for application of federal common law to supplement remedies authorized by a comprehensive federal

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statutory scheme of regulation. The Supreme Court's rationale was that ordinarily "it is for Congress, not federal courts, to articulate the appropriate standards to be applied as a matter of federal law." The question is whether Congress through the statute has addressed a problem, not whether the particular regulatory controls applied by the administering agency are deemed by the court to be adequate. There can be little question that the PSD controls in the CAA address the problem of air quality in national parks in a manner that defeats the argument that an "interstice" exists to be filled by federal common law. If, as Sea Clammers suggests, all that is required is that Congress has addressed "the area of [air pollution] comprehensively, then the same conclusion would be drawn. Milwaukee II has been applied to hold that the CAA is so comprehensive as to preempt federal common law remedies.

While there is a presumption that federal statutory law does preempt federal common law, the presumption is that federal law does not preempt state statutory or common law. As the Court in Milwaukee II expressed it, the starting point for determining whether state law has been supplanted by federal law is "the assumption that the historic police powers of the States were not to be superseded . . . unless that was the clear and manifest purpose of Congress.'

29/ Milwaukee II, 451 U.S. at 317.
30/ See Milwaukee II, 451 U.S. at 324-25 n. 18 (district court in applying federal common law "was not 'filling a gap' in the regulatory scheme, it was simply providing a different regulatory scheme").
31/ See 453 U.S. at 22.
33/ 451 U.S. at 316.
Although case law is sparse, there may be reasons for not applying the presumption against preemption of state law in the context of the Secretary of the Interior's authority to protect national parks. One reason is that the rationale for the presumption may be inapposite. The question here is whether protection of federal land by federal officials falls within the purview of the "historic police powers of the States" protected by the presumption. This is a moot point. It is also arguable that application of state law to in-state pollution (some air pollution affecting national parks has crossed state boundaries; some has not) may be preempted by federal law under rationales developed in the federal common law cases. Finally, there is a related argument that even if the air pollution in question is intrastate in origin, the federal interest in protecting the parks is such that a federal rather than a state rule of law should apply.

Support for these arguments that federal rather than state law should apply can be found in a decision of a federal district court in United States v. Outboard Marine Corp., dismissing a claim by the United States based on the state common law of products liability. The United States claimed that its sovereign interest in the nation's navigable waterways was injured by a PCB manufacturer's failure to warn purchasers of the dangers of spills into waterways. The district court determined that "a suit by the United States to protect navigable waterways from pollution requires a federal rule of decisions under Milwaukee I [Illinois v. Milwaukee, 406 U.S. 91 (1972)]

34/ 549 F. Supp. 1032 (N.D. Ill. 1982).
and a statutory rule of decision under Milwaukee II.\textsuperscript{35/} When the Supreme Court authorized Illinois to pursue federal common law remedies in Milwaukee I, it cited both the nature of the action (water pollution) and the character of the parties. The district court in Outboard Marine reasoned that, while some water pollution cases might not require a federal rule of decision, "the federal interest is at its strongest [when] the United States is suing to protect its sovereign interest in the nation's waterways."\textsuperscript{36/} Similarly, it might be argued that a federal rule of decision should be required when the United States is suing to protect its interest in public lands from air pollution.

There are several countervailing arguments relating to preemption of state law remedies. First, it can be argued that the United States, when acting as a property owner, should not be denied any remedies available to other property owners within a state. If property owners are permitted under state law to maintain nuisance or other common law actions to abate air pollution not controlled by federal or state air pollution regulation, then the United States should also have this right. Secondly, there is the question of the Clean Air Act's relationship to the Park protection authorities noted above, viz., does the Clean Air Act limit the general statutory authority to protect national parks from external threats?

That the United States may sue in state courts under state law to protect its property is a well-established principle. See, e.g., Cotton v. United States,\textsuperscript{37/}

\textsuperscript{35/} Id. at 1034-1035.

\textsuperscript{36/} Id. at 1034.

\textsuperscript{37/} 52 U.S. (11 How.) 232 (1850).
holding that the United States could bring a trespass action in state court for damages against someone who had unlawfully cut and removed timber from public land. More recently, but before Milwaukee II, a federal district court held that this proprietary right of the United States to sue to protect its property was not eliminated by the Clean Air Act. The district court relied on the general principle that statutes will not be held to divest the sovereign of existing rights and remedies unless there is a clear expression or indication of intent to do so. A contrary intent, to preserve federal remedies, was found in CAA § 310, which provides that the Act "shall not be construed as superseding or limiting the authorities and responsibilities, under any other provision of law . . . of . . . any other Federal officer." While this case did not distinguish between federal and state common law, it is arguable that its rationale is still valid as applied to federal utilization of state law remedies.

As discussed above, the general park protection authorities have been interpreted as including the discretion to bring "trespass or nuisance actions if appropriate." It is arguable that application of Milwaukee II principles to the air pollution context would not affect whatever authority exists to utilize state common law trespass and nuisance actions as a means of exercising this broad authority to protect the parks. Looked at in this light, the issue is whether the Clean Air Act circumscribes the general park protection authority

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in the field of air pollution, and not whether strictly common law remedies have been preempted.

Because park protection language was strengthened in 1978, the 1977 Clean Air Act Amendments, containing the PSD protections for parks in Part C, cannot be said to have repealed by implication the 1978 changes. Any such argument would have to establish that the 1977 CAA repealed by implication the then-existing park protection authority (to the extent that it might go beyond PSD regulation), and that the 1978 amendments, although general, did not change the status quo with respect to air pollution. Repeals by implication are disfavored, CAA Part C is silent as to relationship to other federal laws, and CAA § 310, supra, suggests that other federal remedies are preserved. Nonetheless, there must be some doubt as to whether the very general park protection authority may be invoked to extend regulation beyond what is permitted by Part C, a regulatory scheme addressing the specific problem of damage to public lands by air pollution. There is a possible analogy to Sea Clammers, supra, where the Court closed the door tightly not just on federal common law actions, but also on the alternative remedies sought under the civil rights laws (42 U.S.C. § 1983) and under the theory of implied rights of action.

If application of state law is not precluded by the nature of the action (by application of Milwaukee I and Outboard Marine principles) and if no "clear and manifest" congressional purpose to preempt can be found, there would still
be the question of whether state law (common or statutory) would permit imposition of controls stricter than those required by the Clean Air Act. And there is the additional question of whether a state would permit common-law remedies to supplement remedies available under its air pollution control statute. What rule individual states would apply in these situations is beyond the scope of this analysis.

40/ Committee staff have informed us that air pollution problems exist in NPS units located in at least four states. Staff has asked that we determine whether state common-law remedies for air pollution appear to be preserved in those states in the face of state statutory programs dealing with air pollution, with particular reference to claims of the Department of the Interior.

MEMORANDUM

TO: Assistant Secretary—Fish and Wildlife and Parks
Assistant Secretary—Land and Minerals Management

FROM: Associate Solicitor, Division of Energy and Resources

SUBJECT: Legal Authority of the Secretary to Protect the Air Quality and Related Values of NPS Units from Adverse Impacts of Surface Coal Mining Activities

You have requested our opinion on the existing legal authority of the Secretary of the Interior to protect the air quality and related values of National Park System (NPS) units from adverse impacts of surface coal mining activities. Your request was made in the context of this Department's forthcoming comments on a rule proposed by the Environmental Protection Agency (EPA) on October 26, 1984, 49 Fed. Reg. 43211, which would list surface coal mining operations as "major" stationary sources of air pollution subject to review under the Clean Air Act, 42 U.S.C. 7475(a). We understand that this opinion will be used by the Department to evaluate whether the existing authority of the Secretary is adequate to protect NPS units, or if the additional protection embodied in the rule proposed by EPA is appropriate.

Summary Conclusion

Generally, the Secretary has considerable existing authority to protect the air quality and related values of NPS units from adverse impacts of surface coal mining activities. This authority appears in a number of Federal statutes and regulations. The applicability of any one of these statutes or regulations to a particular situation depends on where the coal is located, whether it is federally or privately owned, and if federally owned, whether or not it is leased. The following analysis first describes the authority that applies uniquely to federally-owned coal, and then the authority that applies regardless of coal ownership.

I. Federally-Owned Coal Under the Mineral Leasing Act and the Federal Coal Program

With respect to federally-owned coal, the Mineral Leasing Act of 1920 (MLA), as amended, 30 U.S.C. 181 et seg. (1982), protects NPS units whenever mining is contemplated. The MLA provides that no federally-owned coal may be mined unless authorized by the
Department of the Interior. Different provisions of the MLA apply to those Federal coal resources inside and to those outside of the National Park System.

Under the MLA the leasing of Federal coal within national parks and monuments is prohibited. 30 U.S.C. 181 and 352. Section 16 of the Federal Coal Leasing Amendments Act of 1976, 90 Stat. 1092, extends this prohibition further to "any area of the National Park System."

Outside the National Park System a decision to offer Federal coal for leasing is entirely discretionary. 30 U.S.C. 201(a)(1). The Department may decline to offer an area for lease in order to avoid unacceptable adverse impacts to NPS units. See: Duesing v. Udall, 350 F.2d 748, 750 (D.C. Cir. 1965), cert. denied, 383 U.S. 912 (1966). The Federal coal program administered by the Bureau of Land Management (BLM) is the mechanism by which the Department exercises this discretion.

Before an area is offered for leasing under the Federal coal program it is evaluated at two distinct stages--first through the land use planning process, and then through tract selection and the development of lease stipulations. And once a lease is issued the Department retains substantial authority to impose conditions on the approval of the operation and reclamation plan. At each of these stages there are safeguards designed to identify and either mitigate or avoid unacceptable adverse impacts on resources in the area, including air quality impacts on NPS units.

A. Land Use Planning

During the land use planning process all Federal coal deposits in a planning area are evaluated to identify those which are unacceptable for further consideration for leasing. Two steps in this process that are relevant to protecting the air quality and related values of NPS units are the application of unsuitability criteria and multiple land use decisions.

1. Unsuitability Criteria

Areas that are determined to have Federal coal development potential may be eliminated from further consideration for leasing through the application of established unsuitability criteria. 43 CFR 3461.1. Under Criterion Number 1, all Federal coal within units of the National Park System is considered unsuitable for leasing. 43 CFR 3461.1(a)(1).

Although no specific criterion exists for air quality, protection from the adverse effects of fugitive emissions is provided to NPS units through visual resource management analysis (VRM) under unsuitability Criterion Number 5. 43 C.F.R. 3461.1(e)(1). Class 1 VRM areas, which are of outstanding scenic quality or high visual sensitivity, are considered unsuitable for leasing unless the surface management agency (i.e., BLM for Federal coal outside
park system boundaries) determines that surface coal mining operations will not significantly diminish or adversely affect the scenic quality of the area. Thus, the proposed EPA rule addresses the same concerns already considered by the Department for Class I VRM areas.

2. Multiple Land Use Decisions

In addition to application of the unsuitability criteria, Federal coal deposits may be eliminated from further consideration for leasing through multiple land use decisions. 43 CFR 3420.1-4(e)(3). This procedure is available to protect resource values of a locally important or unique nature that are not included in the unsuitability criteria. Areas evaluated for multiple land use decisions are subjected to conflict analysis which is based on resource information and potential use. As a result of this process a Federal coal deposit may be excluded from further consideration for leasing due to conflict with other resource uses, including potential air quality impacts. In addition, the land use plan may consider critical threshold levels as a basis for limiting lands available for further consideration of coal leasing.

During the 1985 review of the Federal coal management program, potential air quality effects on NPS units generated considerable discussion. In his February 1986 decisions on the program, the Secretary directed BLM to propose two rule changes to improve the consideration of these effects in the leasing process. One of these changes would give special emphasis to certain resources, including air quality, during multiple use evaluation. The other change would strengthen consultation between BLM and any other affected surface managing agencies, and particularly the National Park Service, during the land use planning process in order to insure that the purposes and values of concern to these agencies were considered and incorporated into land use decisions. In making these decisions, the Secretary emphasized that mitigation of impacts to lands administered by other agencies would not be affected by their lack of contiguity to BLM lands.

B. Tract Selection and Lease Stipulations

Even where land use planning has identified an area as acceptable for further consideration for Federal coal leasing, the leasing process itself includes additional steps that protect NPS units from impacts on air quality and related values. These steps include the tract selection process and the development of lease stipulations.

Once the land use planning process is completed and a need for leasing is established, BLM then delineates the Federal coal tracts for consideration based on expressions of interest from industry and the availability of Federal coal deposits. The Regional Coal Team then numbers the tracts on the basis of several criteria which include impacts on the physical environment. 43 CFR 3420.3-3 and 3420.3-4. During this process the
Environmental impact of leasing each tract is analyzed. Depending on the significance of any impacts that are identified, a tract may be dropped from further consideration, the tract boundaries may be modified, or the ranking of the tract relative to others may be lowered.

Throughout this process BLM, in consultation with Federal and State agencies with appropriate expertise, may develop special lease stipulations to mitigate or avoid potential impacts. 43 CFR 3420.4-2 and 3420.4-3(b). In addition, any coal lease that is issued must contain a provision requiring compliance by the lessee with the Clean Air Act. 30 U.S.C. 201(a)(3)(E). Thus, throughout the leasing process there is ample opportunity to consider and mitigate any potential air quality impacts on NPS units.

C. Authority to Condition the Operation and Reclamation Plan For Existing Leases

The MLA and corresponding rules also protect NPS units in areas for which Federal coal leases already exist. For all leases issued or readjusted after August 4, 1976, prior to taking any action on a leasehold which might cause significant disturbance to the environment, and not later than three years after the lease is issued or readjusted, the lessee must submit for approval by the Secretary of the Interior an operation and reclamation plan. 30 U.S.C. 207(c) (1982), and 43 CFR 3482.1(b). An operation and reclamation plan also must be filed and approved before an operator may begin coal mining on pre-August 4, 1976, leases which have not been readjusted. 43 C.F.R. 3482.1(b), issued in part under 30 U.S.C. 189.

As a component of a mining plan, the operation and reclamation plan is submitted to the Secretary for approval under 30 CFR Part 746. The Secretary may approve or disapprove the mining plan, or give conditional approval to mitigate any adverse impacts which may result from mining, including impacts which could occur to NPS units from fugitive emissions. 30 CFR 746.14.

II. Surface Mining Control And Reclamation Act of 1977

The Surface Mining Control and Reclamation Act of 1977 (SMCRA), 30 U.S.C. 1201 et seq., protects NPS units from impacts on air quality and related values in five ways: (a) Section 522(e), 30 U.S.C. 1272(e), explicitly provides for the protection of parks; (b) section 522(c), 30 U.S.C. 1272(c), establishes an unsuitability petition process, under which any person who may be adversely affected can seek to have an area designated unsuitable for surface coal mining operations; (c) section 515(b)(4), 30 U.S.C. 1265(b)(4), contains an operator performance standard to control air pollution attendant to erosion; (d) section 515(b)(17), 30 U.S.C. 1265(b)(17), insures that the construction, maintenance and postmining conditions of mine roads will control or prevent erosion and damage to public property; and (e) section
508(a)(9), 30 U.S.C. 1258(a)(9), assures operator compliance at the permitting stage with the Clean Air Act and any other applicable air quality-related laws and regulations.

A. Section 522(e) -- Areas Proscribed by the Congress

Section 522(e) of SMCRA, which specifies areas where surface coal mining operations are not permitted, includes three subsections that apply directly to NPS units. Except for valid existing rights, as discussed below, no mining is permitted: (a) Within the boundaries of NPS units, section 522(e)(1); (b) within a 300-foot buffer zone around NPS units, section 522(e)(5); or (c) which will adversely affect NPS units unless specifically authorized by the National Park Service, section 522(e)(3).

Specifically, section 522(e) of SMCRA provides that after August 3, 1977, and subject to valid existing rights, no surface coal mining operations which did not exist on that date shall be permitted:

(1) on any lands within the boundaries of units of the National Park System, the National Wildlife Refuge System, the National System of Trails, the National Wilderness Preservation System, the Wild and Scenic Rivers System, including study rivers designated under section 5(a) of the Wild and Scenic Rivers Act and National Recreation Areas designated by Act of Congress;

(3) which will adversely affect any publicly owned park or places included in the National Register of Historic Sites unless approved jointly by the regulatory authority and the Federal, State, or local agency with jurisdiction over the park or the historic site; [and]

(5) ... within three hundred feet of any public park ...

30 U.S.C. 1272(e).

These provisions provide significant protection to NPS units from potential impacts on air quality and related values due to surface coal mining operations. Although of relatively limited geographic scope, sections 522(e)(1) and (e)(5) are clear and easy to apply. While section 522(e)(3) is somewhat more difficult to apply, it is limited neither by geography nor by the nature of the adverse effect.
Provision for a determination of adverse effect under section 522(e)(3) is included in the review process for a surface coal mining and reclamation permit application. Upon receipt of an application for operations that may affect an NPS unit, the SMCRA regulatory authority1/ provides to the National Park Service written notice and an opportunity to comment. 30 CFR 773.13(a)(3)(i). Any such comments must be considered by the regulatory authority. 30 CFR 773.15(a). Unless the regulatory authority can find in writing that the proposed permit area is not subject to the limitations of section 522(e)(3), the application may not be approved. 30 CFR 773.15(c)(3)(ii). Where the regulatory authority determines that the proposed operation would adversely affect an NPS unit—including impacts to air quality and related values—under 30 CFR 761.12(f)(1) it must request the approval or disapproval of the National Park Service before it can make the finding.

The protection afforded to NPS units by section 522(e) is qualified somewhat by an exception for valid existing rights (VER). Although the existing Federal definition of VER at 30 CFR 761.5 (1984) was remanded as being promulgated without adequate opportunity for public notice and comment, In Re: Permanent Surface Mining Regulation Litigation II, No. 79-1144 (D.D.C. 1985), the State definitions of VER currently remain in force. These definitions, which apply on non-Federal and non-Indian lands, base VER in most instances on a permit applicant having made a good-faith effort to obtain all permits necessary for mining by August 3, 1977. This is a stringent test, which few applicants meet. The new Federal definition, which will be developed in consultation with the National Park Service, also is expected to provide substantial protection to NPS units.

B. Section 522(c)—Areas Designated Unsuitable Through Petition

Section 522(c) of SMCRA, 30 U.S.C. 1272(c), grants any person "having an interest which is or may be adversely affected ... the right to petition the regulatory authority to have an area designated as unsuitable for surface coal mining operations ...". Section 522(a) of SMCRA sets out the criteria under which such a designation is made, including a finding that mining operations will "affect fragile or historic lands in which such operations could result in significant damage to important historic, cultural, scientific, and esthetic values and natural systems." 30 U.S.C. § 1272(a)(3)(B). An unsuitability designation may be made by the Secretary for lands either inside or outside the boundaries of NPS units, and excessive levels of fugitive emissions could form the basis for such a designation.

To this date, the only unsuitability petition submitted under section 522(c) that has raised the issue of air-quality impacts on an NPS unit concerned Bryce Canyon National Park in southern

1/ Either a State under an approved regulatory program, or the Secretary.
Utah. In the designation process former Secretary of the Interior Andrus considered the impact of fugitive dust, but concluded that the levels expected to result from a proposed mining operation in the Alton Coal Field would not have an adverse effect on the park. However, the Secretary did conclude that other aspects of the mining operation (including noise and unsightliness) would adversely affect the park, and accordingly determined that the area involved was unsuitable for mining. That decision was upheld by the United States District Court in Utah Intern. v. Dept. of Interior of the U.S., 553 F. Supp. 872 (D. Utah 1982).

C. Section 515(b)(4)--Performance Standard

Section 515(b)(4) of SMCRA, which applies to all surface coal mining and reclamation operations, contains a performance standard that expressly addresses air pollution. It requires such operations, at a minimum, to

stabilize and protect all surface areas
including spoil piles affected by the
surface coal mining and reclamation
to
effectively control erosion and attendant
air and water pollution.


The regulations at 30 CFR 816.95(a) and 817.95(a), which implement section 515(b)(4), have been interpreted by the Secretary to regulate air pollution attendant to erosion. This interpretation was upheld by the district court in In re: Permanent Surface Mining Regulation Litigation II, No. 79-1144, slip op. at 34 (D.D.C. July 6, 1984). 2/

It now is recognized that a substantial portion of the air pollution at surface coal mines results from erosion. EPA has indicated that a major source of emissions from surface coal mines is the road dust generated by vehicles traveling on mine roads. The full extent of the Secretary's authority to regulate air pollution attendant to erosion has not yet been tested, but it is likely to include the regulation of road dust.

2/ The district court ruling currently is on appeal by the National Wildlife Federation (NWF), National Wildlife Federation v. Donald P. Hodel, No. 84-5743 (D.C. Cir.). The NWF asserts that § 515(b)(4) confers upon the Secretary not only this authority to regulate air pollution attendant to erosion, but also much broader authority to regulate any fugitive dust emissions from surface coal mining operations. If the court of appeals accepts the interpretation of the NWF, then the Secretary will have even broader authority to regulate fugitive dust.
Under 30 CFR 780.15 and 784.26, mine operators must submit air pollution control plans as part of their permit applications to demonstrate how they will meet the performance standard of section 515(b)(4).

D. Section 515(b)(17)

The Secretary has broad authority to regulate mine roads to prevent erosion to road surfaces and to minimize damage from mine roads to public property such as NPS units, which includes damage resulting from fugitive emissions. Section 515(b)(17) of SMCRA, 30 U.S.C. 1265(b)(17), requires that a surface mine operation insure that the construction, maintenance, and postmining conditions of access roads into and across the site of operations will control or prevent erosion and damage to public property.

Under this section the Secretary may require a mine operator to take steps, such as watering or chemical stabilization, to control or prevent erosion from roads, which indirectly, but necessarily, will result in corresponding reductions in fugitive emissions. And to the extent it can be shown that fugitive emissions from a road may damage public property such as an NPS unit, this section gives the Secretary broad authority to require that the operator control or prevent the damage.

E. Section 508(a)(9)

Section 508(a)(9) of SMCRA, 30 U.S.C. 1258(a)(9), requires that each reclamation plan submitted as part of a permit application state the "steps to be taken to comply with applicable air and water quality laws and regulations . . . ." Thus, at the permitting stage SMCRA requires applicants to demonstrate how they will deal with impacts to air quality. This provision insures that the regulatory authority will have adequate information to assess such impacts, and complements the enforcement mechanisms available under the other applicable laws and regulations.

III. National Park Service Organic Act

The National Park Service Organic Act (the Organic Act), 16 U.S.C. 1 et seq., includes authority for the protection of NPS units from impacts to air quality and related values. Section 1 of the Organic Act provides that the National Park Service shall promote and regulate the use of the Federal areas known as national parks, monuments, and reservations . . . by such means and measures as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for
the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

16 U.S.C. 1. Section 3 of the Organic Act directs the Secretary of the Interior to "make and publish such rules and regulations as he may deem necessary or proper for the use and management" of such areas. 16 U.S.C. 3.

The protection the Organic Act provides to NPS units from activities occurring within their boundaries is clear, including any impacts that result from the operation of surface coal mines. However, the NPS would have to adopt regulations to accomplish this objective.

The Organic Act was enacted pursuant to the Property Clause of the U.S. Constitution, which empowers Congress "to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States . . . ." U.S. Const. Art. IV, § 3, cl. 2. Two early U.S. Supreme Court decisions have upheld the authority of the Congress under the Property Clause to regulate activity occurring on non-Federal property. See: Camfield v. United States, 167 U.S. 518 (1897) (upholding Federal statute construed to prohibit fences on private land which had the effect of enclosing Federal lands); and United States v. Alford, 274 U.S. 264 (1927) (upholding Federal statute construed to prohibit the building of fires on private land near Federal land without later extinguishing them). More recently, while acknowledging that "regulations under the Property Clause may have some effect on private lands not otherwise under federal control, Camfield v. United States, 167 U.S. 518 (1897)," the Court declined to define the extent of this congressional regulatory power in a context that did not demand such definition. See: Kleppe v. New Mexico, 426 U.S. 529, 546 (1976).

Conclusion

As described above, the Secretary of the Interior has considerable authority to protect NPS units from potential fugitive emissions from surface coal mines. While the listing of surface coal mines as "major" sources of fugitive emissions, which would subject them to new source review permitting requirements, may provide additional protection to NPS units, it appears that the Secretary has adequate legal authority to address this problem in a balanced and reasonable manner.
Head of a bronze statue, "The Hiker," honoring soldiers of the Spanish-American War. One of 50 such statues in the U.S., this one, erected in Allentown, PA, in 1937, has suffered pitting on the face and streaking on the hat due to air pollution.

**POLICY AND REGULATIONS**

The Clean Air Act and National Parks

The Clean Air Act, 42 U.S.C. §§7401, et. seq., augments the fundamental resource protection responsibilities of the National Park Service Organic Act with respect to the air quality and related values of park areas. Together, these authorities form the basis for the National Park Service's general policy of promoting and pursuing measures to safeguard the resources and values of units of the National Park System from the adverse impacts of air pollution.

The goal of the Clean Air Act (Act) is safe and acceptable ambient air quality through the attainment and maintenance of national ambient air quality standards. The "primary" standards are to protect the public health "with an adequate margin of safety," and the "secondary" standards are to protect the national "welfare"—defined to include the types of resources and values found in park areas—from all "known or anticipated adverse effects." These primary and secondary standards are air pollutant concentration levels set on the basis of scientific "criteria documents." The Environmental Protection Agency (EPA) has set national ambient air quality standards for six widespread pollutants: sulfur dioxide, particulate matter, carbon monoxide, ozone, nitrogen dioxide, and lead. State and local governments may set additional, and more stringent, standards.

At any time, a particular area may be "cleaner" or "dirtier" than the standards for these pollutants. The Act supplements its nationwide goal of attaining and maintaining these standards with specific goals for these "clean" and "dirty" areas. For the clean areas of the country, the Act seeks to "prevent the significant deterioration" (PSD) of the air quality, particularly in areas of special natural, recreational, scenic, or historic value. For the "dirty" or "nonattainment" areas of the country, the Act demands that "reasonable further progress" be made toward the attainment and maintenance of the primary and secondary standards.

In pursuit of these standards as well as the PSD and nonattainment goals, the Act imposes various performance and emission restrictions on individual sources. The Act uses the State Implementation Plan process as the means to implement and enforce its goals and source restrictions.

The PSD title of the Act deserves particular discussion as a prime authority for protecting the resources of parks. In certain respects, Part C is a resource protection statute. One of its purposes is "to preserve, protect, and enhance the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic, or historic value." PSD addresses resource protection through the establishment of ceilings on additional amounts of air pollution over baseline levels in clean air areas, the protection of the air quality related values of certain special areas, and additional protection for the visibility value of certain special areas.

More specifically, Part C reflects Congress' judgment that, among the clean air regions of the country, certain areas—the "class I" areas—deserve the highest level of air quality protection under the Act. Congress designated 158 areas as class I areas, including national parks over 6,000 acres and national wilderness areas over 5,000 acres, in existence on August 7, 1977.

In these class I areas, once "baseline" is triggered by submission of the first permit application from a major new source, Part C allows only the smallest "increment" of certain pollutants—to date, only sulfur dioxide and particulate matter—to be add-
ed to the air. In addition to these increment ceilings, PSD also establishes a site-specific resource test, known as the “adverse impact” test, to determine whether emissions from major new sources will cause an “adverse impact” on the “air quality related values” of the class I area. In the case of a major new source (or expansion), the adverse impact test works as follows:

- If the Federal Land Manager determines, and convinces the permitting authority, that the new source will adversely impact the class I area’s resources—even though the new source’s emissions will not contribute to an increment violation—a “PSD permit” shall not be issued.
- If the Federal Land Manager certifies that the new source will not adversely impact the class I area’s resources—even though the new source’s emissions will contribute to an increment violation—the permitting authority may issue a “PSD permit.”

The adverse impact test imposes an “affirmative responsibility” on the Federal Land Manager “to protect the air quality related issues including visibility” of class I areas, and, as the Senate Committee wrote, “[i]n the case of doubt, . . . [to] err on the side of protecting the air quality related values for future generations.” “Air quality related values” include all values of an area dependent upon and affected by air quality, such as scenic, cultural, biological, and recreational resources, as well as visibility itself. The current working definition of “adverse impact” is any impact that:

- Diminishes the area’s national significance, and/or
- Impairs the structure and functioning of ecosystems, and/or
- Impairs the quality of the visitor experience.

In addition to increment ceilings and the adverse impact test, Congress enacted one more resource protection measure for class I areas, namely, “visibility protection” for the 156 (of 158) statutory class I areas where visibility is an “important value.” In Part C of the Act, “Congress . . . 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 manmade air pollution.” In this provision, Congress expressed the national desire to preserve, for its own sake, the ability to see long distances, entire panoramas, and specific features in the statutory class I areas. EPA is still developing the regulatory program to assure “reasonable progress” toward the national visibility goal. EPA has already issued regulations concerning new source review and visibility monitoring requirements, and is now working on regulations concerning “best available retrofit technology” for major existing sources that impair visibility in statutory class I areas as well as “long-term (10-15 year) strategies” for moving toward the national visibility goal. To date, EPA’s rulemaking proposals have addressed only “plume blight” and other visibility impairment “reasonably attributable” to a specific source or sources. EPA has not yet proposed regulations to address visibility impairment from “regional haze.”

As the above discussion demonstrates, the Act creates several opportunities and tools for protecting the resources and values of class I areas. New pollution after baseline in class I areas is generally limited to the small class I increment, the Federal Land Manager must determine whether major new sources will adversely impact the areas, and measures must be developed to protect the visibility of class I areas from manmade pollution impairment. The States must develop their PSD plans with Federal Land Manager consultation and a public hearing. Major new sources must undergo an equally public permit review, involving air quality monitoring; analysis of resource impacts; application of “best available control technology;” and effective emission ceilings based on the class I increment, national ambient standards, adverse impacts thresholds, or any individual impact, whichever is the lowest. Existing sources may be regulated to protect visibility or to remedy a violation of an increment, national ambient standard, or arguably class I resource protection.

Part C’s concern for resource protection, however, is not limited to class I areas. Congress designated all other clean air regions of the country “class II.” Congress further prohibited redesignation not only of statutory class I areas to any other classification, but also of certain class II areas to the “dirtier” class III classification. These so-called class II “floor” areas include the following areas when greater than ten thousand acres: national monuments, national primitive areas, national preserves, national recreation areas, national wild and scenic rivers, national wildlife refuges, national lakeshores and seashores; as well as national parks and wilderness areas established since August 7, 1977. Class II increment ceilings on additional pollution over baseline concentrations allow for moderate development in class II areas. Class II increments constitute an absolute ceiling on additional pollution in these areas, because Congress did not qualify the class II increment with an adverse impact test.

Although the Act does not create as many resource protection tools for class II areas as for class I areas, it nevertheless creates opportunities. The Federal Land Manager can participate in State Implementation Plan proceedings, new source reviews, and other federal, State, and local activities that potentially affect the air quality of their areas. As appropriate, the land manager can undertake or encourage efforts to redesignate the area to class I. Also, for units of the National Park System, the land manager can turn to the Organic Act for protection of park purposes and values from adverse air pollution impacts.

At this time, there are no “class III” areas. States or Indian governing bodies have the authority to redesignate to class III any clean air area except a statutory class I or class II “floor” area. Class III designation could allow for substantial air pollution increases over baseline in the area. The redesignation process itself, as well as subsequent new source reviews, provide opportunities for land managers to have their air quality concerns considered.

For parks that are in, or affected by, the “dirty regions” of the country where the national ambient air quality standards have not yet been met, the PSD provisions do not apply. Instead, the “nonattainment” requirements apply. As with class II and III areas, the Act does not establish an explicit role (other than consultation) for the land manager, but it does require public proceedings at various times. For example, the State must hold a public hearing prior to promulgating a nonattainment implementation plan, which is a plan for attaining all national ambient air quality standards “as expeditiously as practicable,” most primarily by 1982, and secondary standards for ozone and carbon monoxide by 1987. The nonattainment plan must demonstrate “reasonable further progress” toward the national ambient standards in the interim; provide for reasonable available control technology on sources in the area; analyze effects on air quality, welfare, health, society, and economics; and require a public hearing prior to issuing a permit for a new source. To obtain a permit, new sources in urban areas must secure from other facilities “emission offsets” greater than the new source’s proposed emissions; in addition, a new source’s control technology must comply with the “lowest achievable emission rate” for such a source.

As a final word about the Clean Air Act, the above discussion suggests many provisions that, directly or indirectly, can address many air quality concerns in parks. However, the Act—at least as currently interpreted or implemented—does not address all such resource protection concerns. For example, the Act often does not deal effectively with the following concerns:

- The individual and cumulative air quality impacts of sources not subject to PSD permit requirements, such as “minor” sources, sources located in nonattainment areas, existing sources, and sources located in foreign countries;
- Regional loadings of air pollutants; and
- Long-range transport of air pollutants.

Despite these problems, the Act provides several effective approaches to park resource protection. Essential to making the existing statutory authority work for the protection of the resources, however, is the gathering and development of the relevant scientific and technical information on which the legal system depends.

Molly Ross
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Pollution Where You'd Least Expect It

by David B. Joseph

You ease your station wagon into the parking lot alongside the Grand Canyon. You've driven your family two thousand miles to see one of the eight wonders of the world. The kids scramble to be the first to drop a coin into the viewing scope on the canyon's rim. They look down at the distant bottom of the great gorge, then across to the other side. Do they see a magnificent and dramatic work of nature? Of course they often do. But on occasion they may see murk and haze, the product of industries, traffic, and other sources of airborne pollutants that may have travelled hundreds of miles from southern California or from the copper smelters of southwestern Arizona.

Visible air pollution in the form of smoke plumes, brown clouds, and gray and white haze is associated in most people's minds with urban and industrial areas. People in Los Angeles know there are days when you can't see the street from the tower room atop City Hall. Denver residents know there are many days when industrial and automotive air pollution blocks the Rocky Mountains from the view of drivers on the highway going past Denver to the airport. And Washington, D.C. commuters have driven into town in the morning without being able to see the Washington Monument through a summer's smog.

These same people might not expect to have similar visibility problems in our national parks, especially in parks in isolated reaches of this country.

But, as the National Park Service told a Congressional subcommittee last May, "even in remote areas such as Grand Canyon National Park, visitors sometimes cannot see the opposite canyon rim or the canyon depths because of poor visibility. At Yosemite National Park, smoke from fires sometimes obscures the view of the well-known massive cliffs and domes. In Shenandoah National Park, the Blue Ridge often appears an unnatural white, gray, or brown, and in the Great Smoky Mountains National Park, the natural haze is usually overwhelmed by man-made haze."

The haze-forming particles and gases usually enter the air from industrial and urban areas. The pollutants either absorb or scatter the light, creating uniform or layered hazes and plumes that obscure or discolor the landscape and limit what the viewer can see. A uniform haze is like smog—it impairs visibility in all directions. Layered haze appears as a discolored band across the scene, with a noticeable boundary between itself and the background.

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“Visibility pollution” is one of the pollution problems that concern the Department of the Interior and EPA. Since the National Park Service was established in 1916, the Secretary of Interior’s mandate has been to preserve and protect the scenery and the natural and historic resources of its lands for the enjoyment of present and future generations.

In response to this mandate and additional goals and requirements of the 1977 Clean Air Act amendments, the National Park Service (NPS) conducts an extensive research and monitoring program to determine the impact of air pollution on visibility of national parks, monuments, and wilderness areas. The NPS also works with the EPA and numerous states to develop regulations that protect visibility.

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To determine the seriousness of the visibility pollution problem in the national parks, NPS currently monitors visibility at more than 30 sites from the Olympic Peninsula on the northwest Pacific Coast to the Florida Everglades, and from Death Valley, CA, to Acadia National Park on the rocky Maine coast. NPS monitors use color photography, teleradiometry, and the collection and analysis of particles in the air.

The color photography documents the important elements of the scene and how they vary with changing air pollution levels, weather conditions, and sunlight. Teleradiometry uses a special telescope to measure the contrast between the sky in the background and dark landscape features so that changes in contrast caused by pollution or climatic change can be recorded.

Together, the photography and teleradiometry can be used to establish standard visual ranges—the distance from an observer at which a large dark object such as a forested mountain would just disappear against the horizon. Collecting and analyzing small particles in the air gives the NPS scientists a wealth of information on the particles’ possible origin and their effect on visibility.

The focus is on very fine particles (those smaller than 2.5 micrometers in diameter—one tenth the diameter of a human hair) which generally cause most of the visibility problems.

What has this NPS monitoring found out?

- More than 90 percent of the time, man-made pollution affected scenic views to some degree at all NPS monitoring sites.
- Best average visibility is in northern Nevada, Utah, and southern Idaho. The area that includes Grand Canyon, Bryce Canyon, and Canyonlands National Parks is next best.
- The lowest visual range in the west is in the coastal areas of California and Washington.
- The very worst visibility recorded by NPS is in the eastern United States, where there are higher relative humidity and background air pollution levels. In the summer of 1983, for instance, the median visibility range at the Shenandoah National Park in Virginia was 19 kilometers, as compared to 100 to 200 kilometers for most western parks.
- Visibility is generally best in the winter and worst in the summer.

The NPS research and monitoring effort has provided much evidence to establish particulates as the major contributor to visibility impairment in the parks. The very fine particles are especially adept at scattering light and producing visibility impairment, much more so than big particles which actually form a larger percentage of the pollution mass. This is particularly true for sulfates, which are the largest single fraction of the total collected fine particle mass.

What’s more, sulfates are optically active particles that are very efficient at scattering light and reducing visibility. These particles are the end product of atmospheric chemical transformation of gaseous sulfur dioxide that comes from such air pollution sources as power plants, smelters, refineries, and oil and gas fields.

How pervasive are sulfate particles visibility impairs? NPS found them to be the number one villain everywhere except in the northwest, where carbon particles took the lead. In the Colorado Plateau, where Grand and Bryce Canyons are located, sulfate particles were responsible for 40 to 65 percent of the visibility impairment and in the Shenandoah National Park for over 70 percent.

In the Southwest, windblown dust, emissions from construction activities, and traffic on unpaved roads contributed 10 to 30 percent of the visibility reduction, while fine-particle carbons and nitrates accounted for another 20 percent.

NPS scientists are beginning to believe that volatile aerosols—small airborne particles that quickly evaporate and are difficult for currently used particulate samplers to collect—may be responsible for a significant share of the visibility problem. One special study at Grand Canyon National Park suggests that aerosols more volatile than ammonium sulfate may account for 30 to 40 percent of the visibility reduction there.

Because sulfates are such an important bad actor in terms of visibility pollution, NPS has conducted extensive analyses to determine where the sulfate aerosols measured at the monitoring stations come from. The agency’s scientists developed a technique called “back trajectory residence time analysis” to estimate the probable paths that sulfur particles travel from the original pollution source to the park.

They found, for example, that air masses bringing high sulfur concentrations to Grand Canyon come mostly from urban southern California. Under different climatic conditions the particle-laden air could come from the copper smelter regions of southern Arizona. On days when the particle concentrations...
were low and the air clean, the clean air mass was more likely to have come from the north. Similar trajectory analyses were performed in a number of parks and monuments in the West; these results, too, suggested that sulfur emissions from distant urban and industrial source areas contributed to the reduced visibility at those locations.

In the 1977 amendments to the Clean Air Act, the Congress required development of regulations to protect visibility in national parks and wilderness areas. NPS has been working with EPA and state air pollution agencies to reach this national visibility goal, which includes both remedying existing visibility impairment caused by man-made air pollution and preventing future problems. The amendments directed EPA to develop regulations to assure reasonable progress toward meeting the national goal and to provide the states with guidelines for implementing visibility protection programs through State Implementation Plans.

The regulatory program mandates EPA or the states with federally approved visibility programs to:

- Evaluate and control new sources of air pollution to prevent future visibility impairment in national parks and wilderness areas.
- Evaluate and control significant visibility impairment in such areas that can be traced to specific sources of air pollution.
- Adopt and implement long-term strategies for making reasonable progress toward the national visibility goal.

The program also gives states the discretion to extend the visibility protection to views of specific landmarks or scenic panoramas that can be seen from within a national park but which are outside its boundaries. Such views are called "integral vistas." The states will determine which of these scenic attractions need protection, and how much. NPS is working with the states to help them incorporate consideration of scenic park features in their rulemaking and protective actions.

Although administrative and judicial review actions delayed implementation of visibility actions, EPA published in July 1985 a federal approach to monitoring visibility for 19 states and a plan for determining new sources of parkland pollution in 16 states. Other states submitted State Implementation Plans for EPA review. Because EPA has found 32 states deficient in some aspects of the visibility rules, the Agency intends later this year to propose federal plans to remedy those deficiencies.

The federal monitoring effort involves both EPA and federal land managers in a cooperative network. A technical steering committee which includes members of the associated agencies is implementing the monitoring program and is now in the process of selecting the methods and locations to be used.

In the original 1980 regulations, the EPA focused on visibility impairment caused by single sources because of scientific and technical limitations in identifying sources of widespread regional haze or complex urban plumes. EPA committed itself to dealing with these issues in future rulemakings.

In 1984, EPA's Deputy Administrator established an Interagency Task Force to look at the development of strategies for addressing visibility problems created by pollution-derived haze, to study the links between haze and such problems as acid deposition and fine particulates, and to recommend a five to ten year program to deal with haze. In 1985, the Task Force reported its findings and recommendations in the areas of research needs, policy analyses, and interim regulatory and legislative considerations. The recommendations have resulted in additional research commitments and are being considered in developing federal plans.

In the few years since Congress amended the Clean Air Act to include the problem of visibility degradation, the Park Service visibility and research monitoring program has done a great deal to promote a better understanding of the problem. This program is providing the necessary basis for informed and effective decisions on visibility protection issues, regulation development, and the ultimate success of National Park Service efforts to manage and preserve the parks for present and future generations who want to enjoy the beauty and inspiration that comes from sharing nature's wonders.