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Bringing Green Power to the Public Lands: The Bureau of Land Management's Authority and Discretion to Regulate Wind-Energy Developments

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Idealists have long touted the sustainability of harnessing the sun's energy to power the needs of modern society. One very

attractive way of harnessing solar energy is to use wind turbines to transfer the energy carried in solar-generated winds to electric power grids for use by the consuming public. Wind energy is sustainable because a wind farm uses virtually no fuel to generate electricity and produces virtually no harmful pollutants.[1] Wind farms do not produce open pit mines, hundred-mile-long oil and gas pipelines, radioactive waste to be buried in the ground, or airborne pollutants that harm human health and the natural environment. With increasing awareness and acceptance of climate change, wind energy will become even more attractive because it produces virtually no climate-changing compounds.

Wind energy is also quickly becoming economically competitive with traditional power sources.[2] The ever-increasing costs of coal, gas, and oil, coupled with the specter of federal legislation capping greenhouse-gas emissions, will undoubtedly increase the economic attractiveness of wind energy in the future.[3] Indeed, wind energy already is cheaper to Colorado consumers, due to the recent spike in natural-gas prices.[4] Once only interesting to ideological developers looking for green-energy solutions, wind energy now attracts large, multinational firms and investors, such as Shell Oil and Goldman Sachs.[5]

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[1] *See* Roy Fuller, *Wind Energy Development on BLM Lands*, 24 J. LAND RESOURCES & ENVTL. L. 613, 615 (2004) (discussing the environmental benefits of wind energy).

[2] Michael T. Burr, *Windpower: Beyond Boom and Bust*, PUB. UTILITIES FORTNIGHTLY, May 1, 2005, at 28, 30 ("'There is a widespread consensus among those at the firm who focus on the energy sector that wind is one renewable source whose time has come,' says Neil Auerbach, managing director with Goldman Sachs in New York. 'We think there is an opportunity here, and a profitable one at that.'"); *see also* LESTER R. BROWN, PLAN B: RESCUING A PLANET UNDER STRESS AND A CIVILIZATION IN TROUBLE 156-59 (2003) (providing background on the history of wind energy and predicting that, given current economic factors, wind energy could substantially reduce global dependence on fossil fuels).

[3] *See* Burr, *supra* note 2, at 35 ("'Major utilities are becoming increasingly sophisticated in their ability to evaluate risks,' says Ryan Wiser, a scientist with Lawrence Berkeley Laboratories in Berkeley, Calif. 'Two risks frequently highlighted in utility IRPs are natural gas price risk and future carbon regulation. An increasing number of utilities already are valuing windpower [sic] on its risk-mitigation characteristics.'"). R

[4] Matt Jenkins, *The Latest Bounce*, HIGH COUNTRY NEWS, Oct. 31, 2005, at 3, 3.

[5] For example, Shell Wind Energy, Inc., a subsidiary of the Royal Dutch/Shell Group, recently partnered with an American wind-energy firm, Windland, Inc., to propose a large wind farm in Idaho. BUREAU OF LAND MGMT., DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED COTTEREL WIND POWER PROJECT ES-3 (2005), *available at* http://www.efw.bpa.gov/environmental_services/Document_Library/cotterel/ [hereinafter BUREAU OF LAND MGMT., COTTEREL DRAFT

As a consequence of these economic realities, the landscape of the windy American West stands to include many more large wind farms in the near future. For a wind farm to succeed, it must be placed in a location with suitable winds and in relative proximity to transmission lines connecting the site with a utility grid.[6] Many such locations exist on public land managed by the Bureau of Land Management (BLM) and consequently, private companies' interest in developing the wind resources on BLM lands has increased significantly in recent years.[7]

Political pressure to develop renewable energy resources on public lands has also increased recently. As part of its national energy policy, the Bush administration has encouraged development of wind energy on public lands.[8] Based on this national energy policy, the Department of Energy's National Renewable Energy Laboratory has completed a detailed report on the wind-energy potential of all BLM lands.[9] The BLM has also published a final Programmatic Environmental Impact Statement (PEIS)[10]

ENVIRONMENTAL IMPACT STATEMENT]. Additionally, Goldman Sachs recently purchased Horizon Wind Energy, a Houston wind-energy developer that now has plans to develop enough wind farms to produce as much energy as seventeen typical coal-fired power plants. David Roberts, *You're a Good Man Lester Brown*, GRIST, Mar. 6, 2006, http://www.grist.org/news/maindish/2006/03/06/roberts/.

[6] *See* Michael T. Burr, *Wind, Wires & Coal*, PUB. UTILITIES FORTNIGHTLY, May 2005, at 34, 34 (discussing the problem of distance from areas with high-wind potential to high-use areas in major metropolitan areas and for transmission lines among the limiting factors for a wind-energy development).

[7] *See* Memorandum from Director, Bureau of Land Mgmt., to All Field Officials 1-2 (Oct. 16, 2002) *reprinted in* 2 Bureau of Land Mgmt., U.S. Dep't of the Interior, Publ'n No. FES 05-11, Final Programmatic Environmental Impact Statement on Wind Energy Development on BLM-Administered Lands in the Western United States app. A, at A-3 to -4, *available at* http://windeis.anl.gov/documents/fpeis/index.cfm ("The interest in wind energy development has recently increased and new project proposals on public land have been identified in several States.").

[8] The PEIS states:

> The President's National Energy Policy encourages the development of renewable energy resources, including wind energy, as part of an overall strategy to develop a diverse portfolio of domestic energy supplies for our future. The BLM prepared a National Energy Policy Implementation Plan that included a variety of tasks related to the development of energy resources on the public lands, including renewable energy resource.

Id. at 1.

[9] *See generally* NAT'L RENEWABLE ENERGY LAB. & BUREAU OF LAND MGMT., Publ'n No. DOE/GO-102003-1794, Assessing the Potential for Renewable Energy on Public Lands (2003), *available at* http://www.nrel.gov/docs/fy03osti/33530.pdf (providing a report on the wind-energy potential of BLM lands).

[10] BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, PUBL'N NO. FES 05-11, FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT ON WIND EN-

and Record of Decision[11] selecting a programmatic policy to facilitate wind-energy development. The emphasis on developing wind resources on BLM lands comes directly from the Bush administration's national energy policy.[12]

Despite its idealistic attributes as green power, wind energy can have serious environmental impacts[13] and could become just as controversial as the use of public lands for traditional extractive industries. These environmental concerns could paradoxically impede development of the most economically feasible form of green energy available today, particularly on public lands that have both valuable wind-energy potential and valuable conservation and recreational attributes.

Part I of this Comment will briefly describe the impacts of wind-energy development on the environment and provide an overview of the BLM's programmatic wind-energy policy. Part II will examine the BLM's legal authorities and duties to regulate wind-energy developers with mitigation measures that would adequately compensate for environmental harm.

Scrutiny of the BLM's approach to mitigation reveals that the BLM is not currently planning to exercise its full authority to mitigate the potentially significant impacts of wind-energy development on public lands. By implementing a more progressive program, the BLM could avoid costly litigation and decrease potential controversy over wind-energy development on public lands.

ERGY DEVELOPMENT ON BLM-ADMINISTERED LANDS IN THE WESTERN UNITED STATES [hereinafter BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT]. A full copy of the multi-volume Final Programmatic EIS is available at http://windeis.anl.gov/documents/fpeis/index.cfm.

11 BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, RECORD OF DECISION: IMPLEMENTATION OF WIND ENERGY DEVELOPMENT PROGRAM AND ASSOCIATED LAND USE PLAN AMENDMENTS (2005), *available at* http://windeis.anl.gov/documents/docs/WindPEISROD.pdf [hereinafter BUREAU OF LAND MGMT., RECORD OF DECISION].

12 *See id.* at 4-5 (summarizing the BLM's responses to the wind-energy policy directives of the Bush administration).

13 *See* Fuller, *supra* note 1, at 616-18 (noting the "paradox" of wind energy as environmentally beneficial and harmful); *see also infra* Part I.A (discussing the environmental impacts of wind energy). **R**

I

THE POTENTIAL NEGATIVE ENVIRONMENTAL IMPACTS OF WIND-ENERGY DEVELOPMENT ON BLM LANDS AND THE POTENTIAL FOR MITIGATION

A. The Environmental Impacts of Wind Energy

Wind energy is generally seen as green power.[14] However, marketable wind energy in the West is found only in undeveloped rural areas where the impacts can cause significant conflicts with local residents and resource users, as well as environmental groups concerned about impacts to wildlife.[15]

1. Aesthetic and Other Non-Wildlife Impacts

The footprint a wind farm leaves on the land can be significant in undeveloped areas valued for their scenic attributes.[16] The footprint can include turbines, structures, power stations, roads, new transmission lines, and even on-site concrete-batching plants.[17] Construction requires digging and blasting holes for tower foundations thirty-five to forty feet deep and pouring dozens of cubic yards of concrete per turbine.[18] Developers must also clear and compact up to three acres for a "staging area" to erect each turbine.[19] Even after on-site mitigation and restoration measures, construction and maintenance of the facilities leaves a footprint of five percent to ten percent of the acreage of the entire site for the life of the project.[20] Construction of roads to access the site also creates a significant footprint and a perma-

[14] *See* Fuller, *supra* note 1, at 615-16 (discussing the environmental benefits of wind energy). R

[15] *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-35 to -36 (indicating where marketable wind resources exist on BLM lands in the West and describing potential ecological impacts of wind energy). See *infra* Part I.A.1 for background on conflicts with other land users. R

[16] *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 3-3 to -11 (describing the construction phase of a wind-energy project). R

[17] *Id.* at 3-3 to -5. During the construction phase, a concrete-batch plant could have a footprint of up to ten acres. *Id.* at 3-5.

[18] *Id.*

[19] *Id.* at 3-4.

[20] *Id.* While most of the structures are removed after the project is decommissioned decades later, some concrete foundations will always remain. *See id.* at 3-11 to -12 (turbine foundations, for example, would be left in place).

nent alteration of a previously undeveloped area.[21] This can create significant environmental impacts including landscape degradation, unfavorable aesthetics, and noise, all of which can engender local opposition.[22]

Wind-farm footprints can significantly degrade the landscape.[23] In the past, groups have opposed wind farms in an effort to stop the industrialization of rural landscapes.[24] Of all the impacts to a rural landscape caused by wind farms, extensive road building can be the most significant.[25] If existing roads cannot be used, developers must remove massive amounts of soil and construct roads in hilly terrain typical of most wind-farm sites.[26] Such construction permanently scars the landscape. Extensive road construction and use can also cause fugitive dust to escape into the air, degrading air quality and visibility.[27] The footprint could also negatively affect cultural resources and values that the land may contain.[28]

Many people are also opposed to the aesthetic impairment of the landscape caused by a large group of wind turbines.[29] Wind farms are often industrial in appearance, a characteristic that is incompatible with natural landscapes typical of BLM lands.[30] While efforts can be made to blend turbines with the surrounding rural area, some people still find large, modern wind turbines of-

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[21] *Id.* at 3-4.

[22] *See* Fuller, *supra* note 1, at 618-21 (discussing the impacts of wind-energy development, including landscape degradation, aesthetics, and noise). R

[23] *Id.* at 618.

[24] *Id.*

[25] *See id.* (noting the potential significant impacts of new road construction).

[26] *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 3-3 (describing potential site changes necessary for wind-farm construction). For example, analysis of one wind-farm proposal for BLM land in Idaho could require cutting 2.66 million cubic yards of soil and filling 2.5 million cubic yards of road fill material to construct twenty-two miles of new roads and reconstruct 4.5 miles of existing road. BUREAU OF LAND MGMT., COTTEREL DRAFT ENVIRONMENTAL IMPACT STATEMENT, *supra* note 5, at 2-27; *see also id.* at 2-32, 2-40 (describing the potentially diminished impacts of road construction with other alternatives). R R

[27] *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-15 (noting that road construction can impact air quality). *See also id.* at 5-91 (explaining that dust can impact visual resources during site construction). R

[28] *Id.* at 5-99 to -102.

[29] Fuller, *supra* note 1, at 619-20. R

[30] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-92. R

fensive.[31] On BLM lands, these visual impacts can be especially difficult to avoid with mitigation measures because turbines are large and cannot be hidden easily in open spaces that are typical of BLM land.[32]

The construction and operation of modern wind farms can also produce offensive levels of noise in rural areas.[33] Construction activities pose the largest potential for high levels of noise because of heavy equipment, traffic, and blasting through geologic formations to dig the foundations for turbine towers.[34] Due to recent advances in the design of turbines, mechanical noise is minimal during power generation.[35] However, the turbines create a low level of unavoidable aerodynamic noise that can be offensive to people in the area.[36] Substations and transmission lines also create low-level noise that may exceed background-noise levels near the facility.[37]

These non-wildlife impacts could cause an unacceptable level of environmental harm for local residents and resource users, engendering significant local opposition of wind-energy development on BLM lands much as they have on non-BLM lands.[38]

2. Ecological and Wildlife Impacts

Wind turbines and their supporting roads and structures can also have significant ecological impacts in sensitive locations. Perhaps the most commonly recognized impact of wind-energy

[31] Fuller, *supra* note 1, at 619-20. R

[32] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-92. R

[33] *See id.* at 5-20 to -27 (discussing the potential for noise impacts); *see also* Fuller, *supra* note 1, at 620-21 (noting that those who live within hearing distance of wind turbines often find the noise objectionable). R

[34] *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-20 to -22 (describing noise impacts from various activities). R

[35] *Id.* at 5-23.

[36] EJA PEDERSEN & HÖGSKOLAN I HALMSTAD, SWEDISH ENVTL. PROT. AGENCY, PUBL'N NO. 5308, NOISE ANNOYANCE FROM WIND TURBINES: A REVIEW 10 (2003), *available at* http://www.naturvardsverket.se/bokhandeln/pdf/620-5308-6.pdf. At high wind speeds the noise of the wind itself can make this aerodynamic noise imperceptible. 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-24. R

[37] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-25 to -26.

[38] *See* Fuller, *supra* note 1, at 617 (discussing the "not in my backyard" response to wind-energy proposals, including opposition to a large wind farm in the Nantucket Sound). R

development is direct avian mortality caused by wind turbines and transmission lines.[39] However, extensive wind-energy development also has the potential to fragment habitat used by some species, which could eventually pose a problem as significant as direct avian mortality on BLM lands.[40]

Direct avian mortality occurs when birds fly directly into turbines and other structures or are struck by rotating turbine blades.[41] The rate of mortality is generally related to the abundance of individual species that inhabit or migrate through the site.[42] The site itself can attract birds and thereby increase the abundance of birds at a site.[43] Increased burrowing and foraging opportunities for rodents and other prey species can occur when cover is increased by rocks removed from underground during construction and piled on-site.[44] The increase in rodents and prey species attracts raptors and other predatory birds that find the wind turbines and other structures to be useful perching sites.[45] If the area is used for grazing, cattle often congregate near turbines and attract insects and other raptor prey with their waste.[46]

A wind farm can also degrade valuable habitat used by some species. As discussed above, the wind farm's footprint includes many elements, all of which increase human activity and background noises at a site. Human activity can create enough noise to discourage many terrestrial species.[47] The area surrounding the permanent and temporary footprint can become degraded

[39] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-53 (indicating that "the presence of, or collisions with, facility structures probably represent the greatest potential hazard to wildlife"); *see also id.* at 5-57 to -58, 5-59 tbl.5.9.9-3, 5-60 tbl.5.9.9-4, 5-62 to -66, 5-67 tbl.5.9.3-5, 5-68 & tbl.5.9.9-6 (providing statistics on avian and bat mortality at existing wind-energy developments). R

[40] *See id.* at 5-73 (noting that wind-energy development could curtail the range of several gallinaceous bird species).

[41] *Id.* at 5-57, 5-62. Turbines and transmission lines can also kill bats that fly into them. *Id.* at 5-63.

[42] *Id.* at 5-58.

[43] *Id.* at 5-57.

[44] *Id.* at 5-57, 5-64.

[45] *Id.* at 5-53, 5-64.

[46] *Id.* at 5-57, 5-65.

[47] *See id.* at 5-56 to -57 (citing scientific studies indicating that noise from wind turbines decreases the abundance of terrestrial bird species in the immediate vicinity and noting that noise from other human activities is likely to disturb other wildlife).

habitat for many species.[48] Additionally, if the species requires large tracts of undisturbed habitat, fragmentation of that habitat by a wind-energy development can be a significant barrier to migration.[49] Further compounding the impact on habitat, construction of electricity transmission lines will be necessary to access remote sites on BLM lands.[50] Indeed, the BLM recently provided the public with notice that it intends to complete a "West-Wide Energy Corridor Programmatic Environmental Impact Statement" to authorize installation of additional transmission lines.[51] The footprint and noise associated with transmission-line development necessary for wind-energy developments will only compound the habitat impacts to terrestrial species.

a. Altamont Pass Wind Resource Area: An Example of Extreme Avian Mortality

The Altamont Pass Wind Resource Area (Altamont) in central California has been a lightning rod for criticism and demonstrates the negative image created by a poorly planned wind-energy development. Altamont is criticized for its direct avian mortalities, particularly among charismatic raptor species such as

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[48] *See id.* at 5-56 ("In some instances, turbines, transmission lines, and other facility structures may interfere with behavioral activities, including migratory movements, and may provide additional perch sites for raptors, thereby increasing predatory levels on other wildlife (such as small mammals and birds).").

[49] As the PEIS notes:

> The presence of a wind energy project could disrupt movements of terrestrial wildlife, particularly during migration. Herd animals, such as elk, deer, and pronghorn antelope, could potentially be affected if rows of turbines are placed along migration paths between winter and summer ranges or in calving areas. However, studies conducted at Foote Creek Rim in Wyoming have not demonstrated any displacement effects on pronghorn antelope, and antelope use of the area has not declined since construction of the wind energy project. The wind energy development project and associated transmission lines and access roads would be maintained as areas of low vegetation that may hinder or prevent movements of some wildlife species.

Id. at 5-72 (citations omitted).

[50] *See* Burr, *supra* note 6, at 34 ("securing transmission capacity to remote areas" can be a major impediment to wind-energy development). R

[51] Notice of Intent to Prepare a Programmatic Environmental Impact Statement, Amend Relevant Agency Land Use Plans, Conduct Public Scoping Meetings, and Notice of Floodplain and Wetlands Involvement, 70 Fed. Reg. 56,647 (Sept. 28, 2005). As of March 2007, the BLM had not yet finalized the Draft EIS. Details and updates on the process are available at http://corridoreis.anl.gov/index.cfm.

golden eagles.[52] Altamont is located in a prime raptor flyway.[53] Predatory birds use the site's ample perching sites[54] to hunt prey species attracted to the facility.[55] Consequently, the rotating turbine blades regularly kill considerable numbers of raptors and other birds, including an estimated seventy-five golden eagles per year.[56] Groups opposed to the current management practices at Altamont include the Center for Biological Diversity, the Golden Gate Audubon Society, and the California Energy Commission.[57] Even the conservative Cato Institute has recognized Altamont's severe impact on raptors.[58] As a result of those impacts, the Center for Biological Diversity filed a lawsuit against the wind-energy companies operating Altamont for violations of state and federal wildlife protection laws.[59]

Opposition to the significant avian mortalities at Altamont and the resulting press coverage has ultimately hampered development of more suitable wind-energy sites elsewhere.[60] This is un-

[52] *See* Ctr. for Biological Diversity, Altamont Pass Wind Resource Area, http://www.sw-center.org/swcbd/programs/bdes/altamont/altamont.html (last visited Nov. 25, 2006) (providing a detailed background and critique of the Altamont Wind Resource Area); *see also* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-64 (citing several studies on direct avian mortality at Altamont). **R**

[53] *See* Ctr. for Biological Diversity, *supra* note 52 (explaining that Altamont is located along a prime migratory bird route in an area with a high incidence of raptors). **R**

[54] *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-53 (explaining that wind-energy structures can provide birds of prey with perching areas). **R**

[55] *Id.* at 5-64.

[56] *See* Ctr. for Biological Diversity, *supra* note 52 ("[E]ach year, Altamont Pass wind turbines kill an estimated 881 to 1,300 birds of prey, including more than 75 golden eagles, several hundred red-tailed hawks, several hundred burrowing owls, and hundreds of additional raptors including American kestrels, great horned owls, ferruginous hawks, and barn owls."); *see also* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-64 (study "estimat[ing] that there were 400 to 800 golden eagle, 2,980 to 5,960 red-tailed hawk, and 2,700 to 5,400 burrowing owl fatalities at the Altamont Pass WRA from 1983 to 2003"). **R** **R**

[57] *See generally* Ctr. for Biological Diversity, *supra* note 52 (detailing various groups' agitations against Altamont permit renewals). **R**

[58] *See* Robert L. Bradley, Jr., Cato Policy Analysis No. 280, Renewable Energy: Not Cheap, Not "Green" (Aug. 27, 1997), http://www.cato.org/pubs/pas/pa-280.html (discussing the issue of avian mortality in the text accompanying notes 88-92).

[59] Press Release, Ctr. for Biological Diversity et al., Alameda County to Approve Flawed Permits for Altamont Pass Wind Farms This Week (Sept. 21, 2005), http://www.sw-center.org/swcbd/press/altamont9-21-05.pdf.

[60] *See* Ctr. for Biological Diversity, *supra* note 52 ("According to wind industry reports, the fiasco at Altamont Pass has hampered wind power development, as un- **R**

fortunate because Altamont's extreme impacts are largely unique.[61] Ultimately, Altamont exemplifies what can happen when environmental concerns are disregarded.

b. The Potential Habitat Impacts to Imperiled Sage Grouse

While the severe avian mortalities of Altamont might be extreme, many facilities placed on BLM lands will have more subtle, but potentially significant, impacts on habitat for imperiled sage-grouse populations. Sage grouse are a terrestrial bird species that inhabit the sagebrush steppe, much of which is land managed by the BLM.[62] The BLM estimates that sage grouse have declined by thirty-three percent in the past thirty to forty years.[63] The U.S. Fish and Wildlife Service estimates that sage-grouse populations have declined as much as ninety-nine percent since European settlement.[64] The BLM has identified the loss of un-fragmented sagebrush habitat as one of the main causes of the decline in sage grouse.[65] Given that approximately fifty percent

resolved concerns about impacts to birds resulted in delays or discontinuation of other wind facilities."); *see also* Bradley, *supra* note 58 (text accompanying note 92 emphasizes that the Altamont experience could significantly hinder wind-power development). R

[61] *See* Ctr. for Biological Diversity, *supra* note 52 ("Wind turbines at the Altamont Pass Wind Resource Area (APWRA) kill more birds of prey than any other wind facility in North America. . . ."). R

[62] The PEIS provides a good summation of the natural history of sage grouse and the potential impacts of wind-energy projects. *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-73 (sage-grouse habitat and wind-energy projects). More detailed information on sage grouse and more general management concerns are available in BLM's *Guidance for the Management of Sagebrush Plant Communities for Sage Grouse-Conservation*. *See generally* BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, *Guidance for the Management of Sagebrush Plant Communities for Sage-Grouse Conservation in* NATIONAL SAGE-GROUSE CONSERVATION STRATEGY (2004), *available at* http://www.blm.gov/nhp/spotlight/sage_grouse/docs/Sage-Grouse_Strategy_1_4_1.pdf [hereinafter BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*] (providing guidance on managing, restoring, and enhancing sagebrush habitat on public lands). R

[63] BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*, *supra* note 62, at 7. R

[64] Ninety-Day Finding for Petitions to List the Greater Sage-Grouse as Threatened or Endangered, 69 Fed. Reg. 21,484, 21,486 (April 21, 2004).

[65] BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*, *supra* note 62, at 6-8 (discussing changes and threats to sagebrush habitat that have contributed to the decline of the sage grouse). The PEIS indicates that a single sage-grouse population can inhabit in excess of 1000 square miles annually. 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-73. R R

of the remaining sage-grouse habitat is managed by the BLM, the Agency recognizes that its management activities could have significant impacts on the future of sage grouse.[66] The BLM has stated its sage-grouse-management goal is to: "Sustain or reestablish the integrity of the sagebrush biome to provide the amount, continuity, and quality of habitat that is necessary to maintain sustainable populations of sage grouse and other sagebrush-dependent wildlife species."[67]

Extensive wind-energy development may be incompatible with this goal. Invasive grasses and the frequent fire cycles they cause are the main source of degradation of large tracts of sagebrush, which does not reestablish itself in frequent fire cycles.[68] However, the BLM also recognizes the threat of habitat fragmentation caused by energy development on public lands, including wind-energy development.[69] Additionally, sage grouse frequently mate in large groups atop wind-swept ridge lines,[70] the same type of terrain typically suitable for wind-energy development.[71] The BLM recognizes that extensive wind-energy development on BLM lands could seriously impact sage-grouse populations.[72] The decline in sage grouse is indicative of the gen-

[66] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-73. R

[67] BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*, *supra* note 62, at 10. R

[68] *Id.* at 7.

[69] *Id.* at 8. The PEIS also recognizes the impact of wind energy specifically. *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-73 ("Transmission lines, turbines, and access roads may adversely affect habitats important to gallinaceous birds by causing fragmentation, reducing habitat value, or reducing the amount of habitat available."). R

[70] BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*, *supra* note 62, at 9. Sage grouse mating sites are referred to as "leks," some of which can support several hundred males in an area encompassing more than one hundred acres. *Id.* The BLM suggested restricting at least one recent wind-energy proposal due to the existence of a regularly used lek along a ridge proposed for development. *See* BUREAU OF LAND MGMT., COTTEREL DRAFT ENVIRONMENTAL IMPACT STATEMENT, *supra* note 5, at ES-6 to -9 (discussing the BLM's preferred alternative, which would impose additional mitigation measures to protect sage grouse). R R

[71] *See* Karin Kowalski, *Windland Windfall? Company Looks to Cotterel Mountains to Harness Wind*, TWIN FALLS TIMES-NEWS, Aug. 1, 2004, *available at* http://www.harvestcleanenergy.org/enews/enews_0804/enews_0804_Windland_Windfall.htm (explaining that the Cotterel Mountains are an ideal wind-turbine site because of high winds along its ridges).

[72] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-73. R

eral decline in populations of many species dependent upon the greater sagebrush steppe ecosystem managed by the BLM.[73] Consequently, it is not unrealistic to predict the sage-grouse issue could engender environmental opposition to wind-energy development on BLM lands as strong as the opposition to Altamont's direct avian mortalities.[74]

B. The BLM's Wind-Energy Development Policy and the Potential for Mitigation

1. The BLM's Programmatic Wind-Energy Policy

The BLM's PEIS and the Record of Decision provide insight into the extent of wind-energy development that can be expected on public land in the West. Among the three wind-energy development alternatives analyzed in the PEIS, the BLM selected the maximum-development alternative.[75] This alternative envisions development of all economically developable sites where wind-energy development will not conflict with prior management designations, such as wilderness designation.[76] The BLM claims that development may be further restricted on a site-specific basis when the BLM accepts or denies a plan of development submitted for a right-of-way permit.[77] However, as this section will

[73] *See id.* (expressing concern about the populations of several sagebrush-dependent species).

[74] Indeed, at least one major environmental group, the National Wildlife Federation, has already voiced apprehension toward any wind-energy policy that would seriously impair the remaining sagebrush habitat. Letter from Thomas France, Dir., Nat'l Wildlife Fed'n, to Wind-Energy Programmatic EIS, Comment Analysis Group, Bureau of Land Mgmt. (Dec. 10, 2004), *reprinted in* 3 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 594, 594-97. R

[75] BUREAU OF LAND MGMT., RECORD OF DECISION, *supra* note 11, at 1-3; *see also* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 2-1 to -31 (explaining the three different alternatives). R R

[76] According to the PEIS:

> Lands that will be excluded from wind energy site monitoring and testing and development include designated areas that are part of the National Landscape Conservation System (NLCS) (e.g., Wilderness Areas, Wilderness Study Areas, National Monuments, NCAs, Wild and Scenic Rivers, and National Historic and Scenic Trails) and Areas of Critical Environmental Concern (ACECs).

1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 2-6 to -7. R

[77] *See id.* at 2-7 ("Additional areas of land may be excluded from wind-energy development on the basis of findings of resource impacts that cannot be mitigated and/or conflict with existing and planned multiple-use activities or land use plans.").

demonstrate, the PEIS and the Record of Decision contemplate development virtually wherever it is economically feasible. Whether the BLM will impose future restrictions to protect resource values remains to be seen.

While future conflicts with resource values could theoretically prevent development of some economically viable sites, the PEIS provides two economic models that predict the lands likely to be economically viable. The "maximum potential development scenario" (MPDS) model predicts the acreage of BLM land that has economically profitable wind speeds and is not located in an area restricted from development.[78] The "Wind Deployment System" (WinDS) model further limits the scale of development by considering economic factors that are likely to limit development in the next twenty years.[79] Those factors include access to and cost of transmission capacity, the irregularity of wind energy, wind technology limitations, and other potential economic barriers.[80] Of the 174.7 million acres of land the BLM manages in the eleven western states analyzed, the MPDS model predicts that 20,634,000 acres possess economically viable wind speeds and are not already restricted from development.[81] The WinDS model predicts that 160,100 acres could be developed in the next twenty years considering economic factors affecting wind energy.[82] For context, when the PEIS was completed in 2005, three operating wind-energy developments totaling 21,161 acres operated on BLM land,[83] and there were another three

This requirement was incorporated verbatim into the Record of Decision. BUREAU OF LAND MGMT., RECORD OF DECISION, *supra* note 11, at A-2. R

78 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 2-2 to -3. The MPDS model was constructed by the National Renewable Energy Laboratory. *Id.* at 2-2. The model considers lands with Class Three winds, on a scale from one to seven, to be economically viable over the next twenty years. *Id.* at 2-2 to -3. R

79 *Id.* at 2-3. Like the MPDS model, the WinDS model was constructed by the National Renewable Energy Laboratory. *Id.*

80 *Id.*

81 *Id.* at 2-5 tbl.2.2.1-1. The eleven states included in the analysis are Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. *Id.*

82 *Id.* California and Nevada possess the most economically developable acres, with 72,300 acres and 34,700 acres respectively. *Id.* Idaho, New Mexico, Utah, and Oregon each also possess in excess of 9000 acres of economically developable land. *Id.*

83 The three operating wind-energy sites on BLM lands are the San Gorgonio Pass Area in California on 3187 acres; the Tehachapi Pass Area in California on 900 acres; and the Wyoming Wind Project located near Arlington, Wyoming. The Wyo-

pending wind-energy development proposals totaling 17,180 acres.[84]

In the Record of Decision, the BLM selected the maximum-development alternative, which envisions the possibility of developing any proposed site within the MPDS model.[85] It also establishes a minimum level of best-management practices (BMPs) applicable to each wind-energy project to decrease the negative impacts of the wind-energy developments.[86] The maximum-development alternative requires each project to incorporate the baseline BMPs into a plan of development that the BLM must approve with a right-of-way authorization before a developer can legally begin construction.[87] However, the BMPs adopted in the Record of Decision do not preclude the use of any site at this point, even if a site does contain sensitive ecological resources.[88] Instead, the BMPs emphasize on-site measures and adaptive management to lessen the impact of the facility, essentially ignor-

ming Wind Project occupies one 950-acre tract and one 16,124-acre tract of BLM land. *Id.* at 2-38 to -30.

[84] The three pending proposed wind-energy developments were the Table Mountain Wind Generating Facility in Nevada on 4500 acres, the Cotterel Mountain Wind Farm Project in Idaho on 4480 acres, and the Walker Ridge Project in California on 8200 acres. *Id.* at 2-30.

[85] BUREAU OF LAND MGMT., RECORD OF DECISION, *supra* note 11, at 1-3. R

[86] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 2-6; *see also id.* at 2-6 to -24 (providing a detailed explanation of these BMPs). The BMPs are also available in the Record of Decision. BUREAU OF LAND MGMT., RECORD OF DECISION, *supra* note 11, at A-1 to -20. R R

[87] *See* 1 Bureau of Land Mgmt., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 2-2 (explaining that additional stipulations will be incorporated into the plan of development and the right-of-way authorization), 2-9 (indicating that under the maximum development alternative, developers must incorporate the BMPs into each plan of development). The BLM authorizes wind-energy developments through right-of-way authorizations in accordance with the terms and conditions of the BLM's Interim Wind Energy Development Policy. *Id.* at 2-1; *see also* BUREAU OF LAND MGMT., RECORD OF DECISION, *supra* note 11, at 1-2. BLM's Interim Wind Energy Development Policy can be found in the PEIS. *See* 2 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at app. A (providing the BLM's Interim Wind Energy Development Policy). Right-of-way authorization is governed by subchapter V of the Federal Land Policy and Management Act of 1976. *See generally* 43 U.S.C. §§ 1761-1770 (2006). R R R

[88] *See* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 2-11 (proposed BMP would prohibit meteorological towers in sensitive habitats or in areas where ecological resources are known to be sensitive to human activities). However, sites with existing resource conflicts, such as wilderness designations, are definitively precluded from development. *See supra* note 76 and accompanying text. R R

ing the site-selection step of the process.[89] In fact, the Record of Decision does not contain a BMP, or any other requirement, that would preclude development unless the area has already been designated for protection.[90]

In sum, the BLM's policy leaves the door open for development of every economically viable site that is not already precluded from development. While the BLM's figures do not indicate that a large percentage of total BLM lands will be developed in the next twenty years,[91] it is likely that developers will propose placing wind farms on more than 100,000 acres of public lands in the next twenty years.[92] At least a few of the wind-energy developments are likely to be proposed in areas where environmental damage could be considerable given the potentially significant impacts of wind-energy development. The BMPs attempt to offset any damage exclusively with on-site mitigation and ignore rejecting a site altogether. Consequently, some projects are likely to engender significant opposition if the BLM does not impose additional restrictions.

2. *The Potential for Off-Site Mitigation to Offset Unavoidable Impacts*

While the BLM has made an effort to establish on-site BMPs that limit environmental harm,[93] on-site measures are unlikely to

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[89] *See, e.g.*, 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 2-12 ("The BLM will prohibit the disturbance of any population of federal listed plant species. . . . Turbines shall be configured to avoid landscape features known to attract raptors, if site studies show that placing turbines there would pose a significant risk to raptors."). R

[90] Only one BMP really seems to limit the possible use of a site altogether based on environmental impacts: "Meteorological towers shall not be located in sensitive habitats or in areas where ecological resources known to be sensitive to human activities (e.g., prairie grouse) are present." *See* BUREAU OF LAND MGMT., RECORD OF DECISION, *supra* note 11, at A-6. If meteorological towers cannot be placed on a site, wind-energy development will not occur at the site because the project would never get past the testing phase. However, the BLM and project proponents could read even this BMP as merely restricting where the meteorological tower is placed at a given site. The other BMPs focus exclusively on ways to minimize the environmental impacts once a site is selected because they focus on plans of development preparation, construction, operation, and decommissioning, all of which ignore actual site selection. *See id.* at A-6 to -20. R

[91] *See supra* text accompanying notes 81-82. R

[92] *See supra* text accompanying note 82. R

[93] *See* 1 BUREAU OF LAND MGMT., FEDERAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-65 to -66 (discussing several ways to "minimize," not eliminate, direct avian mortalities). R

completely mitigate environmental harm.[94] The BLM may be able to compensate for the unavoidable ecological impacts with off-site mitigation. Indeed, the Washington Department of Fish and Wildlife recommends that permitting agencies in the state require off-site mitigation for all land in the state through a set of guidelines.[95] The California Energy Commission has also suggested off-site mitigation as a means to offset the impacts at Altamont.[96] Environmental groups concerned about Altamont's avian mortality levels approved of off-site mitigation to offset the impacts at Altamont, indicating off-site mitigation may decrease the controversy over using public lands for wind-energy development.[97]

The BLM has also considered off-site mitigation with regard to sage-grouse management. According to the PEIS, off-site mitigation could "offset unavoidable sage-grouse habitat alteration

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[94] *See* Wally Erickson, *Bird Fatality and Risk at New Generation Wind Projects*, PROC. OF THE WIND ENERGY & BIRDS/BATS WORKSHOP 29, 29-30 (2004), http://www.awea.org/pubs/documents/WEBBProceedings9.14.04[Final].pdf (indicating that even wind turbines with the most advanced designs will cause avian mortality). *See also supra* notes 47-49, 71-74 and accompanying text (discussing the subtle, but generally unavoidable, impacts on habitat). R

[95] WASH. DEP'T OF FISH & WILDLIFE, WIND POWER GUIDELINES 5-10 (2003), *available at* http://wdfw.wa.gov/hab/engineer/windpower/wind_power_guidelines.pdf. Washington's guidelines would require mitigation by acquiring or protecting replacement habitat whenever an area with habitat value would be impacted. *Id.* at 5-6. If a wind farm would only impact low-value habitat or cropland, Washington's guidelines would not require off-site mitigation. *Id.*; *see also* Letter from Jeff P. Koenings, Dir., Wash. Dep't of Fish & Wildlife (Aug. 23, 2003), *available at* http://wdfw.wa.gov/hab/engineer/windpower/wind_power_dir_ltr.pdf ("[T]he Department has developed Wind Power Guidelines that achieve ways to reconcile support for renewable wind power projects with the need to protect wildlife and the State's habitat."); Wash. Dep't of Fish & Wildlife, *Wind Power and Wildlife*, FISH & WILDLIFE SCI., Sept. 2004, http://wdfw.wa.gov/science/articles/windpower/ (providing additional background on the guidelines and indicating that they are not mandatory).

[96] At least two reports commissioned by the California Energy Commission have recommended off-site, compensatory mitigation of unavoidable impacts caused by Altamont. SHAWN SMALLWOOD & LINDA SPIEGEL, CAL. ENERGY COMM'N, ASSESSMENT TO SUPPORT AS ADAPTIVE MANAGEMENT PLAN FOR THE APWRA 2 (2005), *available at* http://www.sw-center.org/swcbd/programs/bdes/altamont/CEC -assessment-mitigation-plan.pdf; *see also* K. SHAWN SMALLWOOD & CARL G. THELANDER, DEVELOPING METHODS TO REDUCE BIRD MORTALITY IN THE ALTAMONT PASS WIND RESOURCE AREA 347 (2004), *available at* http://www.energy.ca.gov/reports/500-04-052/2004-08-09_500-04-052.PDF (recommending purchase of off-site conservation easements as mitigation).

[97] Press Release, Ctr. for Biological Diversity et al., *supra* note 59 (noting that in a lawsuit, several environmental groups, including the Center for Biological Diversity, requested off-site compensation as a remedy for Altamont's ongoing bird kills). R

and reduction."[98] In order to preserve the remaining sage-grouse habitat, the BLM has indicated that it intends to "[e]xplore the use of conservation easements and the acquisition (through purchase, donation or exchange) of valuable sagebrush habitat [not managed by the BLM], to maintain, replace or increase habitat."[99] Thus, the BLM has already contemplated acquiring non-BLM lands to protect sage grouse through an off-site mitigation program. The BLM Sage Grouse Guidance explains a potential off-site mitigation program as follows:

> Mitigation actions should be considered in the following priority: 1) replacing habitats with similar habitats (in-kind/off-site mitigation), and 2) replacing habitats with other appropriate habitats, when similar habitats are not available (out-of-kind/off-site mitigation). Mitigation should occur within or adjacent to occupied or restored habitats. Off-site mitigation should eliminate, reduce, or directly alleviate impacts to sage-grouse habitat.[100]

One way the BLM could administer an off-site mitigation program is to assess developers a mitigation fee that could be used by resource specialists to locate and protect non-BLM sagebrush habitat. The BLM controls half of the remaining sagebrush habitat suitable for sage grouse.[101] By corollary, fifty percent of the remaining habitat is controlled by private parties or other federal or state agencies. Much of the viable habitat remaining on non-BLM sagebrush lands could be purchased with mitigation fees to offset the impacts of wind-energy development. If these purchases were made by an organized central body they could achieve substantial, comprehensive conservation benefits. The Washington Department of Fish and Wildlife adopted a fee-based mitigation alternative because it "can greatly improve the habitat value per mitigation dollar as well as provide a more streamlined and efficient mitigation process for applicants."[102]

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[98] 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 5-74. **R**

[99] BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*, *supra* note 62, at 14. **R**

[100] *Id.* at 15.

[101] *See supra* text accompanying note 66. **R**

[102] WASH. DEP'T OF FISH & WILDLIFE, *supra* note 95, at 9. Under Washington's program, applicants could select to off-set habitat impacts either by acquiring replacement habitat or by paying a mitigation fee for purchase of replacement habitats. *Id.* at 5-10. **R**

With regard to determining the proper fees, one study commissioned by the California Energy Commission provided precise formulas to calculate the proper amount of mitigation fees to offset direct avian-mortality impacts.[103] Additionally, Washington State's mitigation-fee guidelines developed a way to assess fees based on the value of habitat lost and the cost of replacement habitat.[104] For proposed wind-energy sites where there is no impact to sagebrush habitat (e.g., areas already vegetated with invasive grasses) the fees could be used to purchase or protect additional non-BLM sagebrush lands, providing a net increase in sagebrush habitat.

Mitigation fees also could be used to protect other ecological values. A mitigation-fee system could thus be adapted to protect many relevant environmental values, and significantly decrease opposition to using BLM lands for wind energy.

3. The BLM's Current Approach to Off-Site Mitigation of Unavoidable Impacts

While the BLM has recognized the potential usefulness of off-site mitigation, the Agency has demonstrated a disinterest in requiring off-site mitigation of wind-energy developers. The BLM has indicated that its authority to require off-site mitigation to compensate for the effects of any type of project is limited.[105] In Instruction Memo 2005-069 (BLM Off-Site Mitigation Guidance), a memorandum to state directors and field managers, the BLM Director outlined the Agency's general policy of not requiring off-site mitigation in exchange for granting any right-of-way for access to BLM land to develop energy resources.[106] Access covered by the BLM Off-Site Mitigation Guidance includes access to develop oil and gas resources, geothermal energy, wind

[103] SMALLWOOD & SPIEGEL, *supra* note 96, at 13-15. R

[104] WASH. DEP'T OF FISH & WILDLIFE, *supra* note 95, at 9-10. R

[105] BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*, *supra* note 62, at 15 ("BLM's authority to require off-site mitigation is limited. However, mitigation on a case-by-case basis may be implemented or negotiated with willing project proponents."). R

[106] Bureau of Land Mgmt., Dep't of the Interior, Instruction Memorandum No. 2005-069 from Director, Bureau of Land Mgmt. to All State Directors and Field Managers 2 (Feb. 1, 2005) *reprinted in* BUREAU OF LAND MGMT., COTTEREL DRAFT ENVIRONMENTAL IMPACT STATEMENT, *supra* note 5, at app. E [hereinafter Bureau of Land Mgmt., Instruction Memorandum No. 2005-069]. An electronic, non-paginated copy of Instruction Memorandum 2005-069 is available at http://www.blm.gov/nhp/efoia/wo/fy05/im2005-069.htm. R

energy, solar energy, as well as any authorization to place transmission lines on BLM lands.[107] In accordance with the BLM's general policy for all energy right-of-way authorizations, the PEIS and the Record of Decision adopt the BLM Off-Site Mitigation Guidance's general policy against requiring off-site mitigation.[108] Although the BLM Off-Site Mitigation Guidance itself expired on September 30, 2006,[109] the BLM has effectively adopted the document's policy against requiring off-site mitigation into the wind-energy development program.

More specifically, the BLM's off-site mitigation policy for energy rights-of-way requires off-site mitigation of environmental harm only if the applicant volunteers to do so.[110] The policy provides that "[t]he BLM may identify other offsite mitigation opportunities to address impacts of the project proposal, but is not to carry them forward for detailed analysis unless volunteered by the applicant."[111] The BLM states that it has no intention of creating a complex, compensatory-mitigation scheme analogous to that of the U.S. Army Corps of Engineers' wetlands-mitigation program when applicants do volunteer off-site mitigation.[112] Rather, the BLM would prefer to require only on-site mitigation for all energy rights-of-way authorizations, including wind energy. This position is consistent with an executive order by President Bush, which ordered executive agencies to "expedite projects that will increase the production, transmission, or conservation of energy."[113]

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[107] *Id.*

[108] *See* BUREAU OF LAND MGMT., RECORD OF DECISION, *supra* note 11, at A-4 to -5 (citing Instruction Memorandum No. 2005-069 as stating the authoritative policy on off-site mitigation); *see also* 1 BUREAU OF LAND MGMT., FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 10, at 3-35 (same). **R**

[109] Bureau of Land Mgmt., Instruction Memorandum No. 2005-069, *supra* note 106, at 1. **R**

[110] *See id.* at 2. ("The BLM will approach compensatory mitigation on an 'as appropriate' basis where it can be performed onsite and on a voluntary basis where it is performed offsite.").

[111] *Id.* at 3.

[112] Bureau of Land Mgmt., Frequently Asked Questions Regarding Compensatory Mitigation 3, http://www.blm.gov/nhp/efoia/wo/fy05/im2005-069attach3.pdf (last visited Nov. 27, 2006). For more information on the wetlands mitigation program administered by the Corps of Engineers, see *infra* notes 248-50 and accompanying text. **R**

[113] Exec. Order No. 13,212, 66 Fed. Reg. 28,357 (May 18, 2001). The Record of Decision references Executive Order 13,212 as one of the bases for implementation of the BLM's wind-energy policies. BUREAU OF LAND MGMT., RECORD OF DECI-

Despite the BLM's general rule, the BLM Off-Site Mitigation Guidance confusingly leaves room for exceptions. For example, the document states:

> While the voluntary application of offsite mitigation is the general rule, there are circumstances where negotiation would be appropriate. In cases where one or more applicants in a specific geographic location have volunteered to perform off-site mitigation, it could be appropriate for other applicants in the same area to apply the same or similar offsite mitigation.[114]

In the event that an applicant does volunteer off-site mitigation efforts, the BLM would consider the possibility of collecting fees to contribute to a larger mitigation effort.[115] Thus, while there may be exceptions to the general rule, the BLM seems reluctant to require a developer to provide involuntary off-site mitigation.

The BLM's voluntary off-site mitigation policy may be inappropriate in the wind-energy field. At least one recent wind-energy developer has volunteered to pay a percentage of its revenues toward off-site mitigation.[116] It may be appropriate to

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SION, *supra* note 11, at 5. However, the executive order does not specifically address off-site mitigation. **R**

[114] Bureau of Land Mgmt., Instruction Memorandum No. 2005-069, *supra* note 106, at 5. The BLM also recognizes that its general policy of voluntary off-site mitigation may be limited by statute. *See id.* at 3 ("Offsite mitigation that has resulted from a formal Section 7 [of the Endangered Species Act] or Section 106 [of the National Historic Preservation Act] consultation is not affected by this IM."). **R**

[115] The BLM Off-Site Mitigation Guidance lays out fairly detailed guidelines for how mitigation fees could be used to offset impacts:

> In some circumstances, BLM may accept volunteered monies to pay for a larger effort to mitigate the impact of multiple actions when it is infeasible to require individual applicants to manage specific mitigation efforts. Such monies are to be used for on-the-ground projects. In order to qualify as offsite mitigation, the funds collected must be identified for specific types of mitigation projects and either the BLM or other parties may be identified as responsible for implementation of the project(s). However, it is not BLM policy to waive or forego onsite mitigation of impacts through payment of monies.

Id. at 4. If such fees were required, substantial conservation efforts could be undertaken to offset the impacts of large scale development programs. *See supra* text accompanying notes 107-11. **R**

[116] *See* Letter from Roald Doskeland, Pres., Windland, Inc. to Wendy Reynolds, Field Office Manager, Bureau of Land Mgmt. (Apr. 27, 2005) *reprinted in* BUREAU OF LAND MGMT., COTTEREL DRAFT ENVIRONMENTAL IMPACT STATEMENT, *supra* note 5, at app. F [hereinafter Letter from Roald Dosekland to Wendy Reynolds] (volunteering to provide funding for off-site mitigation); *see also* BUREAU OF LAND MGMT., COTTEREL DRAFT ENVIRONMENTAL IMPACT STATEMENT, *supra* note 5, at **R** **R**

level the playing field by requiring off-site mitigation of all wind-energy developments on BLM lands. However, the BLM may be concerned that by requiring off-site mitigation in the wind-energy context, it may be forced to also require off-site mitigation in the oil and gas context, where applicants may be less willing to provide it.

In the BLM Off-Site Mitigation Guidance and its programmatic wind-energy policy, the Agency avoids such difficult policy questions by taking the position that it has very little authority to require off-site mitigation.[117] The BLM provides little explanation for its conclusion because it merely cites one provision of the Federal Land Policy and Management Act (FLPMA)[118] that would apply to wind-energy projects.[119] However, the voluntary off-site mitigation policy is consistent with the relatively unrestrictive on-site BMPs adopted in the Record of Decision, which do not appear to preclude development of environmentally sensitive sites.[120] Both the unrestrictive on-site BMPs and the policy of not requiring off-site mitigation imply that, as a general policy, the BLM does not intend to impose onerous environmental regulations, and may fail to adequately protect against environmental harm.

Ultimately, the BLM's voluntary off-site mitigation policy and its on-site BMPs beg the question of whether FLPMA prohibits the Agency from authorizing a wind-energy development that

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2-33 to -36 (discussing the potential use Windland's voluntary funds). Windland has volunteered to provide the BLM with one-half of one percent of its gross revenue from electricity sales to fund monitoring, adaptive management, and perhaps off-site compensatory mitigation of the projects' impacts. Letter from Roald Dosekland to Wendy Reynolds, *supra*. This amount would be in addition to the royalty fees paid by the applicant. For a 200-megawatt project, the size of the proposed project, approximately $150,000 would be donated annually to the off-site mitigation fund. *Id.* Allocation of the funds among off-site mitigation activities may be determined by a technical steering committee. BUREAU OF LAND MGMT., COTTEREL DRAFT ENVIRONMENTAL IMPACT STATEMENT, *supra* note 5, at 2-36. **R**

117 *See, e.g.*, BUREAU OF LAND MGMT., *Guidance for the Management of Sagebrush Plant Communities*, *supra* note 62, at 15 ("BLM's authority to require off-site mitigation is limited."). **R**

118 Federal Land Policy and Management Act of 1976, 43 U.S.C. §§ 1701-1782 (2006).

119 Bureau of Land Mgmt., Instruction Memorandum No. 2005-069, *supra* note 106, at 1 (citing section 302(b) of FLPMA, 43 U.S.C. §1732(b), as providing authority to require mitigation but not citing any legal reasoning for the BLM's perceived lack of authority to require off-site mitigation). **R**

120 For an overview of the relatively permissive BMPs, see *supra* notes 88-90 and accompanying text. **R**

exceeds a certain threshold of environmental harm. If so, an applicant whose project exceeds that threshold, even after incorporating the on-site BMPs adopted by the Record of Decision, would have two choices. First, the applicant could "volunteer" to incorporate off-site mitigation measures to bring the environmental harm below the legal threshold. Alternatively, the applicant may not volunteer off-site mitigation, in which case the BLM must reject the project because it exceeds the threshold of environmental harm. In such a circumstance the BLM's voluntary off-site mitigation policy is far from voluntary because off-site mitigation may be necessary for the approval of certain projects. Thus, the key to understanding the true requirements on wind-energy developers seeking to use BLM lands is to determine if FLPMA prohibits environmental harm beyond a threshold level and, if so, what level of harm is prohibited by that threshold.

II

REGULATING WIND-ENERGY DEVELOPMENT IN COMPLIANCE WITH THE FEDERAL LAND POLICY AND MANAGEMENT ACT

A. Federal Land Policy and Management Act Provisions Requiring Regulation of Wind-Energy Development

FLPMA was passed to prevent the destruction of public lands.[121] Two provisions of FLPMA could substantially affect the regulation of wind-energy developments to protect natural resources. The first provides that the "Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."[122] The second requirement is that each grant of a right-of-way over public lands "shall contain . . . terms and conditions which will . . . minimize damage to scenic and esthetic values and fish and wildlife habitat and otherwise protect the environment."[123] These provisions could impose a threshold level of environmental harm beyond which the BLM must either deny a proposal or condition ap-

[121] *See* Roger Flynn, *Daybreak on the Land: The Coming of Age of the Federal Land Policy Management Act of 1976*, 29 VT. L. REV. 815, 816-19 (2005) (providing a brief overview of the impetus behind, and legislative history and purpose of, FLPMA).

[122] 43 U.S.C. § 1732(b) (2006).

[123] *Id.* § 1765(a)(ii).

proval of the proposal on mitigation measures that effectively lower the level of harm below the threshold.[124] When on-site mitigation measures cannot adequately decrease harm to an acceptable level, these FLPMA provisions may require approval of a project to be conditioned on off-site mitigation.

1. The Unnecessary or Undue Degradation Standard

FLPMA requires the BLM to "take any action necessary to prevent unnecessary or undue degradation" to federal lands (UUD standard).[125] Unlike the requirements of the Endangered Species Act (ESA),[126] this requirement applies to all projects that may degrade public lands, not just those that may affect endangered species.[127] Additionally, unlike the requirements of the National Environmental Policy Act (NEPA),[128] which merely requires a candid analysis of the environmental impacts of a proposed project,[129] the UUD standard actually requires prevention of the degradation. Thus, the UUD standard has the potential to either prevent a substantial number of development proposals or require approval to be conditioned on significant mitigation measures.

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124 The BLM's Off-Site Mitigation Guidance also cites a provision of the Mineral Leasing Act, 30 U.S.C. § 226(g), as a potential grant of authority to condition approval of energy rights-of-way on mitigation plans. Instruction Memorandum No. 2005-069, *supra* note 106, at 1. However, that provision is inapplicable to wind-energy developments because the Mineral Leasing Act only pertains to leases of federal lands for the production of oil and gas deposits. 30 U.S.C. § 226(a) (2006). Consequently, analysis of the Mineral Leasing Act, which may authorize or require mitigation measures in other energy right-of-way authorizations, is beyond the scope of this Comment. R

125 43 U.S.C. § 1732(b).

126 Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (2006).

127 *Compare* 43 U.S.C. § 1732(b) (applying the UUD standard to all actions the Secretary takes "[i]n managing the public lands"), *and* 16 U.S.C. § 1533 (providing for the designation of a species as "threatened" or "endangered"), *and* 16 U.S.C. § 1536 (requiring consultation between government agencies to prevent habitat degradation only if a listed species may be affected), *and* 16 U.S.C. § 1532(19) (extending the ESA's prohibition of takings only to listed species), *and* 16 U.S.C. § 1538 (prohibiting the import, export, or maritime capture of, and foreign or interstate commerce in, listed species).

128 National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347 (2006).

129 *See, e.g.,* Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 228 (1980) ("In the present litigation there is no doubt that [the Department of Housing and Urban Development] considered the environmental consequences of its decision to redesignate the proposed site for low-income housing. NEPA requires no more.").

However, the vague UUD standard itself, undefined in FLPMA, hardly indicates how much degradation is "undue" or "unnecessary."[130] While FLPMA's legislative history generally indicates that Congress intended to protect the public lands from degradation,[131] there is no clarification of the UUD standard itself. The term "unnecessary" implies a restriction on activities that are not necessary to carry forth the particular activity at issue.[132] For example, it is necessary to build a road to an oil rig if that is the only way to use and maintain the oil rig. However, the term "undue" implies a restriction on any activity that would cause a certain level of undue impact, regardless of how necessary it may be to conduct the activity at issue.[133] To prevent undue degradation, the BLM may have to deny or condition approval of the proposal to build the road to the oil rig even if any similarly situated oil developer would consider the road a necessary element of the development. Thus, the term "unnecessary" focuses on the activity being regulated and mandates that the BLM impose an industry standard of damage for each given activity conducted on public land. Once the industry standard of damage is exceeded, the BLM must reject or condition the proposal because of its unnecessary damage.[134] In sharp contrast, the term "undue" focuses objectively on the environment.

130 *See* Roger Flynn & Jeffrey Parsons, *The Right to Say No: Federal Authority over Hardrock Mining on Public Lands*, 16 J. ENVTL. L. & LITIG. 249, 281 (2001) ("The BLM's duty to prevent unnecessary or undue degradation under FLPMA § 302 has not received close scrutiny or much clarification by the courts and has rarely been litigated.").

131 *See id.* at 282 (quoting 122 Cong. Rec. S1232 (daily ed. Jan. 30, 1975) (statement of Sen. Haskell), *reprinted in* S. COMM. ON ENERGY AND NATURAL RESOURCES, LEGISLATIVE HISTORY OF THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976, at 54 (1978)); S. REP. NO. 94-583, at 35 (1975), *reprinted in* S. COMM. ON ENERGY AND NATURAL RESOURCES, LEGISLATIVE HISTORY OF THE FEDERAL LAND POLICY AND MANAGEMENT ACT OF 1976, at 100 (1978).

132 *See* Utah v. Andrus, 486 F. Supp. 995, 1005 n.13 (D. Utah 1979) (noting that a "reasonable interpretation of the word 'unnecessary' is that which is not necessary for mining").

133 *See* Flynn & Parsons, *supra* note 130, at 285 (discussing the implications of the terms "unnecessary" and "undue"); *see also Utah*, 486 F. Supp. at 1005 n.13 (explaining that "undue" means "that which is excessive, improper, immoderate or unwarranted"). R

134 *See* Flynn & Parsons, *supra* note 130, at 284-85 (discussing the regulatory implications of FLPMA's language); *see also* Michael Graf, *Application of Takings Law to the Regulation of Unpatented Mining Claims*, 24 ECOLOGY L.Q. 57, 107-08 (1997) (noting that even normal mining operations may cause undue degradation, triggering stricter regulation). R

Therefore, the BLM must either reject or impose conditions on any proposed use of public land that exceeds a level of damage that is "undue."[135] FLPMA provides no further indication of what level of environmental damage exceeds the threshold level of undue damage.

Also significant, the UUD standard uses the disjunctive word "or" to require prevention of degradation that is either unnecessary *or* undue.[136] Since the disjunctive "or" separates these two terms, a logical reading indicates that the BLM must prevent degradation that is either unnecessary or undue, requiring it to look objectively at environmental impacts for each proposed development.[137] FLPMA's legislative history confirms the proposition that the term "or" requires prevention of degradation that is either unnecessary for the activity proposed or that causes an objectively undue level of degradation to public resources.[138] Since prevention of unnecessary degradation merely imposes an industry standard upon developers, the requirement to prevent objectively undue degradation imposes a more restrictive limitation on uses of public land. The use of "or" increases the level of environmental protection provided by the UUD standard because it establishes the possibility of rejecting proposed uses, even if all economically feasible measures and industry standards are incorporated.

With the vague term "undue" being critical to understanding the requirements of the UUD standard, further regulatory clarification is crucial. However, the BLM's understanding of the UUD standard has been a moving target in recent years. The

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[135] *See* Flynn & Parsons, *supra* note 130, at 285 (discussing 1999 Department of the Interior Solicitor memorandum that argues that Congress has authorized the BLM to prevent both unnecessary and undue degradation). *Cf. id.* at 264 (quoting Clouser v. Madigan, 1992 WL 694368, at *4 (D. Or. 1992), *aff'd sub nom*. Clouser v. Espy, 42 F.3d 1522 (9th Cir. 1994) (explaining that the Forest Service's organic statute obligates the agency to ensure that approval of projects and plans does not effect the destruction and degradation of public forests)). **R**

[136] 43 U.S.C. § 1732(b) (2006) (emphasis added).

[137] *See* Flynn & Parsons, *supra* note 130, at 285 (concluding that this is likely the accurate interpretation of the statute and citing a memorandum from the Interior Department Solicitor concurring with this reading). **R**

[138] *Id.* at 284-85. A bill introduced in the 105th Congress and backed by mining interests would have changed the disjunctive term "or" to the term "and" in order to eliminate the requirement to prevent "undue" degradation. *Id.* The fact that the mining industry attempted to remove the term "or" strongly supports the interpretation that the term "or" makes the standard more restrictive of mining activities, and hence more protective of the environment. *Id.*

BLM clarified the requirement that it prevent "unnecessary or undue degradation" in regulations for hard-rock mining[139] and for authorizing rights-of-way across public lands for a multitude of uses.[140] These regulatory definitions have changed dramatically since FLPMA's enactment, further clouding the requirements of the UUD standard.

a. The Old Regulatory Definitions

In 1980, the BLM promulgated regulations for hard-rock mining, which clarified the UUD standard.[141] In 1989, the BLM promulgated regulations that clarified the UUD standard for authorizing right-of-way permits over BLM lands.[142] Both of these regulatory definitions allowed the BLM to authorize proposals on BLM lands regardless of the objective environmental impact to that land, effectively eliminating the statutory requirement to prevent undue degradation.[143]

(i) The UUD Standard in Hard-Rock Mining Regulations

The hard-rock mining regulations set up a framework for approving a plan of operations for mining proposals on more than five acres of land,[144] which included application of the UUD standard to those mining proposals.[145] However, the 1980 regulations took a limited view of what FLPMA's UUD standard required:

> Unnecessary or undue degradation means *surface disturbance greater than what would normally result when an activity is being accomplished by a prudent operator in usual, customary, and proficient operations of similar character* and taking into consideration the effects of operations on other resources and land uses, including those resources and uses outside the area

139 Mining Claims Under the General Mining Laws, 65 Fed. Reg. 69,998, 70,001 (Nov. 21, 2000).

140 Rights-of-Way Under the Federal Land Policy and Management Act and the Mineral Leasing Act, 70 Fed. Reg. 20,970, 20,979 (Apr. 22, 2005).

141 *See* 43 C.F.R. § 3809.0-5(k) (1980) (unnecessary or undue degradation). The same definition was being used in 2000. *See, e.g.*, 43 C.F.R. § 3809.0-5(k) (2000).

142 Amendment to Provide Procedures for Action on Unauthorized Use, Occupancy, or Development of Public Lands for Transportation, 54 Fed. Reg. 25,854 (June 20, 1989).

143 43 U.S.C. § 1732(b) (2006).

144 43 C.F.R. § 3809.1-4 (1981).

145 *Id.* § 3809.0-1; *see also* Flynn & Parsons, *supra* note 130, at 258 (explaining that the regulations implement the UUD standard through approval or denial of a plan of operations submitted by parties interested in mining). R

> of operations. Failure to initiate and complete reasonable mitigation measures, including reclamation of disturbed areas or creation of a nuisance may constitute unnecessary or undue degradation. Failure to comply with applicable environmental protection statutes and regulations thereunder will constitute unnecessary or undue degradation.[146]

This definition of the UUD standard focused almost exclusively on what activities are necessary to mine, not on the impact of mining on the environment. Instead of relying on the impact of the mining project to environmental and resource values, the 1980 regulations merely required miners to act as a "prudent operator" would and comply with other environmental laws.[147] Consequently, the regulation is commonly said to have established the "prudent operator standard."[148] This regulatory definition completely ignored the requirement for prevention of undue degradation. Essentially, the 1980 hard-rock mining definition of the UUD standard made it difficult to deny a mining proposal or even restrict its impacts to public lands beyond the industry standard for environmental protection.

In 2000, the Clinton administration's Department of the Interior, led by Bruce Babbitt, attempted to account for objective environmental harm in the UUD standard. This sudden change in policy was a result of the Interior Department's recognition that the UUD standard may require the BLM to consider both undue and unnecessary degradation.[149] As a result, the definition of the UUD standard in the hard-rock mining regulations

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146 43 C.F.R. § 3809.0-5(k) (1981) (emphasis added). This definition of "unnecessary and undue degradation" was initially promulgated in 1980. *See* Surface Management of Public Lands Under U.S. Mining Laws, 45 Fed. Reg. 78,902, 78,910 (Nov. 26, 1980) (to be codified at 43 C.F.R. pt. 3800) (defining "unnecessary or undue degradation"). The term "unnecessary or undue degradation" was also defined in the hard-rock mining regulations governing mining in wilderness areas on March 3, 1980. *See* Wilderness Review Program, 45 Fed. Reg. 13,968 (Mar. 3, 1980) (promulgating regulations to prevent "unnecessary or undue degradation"). That definition contained a similar focus on preventing mining activities only if they would not "normally be expected." *Id.* at 13,975.

147 43 C.F.R. § 3809.0-5(k) (1981).

148 *See* Mineral Policy Ctr. v. Norton, 292 F. Supp. 2d 30, 34-35 (D.D.C. 2003) (discussing the BLM's historical rulemaking with regard to the UUD standard).

149 *See* Flynn & Parsons, *supra* note 130, at 285 (citing Memorandum from John Leshy, Solicitor, U.S. Dep't of the Interior to Acting Director, Bureau of Land Mgmt. (Dec. 27, 1999) (recognizing that the BLM may be "obliged" to ensure prevention of undue degradation in addition to focusing on customary industry practices)). R

was amended in 2000.[150] Unlike the 1980 regulations, the 2000 regulations did not ignore undue degradation caused by mining activities. Instead the 2000 regulations established the UUD standard as preventing "conditions, activities, or practices that . . . result in substantial irreparable harm to significant scientific, cultural, or environmental resource values of the public lands that cannot be effectively mitigated."[151] Presumably, this required the BLM to deny uses altogether if they would cause "substantial irreparable harm" that could not be mitigated.

This UUD standard, commonly referred to as the "substantial irreparable harm" standard,[152] clearly sought to prevent undue degradation, even if such degradation was necessary in order to mine.[153] The BLM justified defining the UUD standard as such by indicating that the 2000 definition was more consistent with the statutory language.[154] Also significant, the 2000 regulation envisioned requiring undue impacts be "mitigated" in order to comply with the UUD standard.[155] The definition of "mitigation" mirrored the definition in regulations promulgated by the Council on Environmental Quality (CEQ) for NEPA,[156] and included "[c]ompensating for the impact by replacing, or providing substitute, resources or environments."[157] However, while acknowledging that off-site mitigation is "clearly an available form of mitigation," the BLM only planned on requiring compensa-

150 Surface Management, 65 Fed. Reg. 69,998 (Nov. 21, 2000).

151 43 C.F.R. § 3809.5 (2001).

152 *See Mineral Policy Ctr.*, 292 F. Supp. 2d at 35 (noting this connotation of the 2000 UUD standard).

153 However, the substantial-irreparable-harm standard was somewhat constricted in the rule's explanation, which indicated the UUD standard would only provide for denial of a plan of operations "in exceptional circumstances." *See* Flynn & Parsons, *supra* note 130, at 287 (quoting Surface Management, 65 Fed. Reg. at 70,048). This may be an over-qualification of the UUD standard since FLPMA does not mention limiting the application of the UUD standard to exceptional circumstances. *Id.* R

154 The explanation of the 2000 regulation states: "Clarifying that the definition specifically addresses situations of 'undue' as well as 'unnecessary' degradation will more completely and faithfully implement the statutory standard, by protecting significant resource values of the public lands without presuming that impacts necessary to mining must be allowed to occur." Surface Management, 65 Fed. Reg. at 70,001.

155 The BLM stated, "Mitigation measures fall squarely within the actions the Secretary can direct to prevent undue or unnecessary degradation of the public lands. An impact that can be mitigated, but is not, is unnecessary." *Id.* at 70,012; *see also id.* at 70,114 (describing mitigation options).

156 *Id.* at 70,012; *see also* 40 C.F.R. § 1508.20 (2006) (providing the CEQ definition of mitigation).

157 43 C.F.R. § 3809.5; Surface Management, 65 Fed. Reg. at 70,114.

tory mitigation if it could be conducted on-site.[158] Off-site mitigation would be incorporated into a plan of operations only if volunteered by the miner.[159] Despite the fact that the CEQ regulations make no distinctions between on-site and off-site mitigation measures,[160] the BLM made no effort to explain its reasoning for making off-site mitigation voluntary.[161] Thus, the 2000 regulations envisioned that the BLM may use off-site mitigation to bring a proposed plan of operations into compliance with the UUD standard.[162]

The substantial-irreparable-harm standard in the 2000 regulations was short-lived. After several lawsuits challenged its validity, the new Bush administration stayed enforcement of the regulations and began promulgating their replacement.[163] In 2001, the BLM promulgated a new UUD standard perhaps even less stringent than the prudent-operator standard:

> *Unnecessary or undue degradation* means conditions, activities, or practices that:
>
> (1) Fail to comply with one or more of the following: the performance standards in [43 C.F.R.] § 3809.420, the terms and conditions of an approved plan of operations, operations described in a complete notice, and other Federal and state laws related to environmental protection and protection of cultural resources;
>
> (2) *Are not "reasonably incident"* to prospecting, mining, or processing operations as defined in [43 C.F.R.] § 3715.0-5 . . . or

158 Surface Management, 65 Fed. Reg. at 70,012.

159 *Id.*

160 *See* 40 C.F.R. § 1508.20 (making no distinction between on-site and off-site mitigation).

161 *See* Surface Management, 65 Fed. Reg. at 70,012 (providing no explanation for the decision to adopt mandatory on-site mitigation and voluntary off-site mitigation). Several comments on the proposed rule argued that the UUD standard does not authorize the BLM to impose compensatory, off-site mitigation requirements. *Id.* The preamble certainly implied that this reading of the UUD standard was incorrect by indicating that mitigation could include off-site mitigation measures. *Id.* Additionally, in certain circumstances where on-site mitigation measures do not adequately mitigate the "substantial irreparable harm," a miner may have to "volunteer" off-site mitigation to get a plan of operations approved. As such, the off-site mitigation is hardly voluntary.

162 It is probably debatable whether off-site mitigation can legally bring a plan of operations for a large, open-pit mine into compliance with the UUD standard. *See* Flynn & Parsons, *supra* note 130, at 286 (arguing that "off-site mitigation contradicts and undermines FLPMA's requirement to prevent unnecessary and undue degradation"). R

163 *Id.* at 279-80.

> (3) Fail to attain a stated level of protection or reclamation required by specific laws in areas such as the California Desert Conservation Area, Wild and Scenic Rivers, BLM-administered portions of the National Wilderness System, and BLM-administered National Monuments and National Conservation Areas.[164]

In turn, the performance standards in 43 C.F.R. § 3809.420 provided uniform methods to limit the impact of mining activities and reclaim the site, and other requirements that the BLM may impose on individual projects, including mitigation.[165] The definition of mitigation remained the same as in the CEQ regulations and the prior subpart 3809 regulations.[166]

This new definition of the UUD standard was an abrupt departure from the BLM's strict substantial-irreparable-harm standard and was the result of the Bush administration's fundamentally different view of the UUD standard. The final rule was accompanied by a memorandum by Solicitor William G. Meyers III to Secretary of the Interior Gail Norton. In Solicitor Meyers' opinion, the UUD standard did not allow the BLM to prevent undue degradation when such degradation was necessary to mine.[167] In addition to reliance upon Solicitor Meyers' legal interpretations, the BLM later reasoned in court that the substantial-irreparable-harm standard had to be replaced because it would decrease mining operations on public lands by ten percent to thirty percent.[168] Ultimately, the BLM decided "implementation and enforcement [of the substantial-irreparable-harm standard] would be difficult and potentially subjective, as well as expensive for both BLM and the industry."[169] The BLM thought that the resources protected by the substantial irreparable-harm standard could be protected by "other means."[170] Thus, in promulgating the 2001

164 43 C.F.R. § 3809.5 (2002) (second emphasis added); *see also* Surface Management, 66 Fed. Reg. 54,834, 54,837-38 (Oct. 30, 2001) (stating justifications for replacing the prudent-operator standard).

165 43 C.F.R. § 3809.420(4) (2002).

166 *Compare* 40 C.F.R. § 1508.20 (2001) (defining mitigation), *and* 43 C.F.R. § 3809.5 (2001) (same), *and* Surface Management, 65 Fed. Reg. at 70,114 (2000 regulations).

167 Flynn & Parsons, *supra* note 130, at 327-28. **R**

168 *See* Mineral Policy Ctr. v. Norton, 292 F. Supp. 2d 30, 35 (D.D.C. 2003) (citing Surface Management, 65 Fed. Reg. 69,998, 70,107 (Nov. 21, 2000)) (stating that the BLM justified abandoning the substantial-irreparable-harm standard after determining that the 2000 rule would decrease mining by ten percent to thirty percent).

169 Surface Management, 66 Fed. Reg. 54,834, 54,846 (Oct. 30, 2001).

170 *Id.* at 54,838.

UUD standard, the BLM assumed the 1980 regulation had been a legal interpretation of FLPMA and that the substantial-irreparable-harm standard had been an illegal interpretation of the BLM's authority under FLPMA.[171] However, even the Bush administration's BLM agreed that off-site, compensatory mitigation could be used to comply with the UUD standard.

Others argued that the 2001 UUD standard violated FLPMA by failing to prevent undue degradation and by assuming that there was a right to mine regardless of the environmental harm.[172] In this view, the 2001 UUD standard was simply a reincarnation of the prudent-operator standard from 1980 with somewhat more artful terminology. These disagreements over the meaning of the UUD standard were ultimately resolved in court.[173]

(ii) The UUD Standard in Right-of-Way Regulations

The BLM has also interpreted the UUD standard in its regulations governing rights-of-way over BLM lands.[174] In regulations prior to 2005, the right-of-way regulations prohibited "[a]ny use, occupancy, or development of the public lands that requires a right-of-way . . . and . . . that causes unnecessary or undue degradation. . . ."[175] Thus, while use or creation of a right-of-way in and of itself may have very minor impacts, the BLM could have used its authority to grant or deny rights-of-way to essentially grant or deny entire projects. The impact of the entire project is determinative, not the impact of the right-of-way alone. Therefore, the right-of-way regulations have the potential to restrict not only mining but any activity that uses a right-of-way over public lands.

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171 The preamble to 2001 UUD standard declined to comment on whether the substantial-irreparable-harm standard was "legally promulgated." *Id.* However, the BLM concurrently represented its belief that the substantial-irreparable-harm standard exceeded the discretion in 43 U.S.C. § 1732(b). The final rule was accompanied by a memo from Solicitor Norman G. Meyers III that indicated the substantial-irreparable-harm standard was *ultra vires* to the extent that it would preclude activities necessary to conduct a mining operation. *See supra* note 167. R

172 *See, e.g.,* Flynn & Parsons, *supra* note 130, at 327-29 (critiquing the UUD standard in the 2001 regulations). R

173 *See infra* text accompanying notes 200-11.

174 43 C.F.R. § 2800.0-5(x) (2004).

175 *Id.* § 2801.3(a). These right-of-way regulations authorized the BLM to penalize right-of-way permit holders who violated the UUD standard. *Id.* § 2801.3(a)-(b).

The right-of-way regulations have essentially mirrored the initial interpretation of the UUD standard in hard-rock mining. Like the 1980 prudent-operator standard, the old right-of-way regulations defined "unnecessary or undue degradation" in a way that read "undue degradation" out of the UUD standard:

> [S]urface disturbance greater than that which would normally result when the same or a similar activity is being accomplished by a prudent person in a usual, customary, and proficient manner that takes into consideration the effects of the activity on other resources and land uses, including those resources and uses outside the area of activity.[176]

This interpretation of the UUD standard, in relevant part, almost mirrors the 1980 prudent-operator standard in the hard-rock mining regulations.[177] Indeed, the only difference appears to be that the 1989 right-of-way UUD standard is the prudent-person standard, rather than the prudent-operator standard found in the 1980 hard-rock mining regulations.[178] While the prudent-person standard was not included in the initial promulgation of the right-of-way regulations in 1980, it was added in 1989, and mirrored the prudent-operator standard that already existed in the 1980 hard-rock mining regulations.[179]

However, unlike the 1980 hard-rock mining regulations' prudent-operator standard, the Clinton administration did not alter the prudent-person standard for granting rights-of-way.[180] Since both standards are ultimately derived from the same statutory UUD standard, it seems contradictory to amend one but not the other. Regardless, the legal challenge to the Bush administra-

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176 *Id.* § 2800.0-5(x) (emphasis added).

177 *Compare id.* (right-of-way regulations), *and* 43 C.F.R. § 3809.0-5(k) (2000) (hard-rock mining regulations).

178 *Compare* 43 C.F.R. § 2800.0-5(x) (2004) (using phrase "prudent person"), *and* 43 C.F.R. § 3809.0-5(k) (2000) (using phrase "prudent operator").

179 The phrase "unnecessary or undue degradation" was first defined in the right-of-way regulations promulgated on June 20, 1989. Amendment to Provide Procedures for Action on Unauthorized Use, Occupancy, or Development of Public Lands for Transportation and Other Purposes, 54 Fed. Reg. 25,851, 25,854 (June 20, 1989). The right-of-way regulations were initially promulgated on July 1, 1980, but neither included the term "unnecessary or undue degradation" nor its definition. *See generally* Management of Rights-of-Way and Related Facilities on Public Lands and Reimbursement of Costs, 45 Fed. Reg. 44,526 (July 1, 1980).

180 *Compare* 43 C.F.R. § 2800.0-5(x) (2000) (Clinton administration right-of-way UUD standard), *and* 43 C.F.R. § 2800.05(x) (1992) (pre-Clinton administration right-of-way UUD standard). In contrast, the Clinton administration redefined the UUD standard in the hard rock mining regulations. *See supra* text accompanying notes 149-62. **R**

tion's 2001 UUD standard in the hard-rock mining context would ultimately provide some insight into what is legally required in both the mining and right-of-way contexts because both interpreted the same statutory language.

b. Administrative Appeals Decisions

Administrative adjudications by the Department of the Interior's Board of Land Appeals also demonstrate the schizophrenic nature of the BLM's reading of the UUD standard. Some opinions state that the UUD standard gives the BLM broad authority to impose conditions on proposed projects, and some opinions imply that the BLM is required to do so.[181] However, other opinions take the same constricted view of the BLM's authority as that of the prudent-operator and prudent-person standards discussed above.[182] Despite these inconsistencies, the Interior Board of Land Appeals has regularly upheld conditions imposed by the BLM that attempt to prevent degradation that would not typically occur in the particular industry.[183] This reading at least creates an industry standard of impermissible degradation that the BLM can enforce.

c. Judicial Opinions and the Illegality of the Old Definitions

Until recently, judicial interpretations of the UUD standard have shed little light on the breadth of the authority and require-

[181] *See* Flynn & Parsons, *supra* note 130, 258 n.38 (citing Kendall's Concerned Area Residents, 129 I.B.L.A. 130, 138-40 (1994) ("If unnecessary or undue degradation cannot be prevented by mitigating measures [for a mining project], BLM is required to deny approval of the plan.") and Draco Mines, Inc., 75 I.B.L.A. 278, 287 (1983) (holding that the BLM may properly condition approval of a mining operations plan on acceptance of stipulations designed to prevent unnecessary or undue degradation with on-site mitigation). *See also* Red Thunder, Inc., 101 Interior Dec. 52, 63 (1994) ("If the nature or degree of the degradation were such that the only effective way to prevent it were a complete cessation of mining operations, then under section 302(b) the State Director would be authorized and obligated to order a complete cessation."). **R**

[182] *See, e.g.,* Colo. Envt'l Coal., 165 I.B.L.A. 221, 229 (2005) ("[T]o show that an action results in undue or unnecessary degradation of leasehold lands, at a minimum, [the BLM] would have to show that a lessee's operations are or were conducted in a manner that does not comply with applicable law or regulations, prudent management and practice, or reasonably available technology, such that the lessee could not undertake that action pursuant to a valid existing right.").

[183] *See, e.g.,* Comm. for Idaho's High Desert, 146 I.B.L.A. 194, 202 (1998) ("This standard requires BLM to consider the extent of surface disturbance and the effects on resources and land uses both within and outside the area of operations in comparison to similar operations.").

ments it creates. In *Sierra Club v. Hodel*,[184] the Tenth Circuit established that the UUD standard is judicially enforceable and requires the BLM to limit degradation.[185] In *Hodel*, the plaintiffs argued that a proposal to improve a road that crossed a riparian area on public lands, and would degrade an adjacent wilderness-study area, violated the UUD standard.[186] Arguing that the UUD standard "breathes discretion at every pore," the BLM asserted that the UUD standard was not judicially enforceable.[187] The Tenth Circuit rejected the BLM's argument, holding that the UUD standard imposes a requirement on the BLM that can be judicially reviewed.[188] The BLM also argued that it could not prevent use of the road because the right-of-way permit predated FLPMA and the UUD standard.[189] While the Tenth Circuit agreed that the UUD standard could not prevent use of the right-of-way altogether,[190] the court indicated the UUD standard still required the BLM to locate the road where it would "make the least degrading impact on the [wilderness study area]."[191] Without a valid right-of-way permit predating FLPMA, the *Hodel* court likely would have held that right-of-way access could be prevented altogether if it violated the UUD standard.[192]

The Ninth Circuit has also examined the UUD standard. In *Sierra Club v. Clark*,[193] the Ninth Circuit rejected the plaintiffs' argument that the UUD standard required the government to reject a proposal for a motorcycle race in a wilderness-study area.[194] However, the case provides very little information on the amount of degradation the race would cause.[195] In *Sierra*

184 Sierra Club v. Hodel, 848 F.2d 1068 (10th Cir. 1988).

185 *Id.* at 1096 (holding that the BLM has a duty to prevent unnecessary degradation).

186 *Id.* at 1073-74.

187 *Id.* at 1074.

188 *Id.* at 1076.

189 *Id.* at 1088.

190 *Id.* (citing 43 U.S.C. § 1769 (1982)). Section 509 of FLPMA precludes the BLM from using the requirements in FLPMA to "terminate[ ]" any right-of-way that pre-dates FLPMA, but does not preclude the BLM from modifying valid existing rights to comply with FLPMA. 43 U.S.C. § 1769(a).

191 *Hodel*, 848 F.2d at 1088.

192 *See id.* at 1088 (relying entirely on 43 U.S.C. § 1769).

193 Sierra Club v. Clark, 774 F.2d 1406 (9th Cir. 1985).

194 *Id.* at 1410.

195 *Id.*

Club v. Penfold,[196] the plaintiffs challenged the BLM's categorical exemption of all mines less than five acres from any NEPA or environmental review process.[197] The district court's opinion indicated that the UUD standard required balancing the environmental harms against the social and economic benefits of mining.[198] However, when the Ninth Circuit reviewed *Penfold*, it did not specifically address the district court's analysis of the UUD standard.[199] The balancing test has not been applied by any courts subsequently.

After decades without a well-settled judicial determination of the requirements of the UUD standard, a 2003 court decision provided some clarification. In *Mineral Policy Center v. Norton*, several provisions of the 2001 hard-rock mining regulations, including the UUD standard, were challenged by environmental groups.[200] In protection of its interests, a mining-industry group intervened to advocate for even less-stringent regulations.[201] The BLM and the mining group defended the regulations by relying upon Solicitor Meyers' opinion, which concluded that the BLM had no authority to prevent undue degradation if such degradation was necessary to mine.[202] However, the court sided with the plaintiffs' argument that the UUD standard requires the BLM to prevent both undue and unnecessary degradation:

> The court finds that the Solicitor misconstrued the clear mandate of FLPMA. FLPMA, by its plain terms, vests the Secretary of the Interior with the authority—and indeed the obligation—to disapprove of an otherwise permissible mining operation because the operation, though necessary for mining, would unduly harm or degrade the public land.[203]

For the first time since FLPMA's enactment, a court held that the UUD standard requires the BLM to reject a proposed use of public lands that will exceed a certain threshold of environmental harm. This holding implicitly endorsed the substantial-irreparable-harm standard.

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196 Sierra Club v. Penfold, [1988] 18 Envtl. L. Rep. 20,463 (Envtl. Law Inst.) (D. Alaska Nov. 6, 1987).

197 *Id.* at 20,464.

198 *Id.* at 20,468.

199 *See generally* Sierra Club v. Penfold, 857 F.2d 1307 (9th Cir. 1988).

200 Mineral Policy Ctr. v. Norton, 292 F. Supp. 2d 30, 40 (D.D.C. 2003).

201 *Id.* at 32 n.3, 35 n.9.

202 *Id.* at 41-42; *see also supra* text accompanying notes 167-72. **R**

203 *Mineral Policy Ctr.*, 292 F. Supp. 2d at 42.

However, the court stopped short of holding facially invalid the definition of the UUD standard in the 2001 mining regulations. Rather, calling it an "extremely close" question,[204] the court held that the 2001 regulations were a permissible interpretation of the UUD standard.[205] Acknowledging that the 2001 mining regulation's reliance upon Solicitor Meyers' opinion undermined the claim that the regulation could prevent "undue degradation," the court reasoned that the regulation "was not based primarily upon" Solicitor Meyers' opinion.[206] The court accepted the BLM's argument that it could still reject individual mining operation proposals that would cause "undue degradation" under the 2001 regulations "by exercising case-by-case discretion to protect the environment."[207] The 2001 UUD standard was, therefore, only permissible because it did not completely foreclose the BLM's authority to prevent proposals that would cause objectively undue degradation to public land.[208]

In sum, *Mineral Policy Center* essentially held that the BLM must reject proposals that cause undue degradation, regardless of the necessity of the proposed activity for mining. This requirement comes from FLPMA itself and cannot be altered by regulations, even those accompanied by a legal opinion of the Solicitor of the Department of the Interior. However, even *Mineral Policy Center* did not delve into how much degradation of public lands is "undue" since the case involved a facial challenge of the regulations. The case sent a clear message to the BLM that the UUD standard requires it to deny proposals that will cause un-

[204] *Id.* at 45 n.18.

[205] *Id.* at 45-46.

[206] *Id.* at 46 n.18.

[207] *Id.* at 44.

[208] The holding is succinctly summarized as follows:

> The court thus finds that, in promulgating FLPMA, Congress tasked the Secretary of Interior with preventing both "unnecessary" as well as "undue" degradation to the public lands. The court finds further, however, that the terms "unnecessary" and "undue," which are not defined in the FLPMA, are themselves ambiguous. . . . In tasking the Secretary to prevent "unnecessary or undue" degradation, Congress left two broad gaps for the Secretary to fill, which the Secretary has elected to fill through the exercise of her discretion, on a case-by-case basis. . . . Plaintiffs have neither demonstrated that the 2001 Regulations fail to prevent unnecessary or undue degradation of the public lands, in contravention of FLPMA, nor that Interior, in promulgating the 2001 Regulations, toiled under an erroneous view of its own authority.

Id. at 44-45 (citations omitted).

due degradation, and that even the right to mine on public lands is not absolute. Therefore, the holding left open the possibility for those opposed to a particular mining proposal or other use of public lands to prevent it by proving its impacts would cause undue degradation. Additionally, *Mineral Policy Center* rejected the 2001 mining regulations' failure to apply FLPMA's "fair market value" provision,[209] giving the BLM the opportunity to appeal the case to the D.C. Circuit.

d. The BLM's Response to Mineral Policy Center

(i) Hard-Rock Mining Regulations

In response, the BLM declined to appeal the *Mineral Policy Center* ruling and announced in an Instruction Memorandum, IM 2004-133, that it would alter its hard-rock mining policies according to the holding.[210] While the definition of the UUD standard can remain unchanged, theoretically the BLM will need to set up a framework for determining when a mining project will cause undue degradation if it wishes to abide by *Mineral Policy Center*. Regardless of whether the BLM actually changes its mining policies to better comply with *Mineral Policy Center*'s reading of "unnecessary or undue degradation,"[211] the failure to appeal the decision indicates its significance.[212] As the *Mineral Policy Center* court implied, the 2001 mining regulation was probably the outer bounds of the Agency's discretion to narrowly construe

[209] *Id.* at 49-50 (relying on 43 U.S.C. § 1701(a)(9) (2000)).

[210] *See* FLYNN, *supra* note 121, 841 n.149 (quoting Bureau of Land Mgmt., U.S. Dep't of the Interior, Instruction Memorandum No. 2004-133, Mineral Policy Ctr. v. Norton-Implementation Guidance 1, 3 (2004)). **R**

[211] 43 U.S.C. § 1732(b) (2006).

[212] Of course, a cynical observer could construe the BLM's failure to appeal *Mineral Policy Center* as having no significance to the UUD standard, but rather indicates the possibility that the agency might ignore the opinion in other parts of the country. The BLM could have appealed the *Mineral Policy Center* court's holding that the regulation failed to implement FLPMA's "fair market value" requirement. *See* 292 F. Supp. 2d at 49-50 (discussing FLPMA's fair market-value claim provision). Had BLM appealed that issue, the plaintiffs likely would have appealed the UUD standard ruling. As such, the BLM could have effectively appealed the holding that "the Solicitor misconstrued the clear mandate of FLPMA" because the UUD standard requires disapproval of a mining operation that, "though necessary for mining, would unduly harm or degrade the public land." *Id.* at 42. The BLM may have declined to appeal for fear that the D.C. Circuit would adopt the *Mineral Policy Center* court's rejection of Solicitor Meyers' interpretation, which would arguably be harder for the BLM to ignore than a district court opinion. Thus, the failure to appeal may suggest that the BLM hopes to continue to ignore FLPMA's requirement to prevent "undue degradation."

the statutory phrase "unnecessary or undue degradation."[213] *Mineral Policy Center* remains the only federal court ruling to fully analyze the statutory meaning of the UUD standard, and it concluded that projects must be rejected if they will cause undue degradation to the environment.[214]

(ii) Right-of-Way Regulations

In addition to announcing a change in mining policy, the BLM has amended its use of the UUD standard in its right-of-way regulations in the wake of *Mineral Policy Center*. As noted above, beginning in 1989, the right-of-way regulations contained the prudent-person standard, which in all relevant respects was identical to the prudent-operator standard in the 1980 hard-rock mining regulations.[215] However, in 2005, the BLM abandoned this approach to the UUD standard when it amended its right-of-way regulations to update cost-recovery provisions of the right-of-way program.[216] While the regulatory amendments mostly addressed cost-recovery concerns, they also drastically changed the implementation of the prior UUD standard, effectively eliminating the prudent-person standard.[217]

In abandoning the prudent-person standard, the 2005 right-of-way regulations seem to address the UUD standard entirely on a case-by-case basis. The 2005 right-of-way regulations eliminated the prior definition of "unnecessary or undue degradation," and did not replace it with another definition.[218] However, the undefined UUD standard does appear in one section of the 2005 regulations.[219] In that section, the UUD standard is included among the terms the BLM will impose on all rights-of-way:

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[213] 43 U.S.C. § 1732(b). *See Mineral Policy Ctr.*, 292 F. Supp. 2d at 46 n.18 (calling the legality of BLM's interpretation an "extremely close case").

[214] *Mineral Policy Ctr.*, 292 F. Supp. 2d at 42.

[215] *See supra* notes 172-77 and accompanying text. R

[216] Rights-of-Way Under the Federal Land Policy and Management Act and the Mineral Leasing Act, 70 Fed. Reg. 20,970 (Apr. 22, 2005). This release of the rule lists several reasons for updating the right-of-way regulations. *Id.* at 20,970-79. Each of the listed reasons addresses the need to update the cost-recovery provisions of the right-of-way regulations. *Id.*

[217] *See id.* at 20,979 (acknowledging that the right-of-way regulations' use of the term "unnecessary or undue degradation" was altered).

[218] *Compare* 43 C.F.R. § 2801.5 (2005) (containing no definition of "unnecessary or undue degradation" among the terms listed), *with* 43 C.F.R. § 2800.0-5(x) (2004) (prior definition that did not restrict activities that would be undertaken by a "prudent person").

[219] 43 C.F.R. § 2805.11 (2006).

> BLM will limit the grant to those lands which BLM determines:
>
> (1) You will occupy with authorized facilities;
>
> (2) Are necessary for constructing, operating, maintaining, and terminating the authorized facilities;
>
> (3) Are necessary to protect the public health and safety;
>
> (4) Will not unnecessarily damage the environment; and
>
> (5) Will not result in unnecessary or undue degradation.[220]

While 43 C.F.R. § 2805.11(a)(4) seems to focus solely on the restriction of unnecessary degradation, 43 C.F.R. § 2805.11(a)(5) simply places the statutory term in the regulations, which would prevent undue degradation if *Mineral Policy Center* remains good law. Thus, this regulation appears to be promulgated in a way that is consistent with Solicitor Meyers' opinion, while at the same time not being inconsistent with *Mineral Policy Center*. In other words, if the courts ever adopt the legal reasoning of Solicitor Meyers' opinion, these regulations will not need to be amended. However, as long as *Mineral Policy Center* is good law, these regulations allow the BLM to reject projects that will cause undue degradation on a case-by-case basis. Whether the BLM actually rejects projects in such a way remains to be seen.

Despite the implications of the amended right-of-way regulations, the BLM's rationale for eliminating the prudent-person definition of the UUD standard is difficult to pin down. The BLM completely ignored *Mineral Policy Center* in the publication of the final 2005 right-of-way regulations, even though that opinion was directly contradictory with the prudent-person standard.[221] The BLM ironically justified completely avoiding any definition of the statutory term "unnecessary or undue degradation"[222] with the phrase "we find it to be unnecessary."[223] In support of this reasoning, the BLM referred to requirements of 43 C.F.R. § 2804.26 that it believes are more stringent than the UUD standard.[224] The more stringent standards the BLM was referencing are to ensure that the proposed use is consistent with

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[220] *Id.* § 2805.11(a) (emphasis added).

[221] *See* Rights-of-Way Under the Federal Land Policy and Management Act and the Mineral Leasing Act, 70 Fed. Reg. at 20,979 (acknowledging the UUD standard was altered, but not citing *Mineral Policy Center*).

[222] 43 U.S.C. § 1732(b) (2006).

[223] Rights-of-Way Under the Federal Land Policy and Management Act and the Mineral Leasing Act, 70 Fed. Reg. at 20,979.

[224] *Id.* Specifically, those more "stringent" standards are contained in 43 C.F.R. § 2804.26(a) (2005).

"the purpose for which the BLM manages the public lands" and is in the "public interest."[225] This reasoning is arguably flawed because the BLM could consider certain projects to be in the public interest and be consistent with the "purpose for which the BLM manages the public lands," despite the fact that it would create a level of objective environmental harm that is undue.

In any event, the BLM indicated that it "will continue to observe the 'unnecessary or undue degradation' standard . . . but will allow the facts by a particular situation give meaning to this phrase."[226] This position is consistent with that taken by the BLM in defending its 2001 hard-rock mining UUD standard and reluctantly approved by *Mineral Policy Center*. Ultimately, the BLM seems reluctant to bind itself to any uniform way of analyzing when impacts of a proposed development constitute "undue degradation."[227]

e. The UUD Standard Today

Despite its many incarnations, the preceding background provides some guidance on what the UUD standard requires today. First, it is clear that the standard applies to all activities authorized by the BLM as FLPMA itself indicates. Second, most rational observers—and the only federal court to address the issue—conclude that the disjunctive nature of the term "unnecessary or undue degradation" requires the BLM to prohibit uses that cause degradation that is either "unnecessary" or "undue."[228] Actions that are "unnecessary" seem to be actions that the typical person or operator would not undertake to complete the proposed use. This essentially creates a certain industry standard that must be followed, and focuses on the particular industry standards at issue. In contrast, "undue degradation" focuses objectively on the impacts to public lands and the environment.

The BLM's current hard-rock mining regulations and its current right-of-way regulations essentially plan to approach the UUD standard on a case-by-case basis. In both regulatory contexts, the BLM completely fails to acknowledge that an objective

[225] 43 C.F.R. § 2804.26 (2006); *see also* Rights-of-Way Under the Federal Land Policy and Management Act and the Mineral Leasing Act, 70 Fed. Reg. at 20,979 (mentioning these two standards specifically).

[226] Rights-of-Way Under the Federal Land Policy and Management Act and the Mineral Leasing Act, 70 Fed. Reg. at 20,979.

[227] 43 U.S.C. § 1732(b).

[228] Mineral Policy Ctr. v. Norton, 292 F. Supp. 2d 30, 42 (D.D.C. 2003).

analysis of environmental impacts must be conducted to comply with the UUD standard. However, *Mineral Policy Center* remains the only federal court opinion to hold that the UUD standard requires such an analysis.[229] To the extent that the BLM disagrees,[230] it would bear a heavy burden in convincing another court that *Mineral Policy Center*'s reasoning was flawed given the clear statutory language of the phrase "unnecessary *or* undue degradation."[231] Thus, parties opposed to a particular proposed use of public lands could successfully prevent the use by proving that the objective environmental impacts would cause "undue degradation."[232] Such a legal challenge must be brought under the Administrative Procedure Act (APA),[233] and prove that the BLM was "arbitrary and capricious" in failing to prevent undue degradation.[234]

The BLM's decision to ignore the requirement to make an objective analysis of the impacts under the UUD standard in the regulations could result in ignorance at the project-specific level. As a result, the BLM could theoretically permit projects that are in violation of the UUD standard. In the end, the words "undue degradation" alone provide a weak standard for a court to determine if the BLM has acted arbitrarily. Thus, success in court for environmental groups would probably be limited to instances where plaintiffs could prove the BLM completely failed to even make an objective analysis of whether the environmental impacts would entail undue degradation.

On the other side of the coin, failing to further define what sort of objective environmental impacts are "undue" could provide the BLM—if it was so inclined—with substantial discretion to deny projects proposed by industry groups. The term "undue degradation" could be construed to include fairly insignificant environmental impacts. Similar to the challenges environmental plaintiffs would face in proving that a particular impact is undue, industry plaintiffs may have difficulty proving the BLM arbitrary and capricious in finding impacts undue.

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229 *Id.* at 42.

230 As noted, a cynical observer could construe the BLM's actions since *Mineral Policy Center* as a continued ignorance of the term "undue degradation." *See supra* note 212. **R**

231 43 U.S.C. § 1732(b) (emphasis added).

232 *Id.*

233 Sierra Club v. Hodel, 848 F.2d 1068, 1074-75 (10th Cir. 1988).

234 5 U.S.C. § 706(2)(A) (2006).

In conclusion, the current status of the UUD standard provides the BLM with the maximum amount of discretion possible under the statutory term to either approve or deny a project as it sees fit. Unfortunately, this leaves environmental and industry groups with little guidance on what impacts the UUD standard will prevent in a particular circumstance.

2. The Requirement to Minimize the Damage of Rights-of-Way

a. The Statutory Language

In addition to the UUD standard, FLPMA contains at least one other provision that could substantially affect the regulation of wind-energy developments to protect the environment. That provision requires that each authorization of a right-of-way over public lands "contain . . . terms and conditions which will . . . minimize damage to scenic and esthetic values and fish and wildlife habitat and otherwise protect the environment."[235] Failure to comply with conditions imposed on such an authorization, or with the requirements of FLPMA itself, can result in revocation of the authorization to use the public lands.[236] Similar to the UUD standard, this requirement places a non-discretionary duty on the BLM to take into account environmental values with the mandatory term "shall." Like the UUD standard, the requirement to minimize damage is not facially instructive; it does not specify how far the "terms and conditions" must go in minimizing damage.

The authority granted to the BLM in the minimize-damage standard is clarified by the subsequent statutory clause, providing some insight without actually defining the minimize-damage standard.[237] While the requirement to impose terms and conditions that will "minimize damage" appears in a list of non-discretionary duties in section 505(a) of FLPMA, section 505(b) provides a list of discretionary actions the BLM may take. The list of BLM's discretionary authorities includes provisions that reference adjacent or off-site lands:

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[235] 43 U.S.C. § 1765(a) (2006).

[236] Fuller, *supra* note 1, at 624. The BLM has revoked authorizations to access public lands for wind-energy development in the past for failure to comply with the terms of the right-of-way authorization. S. Cal. Sunbelt Developers, Inc., 147 I.B.L.A. 266, 276 (1999). **R**

[237] 43 U.S.C. § 1765(a)-(b).

> Each right-of-way shall contain . . . (b) such terms and conditions as the Secretary concerned deems necessary to . . . (ii) manage efficiently the lands which are subject to the right-of-way or adjacent thereto and protect the other lawful users of the lands adjacent to or traversed by such right-of-way . . . (iv) protect the interests of individuals living in the general area traversed by the right-of-way who rely on the fish, wildlife, and other biotic resources of the area for subsistence purposes; (v) require location of the right-of-way along a route that will cause least damage to the environment, taking into consideration feasibility and other relevant factors. . . .[238]

The authority to protect "adjacent" lands and the "interests of individuals living in the general area" who rely on wildlife arguably enables the BLM to look beyond the immediate vicinity of the right-of-way in analyzing and mitigating its impacts. As such, the BLM could impose off-site mitigation to protect fish and wildlife in the general area and lands adjacent to the proposed development. However, unlike the requirement to minimize damage, these authorities are discretionary. They also do not explicitly implicate off-site mitigation.

b. Relevant Interpretations in Other Statutory Contexts

The term "minimize" exists in at least three other regulatory contexts, each of which provides guidance on its meaning in the right-of-way context.

First, the term "minimize" is associated with off-site mitigation in the Council on Environmental Quality's (CEQ) regulations under NEPA.[239] NEPA requires the analysis of science and policy in major federal actions that will have a significant impact on the environment.[240] The analysis must follow regulations promulgated by the CEQ.[241] In turn, those CEQ regulations require the decision-making agency to "[s]tate whether all practicable means to avoid or *minimize* environmental harm from the alternative selected have been adopted."[242] In the effort to ensure harm is avoided or minimized, "[a] monitoring and enforcement program shall be adopted and summarized where applicable for any *mitigation*."[243] Later, the CEQ regulations de-

[238] *Id.* § 1765(b).
[239] 40 C.F.R. § 1508.20 (2006) (providing CEQ definition of mitigation).
[240] 42 U.S.C. § 4332(2)(A)-(C) (2006).
[241] *Id.* § 4332(2)(B).
[242] 40 C.F.R. § 1505.2(c) (2006) (emphasis added).
[243] *Id.* (emphasis added).

fine "mitigation" to include "compensating for the impact by replacing or providing substitute resources or environments."[244] Thus, the CEQ regulations include compensatory mitigation, presumably conducted off-site, among the ways to "avoid or minimize" environmental harm of a proposed project.

Second, the requirement to "minimize damage" has been applied in the Clean Water Act. Section 301(a) of the Clean Water Act prohibits unpermitted discharges of pollutants, including dredge or fill materials, into "waters of the United States."[245] However, section 404(b)(1) of the Clean Water Act authorizes the Corps of Engineers to permit discharges of dredge or fill materials in accordance with "guidelines developed by" the Environmental Protection Agency (EPA).[246] In turn, the EPA's section 404(b)(1) guidelines require the Corps to "minimize" the unavoidable impacts of such discharges to the environment.[247] Under the EPA's mandate to "minimize" the impact to the environment, the Corps requires dischargers to mitigate for impacts to dredged or filled wetlands.[248] The Corps permits the compensatory mitigation to be conducted on-site or off-site according to

[244] 40 C.F.R. § 1508.20(e) (2006). Along with compensatory mitigation, 40 C.F.R. § 1508.20 includes avoidance of the impacts, minimization of the project, restoration, and reduction by preservation during the life of the project. *Id.* § 1508.20(a)-(d).

[245] 33 U.S.C. § 1311(a) (2006).

[246] *Id.* § 1344(b).

[247] 40 C.F.R. § 230.10(d) (2006). However, the Corps is required to avoid the discharge altogether if there is a practicable alternative. *Id.* § 230.10(a). The Corps may only minimize impacts if it first determines that the impacts are unavoidable. *See also* Guidelines for Specification of Disposal Sites for Dredged or Fill Material, 45 Fed. Reg. 85,336, 85,339-40 (Dec. 24, 1980) (discussing the guidelines).

[248] The guidelines do authorize the use of "habitat development and restoration . . . to compensate for destroyed habitat" as a means of minimizing impacts. 40 C.F.R. § 230.75(d) (2006). However, the term "mitigation" does not appear in the guidelines. *See generally id.* The Corps derives "mitigation" from the mandate to "minimize" impacts with the acquiescence of the EPA in accordance with a Memorandum of Agreement. Clean Water Act, 55 Fed. Reg. 9210, 9210 (Mar. 12, 1990). That Agreement recognizes mitigation of a discharge's impacts as a legitimate means of "minimizing" the impact in accordance with the EPA's Clean Water Act section 404(b)(1) guidelines. *Id.* at 9210-12. Recently, the Corps and the EPA have taken steps to make the wetlands mitigation program more official by proposing a rule to govern the program. *See* Compensatory Mitigation for Losses of Aquatic Resources, 71 Fed. Reg. 15,520, 15,520-24 (proposed Mar. 28, 2006) (providing a summary of the proposed rulemaking). Wetlands with a "significant nexus" to navigable waters are within the jurisdiction of the Corps and the EPA under the Clean Water Act. Rapanos v. United States, 126 S. Ct. 2208, 2241 (Kennedy, J., concurring) (2006); *see also* N. Cal. River Watch v. City of Healdsburg, 457 F.3d 1023, 1025 (9th Cir. 2006) (noting that Justice Kennedy's concurrence is the controlling opinion in *Rapanos*).

a hierarchy established by the EPA and the Corps.[249] Thus, the Corps has interpreted its mandate to "minimize" damage as providing it with the authority, and perhaps the duty, to require dischargers to engage in compensatory mitigation, oftentimes off-site. The EPA has acquiesced in this interpretation of the requirement to "minimize" damage.

Third, the ESA contains a "minimize and mitigate" requirement. Section 10 of the ESA authorizes the Fish and Wildlife Service to issue permits to incidentally take a limited number of an endangered or threatened species.[250] However, the Fish and Wildlife Service must condition permits on compliance with a habitat conservation plan that specifies the "steps the applicant will take to minimize and mitigate" the impacts of the taking.[251] Federal courts have approved of the Fish and Wildlife Service's use of many forms of mitigation, including compensatory, off-site mitigation, to "minimize and mitigate" the effects of a taking.[252]

Therefore, FLPMA's requirement to "minimize damage" to the environment does not appear on an empty slate like its UUD standard. The CEQ regulations,[253] the Corps of Engineers' wetlands mitigation program,[254] and the Fish and Wildlife Service's habitat mitigation program[255] provide a persuasive indication that FLPMA's requirement to "minimize damage" also authorizes or requires the BLM to follow a similar hierarchy of options in approving rights-of-way across federal lands.

c. Court Decisions Addressing the Requirement to Minimize Damage

Two recent court decisions have provided substantial insight into the BLM's legal authority and obligation to "minimize damage" to the environment in granting rights-of-way. First, in *County of Okanogan v. National Marine Fisheries Service*,[256] the

[249] Clean Water Act, 55 Fed. Reg. at 9210-12.

[250] 16 U.S.C. § 1539.

[251] *Id.* § 1539(a)(2)(A)-(B).

[252] *See, e.g.*, Ctr. for Biological Diversity v. U.S. Fish & Wildlife Serv., 202 F. Supp. 2d 594, 596-625 (W.D. Tex. 2002) (approving a plan that relies on off-site mitigation and citing similar cases).

[253] *See* 40 C.F.R. § 1508.20 (2006) (providing CEQ definition of mitigation).

[254] *See* Clean Water Act, 55 Fed. Reg. at 9210 (stating the mitigation program).

[255] *See Ctr. for Biological Diversity*, 202 F. Supp. 2d at 596-625 (describing the mitigation program).

[256] County of Okanogan v. Nat'l Marine Fisheries Serv., 347 F.3d 1081 (9th Cir. 2003).

Ninth Circuit examined whether the minimize-damage standard authorized the U.S. Forest Service to require a minimum in-stream flow to protect fish as a condition on a right-of-way to access a water diversion.[257] Shortly thereafter, in *Trout Unlimited v. U.S. Department of Agriculture*,[258] the District of Colorado examined whether the minimize-damage standard required the Forest Service to condition a similar right-of-way on an in-stream flow of water to protect fish. While the decisions dealt with the Forest Service, not the BLM, they are relevant to BLM activities because both agencies are subject to FLPMA's minimize-damage standard.[259]

County of Okanogan recognized the broad authority created by FLPMA's requirement to "minimize damage." The plaintiffs possessed state-law water rights predating FLPMA by almost a century.[260] To access the diversion facilities and maintain their water rights, they needed access across national forest lands.[261] Beginning in 1903, the plaintiffs had a series of contractual agreements and special-use permits with the Department of the Interior and the Forest Service, which permitted access.[262] Each of these agreements allowed the government to revoke or alter the access at its discretion.[263] Because the stream contained three ESA-listed fish species—chinook salmon, steelhead, and bull trout—the Forest Service had to consult with the National Marine Fisheries Service (NMFS) before renewing the special-use permit.[264]

This consultation resulted in significant controversy. The NMFS concluded that the right-of-way would "jeopardize" the

257 *Id.* at 1084-86.

258 Trout Unlimited v. U.S. Dep't of Agric., 320 F. Supp. 2d 1090 (D. Colo. 2004).

259 *See County of Okanogan*, 347 F.3d at 1085 ("The Federal Land Policy and Management Act of 1976 (FLPMA) authorizes the Secretaries of the Interior and Agriculture to 'grant, issue, or renew rights-of-way over [public lands] . . . .") (quoting 43 U.S.C. § 1761(a)(1) (2000)); *see also* FLYNN, *supra* note 121, at 824 ("With the passage of FLPMA . . . Congress gave the Department of [the] Interior, and to a lesser extent the Department of Agriculture, broad authority over the uses of public land.). Flynn also provides an extensive analysis of *County of Okanogan* and *Trout Unlimited* and concludes that their implications are "far-reaching." FLYNN, *supra* note 121, at 824-29. R R

260 *County of Okanogan*, 347 F.3d at 1082-83.

261 *Id.*

262 *Id.* at 1082.

263 *Id.* at 1082-83.

264 *Id.* at 1083-84. The interagency consultation requirements of the ESA are found at 16 U.S.C. § 1536.

existence of chinook salmon and steelhead because it would enable the plaintiffs to de-water the stream, requiring the NMFS to propose "reasonable and prudent alternatives" to avoid jeopardy.[265] To protect these species, the NMFS proposed a minimum instream-flow requirement as a condition on the special-use permit authorizing the right-of-way access.[266] In response, the plaintiffs challenged the condition as exceeding the statutory authority of both the NMFS and Forest Service.[267] The Ninth Circuit first established that several statutes, including the minimize-damage standard in FLPMA's right-of-way provisions, enabled the Forest Service to restrict access to the diversion when water levels dropped to protect endangered fish.[268] The Ninth Circuit held that imposing such a restriction as a condition on the right-of-way to access the water-diversion facilities was legal.[269] In rejecting the plaintiffs' argument that the Forest Service was regulating an activity beyond the scope of the right-of-way itself, the Ninth Circuit stated, "[T]he pending case 'is not a controversy over water rights, but over rights-of-way through lands of the United States, which is a different matter, and is so treated in the right-of-way acts before mentioned.'"[270] The U.S. Supreme Court denied the plaintiffs petition for certiorari.[271]

As such, the Ninth Circuit approved a broad authority to impose conditions on activities that the right-of-way would enable, not just on the physical act of traveling over public lands. However, the case could be construed as applying only to the somewhat limited circumstance where an endangered species is likely

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265 *County of Okanogan*, 347 F.3d at 1084.

266 *Id.*

267 *Id.* at 1085. The plaintiffs also challenged the instream-flow condition as an unconstitutional "take" of their Fifth Amendment property interest in access to the water rights. *Id.* The Ninth Circuit rejected that argument because the water right had always been subject to government restrictions. *Id.*

268 *Id.* In addition to FLPMA's authorization to "minimize damage" caused by rights-of-way, the Ninth Circuit also relied on: another FLPMA provision, 43 U.S.C. § 1761(a)(1) (2000); the National Forest Management Act, 16 U.S.C. § 1604(g)(3)(A)-(B) (2000); the Organic Administration Act, 16 U.S.C. § 475 (2000); and the Multiple Use Sustained-Yield Act of 1960, 16 U.S.C. § 528 (2000). *Id.*

269 *County of Okanogan*, 347 F.3d at 1086.

270 *Id.* (quoting Utah Power & Light Co. v. United States, 243 U.S. 389, 411 (1917)). *Utah Power & Light Co.* approved of the federal government's regulation of the use of rights-of-way over federal land to access an energy project on a river, even though the project predated right-of-way enactments by Congress and local regulations governed the use of water on the particular federal land. 243 U.S. at 411.

271 County of Okanogan v. Nat'l Marine Fisheries Serv., 541 U.S. 1029 (2004).

to become extinct, without imposing mitigation measures on the harmful activity that access enables.

Trout Unlimited extends the reasoning of the *County of Okanogan* opinion to find a broad non-discretionary duty to "minimize damage" in granting rights-of-way. Like *County of Okanogan*, *Trout Unlimited* involved the renewal of a special-use permit to store and access water in a reservoir on national forest lands, which implicated FLPMA's right-of-way provisions.[272] Also similar, the reservoir at issue in *Trout Unlimited*, Long Draw Reservoir in the Roosevelt National Forest in Colorado, had been in operation before passage of FLPMA and impaired flows to a tributary of the Cache La Poudre River, which contained endangered-fish species.[273] However, unlike *County of Okanogan*, the plaintiffs in *Trout Unlimited* were environmental groups, and they challenged the Forest Service's failure to condition the right-of-way authorization on an instream flow to protect the fish.[274] The prior permits authorizing use of the reservoir did not impose instream flows, but the applicable Land and Resource Management Plan required the Forest Service to impose "bypass flows" during winter months in future permits.[275] Additionally, unlike *County of Okanogan*, no federal agencies had determined that the fish species would be in jeopardy of extinction if an instream flow condition were not included in the right-of-way authorization.

In the process of renewing the permits to access and use national forest land for the reservoir, the Forest Service produced an environmental-impact statement (EIS).[276] Among the four alternatives analyzed in the EIS, Alternative B provided for only "voluntary" bypass flows in winter months, and Alternative C provided for mandatory bypass of natural-flow amounts in winter months.[277] The environmental plaintiffs advocated for Alternative C, mandatory-bypass flows.[278] When the Forest Service selected the voluntary-bypass flow option, the plaintiffs sued,

[272] Trout Unlimited v. U.S. Dep't of Agric., 320 F. Supp. 2d 1095, 1102-04 (D. Colo. 2004).

[273] *Id.*

[274] *Id.*

[275] *Id.* at 1095-97.

[276] *Id.* at 1096.

[277] *Id.*

[278] *Id.* at 1097.

alleging violations of FLPMA's right-of-way provisions.[279] In defending its position that voluntary-bypass flows would "minimize damage" to fish, the Forest Service reasoned that it had properly balanced the interests of fish against the interests in diverting water.[280] The district court disagreed with this reading of FLPMA and held that the Forest Service violated the APA when it balanced interests under the minimize-damage standard.[281] "[FLPMA] simply does not allow a forest supervisor to ignore options that would minimize environmental degradation because of the costs to private parties and difficulty in implementation."[282] Thus, the court held that the requirement to "minimize damage" means what it says. Among a group of reasonable alternatives, the one with the minimum amount of damage must be selected, regardless of which reasonable alternative is most profitable for private parties. The Tenth Circuit recently dismissed the appeal of the decision, holding that appellate jurisdiction did not exist because the district court had remanded the record of decision to the Forest Service for proper application of FLPMA.[283]

Trout Unlimited could significantly increase the role of the minimize-damage standard in governing access to public lands for private gain. The holding is significant because it enables environmental groups opposed to a particular use of public lands to stop the use by proving there is a reasonable alternative that is less environmentally damaging. Under *Trout Unlimited*, the presence of an endangered species that will be "jeopardized" by the activity is not required to prove such damage. However, the

279 The plaintiffs also alleged violations of NEPA, the Forest and Rangeland Renewable Resources Planning Act, and the Wild and Scenic Rivers Act. *Id.* at 1097-98. However, the court denied each of these claims. *Id.* at 1109-15.

280 *Id.* at 1107.

281 *Id.* at 1108.

282 *Id.* The district court noted that even if balancing was permitted by FLPMA, the interests balanced in favor of mandatory-bypass flows because the mandatory-bypass flows would not prevent the effective use of the permittees' reservoir system. *Id.*

283 Trout Unlimited v. U.S. Dep't of Agric., 441 F.3d 1214, 1217-20 (10th Cir. 2006). Interestingly, only the defendant-intervenors argued for appellate jurisdiction, with both the Forest Service and the plaintiffs arguing that appellate jurisdiction did not exist. *Id.* at 1218. The Tenth Circuit reasoned that the defendant-intervenors had not demonstrated the appeal was "urgent and important," as was required to appeal an order of remand, because they presented no evidence that the Forest Service would impose the mandatory-bypass flow requirement pending resolution of the remand. *Id.* at 1219 (citing 28 U.S.C. § 1291 (2000)).

Trout Unlimited opinion cited several smoking guns in the administrative record that proved the fish species involved would be damaged much more by the voluntary-bypass alternative than by the mandatory-bypass alternative.[284] In sum, under *Trout Unlimited*, environmental plaintiffs can successfully challenge uses of public land that require a right-of-way authorization if they have clear evidence that the proposed use will damage fish or wildlife and can show there is a less damaging alternative.

B. Analysis of the Legality of the BLM's Policies for Wind-Energy Mitigation

The BLM's fairly limited view of its power to regulate wind-energy development may be inconsistent with its legal authority and duty to protect the environment under FLPMA. While the Agency intends to impose mandatory on-site BMPs upon wind-energy developers, it also states that it will consider off-site mitigation of unavoidable impacts only if the applicant volunteers to perform mitigation.[285] Apparently, the voluntary off-site mitigation policy is applicable even when the impacts cannot be adequately mitigated with on-site BMPs.[286] The BLM's justification for such a policy is that it believes its authority to require off-site mitigation is limited.[287] The BLM's position on off-site mitigation thus questions the BLM's ultimate regulatory authority and discretion in approving wind-energy developments on public lands. The following analysis will focus on off-site mitigation to determine just how far the BLM's regulatory authority and discretion reaches.

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[284] The *Trout Unlimited* court found overwhelming evidence in the administrative record that the mandatory-bypass alternative would result in the least damage to fish populations. First,

> [t]he Forest Plan suggests that the Forest Service determined that the most appropriate way to minimize damage to fish habitat is to maintain such habitat at least at 40 percent or more of potential, requiring the Forest Service to 'manage waters capable of supporting self-sustaining trout populations to provide for those populations.'"

320 F. Supp. 2d at 1106 (quoting the Forest Plan). Additionally, the record of decision confirmed this conclusion by indicating that bypass flows were the least environmentally harmful alternative. *Id.* at 1107. Finally, the scientific evidence in the record indicated that fish were smaller and less abundant in the area where the dam resulted in low or nonexistent winter flows. *Id.*

[285] *See supra* text accompanying notes 108-20. R

[286] *See supra* text accompanying notes 108-11. R

[287] *Id.*

1. The UUD Standard's Implications for Wind-Energy Development

The UUD standard has the potential to require the BLM to impose broad regulatory restrictions on wind-energy development. The BLM plans to regulate wind-energy developments by approving or denying plans of development submitted in pursuit of a grant of a right-of-way, which would be governed by the BLM's right-of-way regulations.[288] Whether the BLM agrees or not, the *Mineral Policy Center* court read the term "unnecessary or undue degradation"[289] to obligate the BLM to prevent "undue degradation," even if such degradation is necessary or would typically occur using prudent-industry standards.[290] This obligation was ignored in the prudent-person standard in the old right-of-way regulations, which followed the reasoning of the 1980 hard-rock mining regulations.[291] Consequently, the BLM's elimination of the prudent-person standard in its 2005 amendments to its right-of-way regulations implicitly acknowledges that the prudent-person standard was an impermissibly narrow reading of the statutory UUD standard.[292] At the very least, removal of the prudent-person standard indicates that the BLM thought it stood on shaky ground and did not want to defend it in court.

In any event, a court would be unlikely to hold that the term "unnecessary or undue degradation" does not prevent "undue degradation" after *Mineral Policy Center*, particularly given such clear statutory language.[293] As such, the BLM has an obligation, not only to impose prudent-industry standards, but also to objectively analyze the amount of overall degradation for each wind-energy proposal and determine if undue degradation is likely. However, the BLM's 2005 right-of-way regulations, like its 2001 hard-rock mining regulations, indicate the Agency plans to approach the term "undue" on a case-by-case basis rather than pro-

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[288] *See supra* note 87 and accompanying text. Every right-of-way issued must contain terms and conditions consistent with the BLM's right-of-way regulations. 43 U.S.C. § 1765(a) (2006). **R**

[289] 43 U.S.C. § 1732(b).

[290] *See supra* notes 200-15 and accompanying text.

[291] *See supra* notes 174-79 and accompanying text. **R**

[292] *See supra* text accompanying notes 216-28. **R**

[293] *See supra* text accompanying notes 204-19.

viding further regulatory clarification.[294] This leaves uncertainty as to when "undue degradation" exists.

Even the BLM seems to agree that it has the authority to impose reasonable BMPs on wind-energy developers because prudent-industry standards fall within the requirement to prevent unnecessary degradation. Presuming that the BMPs in the PEIS and Record of Decision are reasonable industry standards, the BLM clearly has the authority to impose those BMPs. Indeed, the Agency would have been required to impose those BMPs even under the narrow prudent-person standard.

The trickier question is whether the BLM's voluntary off-site mitigation policy is a legal implementation of the UUD standard. At first blush, the general rule that off-site mitigation must be voluntary on the part of the applicant seems to conflict with *Mineral Policy Center.* If the degradation caused after implementation of all reasonable on-site BMPs is still undue, whatever that may mean, *Mineral Policy Center* stands for the proposition that the BLM must prevent the undue degradation.[295] The BLM could only prevent undue degradation by denying the permit or imposing further conditions, like off-site mitigation. The mandatory on-site BMPs in the PEIS and Record of Decision do not indicate that the BLM will actually deny any sites for development.[296] Carried to the logical extreme, the permissive on-site BMPs and the voluntary off-site mitigation policy could result in approval of a project where on-site mitigation with BMPs fails to prevent undue degradation and the developer does not volunteer off-site mitigation. As such, truly imposing off-site mitigation only "voluntarily" would eventually result in a violation of the UUD standard.

However, if the Agency is willing to actually deny a right-of-way permit to develop a wind farm, the voluntary off-site mitigation policy can be squared with *Mineral Policy Center* because it recognizes that voluntary off-site mitigation is merely the general

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[294] The 2005 right-of-way regulations eliminated the prior regulatory definition of "unnecessary or undue degradation" to "allow the facts posed by a particular situation [to] give meaning to this phrase." Rights-of-Way Under the Federal Land Policy and Management Act and the Mineral Leasing Act, 70 Fed. Reg. 20,970, 20,979 (Apr. 22, 2005).

[295] *See supra* notes 200-09 and accompanying text.

[296] *See supra* text accompanying notes 87-94. For an example of the extreme environmental impacts of wind energy at some locations, see *supra* Part I.A.2.a. R

rule.[297] Despite the general rule, the BLM Off-Site Mitigation Guidance recognizes that "there are circumstances where negotiation would be appropriate."[298] Presumably, the negotiation would entail the BLM informing the applicant that undue degradation will occur even with all reasonable on-site BMPs, and the right-of-way permit will be denied without voluntary off-site mitigation to bring the degradation below the undue level. The developer would then be faced with the choice of having the permit denied and forgoing the opportunity to develop a wind farm, or volunteering off-site mitigation. While implementing the policy in this way would comply with the UUD standard, it is hardly voluntary.

Further confusing the regulatory scheme, the BLM's failure to clarify the word "undue" gives wind-energy developers and those opposed to the negative impacts of wind energy on public lands little guidance on what magnitude of degradation could require off-site mitigation. If discontented with the result, groups opposed to the BLM's decision regarding a particular wind-energy development would have a difficult time proving the Agency's application of the term "undue" violated the APA.[299] So long as the BLM can show it has considered whether the damage was "undue," the Agency is likely to prevail in court.

2. The Regulatory Power to Minimize Damage Caused by Wind-Energy Developments

The requirement to "minimize damage" to the environment[300] is the provision of FLPMA most likely to authorize or compel the BLM to require extensive regulatory conditions of wind-energy developers, particularly mitigation measures. In the regulatory contexts of NEPA, the Clean Water Act, and the ESA, agencies and courts have interpreted the term "minimize" to create a hierarchy of mitigation measures.[301] This suggests that at bare minimum, reasonable on-site mitigation measures are required. Consequently, the "minimize damage" standard, like the UUD standard, requires the BLM to impose reasonable on-site

[297] *See supra* notes 106-19 and accompanying text. **R**

[298] Bureau of Land Mgmt., Instruction Memorandum No. 2005-069, *supra* note 106, at 5. **R**

[299] *See supra* text accompanying notes 233-35. **R**

[300] 43 U.S.C. § 1765(a)(ii) (2006).

[301] *See supra* Part II.A.2.b.

mitigation such as its mandatory on-site BMPs.[302] Additionally, when on-site mitigation is inadequate, the hierarchy of mitigation requires off-site mitigation in the other statutory schemes and arguably in FLPMA as well.

Indeed, assuming that *County of Okanogan*[303] and, more importantly, *Trout Unlimited,*[304] are not overruled, the "minimize damage" standard places even broader non-discretionary duties upon the BLM than the UUD standard with regard to off-site mitigation. In *Trout Unlimited*, the Forest Service tried to approve a right-of-way that imposed a condition of "voluntary bypass" flows to protect fish.[305] However, the Colorado District Court held voluntary-bypass flows inadequate when the administrative record clearly illustrated that mandatory-bypass flows would better "minimize damage" to fish.[306] Analogously, the BLM's policy of only requiring off-site mitigation of the impacts caused by wind-energy facilities on a voluntary basis is likely to be inadequate when implementation of a project with reasonable on-site BMPs alone still results in extreme environmental harm. Like the mandatory-bypass flows contemplated in *Trout Unlimited*, off-site mitigation of the unavoidable on-site impacts of a wind-energy facility may "minimize damage" to wildlife and the environment. If the Forest Service must require decreased water use several decades after perfection of a state-law water right, the BLM surely must impose the similar condition of off-site mitigation on a new wind-energy proposal with significant ecological impacts.

Under *Trout Unlimited*, if the administrative record regarding a particular wind-energy proposal indicates that mandatory off-site mitigation would "minimize damage" to wildlife and the environment more effectively than other alternatives, the Agency must require off-site mitigation. The alternatives that would need to be denied could include future voluntary off-site mitigation or the on-site BMPs analyzed in the PEIS and adopted in the Record of Decision.[307] Neither of these alternatives would

[302] *See supra* text accompanying notes 87-94. **R**

[303] County of Okanogan v. Nat'l Marine Fisheries Serv., 347 F.3d 1081 (9th Cir. 2003).

[304] Trout Unlimited v. U.S. Dep't of Agric., 320 F. Supp. 2d 1090 (D. Colo. 2004).

[305] *See supra* notes 272-84 and accompanying text. **R**

[306] *Trout Unlimited*, 320 F. Supp. 2d at 1107-08.

[307] *See supra* text accompanying notes 86-90. **R**

"minimize damage" when compared to mandatory off-site mitigation measures.

However, the BLM's voluntary off-site mitigation policy can be squared with *Trout Unlimited* for the same reasons it can be squared with *Mineral Policy Center*. Since the BLM recognizes exceptions to its general policy of only requiring off-site mitigation on a voluntary basis,[308] the BLM could "negotiate" for off-site mitigation at a wind-energy development when it determines doing so would be necessary to "minimize damage."

In any event, the determination that off-site mitigation would "minimize damage" could be a foregone conclusion, particularly if there are significant environmental impacts. As discussed above, there will always be some unavoidable ecological impacts caused by wind-energy development on public lands. Unless the facility is placed in an already industrialized or severely degraded portion of BLM land, it is likely to cause some avian mortality, break up habitat for sage grouse or other migratory species, or have some physical impact on otherwise undeveloped land.[309] Off-site mitigation will always provide the opportunity to lessen the overall impact on wildlife and the environment. Consequently, off-site mitigation would seemingly be the alternative that would "minimize damage" without completely denying the proposed development.

If analyzed in every environmental evaluation of a wind-energy development proposal, the "minimize damage" standard could make the mandatory off-site mitigation exception, expressed in the BLM Off-Site Mitigation Guidance, the general rule. With each proposal in which off-site mitigation is considered as an alternative, the BLM could be caught in the same trap the Forest Service laid for itself in *Trout Unlimited*.[310] An administrative record would conclusively show the Agency's chosen alternative did not "minimize damage." Thus, whether analysis of off-site mitigation occurs in an environmental assessment or environmental impact statement required by NEPA[311] could be determinative of whether off-site mitigation will be required.

On the other hand, if the environmental damage caused by a project were significantly less than that contemplated in *County*

[308] *See supra* text accompanying notes 106-14. **R**
[309] *See supra* notes 23-74 and accompanying text. **R**
[310] *See supra* text accompanying notes 272-85. **R**
[311] 42 U.S.C. § 4332(2)(A)-(C) (2006).

of Okanogan and *Trout Unlimited*,[312] a court may construe the "minimize damage" standard more narrowly. This could occur even if an off-site mitigation alternative was considered by the Agency and contained in the record before the court, as mandatory-bypass flows were in *Trout Unlimited*. For example, a court may not require off-site mitigation to "minimize damage" at an already degraded site with low ecological or other resource value. Like the UUD standard, further regulatory clarification by the BLM could be useful to determine just how much damage the "minimize damage" standard prohibits.

3. Can Off-Site Mitigation Be Ignored in NEPA Documents?

Perhaps recognizing that a well-developed analysis of an off-site mitigation alternative could undermine its voluntary off-site mitigation policy, the BLM Off-Site Mitigation Guidance proposes to ignore the possibility of off-site mitigation altogether. In fact, the BLM Off-Site Mitigation Guidance orders BLM officials "not to carry [off-site mitigation alternatives] forward for detailed analysis unless volunteered by the applicant."[313] As such, there would be no administrative record indicating that off-site mitigation would minimize the damage to wildlife when compared to other options. In *Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council*, the Supreme Court held that judicial review under the APA is generally limited to the administrative record.[314] Therefore, proponents of off-site miti-

[312] Both *County of Okanogan* and *Trout Unlimited* dealt with endangered species. *See supra* text accompanying notes 264, 273. **R**

[313] Bureau of Land Mgmt., Instruction Memorandum No. 2005-069, *supra* note 106, at 3. *See also supra* notes 114-15 and accompanying text. **R**

[314] Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, 435 U.S. 519, 549-55 (1978) (discussing judicial review of agency decision-making procedures). In *Vermont Yankee*, the plaintiffs challenged the agency's decision to not analyze "energy conservation" in an EIS as an alternative to building a new power plant. The Supreme Court explained its rationale for not requiring the agency to consider conservation:

> Administrative consideration of evidence . . . always creates a gap between the time the record is closed and the time the administrative decision is promulgated [and, we might add, the time the decision is judicially reviewed]. . . . If upon the coming down of the order litigants might demand rehearings as a matter of law because some new circumstance has arisen, some new trend has been observed, or some new fact discovered, there would be little hope that the administrative process could ever be consummated in an order that would not be subject to reopening."

Id. at 554-55 (quoting Interstate Commerce Comm'n v. Jersey City, 322 U.S. 503, 514 (1944)).

gation would find little relief in the courts without the analysis of an off-site mitigation alternative in the record, similar to the bypass-flow alternative that tripped up the Forest Service in *Trout Unlimited*.[315]

However, proponents of off-site mitigation at a particular wind-energy site may avoid this problem by first challenging the BLM's failure to analyze an alternative that incorporates mandatory off-site mitigation under NEPA. In order to force such an analysis, *Vermont Yankee* requires the proponents establish that off-site mitigation is not a "remote and speculative possibilit[y]."[316] The use of off-site mitigation is probably not remote or speculative given that the Washington Department of Fish and Wildlife recommends its use in agency guidance.[317] It has also been considered at Altamont and at least one potential site on BLM land.[318] Proponents of off-site mitigation who are able to present the BLM with off-site mitigation as an alternative early enough in the NEPA process would likely succeed in forcing analysis of off-site mitigation.[319]

Once a NEPA analysis is initiated, analysis of reasonable mitigation measures, including off-site mitigation, may actually be required, regardless of whether it is raised in the administrative process. In fact, the CEQ's NEPA regulations require the alternatives analysis of an EIS to "[i]nclude appropriate mitigation measures not already included in the proposed action or alterna-

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315 *See supra* notes 272-84 and accompanying text. **R**

316 *Vermont Yankee* 435 U.S. at 551 (quoting Natural Res. Def. Council v. Morton, 458 F.2d 827, 837-38 (D.C. Cir. 1972)) (internal quotations omitted).

317 *See supra* text accompanying note 102. **R**

318 *See supra* notes 96-97 and accompanying text. **R**

319 The BLM may argue that off-site mitigation should not be analyzed as an alternative under NEPA because the BLM does not have the discretion to require off-site mitigation. Courts have held that agencies do not have to analyze alternatives, or even go through NEPA, if they have no discretion to choose an alternative course of action. *See* Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 773 (2004) (NEPA inapplicable because the agency had no discretion to prevent proposed action and hence no authority to impose alternatives that may be analyzed under NEPA); *see also* South Dakota v. Andrus, 624 F.2d 1190, 1195 (8th Cir. 1980) (Department of the Interior did not have to conduct a NEPA analysis comparing alternatives to issuing an unrestricted mineral patent to a miner because the authority to grant the mineral patent was not discretionary). However, FLPMA's UUD standard and "minimize damage" standards clearly do authorize the BLM to impose off-site mitigation measures when necessary to comply with those standards. 43 U.S.C. § 1732(b) (2006); *id.* § 1765(a)(ii). Even if the BLM lacks the authority to require off-site mitigation, it clearly has the authority to reject wind-energy proposals altogether, making *Department of Transportation* and *South Dakota* inapposite.

tives."[320] Additionally, the CEQ regulations also include off-site compensatory mitigation among the hierarchy of potential mitigation alternatives that could be implemented and analyzed.[321] Therefore, a literal reading of the CEQ regulations would require an analysis of an alternative that employs available mitigation measures, possibly including off-site mitigation.

In *Methow Valley Citizens Council v. Regional Forester*,[322] the Ninth Circuit considered whether the Forest Service adequately analyzed potential mitigation measures to offset the unavoidable impact of a proposed ski resort in the North Cascades.[323] The discussion of mitigation was "presented in very general terms, lacking both a detailed description of required or possible mitigation measures, and any analysis as to the effectiveness of these measures."[324] In holding the EIS's analysis of potential mitigation measures inadequate, the Ninth Circuit stated: "Without a complete mitigation plan, the decisionmaker is unable to make an informed judgment as to the environmental impact of the project—one of the main purposes of an environmental impact statement."[325]

On review of *Methow Valley Citizens Alliance*, the Supreme Court reversed, reasoning that the Ninth Circuit imposed a "substantive requirement that a complete mitigation plan be actually formulated and adopted."[326] The Court also said that "it would be inconsistent with NEPA's reliance on procedural mechanisms—as opposed to substantive, result-based standards—to demand the presence of a fully developed plan that *will mitigate* environmental harm before an agency can act."[327] However, the Court indicated that the Ninth Circuit had permissibly imposed a

320 40 C.F.R. § 1502.14(f) (2006). *See also id.* § 1502.16(h) (requiring discussion of "[m]eans to mitigate adverse environmental impacts (if not fully covered under § 1502.14(f)")); *id.* § 1508.25(b) (requiring discussion of possible mitigation measures in defining the scope of the proposed action); & *id.* § 1505(c) (requiring the same in the explanation of the ultimate decision).

321 The CEQ regulations define mitigation to include "[c]ompensating for the impact by replacing or providing substitute resources or environments." 40 C.F.R. § 1508.20(e) (2005).

322 Methow Valley Citizens Council v. Reg'l Forester, 833 F.2d 810 (9th Cir. 1987), *rev'd sub nom*. Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989).

323 *Id.* at 819.

324 *Id.*

325 *Id.* at 820 (citing Or. Natural Res. Council v. Marsh, 820 F.2d 1051 (9th Cir. 1987)).

326 Robertson v. Methow Valley Citizens Alliance, 490 U.S. 332, 333 (1989).

327 *Id.* (emphasis added).

"requirement that mitigation be discussed in sufficient detail," so long as execution of a mitigation plan is not imposed upon the agency by the courts.[328] The Court explained that the rationale for requiring detailed discussion of potential mitigation alternatives goes to the heart of NEPA's purpose to make agency decision making more transparent to the public:

> [O]mission of a reasonably complete discussion of possible mitigation measures would undermine the "action-forcing" function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects. An adverse effect that can be fully remedied by, for example, an inconsequential public expenditure is certainly not as serious as a similar effect that can only be modestly ameliorated through the commitment of vast public and private resources.[329]

Thus, the Supreme Court indicated that a "reasonably complete discussion" of mitigation measures necessary to offset the impact of a project is required.[330]

The circuit courts of appeal disagree on how strenuously an agency's chosen mitigation strategies should be scrutinized under the CEQ regulations in order to comply with *Methow Valley Citizens Alliance*. Some circuits continue to read the CEQ regulations literally by requiring agencies to discuss potential mitigation measures in significant detail.[331] Of the circuits, the

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328 *Id.* at 352.

329 *Id.*

330 The Court's approval of the requirement to analyze mitigation is further evidenced by its citation to the CEQ regulations requiring and defining mitigation. *Id.* at 352. However, the Court did indicate that off-site impacts, including air-quality degradation and impacts to mule deer habitat caused by roads and housing developments that would surely follow the proposed ski area, need not be analyzed in the EIS. *Id.* at 352-53. Since those impacts could only be regulated by local governments and other third parties, the Forest Service did not have discretion over them. *Id.* Off-site mitigation of the off-site impacts of a ski resort is distinguishable from the possibility of requiring off-site mitigation for on-site impacts of wind-energy developments.

331 *See* Okanogan Highlands Alliance v. Williams, 236 F.3d 468, 473 (9th Cir. 2000) (requiring analysis of mitigation measures); *see also* Colo. Envt'l Coal. v. Dombeck, 185 F.3d 1162, 1173 (10th Cir. 1999) (citing *Methow Valley Citizens Council*, 490 U.S. at 351-52) ("By statute and regulation, an environmental impact statement must include a discussion of possible mitigation measures to avoid adverse environmental impacts."); Dubois v. U.S. Dep't of Agric., 102 F.3d 1273, 1288-89 (1st Cir. 1996) (relying on the discussion of alternatives incorporating mitigation in *Methow Valley Citizens Alliance* to require the Forest Service to analyze the use of constructed retaining ponds as an alternative to the proposal of using a natural pond for snow-making at a ski resort).

Ninth Circuit has probably read *Methow Valley Citizens Alliance* and the CEQ regulations as imposing the most onerous requirements on agencies:

> A mitigation plan "need not be legally enforceable, funded or even in final form to comply with NEPA's procedural requirements." . . . We need only be satisfied that the agency took the requisite "hard look" at the possible mitigating measures; but, on the other hand, a "perfunctory description" is not adequate to satisfy NEPA's requirements. A mere listing of mitigating measures, without supporting analytical data, also is inadequate.[332]

In contrast, the D.C. Circuit has read the language in *Methow Valley Citizens Alliance* to grant the agencies broad deference in choosing appropriate mitigation measures to discuss in an EIS.[333] However, the majority of circuits seem to agree that NEPA requires a reasonable discussion of mitigation. In a situation where on-site mitigation would be inadequate to off-set environmental harm, an adequate EIS may legally require a discussion of off-site mitigation measures. In such circumstances, the BLM's general policy of avoiding such analysis for wind-energy proposals may be legally indefensible.

The BLM may also be forced to conduct analysis of off-site mitigation in a supplemental EIS if it avoided doing so in an initial EIS, ultimately delaying implementation of a project. A supplemental EIS is required whenever the Agency "makes substantial changes in the proposed action that are relevant to environmental concerns."[334] For example, imagine if the Agency's EIS merely analyzed a no-action alternative that would reject the project and an alternative employing the BLM's on-site BMPs, without considering off-site mitigation.[335] If the analysis revealed that even with the on-site BMPs environmental harm would be extreme, the Agency would likely be forced to reject

[332] *Okanogan Highlands Alliance*, 236 F.3d at 473 (quoting Nat'l Parks & Conservation Ass'n v. U.S. Dep't of Transp., 222 F.3d 677, 681 n.4 (9th Cir. 2000); Neighbors of Cuddy Mountain v. U.S. Forest Serv., 137 F.3d 1372, 1380 (9th Cir. 1998); Idaho Sporting Cong. v. Thomas, 137 F.3d 1146, 1147 (9th Cir. 1998)).

[333] *See* Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 206 (D.C. Cir. 1991) (approving the FAA's analysis of only two alternatives, the proposal to expand a runway or deny such approval, and indicating, "NEPA not only does not require agencies to discuss any particular mitigation plans that they might put in place, it does not require agencies—or third parties—to effect any.") (citing *Methow Valley Citizens Alliance*, 490 U.S. at 353 n.16).

[334] 40 C.F.R § 1502.9(c)(1)(i) (2006).

[335] *See supra* text accompanying notes 86-94. **R**

the project under the UUD standard for the extreme objective environmental harm.[336]

In response, the developer may "volunteer" off-site mitigation to try to bring the project within the acceptable level of overall harm.[337] The BLM would thus analyze the off-site mitigation proposal in a supplemental EIS because off-site mitigation would be a "substantial change in the proposed action."[338] In such a situation, the developer may be delayed for a significant time while the supplemental EIS is prepared, subjected to public comment, and finalized.[339] As such, the BLM's policy of not analyzing off-site mitigation could cause undue delays for wind-energy developments that would cause undue degradation.[340] Since the term "undue degradation" is both statutorily ambiguous and undefined by the BLM,[341] prudent wind-energy developers may wish to "volunteer" economically feasible off-site mitigation to avoid delays caused by a supplemental EIS. Of course, as discussed above, this may result in the off-site mitigation alternative being selected in many instances to "minimize damage" to the environment.[342]

III

CONCLUSION

FLPMA's requirements to prevent "unnecessary or undue degradation" and "minimize damage" to the environment[343] will require the BLM to impose more onerous regulations than the baseline on-site BMPs in its programmatic wind-energy policy for many wind-energy developments. In such cases, the BLM will have a duty to either deny a proposed wind-energy develop-

336 Altamont Wind Resource Area may be an example of an existing site that would violate the UUD standard without off-site mitigation. *See supra* notes 52-61 and accompanying text; *see also supra* Part II.B.1 (concluding that the UUD standard would require rejection of proposals that cause excessive environmental harm). R

337 *See supra* text accompanying notes 106-19. R

338 40 C.F.R § 1502.9(c)(1)(i).

339 A supplemental EIS must go through the same public process as a draft EIS. *See* 40 C.F.R. § 1503.1 (2006) (requiring inter-agency and public comment on a draft EIS before it is finalized); *id.* § 1502.9(c)(4) (requiring supplements to be prepared and circulated in the same fashion as drafts).

340 43 U.S.C. § 1732(b) (2006).

341 *See supra* Part II.B.1.

342 *See supra* text accompanying notes 304-08. R

343 *See* 43 U.S.C. § 1732(b) (2006) (unnecessary or undue degradation); *id.* § 1765(a) (minimize damage).

ment, or impose additional non-voluntary and perhaps off-site mitigation measures to decrease environmental damage to an acceptable level. At this point, the level of harm that would trigger the need for additional mitigation measures is difficult to determine because the BLM has not defined the statutory terms.

The BLM could decrease the risk of delaying projects with litigation and more faithfully implement its statutory obligations by requiring wind-energy developers to completely mitigate impacts with a mandatory, off-site mitigation program. Such a program should further define the statutory terms "undue degradation" and "minimize damage" to provide wind-energy developers and other interested parties with an idea of how much harm is permissible. By doing so, the BLM may ultimately achieve substantial increases in alternative-energy production on public lands as envisioned in President Bush's National Energy Policy, while at the same time implement its statutory obligation to prevent environmental harm more effectively.