

**PETITION TO THE UNITED STATES
DEPARTMENT OF INTERIOR
NATIONAL PARK SERVICE
DEPARTMENT OF AGRICULTURE
U.S. FOREST SERVICE**

PETITION ASKING THE DEPARTMENTS OF INTERIOR AND AGRICULTURE FORMALLY TO CERTIFY TO THE U.S. EPA THAT VISIBILITY IMPAIRMENT IN SIXTEEN CLASS I NATIONAL PARKS AND WILDERNESS AREAS IS REASONABLY ATTRIBUTABLE TO POLLUTANT EMISSIONS FROM ARIZONA PUBLIC SERVICE COMPANY'S FOUR CORNERS POWER PLANT IN NORTHWEST NEW MEXICO

Respectfully Submitted by:

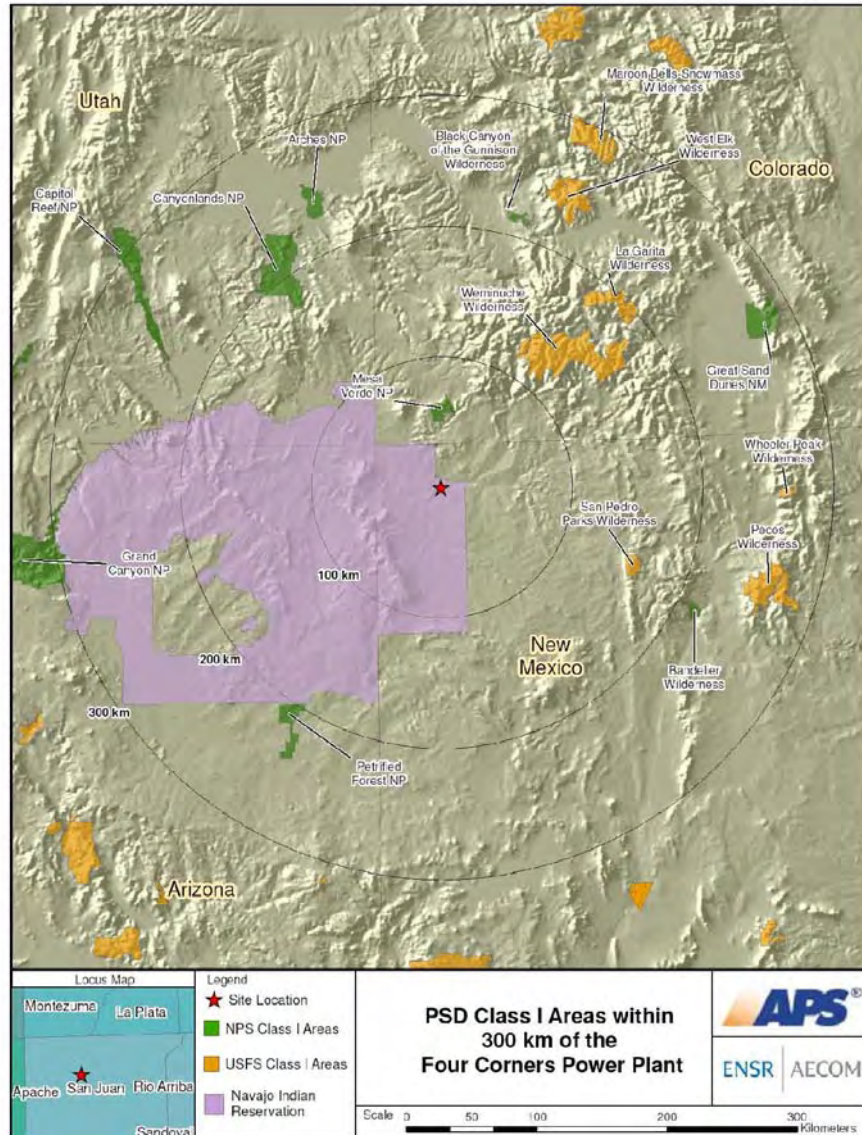
**NATIONAL PARKS CONSERVATION ASSOCIATION, EARTHJUSTICE,
SIERRA CLUB, SAN JUAN CITIZENS ALLIANCE, GRAND CANYON TRUST,
CENTER FOR BIOLOGICAL DIVERSITY, DINÉ CARE, DOODA DESERT ROCK
and WILD EARTH GUARDIANS**

February 16, 2010

The National Parks Conservation Association, Earthjustice, Sierra Club, San Juan Citizens Alliance, Grand Canyon Trust, Center for Biological Diversity, Diné CARE, Dooda Desert Rock and Wild Earth Guardians (Petitioners), in accordance with 5 U.S.C. § 553(e), hereby petition the Departments of Interior (DOI) and Agriculture (DOA) formally to certify to the U.S. Environmental Protection Agency that impairment of visibility in at least sixteen Class I national parks and wilderness areas administered by the National Park Service and the U.S. Forest Service in Arizona, Utah, New Mexico and Colorado,¹ is reasonably attributable to air pollutant emissions from Arizona Public Service Company's coal-fired Four Corners Power Plant (Four Corners) in northwest New Mexico.

¹ Arches National Park (UT), Bandelier Wilderness (NM), Black Canyon of the Gunnison Wilderness (CO), Canyonlands National Park (UT), Capitol Reef National Park (UT), Grand Canyon National Park (AZ), Great Sand Dunes National Monument (CO), La Garita Wilderness (CO), Maroon Bells Snowmass Wilderness (CO), Mesa Verde National Park (CO), Pecos Wilderness (NM), Petrified Forest National Park (AZ), San Pedro Parks Wilderness (NM), West Elk Wilderness (CO), Weminuche Wilderness (CO) and Wheeler Peak Wilderness (NM).

Figure 5-1 Location of Class I Areas in Relation to the Four Corners Power Plant



This petition asks DOI and DOA to certify, based on recent modeling information, that the discharge of thousands of tons of nitrogen oxides, sulfur dioxide and particulate matter from Four Corners into the air of northwest New Mexico is causing “reasonably attributable” visibility impairment in all of the sixteen Class I national parks and wilderness areas within 300 kilometers (186 miles) of the plant.

I. Background

Four Corners is a 2,060 megawatt coal-fired power plant located in the northwest corner of New Mexico, approximately 25 miles west of Farmington, New Mexico and approximately 35 miles south of Mesa Verde National Park in Colorado. Four Corners has five separate generating units that were constructed between 1962 and 1970.² BART Visibility Monitoring Report for the Arizona Public Service Four Corners Power Plant, ENSR Corporation, January 2008 (“BART Report”), p. 1-1, **Attachment 1**. Every year Four Corners’ five generating units burn over ten million tons of coal, and, in that same span of time, discharge into the air of the Colorado Plateau approximately 42,000 tons of nitrogen oxides (NO_x), 12,000 tons of sulfur dioxide (SO₂), 1,300 tons of particulate matter (PM), and 15 million tons of carbon dioxide. EPA emissions database at: <http://camddataandmaps.epa.gov/gdm/index.cfm>; Four Corners Power Plant BART Analysis for NO_x and Particulate, January 2008, p. 6-3. Four Corners is the largest single source of air pollution in the state of New Mexico. *Id.*

Existing pollution control equipment at Four Corners Units 1 - 3 include low-efficiency venturi scrubbers for SO₂ and PM removal. The pollution control equipment at Units 4 and 5 includes wet SO₂ scrubbers and fabric filters (baghouses). Units 1-5 have early vintage low-NO_x burners. BART Report, pp. 1-1, 5-1, **Attachment 1**.

In 1977, Congress amended the Clean Air Act to provide national parks and wilderness areas with the highest degree of protection from air pollution. 42 U.S.C § 7472. The “Class I” status provided to the sixteen national parks and wilderness areas near the Four Corners plant meant, among other things, that existing visibility impairment in those areas would have to be eliminated. 42 U.S.C. §§ 7491-92.

² Although the Four Corners Power Plant is located within the Navajo Indian Reservation, it is entirely owned and controlled by private utility companies. Units 1-3 are owned 100% by Arizona Public Service Company (APS). Units 4 & 5 are co-owned by Southern California Edison (48%), APS (15%), Public Service Company of New Mexico (13%), Salt River Project (10%), El Paso Electric Company (7%), and Tucson Electric Power (7%). 74 Fed. Reg. 44315 (August 28, 2009).

On November 30, 1979, the Department of Interior classified all of the national parks and wilderness areas in its jurisdiction within 300 kilometers of Four Corners as Class I airsheds where visibility is an important value. 44 Fed.Reg. 69,122, 69,126 (November 30, 1979); 40 C.F.R. § 81.403 (Arizona), § 81.406 (Colorado), § 81.421 (New Mexico), § 81.430 (Utah). On November 14, 1985, the Department of the Interior certified to EPA the existence of visibility impairment in all Class I areas within its jurisdiction in the lower 48 States, including all nine DOI administered Class I areas within 300 kilometers of Four Corners that are impaired by the plume from the plant. **Attachment 2**, p. 4.

According to EPA's regional haze regulations, "A single source that is responsible for a 1.0 deciview change or more should be considered to 'cause' visibility impairment." 40 C.F.R. Part 51, Subpart P, Appendix Y—Guidelines for BART Determinations Under the Regional Haze Rule, Section III A. 1. A deciview is a perceptually correct "haze index such that uniform changes in haziness correspond to uniform incremental changes in perception across the entire range of conditions, from pristine to highly impaired." 40 C.F.R. § 51.301. APS's regional haze CALPUFF modeling, submitted to the EPA in January of 2008, demonstrates that Four Corners is "causing" visibility impairment in all sixteen of the Class I areas that are within 300 kilometers of the plant.

As set forth in APS's modeling, the cumulative impact of Four Corners' current PM, NO_x and SO₂ emissions on visibility in the sixteen Class I areas was shown to be more than 25 deciviews – or over 25 times greater than EPA's causation threshold – on at least eight days every year. BART Report, p. 5-7, **Attachment 1**; November 20, 2009 NPS comments, p. 2, **Attachment 3**.³ APS's modeling also shows that, every year, visibility is impaired in each of the sixteen Class I areas individually by more than one deciview due to emissions from Four Corners. Of any BART eligible source evaluated to date, the National Park Service has found that Four Corners has the greatest visibility impact on Class I national parks of any single source of air pollution in the country. November 20, 2009 NPS comments, p. 3, **Attachment 3**.

³ The Park Service, meanwhile, has determined that the modeling performed by APS grossly underestimated Four Corners' visibility impacts. According to the Park Service's independent analysis, air pollution from Four Corners impairs visibility in the sixteen Class I areas by more than **46 deciviews** on at least eight days every year. Attachment 3, p. 2.

APS Four Corners Power Plant Baseline Emissions Visibility Impacts

Class I Area	8th High delta dv			
	2001	2002	2003	Average
Arches NP	2.13	1.87	1.93	1.98
Bandelier WA	1.62	1.98	1.54	1.71
Black Canyon of the Gunnison WA	1.15	1.63	1.54	1.44
Canyonlands NP	2.46	2.16	2.13	2.25
Capitol Reef NP	2.26	1.45	1.51	1.74
Grand Canyon NP	1.47	0.87	0.89	1.07
Great Sand Dunes NM	0.83	1.32	0.92	1.02
La Garita WA	1.38	1.47	1.24	1.36
Maroon Bells Snowmass WA	0.84	0.82	0.77	0.81
Mesa Verde NP	2.94	3.47	3.11	3.17
Pecos WA	1.59	1.59	1.47	1.55
Petrified Forest NP	1.22	1.45	0.95	1.21
San Pedro Parks WA	2.10	2.46	2.07	2.21
Weminuche WA	1.65	2.26	1.78	1.90
West Elk WA	1.09	1.43	1.13	1.22
Wheeler Peak WA	1.19	1.23	1.16	1.20
Totals	25.89	27.46	24.15	25.83

The modeling results of APS and the National Park Service are supported by recent photographs that show the massive plume of pollution that is emitted from the Four Corners plant, and photographs that show significant haze in the nearby parks such as Mesa Verde and the Grand Canyon. The Four Corners plume and photographs of the resulting haze may be found in **Attachment 4**.

It is no surprise that APS’s modeling results show Four Corners’ PM, NO_x and SO₂ emissions are responsible for significant visibility impairment in the nearby sixteen Class I areas given the quantity and characteristics of pollution discharged from the plant. It is well-known that particulate matter scatters light and thus degrades visibility: “scattered light appears as whitish haze in the line of sight, obscuring the view.” 74 Fed. Reg 44316 (August 28, 2009). According to the Park Service, “white light will tend to look reddish or brownish in color after passing through a nitrogen dioxide haze.” Malm, “Introduction to Visibility,” 1999, p. 10. Turning to sulfur dioxide, the Park Service has also found “[t]he collinearity between SO₂ emissions and visibility reduction is impressive.” *Id.* at 41.

Visitors to the Class I areas downwind of Four Corners often find their views impaired, thus corroborating the findings of APS’s dispersion modeling. For example, according to Mike Eisenfeld of the San Juan Citizens Alliance,

Having lived in Farmington, New Mexico for the past thirteen years I've had the opportunity to visit Mesa Verde, Canyonlands and Grand Canyon national parks. Last summer, when hiking in Mesa Verde, I was struck by the awful haze that came from the southern corridor from New Mexico. The haze was so thick at the point called Far View that I couldn't see off into the distance towards Shiprock, New Mexico. I know that the Four Corners coal plant is a high source of nitrogen oxide that is connected to haze and reduces visibility. The poor air quality in the region saddens me. After all, these parks are our heritage and important resources.

James Zion with Dooda Desert Rock is also very familiar with the haze produced by the Four Corners plant,

I frequently travel to Shiprock from Gallup on business. About 60 miles from Shiprock, the air is usually hazy, and in winter when inversions are common the horizon is yellowed with pollution. Much of this pollution seems to be coming from the Four Corners plant. Most recently, one January morning I noticed that the haze at the western edge of Mesa Verde was particularly bad. As an attorney who represents Navajo clients interested in tourism and economic growth, I am concerned that tourists will not want to visit this area because of all the pollution in the air.

According to Roger Clark with the Grand Canyon Trust,

I've been hiking and traveling in and out of Mesa Verde, Grand Canyon, Bryce Canyon, Petrified Forest and other parks and wilderness areas in the Four Corners region for the last 20 years. When the wind is blowing pollution from the Four Corners plant to these parks, visibility is seriously impaired. Only when the wind is coming from another direction is the clarity of the landscape anything like what it used to be. The number of days when views in these parks is clouded by pollution seems to be ever increasing.

I've seen the haze in Mesa Verde from all different angles. There have been occasions when I couldn't see Sleeping Ute Mountain or the view of Shiprock. Obscured visibility of Ute Mountain to me was appalling because it's less than 10 miles away from Mesa Verde and there was a veiled haze enveloping the park with no other source but the Four Corners coal plant to the south.

In my work I fly from Phoenix to Denver (about 2-3 times a year over the last 5 years). The flight path often goes over Four Corners plant. I often see a plume of pollution extending from the Four Corners plant to Mesa Verde.

II. Petition

Pursuant to 5 U.S.C. § 553(e) and 40 C.F.R. § 51.302(c)(2), Petitioners formally petition the Departments of Interior and Agriculture to certify that impairment of visibility in the sixteen Class I areas within 300 kilometers of the Four Corners plant is reasonably attributable to pollutant emissions from the Four Corners plant. Petitioners request expedited action on this petition so that any certification triggering a 40 C.F.R. § 51.302 "reasonably attributable" BART analysis for Four Corners may be merged into, and not delay, EPA's ongoing regional haze BART review process that EPA recently initiated through its August 28, 2009 Advance Notice of Proposed Rulemaking (74 Fed. Reg. 44313).

5 U.S.C. § 553(e) states, "[e]ach agency shall give an interested person the right to petition for the

issuance, amendment, or repeal of a rule.” 5 U.S.C. § 551(4) defines the term “rule” as including, “the whole or a part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy . . .”

In 1977, Congress amended the Clean Air Act to, among other things, declare:

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). As part of its obligation to meet this goal, Congress required EPA to promulgate regulations to ensure that:

each major stationary source which is in existence on August 7, 1977, but which has not been in operation for more than fifteen years as of such date, and which, as determined by the State (or the Administrator in the case of a plan promulgated under Section 7410(c) of this title) emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any [mandatory Class I] area, shall procure, install, and operate, as expeditiously as practicable (and maintain thereafter) the best available retrofit technology . . . for controlling emissions from such source for the purpose of eliminating or reducing any such impairment.

42 U.S.C. § 7491(b)(2)(A).

Pursuant to the regulations promulgated by EPA to remedy existing visibility impairment, the Federal Land Manager of any mandatory Class I area may certify to the state or EPA that it is reasonable to attribute visibility impairment to a single, or small group of air pollution sources. Accordingly, 40 C.F.R. § 51.302(c)(1) provides that “[t]he affected Federal Land Manager may certify to the State, at any time, that there exists reasonably attributable impairment of visibility in any mandatory Class I Federal area.” The certification should be directed to EPA when, as here, the visibility program is implemented by EPA on tribal lands in the absence of a Tribal Implementation Plan. 42 U.S.C. §§ 7410(c), 7491(b)(2)(A), 7601(a) and (d); Source Specific Federal Implementation Plan for Four Corners Power Plant, Navajo Nation, 72 Fed.Reg. 25698, center column (May 7, 2007). The term “reasonably attributable visibility impairment” is defined as “visibility impairment that is caused by the emission of air pollutants from one, or a small number of sources.” 40 C.F.R. § 51.301. The term “visibility impairment” is defined as “any humanly perceptible change in visibility (light extinction, visual range, contrast, coloration) from that which would have existed under natural conditions.” *Id.* EPA is required to “identify and analyze for BART” any existing stationary facility that has been certified by the Federal Land Manager as causing reasonably

attributable visibility impairment. 40 C.F.R. § 51.300(b)(2), 40 C.F.R. § 51.302(c)(4), 52 Fed.Reg. 45132, 45133 (November 24, 1987).

As noted above, EPA's regional haze regulations state that "[a] single source that is responsible for a 1.0 deciview change or more should be considered to 'cause' visibility impairment." 40 C.F.R. Part 51, Subpart P, Appendix Y—Guidelines for BART Determinations Under the Regional Haze Rule, Section III A. 1. Applying this standard, 25 deciviews of visibility impairment across sixteen Class I areas caused by emissions from Four Corners *alone* is sufficient to establish *reasonably attributable* visibility impairment. The Department of Interior's October 21, 2009 determination that a 2.34 deciview impairment caused by Xcel's Sherco power plant in Minnesota was sufficient to trigger a reasonable attribution finding supports a similar conclusion here where the visibility impact is ten times greater. **Attachment 5.**

When presented with evidence that a source is causing visibility impairment in a national park, the Park Service's Organic Act establishes an affirmative duty on the part of the Park Service to take action. According to 16 U.S.C. § 1,

The service thus established **shall promote and regulate** the use of the Federal areas known as national parks, monuments, and reservations hereinafter specified by such means and measures as conform to the fundamental purposes of the 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.

(Emphasis added.)

The Park Service has acknowledged this obligation. According to the NPS's Management Policy at Section 4.7.1:

The National Park Service has a responsibility to protect air quality under both the 1916 Organic Act and the Clean Air Act (CAA). Accordingly, the Service will seek to perpetuate the best possible air quality in parks to (1) preserve natural resources and systems; (2) preserve cultural resources; and (3) sustain visitor enjoyment, human health, and scenic vistas. Vegetation, visibility, water quality, wildlife, historic and prehistoric structures and objects, cultural landscapes, and most other elements of a park environment are sensitive to air pollution and are referred to as "air quality-related values." **The Service will actively promote and pursue measures to protect these values from the adverse impacts of air pollution. In cases of doubt as to the impacts of existing or potential air pollution on park resources, the Service will err on the side of protecting air quality and related values for future generations.**

(Emphasis added.)

The Secretary of the Interior also has an affirmative duty under the Park System Resources

Protection Act to “undertake all necessary actions” to curb air pollution from any source that is injuring the sixteen Class I areas near the Four Corners plant. As set forth in the Park System Resources Protection Act at 16 U.S.C. § 19jj-2(b)(1),

The Secretary shall undertake all necessary actions to prevent or minimize the destruction, loss of, or injury to park system resources, or to minimize the imminent risk of such destruction, loss, or injury.

The Secretary of Agriculture has a similar affirmative duty under the Clean Air Act to remedy past, and prevent future, visibility impairment in the Class I areas within his jurisdiction. 42 U.S.C. § 7491. As described in Senate Report No. 95-127, 95th Congress, 1st Session, 1977,

The Federal Land Manager holds a powerful tool. He is required to protect Federal lands from deterioration of an established value, even when Class I [increments] are not exceeded. ... While the general scope of the Federal Government’s activities in preventing significant deterioration has been carefully limited, the FLM should assume an aggressive role in protecting the air quality values of land areas under their jurisdiction. In cases of doubt the land manager should err on the side of protecting the air quality-related values for future generations.

As demonstrated above, the Department of the Interior, through its Park Service, should certify to EPA that visibility impairment is reasonably attributable to pollutant emissions from Four Corners in the nine Class I areas it administers that are within 300 kilometers from the Four Corners plant. The Department of Agriculture should make a similar certification with respect to the seven Class I areas it administers that are within 300 kilometers from the Four Corners plant. The Departments of Interior and Agriculture have an affirmative duty to make these certifications due to APS’s own modeling evidence that demonstrates Four Corners causes significant, reasonably attributable visibility impairment to each of these priceless Class I areas alone, and in combination.

III. Conclusion

It is uncontested that thousands of tons of visibility impairing pollutants are discharged from the smoke stacks of Four Corners every year. Because of Four Corners’ proximity to sixteen Class I areas within 300 kilometers, and the thousands of tons of pollution discharged by the plant every year, much of this pollution inevitably enters, and impairs the beauty of, these national treasures. Now is the time for the Departments of Interior and Agriculture to take this important step to remedy reasonably attributable visibility impairment in the parks and wilderness areas of the Colorado Plateau to benefit this and all future generations.

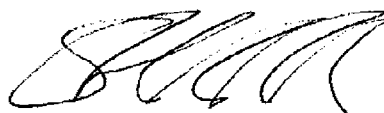
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ATTACHMENTS

1. January, 2008, BART Visibility Monitoring Report for the Arizona Public Service Four Corners Power Plant, ENSR Corporation ("BART Report"), excerpts.
2. November 14, 1985, Department of the Interior certification of impairment.
3. November 20, 2009 NPS comments.
4. Pictures of Four Corners plume and nearby haze.
5. Department of Interior's October 21, 2009 Sherco reasonable attribution determination.

CERTIFICATE OF SERVICE

I certify that on this 16th day of February, 2010, I caused to be sent via overnight delivery a copy of the foregoing petition and attachments to the first three addressees below, and via First Class U.S. Mail to the remaining addressees. Additionally, all addressees will be served with an electronic copy of the foregoing on February 17, 2010.

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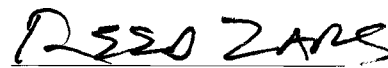
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