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**On the Cusp of Property Rights:
Lessons from Public Land Law**

by

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On The Cusp of Property Rights: Lessons from Public Land Law

*Marla E. Mansfield**

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[T]he right of property . . . [is] that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.¹

[It] consists in the free use, enjoyment, and disposal of all [a person’s] acquisitions, without any control or diminution, save only by the laws of the land.² — *William Blackstone*

The idea of property consists in an established expectation; . . . an advantage in the thing possessed. . . . Now this expectation . . . can only be the work of law. I cannot count upon the enjoyment of that which I regard as mine, except through the promise of the law which guarantees it to me. . . . Property and law are born together, and die together.³
— *Jeremy Bentham*

INTRODUCTION

The familiar definitions of property quoted above contain the germs of conflict: both declare the importance of individual desires and choices, but also recognize that laws circumscribe the enjoyment of private property. This tension between private and public demands sometimes may redefine the rights of property owners. The conflict is particularly strong in the context of public lands management, where the exercise of private rights may affect lands that serve a myriad of different purposes for different members of the public. Law developed to reconcile competing property rights in other settings may help resolve these conflicts. Similarly, lessons from public land law may alter more general perceptions of property rights.

Although the term “public lands” suggests all lands owned by the federal government, for the purposes of this Article it refers only to property managed by the Bureau of Land Management (BLM), an agency of

1. 2 W. BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND *2.
 2. 1 *id.* at *134 (emphasis added).
 3. J. BENTHAM, THEORY OF LEGISLATION 112-13 (R. Hildreth trans. 1864) (1st ed. 1802).

the Department of the Interior.⁴ The 448 million acres of land under the BLM's jurisdiction fulfill numerous demands for such things as wilderness preservation, recreation, and commodity production.⁵ The BLM faces a difficult challenge in reconciling these competing demands, particularly when private development rights conflict with collective values, such as environmental protection.⁶

Because the Federal Land Policy and Management Act of 1976 (FLPMA),⁷ the BLM's organic statute, does not directly resolve disputes between competing public and private demands, the BLM's task is even more difficult.⁸ FLPMA does not require the BLM to devote any particular tract of public land to any specific use. Instead, the statute grants the agency flexibility in allocating resources.⁹ Nevertheless, FLPMA broadly requires that the BLM, "in managing the public lands . . . shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands."¹⁰ This command is the lodestar by which the BLM is to judge the impacts of any specific proposal to use public lands. It is not a precise guide.¹¹

4. The statute governing the BLM defines "public lands" as those lands administered by the BLM. See 43 U.S.C. § 1702(e) (1988). Public lands managed by the BLM are located primarily in the 11 contiguous western states and Alaska. Generally speaking they are federal lands not reserved for specific purposes, in contrast to National Parks or National Forests. About one-half of the BLM lands are in Alaska. G. COGGINS & C. WILKINSON, *FEDERAL PUBLIC LAND AND RESOURCES LAW* 162 (2d ed. 1987).

5. See G. COGGINS & C. WILKINSON, *supra* note 4, at 162; SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, *NATURAL RESOURCE LANDS MANAGEMENT ACT*, S. REP. NO. 583, 94th Cong., 1st Sess. 27-36 (1975).

6. Environmental values are collective because, although society views them as beneficial, private property is rarely dedicated to their protection. Public lands may be particularly suited to serving collective values. See Sagoff, *We Have Met the Enemy and He Is Us or Conflict and Contradiction in Environmental Law*, 12 ENVTL. L. 283 (1982); Sax, *The Legitimacy of Collective Values: The Case of the Public Lands*, 56 U. COLO. L. REV. 537 (1985).

7. Pub. L. No. 94-579, 90 Stat. 2743 (1976) (codified as amended at 43 U.S.C. §§ 1701-1784 (1988)).

8. To add to the disarray, the BLM administers specific resources under several other statutes. See, e.g., Materials Act of 1947, 30 U.S.C. §§ 601-602 (1988); Mineral Leasing Act, 30 U.S.C. §§ 181-287 (1988); Mining Law of 1872, 30 U.S.C. §§ 22-54 (1988); Taylor Grazing Act, 43 U.S.C. §§ 315-315r (1988).

9. See generally Mansfield, *The "Public" in Public Land Appeals: A Case Study in "Reformed" Administrative Law and Proposal for Orderly Participation*, 12 HARV. ENVTL. L. REV. 465, 498-99 (1988) (noting the wide variety of potentially conflicting demands the BLM must reconcile).

10. 43 U.S.C. § 1732(b) (1988).

11. The statute further complicates the BLM's task by using two slightly different formulations of the unnecessary or undue degradation standard without explanation. The command to prevent unnecessary or undue degradation appears once in FLPMA § 302(b), 43 U.S.C. § 1732(b) (1988) (dealing with general land use), and again in FLPMA § 603(c), 43 U.S.C. § 1782(c) (1988) (prescribing standard of land management to be used while Congress is determining the permanent status of Wilderness Study Areas). See *infra* notes 71-95 and accompanying text.

Implementing the unnecessary or undue degradation standard may create conflicts between public and private interests. Congress' use of the imperative "shall" creates a duty to moderate private as well as public activity to prevent unnecessary or undue degradation of the public lands. The scope of the BLM's regulatory powers under this duty may be very broad. FLPMA may authorize the BLM not only to refuse to grant a private right or interest in the public land, but also to regulate any private activities that impact public lands regardless of where such activity is undertaken. Courts have held that the BLM may not completely forbid a private activity,¹² but they have not yet defined the full extent of the BLM's power under FLPMA.

This Article examines the boundary between private and public property rights by addressing the scope of the BLM's authority to prevent unnecessary or undue degradation of public lands. The analysis focuses on the problems that can arise when a privately owned mineral interest lies under a tract of public land. To make the discussion of the BLM's dilemma more relevant to general property rights analysis, the Article assumes that the private mineral interest was reserved when the land was conveyed to the BLM.¹³ The surface of the land, because it is managed by the BLM, clearly falls within FLPMA's definition of public land.¹⁴ The private mineral right adjoins the public surface, but the mineral right is separately owned. Because the private interest did not arise from a federal lease or a federal mining claim, no specialized rules govern its development.¹⁵

For this type of private interest, FLPMA's command to prevent unnecessary or undue degradation is the only authority available to justify the BLM's regulation of private development. Thus, how the BLM chooses to interpret FLPMA's vague language can profoundly affect the

12. See *Sierra Club v. Clark*, 774 F.2d 1406, 1410 (9th Cir. 1985) (BLM may not employ standard to prohibit all off-road vehicle activity); *Sierra Club v. Hodel*, 848 F.2d 1068, 1088 (10th Cir. 1988) (BLM may not employ standard to deny exercise of vested property right).

13. Although most BLM land does not contain reserved mineral interests, the situation does occur. See *Ramex Mining Corp. v. Watt*, 753 F.2d 521 (6th Cir.), *cert. denied*, 474 U.S. 900 (1985).

14. Except for the Outer Continental Shelf and lands managed for indigenous peoples, FLPMA defines public lands as "any land and interest in land . . . administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership." 43 U.S.C. § 1702(e) (1988); see *Sierra Club v. Watt*, 608 F. Supp. 305, 331-38 (E.D. Cal. 1985) (split estate lands, where the United States does not own the subsurface mineral rights, are public lands).

15. This assumption eliminates a variety of issues. See, e.g., *South Dakota v. Andrus*, 614 F.2d 1190, 1193 (8th Cir.), *cert. denied*, 449 U.S. 822 (1980) (patent applicant with valid mining claim has absolute right to patent; because government agency exercises no discretion in granting patent, preparation of environmental impact statement pursuant to NEPA not required). Isolating the mineral right from a federal grant removes contract doctrine from the picture and also avoids the issue of a government taking of rights granted by contract. See *Sierra Club v. Peterson*, 717 F.2d 1409 (D.C. Cir. 1983); *Union Oil Co. of California v. Morton*, 512 F.2d 743, 750-51 (9th Cir. 1975).

relationship between competing public and private interests that may affect public lands. One option, here termed the "weak" interpretation of the standard, is to concentrate on accommodating the private right while minimizing degradation of public lands. This approach would limit the BLM to fine-tuning the private activity while allowing the developer to take all measures essential to the exercise of the private right.

A second option, the "strong" interpretation, would allow the BLM to balance the private right against the land's other potential uses, which includes serving collective environmental values. Under the strong interpretation, the BLM could subordinate private objectives to the maintenance of collective interests when the value of those interests dwarfs that of the private endeavor. Use of the strong interpretation could, in places, dramatically readjust the boundary between private and public rights.

To date, the BLM has consistently employed the weak interpretation of the unnecessary or undue degradation standard. Although this stance is not unreasonable, FLPMA permits the stronger interpretation. Drawing on the history of public land law, the nature of the Property Power, and the importance of the collective values served by the public lands, this Article argues that the BLM has the power to adopt the strong interpretation, and should use that interpretation to preclude private activity in appropriate circumstances. The Article finds support for this argument in the law governing disputes between surface and mineral estate owners, the public trust doctrine, and, to a limited extent, takings jurisprudence.

Part I reviews the history of public lands management through FLPMA's enactment. Part II analyzes regulatory and judicial interpretations of FLPMA's unnecessary or undue degradation standard. Part III considers the legal models that have evolved to reconcile disputes between private owners of mineral and surface rights. Part IV argues for adoption of the strong interpretation of the unnecessary or undue degradation standard by examining the nature of the collective interests involved and using the public trust doctrine as an interpretative aid. Part V then considers how this enhanced regulatory authority might be implemented. Finally, part VI briefly outlines the regulatory takings issues implicated by the proposed changes in the interpretation of FLPMA's management standard.

I

BACKGROUND: THE BLM AND ITS AUTHORITY

A. Evolution of the BLM: From Auctioneer to Manager

Public lands have a prominent place in the American mythology of the frontier. They are where the deer, the antelope, and the cowboy roam. They are where the wizened prospector led his mules in search of

gold. Despite these rather vivid images, the BLM and its public lands, unlike other federal lands, have failed to capture general public enthusiasm. The National Parks have come to be regarded as the crown jewels of the nation's lands. Hunters and others concerned with wildlife support the primary purposes of National Wildlife Refuges. Despite a timber industry bias, the Forest Service has Smokey the Bear, who invites families to picnic and camp in the National Forests. By contrast, the BLM lacks an identifiable, sympathetic image. One explanation for this void lies in the agency's historic emphasis on meeting the distinct needs of resource-oriented industries.

The formal history of the BLM began when the General Land Office merged with the Grazing Service in 1946.¹⁶ The General Land Office had been responsible for disposal of lands and resources under various homestead laws, state land grants, and mineral laws.¹⁷ The Grazing Service managed grazing districts under the Taylor Grazing Act of 1934,¹⁸ which was primarily designed to promote and stabilize the cattle industry by providing access to forage.¹⁹

The BLM inherited the older agencies' perspectives. The merged agency often appeared to be only an instrument for giving private enterprise its rightful share of public resources.²⁰ This emphasis on moving land and resources to private ownership reflected the original duties of the Secretary of the Interior, which concentrated on the orderly and lawful transfer of public lands to private control.²¹ The General Land Office adopted this land transfer mantle, but was not otherwise an aggressive or effective long-term land manager.

16. Coggins & Lindeberg-Johnson, *The Law of Public Rangeland Management II: The Commons and the Taylor Act*, 13 ENVTL. L. 1, 61-67 (1982).

17. In disposing of federally owned lands, the General Land Office did not always meet congressional goals. Greene, *Promised Land: A Contemporary Critique of Distribution of Public Land by the United States*, 5 ECOLOGY L.Q. 707, 714-18 (1976).

18. 43 U.S.C. §§ 315-315r (1988).

19. *Natural Resources Defense Council v. Hodel*, 618 F. Supp. 848, 856-57 (E.D. Cal. 1985).

20. See Coggins, Evans & Lindeberg-Johnson, *The Law of Public Rangeland Management I: The Extent and Distribution of Federal Power*, 12 ENVTL. L. 535, 536-37 (1982) (traditional concern for provision of grazing land in tension with effective management).

21. 43 U.S.C. § 2 (1988). Although no one could wrongfully exclude others from the public lands, these newly private lands were to be developed. *United States ex rel. Bergen v. Lawrence*, 848 F.2d 1502 (10th Cir. 1988), *aff'g* 620 F. Supp. 1414 (D. Wyo. 1985); see *Camfield v. United States*, 167 U.S. 518, 522-26 (1897) (discussing right of occupiers of public land to develop it); *Buford v. Houtz*, 133 U.S. 320, 326-28 (1890) (defendants cannot be deprived of right to graze cattle on uncultivated federal land); *United States v. Curtis-Nevada Mines, Inc.*, 611 F.2d 1277, 1285 (9th Cir. 1980) (mining claimants can restrict public use where there is active mining or prospecting). The Secretary's role was to assure compliance with the law and to prevent assertion of invalid claims against these commonly held lands. *Best v. Humboldt Placer Mining Co.*, 371 U.S. 334, 338 (1963); *Cameron v. United States*, 252 U.S. 450, 460 (1920); *Knight v. United States Land Ass'n*, 142 U.S. 161, 177-82 (1891).

Over time, the duties of the General Land Office and, later, the BLM gradually expanded to include more than just the transfer of lands from the public domain to private control.²² First, the General Land Office began to dispense resources distinct from land. For example, the Mineral Lands Leasing Act of 1920²³ gave the Secretary greater control over the development of certain minerals by imposing a leasing system. Under this law, the Secretary could protect public land values other than mineral resources.²⁴ Additionally, the Taylor Grazing Act, while envisioning eventual disposal of public lands, allowed the Secretary to transfer rights to use the forage resource without transferring the lands.²⁵ Later statutes, enacted subsequent to the BLM's formation, further expanded the agency's duties. The Multiple Use Mining Act of 1955²⁶ and the Classification and Multiple Use Act of 1964²⁷ directed the agency to manage and classify lands for different purposes.²⁸

As a changing population placed new recreational and aesthetic demands on the public lands, however, it became apparent that the BLM's mandate needed fundamental, not piecemeal, revision.²⁹ Congress en-

22. For a summary of the statutory history of the Interior Department's duties with respect to the public lands, see Coggins, *The Public Interest in Public Land Law: A Commentary on the Policies of Secretary Watt*, 4 PUB. LAND L. REV. 1, 9-10 (1983).

23. Pub. L. No. 66-146, 41 Stat. 437 (1920) (codified as amended at 30 U.S.C. §§ 181-217 (1988)). One of the purposes of this Act was to prevent overproduction of mineral resources. Leasing replaced patenting for fuel minerals (oil, gas, oil shale, coal, native asphalt, and bituminous rock) and fertilizer and chemical minerals (phosphate, potash, and sodium). See generally Mansfield, *Through the Forest of the Onshore Oil and Gas Leasing Controversy Toward a Paradigm of Meaningful NEPA Compliance*, 24 LAND & WATER L. REV. 85, 90-98 (1989) (analyzing leasing as method of governmental control of development of oil and gas resources); Comment, *The Interrelationships of the Mineral Lands Leasing Act, the Wilderness Act, and the Endangered Species Act: A Conflict in Search of a Resolution*, 12 ENVTL. L. 363, 367-84 (1982) (describing development of leasing system for disposal of surface and subsurface resources to private entrepreneurs and the extent of the BLM's discretionary authority in making leasing decisions).

24. *Boesche v. Udall*, 373 U.S. 472, 480-83 (1963).

25. Ch. 865, §§ 5-6, 48 Stat. 1269, 1271-72 (codified at 43 U.S.C. § 315d-315e (1988)). Under the Act, the federal government was to manage grazing districts "pending . . . final disposal," which indicates that the lands were to be eventually transferred. 43 U.S.C. § 315 (1988).

26. Ch. 375, 69 Stat. 368 (codified as amended at 30 U.S.C. §§ 611-615 (1988)); see *infra* notes 113-16 and accompanying text.

27. Pub. L. No. 88-607, 78 Stat. 988 (1964) (expired 1970).

28. For the "conventional" wisdom that "multiple use" provides an ineffectual standard, see Behan, *The Succotash Syndrome, or Multiple Use: A Heartfelt Approach to Forest Land Management*, 7 NAT. RESOURCES J. 473 (1967); Comment, *Managing Federal Lands: Replacing the Multiple Use System*, 82 YALE L.J. 787, 788 (1973). But see Coggins, *Of Succotash Syndrome and Vacuous Platitudes: The Meaning of "Multiple Use, Sustainable Yield" for Public Land Management*, 53 U. COLO. L. REV. 229, 243-50 (1981); Marsh & Sherwood, *Metamorphosis in Mining Law: Federal Legislative and Regulatory Amendment and Supplementation of the General Mining Law Since 1955*, 26 ROCKY MTN. MIN. L. INST. 209, 247-50 (1980).

29. See Clawson, *The Federal Land Policy and Management Act of 1976 in a Broad Historical Perspective*, 21 ARIZ. L. REV. 585, 595 (1979) (FLPMA's origins found in demo-

acted FLPMA in 1976 in response to this need.³⁰ Grazing and mineral functions remain strong elements of the agency's role under the new statute.³¹ For the first time, however, FLPMA requires the BLM to do what its name implies: manage land.³² FLPMA's enumerated policies show the importance of planning and management as central functions of the BLM.³³

FLPMA forces the BLM to consider disparate values, but does not demand a particular result. In crafting FLPMA, Congress did not adopt the advice of the Public Land Law Review Commission (PLLRC).³⁴ The PLLRC recommended that the BLM undertake comprehensive planning, with Congress providing a clear set of goals. Certain lands would be devoted to primary uses. In cases of conflict, the BLM would follow priorities specified by Congress.³⁵ By contrast, the planning pro-

graphic, economic, social, and political trends). For criticisms identifying past and present problems such as underfunding, political pressure, and conflicting demands placed on the BLM, see Coggins, Evans & Lindeberg-Johnson, *supra* note 20, at 564; Fairfax, *Old Recipes for New Federalism*, 12 ENVTL. L. 945, 973 (1982).

30. Clawson, *supra* note 29, at 595-96.

31. See, e.g., 43 U.S.C. §§ 315b, 315j, 1751-1753 (1988) (grazing management); *id.* § 1701(a)(12) (policy includes management to promote food and mineral production); *id.* § 1702(f) (major or principal uses include domestic livestock grazing and mineral exploration and production); see *Fallini v. Hodel*, 725 F. Supp. 1113, 1117-18 (D. Nev. 1989) (primary intent of grazing statutes is to protect livestock); Public Rangeland Improvement Act of 1978, 43 U.S.C. §§ 1901-1908 (1988).

32. FLPMA made some management duties mandatory. See, e.g., Natural Resources Defense Council v. Hodel, 618 F. Supp. 848, 869 (E.D. Cal. 1985) (BLM may not abdicate responsibility to set terms in grazing permits). Nevertheless, FLPMA reestablished the previously criticized goals of multiple use and sustained yield as guiding concepts. 43 U.S.C. § 1732(a) (1988). According to Professor Coggins, these concepts have become more than platitudes within the context of FLPMA: "Inherent in the concept are detailed and comprehensive commands to force thinking before acting and to mold individual actions into a long-range scheme for the public benefit. FLPMA does not allow the manager to do whatever appears politic or expedient at the time." Coggins, *The Law of Public Rangeland Management IV: FLPMA, PRIA, and the Multiple Use Mandate*, 14 ENVTL. L. 1, 65 (1984). For an argument that "dominant use management" (management of individual tracts for specialized production rather than mixed use) might better achieve the goal of serving disparate uses, see Daniels, *Rethinking Dominant Use Management in the Forest-Planning Era*, 17 ENVTL. L. 483 (1987).

33. "[T]he public lands [should] be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest. . . ." 43 U.S.C. § 1701(a)(1) (1988); see *Lujan v. National Wildlife Federation*, 110 S. Ct. 3177, 3183 (1990) (FLPMA established "a policy in favor of retaining public lands for multiple use management").

34. The PLLRC was established pursuant to Pub. L. No. 88-607, 78 Stat. 986 (1964) (expired 1970), and advised both Congress and the President. Its main publication was *ONE THIRD OF THE NATION'S LAND: A REPORT TO THE PRESIDENT AND TO THE CONGRESS* (1970) [hereinafter *ONE THIRD OF THE NATION'S LAND*].

35. *ONE THIRD OF THE NATION'S LAND*, *supra* note 34, at 45-48. The PLLRC suggested a nonexhaustive list of value preferences to Congress. Under this scheme, Congress could have directed the BLM to favor regional economic growth or values that do not have a market price, or could have required that the BLM adopt the option that was least harmful to the environment.

cedure adopted in FLPMA simply requires the BLM to "consider" both present and future uses of the public lands³⁶ as well as the relative scarcity of their valuable attributes.³⁷ FLPMA also requires "a systematic interdisciplinary approach to achieve integrated consideration of physical, biological, economic, and other sciences."³⁸ These duties, however, are procedural requirements, not substantive guidelines.³⁹ Moreover, when it does provide policy guidance, FLPMA articulates the mutually exclusive goals of environmental protection on the one hand,⁴⁰ and enhancement of production on the other.⁴¹ Other sections of FLPMA, such as those dealing with land and resource dispositions, similarly contain laundry lists of policy considerations, many of which are open to discretionary interpretation.⁴²

The result of a compromise between forces battling for control of the public lands,⁴³ FLPMA reflects the concerns of many groups, including environmentalists, miners, and ranchers. It therefore appears "internally inconsistent."⁴⁴ The apparent conflicts between the disparate policy goals can largely be resolved by considering the public lands as a whole. Some lands might best serve one goal, while others could more effectively be used to achieve another. In this way, all of the purposes specified by Congress could be served on some portion of the public lands.⁴⁵

Congress did not direct the BLM to consistently favor either resource use or land preservation. Nor did it provide the BLM with a clear standard to employ in choosing among these interests when they conflict.⁴⁶ Unlike statutes imposing rigid substantive restrictions⁴⁷ or pro-

36. 43 U.S.C. § 1712(c)(5) (1988).

37. *Id.* § 1712(c)(6).

38. *Id.* § 1712(c)(2).

39. Procedural controls are not without value. They can influence decisions and improve awareness of environmental concerns. *See Mansfield, supra* note 9, at 495, 505.

40. 43 U.S.C. § 1701(a)(8) (1988).

41. *Id.* § 1701(a)(12).

42. *See id.* § 1713(a) (sales allowed when disposal "will serve important public objectives . . . which outweigh other public objectives and values, including . . . recreation and scenic values"); *id.* § 1716(a) (exchanges must be in the public interest and BLM in so determining must consider "better Federal land management and the needs of State and local people, including needs for lands for the economy, community expansion, recreation areas, food, fiber, minerals, and fish and wildlife"); *id.* § 1719(b) (government may convey reserved mineral interests when "reservation of mineral rights in the United States is interfering with or precluding appropriate nonmineral development of the land and that such development is a more beneficial use of the land than mineral development") (emphasis added).

43. *See Clawson, supra* note 29, at 595-96.

44. *Utah v. Andrus*, 486 F. Supp. 995, 1002 (D. Utah 1979).

45. *See id.* at 1003 ("Some lands can be preserved, while others, more appropriately, can be mined."). This case shows how courts ignore FLPMA's proviso that its policies are not binding in the absence of statutory enactment. 43 U.S.C. § 1701(b) (1988). Courts tend to view the policies as binding. *See Coggins, supra* note 32, at 10.

46. *Mansfield, supra* note 9, at 490-95.

viding specific direction for resolving conflicts,⁴⁸ FLPMA allows the agency to choose from a variety of permissible results. Nonetheless, a spirit of environmental protection infuses FLPMA.⁴⁹ Moreover, FLPMA specifically requires that the BLM, in "managing the public lands," take all action necessary to prevent "unnecessary or undue degradation."⁵⁰ These features of FLPMA may authorize the BLM to limit private resource exploitation under proper circumstances.

B. Scope of the Property Power

The BLM's regulatory authority over the public lands ultimately derives from the Property Clause of the U.S. Constitution, which gives Congress the authority to "dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States."⁵¹ This clause gives Congress broad discretion to set terms for the use and disposition of public property,⁵² and allows Con-

47. The Endangered Species Act of 1973 (ESA), 16 U.S.C. §§ 1531-1544 (1988), is one example of such a statute. The Supreme Court has held that the ESA requires protection of species threatened with extinction, and that courts have no discretion to soften the statute's impacts. *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 193-95 (1978).

48. Other statutes have been interpreted as substantive, but without the rigidity of the ESA. For example, the Wild and Scenic Rivers Act requires the managing agency to administer a designated river "to protect and enhance the values which caused it to be included in [the Wild and Scenic River] system without, insofar as consistent therewith, limiting other uses that do not substantially interfere with public use and enjoyment of these values." 16 U.S.C. § 1281(a) (1988). The values that make a river wild and scenic are paramount, but because interference with these protected values must be "substantial" before an activity is forbidden, the agency retains some discretion. *Wilderness Soc'y v. Tyrrel*, 701 F. Supp. 1473, 1478-79 (E.D. Cal. 1988). Several other acts allow some agency discretion within a protective framework. See *Oregon Natural Resources Council v. Lyng*, 882 F.2d 1417, 1422 n.4 (9th Cir. 1989) (Hell's Canyon National Recreation Area Act); *Izaak Walton League v. St. Claire*, 497 F.2d 849, 852-53 (8th Cir.), cert. denied, 419 U.S. 1009 (1974) (Wilderness Act); Comment, *A Question of Balance: The National Forest Management Act and Draft Forest Plans in the Northern Region*, 6 PUB. LAND L. REV. 141, 149-52 (1985).

49. See *Natural Resources Defense Council v. Hodel*, 618 F. Supp. 848, 857-61 (E.D. Cal. 1985); *Sierra Club v. Andrus*, 487 F. Supp. 443 (D.D.C. 1980), *aff'd on other grounds sub nom. Sierra Club v. Watt*, 659 F.2d 203 (D.C. Cir. 1981). For commentators emphasizing FLPMA's environmental mandate, see, for example, Coggins, *supra* note 32, at 14, 26-32 (protection of environmental values one of FLPMA's major themes); Hagenstein, *Public Lands and Environmental Concerns*, 21 ARIZ. L. REV. 449, 451 (1979) (FLPMA "provides a strong mandate for considering environmental values in future public land decisions"). For the contrary view, see Marsh & Sherwood, *supra* note 28, at 261-72 (Congress required that public lands be used to achieve mineral independence); Peck, "And Then There Were None"—*Evolving Federal Restraints on the Availability of Public Lands for Mineral Development*, 25 ROCKY MTN. MIN. L. INST. 3-2, 3-14 (1979) (limiting development violates congressional statutes and policies).

50. 43 U.S.C. § 1732(b) (1988); see *id.* § 1782(c).

51. U.S. CONST. art. IV, § 3, cl. 2.

52. The United States wields not only the power of a proprietor but also that of a sovereign. See, e.g., *Kleppe v. New Mexico*, 426 U.S. 529, 539-40 (1976); Comment, *supra* note 23, at 399. But see Engdahl, *State and Federal Power Over Federal Property*, 18 ARIZ. L. REV. 283, 296 (1976) (arguing that the Jurisdiction Clause (U.S. CONST. art. I, § 8, cl. 17) grants

gress to enact regulations beyond the scope of its other enumerated powers⁵³ in order to protect public lands.⁵⁴ The Property Clause does not explicitly grant the federal government any power over private interests, whether or not those interests may affect public lands. Nonetheless, private activities may become subject to federal regulation under the Property Clause in two ways.

First, in order to carry out their desired activities, private parties may need supplemental property grants from the federal government. Because these grants would fall within the BLM's traditional power to control disposal of public lands, the BLM may have the authority to regulate these private activities by conditioning the supplemental grants to protect the public lands.⁵⁵ For example, if a private owner of mineral rights needed a right-of-way across public lands to reach a mineral deposit, the BLM could use that need to regulate the private activity. In setting the terms of an access grant, the BLM could consider the impacts mining would have on the public lands.⁵⁶ Impacts judged to be too severe could arguably justify complete denial of access.⁵⁷ Even if access

sovereign powers only over federal enclaves). For criticisms of Engdahl's view, see Sullivan, *The Power of Congress under the Property Clause: A Potential Check on the Effect of the Chadha Decision on Public Land Legislation*, 6 PUB. LAND L. REV. 65, 82 (1985); Wilkinson, *The Field of Public Land Law: Some Connecting Threads and Future Directions*, 1 PUB. LAND L. REV. 1, 9-12 (1980) (Engdahl's model of sovereignty may have been original intent, but was never implemented by courts). See also Coggins, Evans & Lindberg-Johnson, *supra* note 20, at 577-88; Cowart & Fairfax, *Public Lands Federalism: Judicial Theory and Administrative Reality*, 15 ECOLOGY L.Q. 375, 441-50 (1988).

53. *Camfield v. United States*, 167 U.S. 518, 525 (1897) (Property Clause "analogous to the police power of the several states").

54. *United States v. Vogler*, 859 F.2d 638, 641 (9th Cir. 1988), *cert. denied*, 488 U.S. 1006 (1989); *cf. Hunt v. United States*, 278 U.S. 96 (1928) (U.S. may authorize killing of deer on federal land when those deer are endangering the land, irrespective of a particular state's hunting laws).

55. Gaetke, *The Boundary Waters Canoe Area Wilderness Act of 1978: Regulating Nonfederal Property Under the Property Clause*, 60 OR. L. REV. 157, 166 (1981). The power to impose conditions usually operates when the private right is initially granted, and might therefore not apply directly to a reserved mineral estate. *Cf. Gould, Public Trust Doctrine and Water Rights*, 34 ROCKY MTN. MIN. L. INST. 25-1, 25-19 (1988) (grantee who receives property subject to traditional public trust duties must accept the possibility of regulation).

56. See *South Dakota v. Andrus*, 614 F.2d 1190, 1195 (8th Cir.), *cert. denied*, 449 U.S. 822 (1980); see also *Marsh & Sherwood, supra* note 28, at 257 ("Any mining operation on the public lands of sufficient scope to have a 'significant' effect on the human environment will inevitably involve some sort of discretionary federal action."); Noble, *Environmental Regulation of Hardrock Mining on Public Lands: Bringing the 1872 Law Up to Date*, 4 HARV. ENVTL. L. REV. 145, 158-60 (1980) (BLM may act to block mining ventures not in public interest by denying rights-of-way and additional land; this discretion exists even if venture plans satisfy federal mining laws).

57. Statutory access rights might preclude denial of access for some inholdings or rights under the Mining Law. See, e.g., 30 U.S.C. § 22 (1988); 16 U.S.C. § 3210 (1988). See generally Martz, Love & Kaiser, *Access to Mineral Interests by Right, Permit, Condemnation, or Purchase*, 28 ROCKY MTN. MIN. L. INST. 1075 (1988); Quarles & Lundquist, *You Can Get There From Here: The Alaska Lands Act's Innovations in the Law of Access Across Federal Lands*, 22 LAND & WATER L. REV. 347 (1987).

were granted, that grant could be, and under FLPMA would have to be, conditioned to protect the environment.⁵⁸

Second, private activities may harm the public lands, directly or indirectly. The Property Clause, if read broadly, would give the BLM the power to prevent this harm. Courts have long approved the use of the property power to prevent harm to federal lands from activities undertaken on private lands. For example, one early case upheld a federal conviction for causing a fire that threatened federal land, although the fire began on private land.⁵⁹ Another affirmed the conviction of an individual who had erected fences on private land, preventing access to public land.⁶⁰

The courts have also extended the concept of "harm" to include congressional policy as well as the physical integrity of the public lands.⁶¹ As one recent decision stated, "[u]nder this authority to protect public land, Congress' power must extend to regulation of conduct on or off the public land that would threaten the designated purpose of federal land."⁶²

Most of the cases affirming federal power to regulate activities occurring on private land have dealt with inholdings, private interests that are within the geographic boundary of a public reserve.⁶³ The federal

58. FLPMA subch. V, 43 U.S.C. §§ 1761-1771 (1988); see *Getty Oil Co. v. Clark*, 614 F. Supp. 904, 915-16 (D. Wyo. 1985), *aff'd sub nom. Texaco Producing, Inc. v. Hodel*, 840 F.2d 776 (10th Cir. 1988) (stating that the discretion to grant includes the ability to condition the grant).

59. *United States v. Alford*, 274 U.S. 264, 267 (1927) ("Congress may prohibit the doing of acts upon privately owned lands that imperil publicly owned forests."). Complete refusal to allow beneficial use of private inholdings on the grounds of preventing damage to public lands might be beyond the BLM's authority. See *Curtin v. Benson*, 222 U.S. 78, 86 (1911). The *Curtin* court, however, emphasized the lack of proof that the private use at issue would cause any damage to the public land. *Id.* at 85.

60. *Camfield v. United States*, 167 U.S. 518 (1897).

61. *Id.* at 527; see *McKelvey v. United States*, 260 U.S. 353, 357 (1922) (protecting congressional policy of free passage over public lands); *Robbins v. United States*, 284 F. 39, 46 (8th Cir. 1922) (protecting congressional control of highways in national parks). *Camfield* has been read as allowing the BLM to preclude activities that would frustrate federal policy, even if they are not otherwise objectionable. See *Minnesota v. Block*, 660 F.2d 1240, 1249 (8th Cir. 1981), *cert. denied*, 455 U.S. 1007 (1982); Gaetke, *supra* note 55, at 169-74. *But see* *Leo Sheep Co. v. United States*, 440 U.S. 668, 685 (1979) (referring to *Camfield* as a nuisance case).

62. *Minnesota v. Block*, 660 F.2d at 1249; see Sax, *Helpless Giants: The National Parks and the Regulation of Private Lands*, 75 MICH. L. REV. 239, 250-55 (1976). *But see* *United States v. County Bd.*, 487 F. Supp. 137, 143-44 (E.D. Va. 1979) (no public nuisance in high-rise construction that would visually intrude on Washington's "monumental core," so no federal power to regulate).

63. For additional cases upholding federal regulation of conduct on nonfederal land when reasonably necessary to protect federal lands, see *United States v. Vogler*, 859 F.2d 638 (9th Cir. 1988), *cert. denied*, 488 U.S. 1006 (1989); *Free Enterprise Canoe Renters v. Watt*, 711 F.2d 852 (8th Cir. 1983); *United States v. Arbo*, 691 F.2d 862 (9th Cir. 1982); *United States v. Lindsey*, 595 F.2d 5, 6 (9th Cir. 1979) (federal government has power to regulate riverbed owned by state within National Park boundaries); *United States v. Brown*, 552 F.2d 817 (8th Cir.), *cert. denied*, 431 U.S. 949 (1977) (federal government may regulate lake within National

government, therefore, almost certainly can regulate activities undertaken on private land surrounded by public land when those activities directly interfere with the management of public resources.⁶⁴ Although it is not clear how far the Property Power extends beyond the borders of public property,⁶⁵ regulation of inholdings to prevent conflicts with congressionally declared purposes appears permissible.⁶⁶

Further, if the plenary⁶⁷ nature of the Property Power is taken literally, the BLM's protective arm could potentially extend to any activity that even theoretically could affect the public lands. This interpretation would go beyond the decisions to date, taking the Property Power far beyond the public reserve. The BLM is not likely to assert such far-reaching power, nor should it. Only a direct and immediate causal link between a private activity and the BLM's mission to manage public lands for designated purposes should trigger regulation.⁶⁸

Thus, the constitutional scope and politically achievable reach of the BLM's authority remain somewhat unclear. The BLM might not be authorized to act to prevent harm threatened to the public lands by activity on private lands that are not inholdings. Nonetheless, because the Property Clause encourages protection of public lands,⁶⁹ the BLM should interpret FLPMA's directive to prevent unnecessary or undue degradation of the public lands to include the power to restrict activities beneath pub-

Park despite state claim to ownership of lake); *Wilkenson v. Department of the Interior*, 634 F. Supp. 1265, 1279 (D. Colo. 1986).

64. See Holt, *Property Clause Regulation Off Federal Lands: An Analysis, and Possible Application to Indian Treaty Rights*, 19 ENVTL. L. 295, 303-08 (1988); *Wilkenson*, *supra* note 52, at 12-15. *But see* Rohlf & Honnold, *Managing the Balances of Nature: The Legal Framework of Wilderness Management*, 15 ECOLOGY L.Q. 249, 273-75 (1988) (unclear if Wilderness Act requires agency to control surrounding areas).

65. See *Kleppe v. New Mexico*, 426 U.S. 529, 546-47 (1976) (leaving question open).

66. See *supra* note 63; see also Coggins, *Protecting the Wildlife Resources of National Parks from External Threats*, 22 LAND & WATER L. REV. 1, 17-18 (1987) (describing National Park Service powers over inholdings); Keiter, *Taking Account of the Ecosystem on the Public Domain: Law and Ecology in the Greater Yellowstone Region*, 60 U. COLO. L. REV. 923, 952 (1989) (Forest Service hesitates to use its powers over inholdings).

67. *Kleppe*, 426 U.S. at 539-40 (Congress has "complete" power over property entrusted to it).

68. The Interior Board of Land Appeals had a lively debate on whether the BLM had a "roving mandate to do good" when setting coal lease terms. The contested term required the lessee to avoid damaging timber and forage on private lands and to repair damage if practical. The majority of the Board refused to enforce it, holding that specific regulation of actions on private property should be limited to two situations: 1) protection of associated federal property; or 2) implementation of broad environmental goals required by specific statutes. Two vigorous dissents found the lease terms appropriate because they controlled actions related to the subject matter of the lease and those actions could impact federal resources. *Blackhawk Coal Co.*, 68 Interior Bd. Land App. 96 (1982). For commentators also acknowledging that regulatory power under the Property Clause is not likely to be stretched to extremes, see *Fairfax*, *supra* note 29, 973-78; *Wilkenson*, *supra* note 52, at 12-15.

69. See *Kleppe*, 426 U.S. at 538 (statutes with protective intent may properly affect private property under Property Clause); *United States v. Vogler*, 859 F.2d 638, 641 (9th Cir. 1988) (Property Clause designed to protect public lands from injury and trespass).

lic lands, on lands surrounded by public lands, and also on lands adjoining public lands. The BLM could possibly regulate activity on private lands which are not directly adjacent, but they should do so only in cases of extreme conflict.⁷⁰

II

INTERPRETATION OF THE "UNNECESSARY OR UNDUE DEGRADATION" STANDARD UNDER FLPMA

FLPMA provides two management standards for the BLM. One, which governs all BLM-managed lands, requires the BLM to "take any action necessary to prevent unnecessary or undue degradation of the [public] lands."⁷¹ The second standard, applicable only to Wilderness Study Areas (WSA's), uses a two-pronged analysis. WSA's were created to satisfy section 603 of FLPMA, which directs the BLM to ascertain which of its lands have the attributes of wilderness and to recommend to Congress areas appropriate for wilderness preservation.⁷² In managing WSA's pending congressional action, the BLM must first act "in a manner so as not to impair the suitability of such areas for preservation as wilderness."⁷³ This aspect of WSA management is known as the nonimpairment standard. Certain preexisting uses and valid existing rights within WSA's are not limited by the nonimpairment standard.⁷⁴ With respect to these activities, the BLM is to "take any action required to

70. The term "adjacent" cannot be precisely defined. See Solicitor's Opinion, Interpretation of Section 603 of Federal Land Policy and Management Act of 1976: The Bureau of Land Management Wilderness Study (M-36910), 86 Interior Dec. 89, 112 n.56 (1979) [hereinafter Solicitor I] (rule of reason and site-specific characteristics determine if activity is "adjacent" to Wilderness Study Area). But see Coggins, *supra* note 66, at 3 n.10 ("While 'adjacent' is broader than 'adjoining,' as the former includes 'close to,' and while 'fairly close proximity' is scarcely definitive, those three descriptive phrases in combination should adequately define the relevant area.").

71. 43 U.S.C. § 1732(b) (1988).

72. *Id.* § 1782. Although the Wilderness Act of 1964, 16 U.S.C. §§ 1131-1136 (1988), required the Secretary of Agriculture, the Chief of the Forest Service, and the Secretary of the Interior to review their landholdings and determine which areas were appropriate for wilderness preservation, it did not direct the BLM to inventory or manage its lands for wilderness. *Id.* § 1132. A "wilderness" is "an area of undeveloped Federal land retaining its primeval character and influence, . . . which . . . generally appears to have been affected primarily by the forces of nature." *Id.* § 1131(c).

73. 43 U.S.C. § 1782(c) (1988).

74. *Id.* This section provides that

the Secretary shall continue to manage . . . lands [under review] according to his authority under this Act and other applicable law in a manner so as not to impair the suitability of such areas for preservation as wilderness, subject, however, to the continuation of existing mining and grazing uses and mineral leasing in the same manner and degree in which the same was being conducted on October 21, 1976: *Provided*, that in managing the public lands the Secretary shall by regulation or otherwise take any action to prevent unnecessary or undue degradation of the lands and their resources or to afford environmental protection.

Additionally, all BLM actions under FLPMA are "subject to valid existing rights." FLPMA § 701(h), 43 U.S.C. § 1701 note (1988).

prevent unnecessary or undue degradation of the lands and their resources or to afford environmental protection.”⁷⁵

This second prong of the WSA management provision is similar to the general unnecessary or undue degradation standard.⁷⁶ The general standard does not, however, refer to action necessary to prevent degradation of the lands’ “resources or to afford environmental protection.” It is not clear whether Congress intended this additional wording in the WSA standard to require something not required by the general standard, or whether Congress intended the same management scheme to apply but inadvertently chose different language in the two provisions. The legislative history does not suggest a congressional intention to create different standards.⁷⁷ While acknowledging that the difference in wording could arguably give the BLM greater regulatory authority within WSA’s, this Article presumes that the standards are identical.

A. Threshold: Nonimpairment Differs from Unnecessary or Undue Degradation

The presence of two management standards in the portion of FLPMA governing WSA’s suggests that the two impose different duties.⁷⁸ During the review process, the BLM must manage these lands so as either to maintain their suitability for preservation as wilderness or to prevent “unnecessary or undue degradation.”⁷⁹ Specifically, the BLM must prohibit impairment of an area’s wilderness suitability “subject . . . to the continuation of existing mining and grazing uses and mineral leasing”⁸⁰ and “subject to valid existing rights.”⁸¹ At the same time, the BLM retains authority under the second management level to regulate all activity, including valid existing rights and grandfathered uses, to prevent unnecessary or undue degradation.⁸²

Congress apparently did not want to preclude all use of the public lands during the WSA review process.⁸³ First, activities that do not cross

75. 43 U.S.C. § 1782(c) (1988).

76. The WSA provision refers to actions “required” to prevent degradation; the general BLM mandate refers to actions “necessary” to prevent degradation. *Compare id.* § 1782(c) with *id.* § 1732(b). This distinction is insignificant.

77. The House Report indicated that the Secretary, in managing WSA’s, was to “continue to have authority to prevent unnecessary or undue degradation.” H.R. REP. NO. 1163, 94th Cong., 2d Sess. 17 (1976). Use of the word “continue” indicates conformity with previously granted authority. *See id.* at 6 (discussing general management pursuant to section 202(f)(1) of H.R. 13777).

78. *Sierra Club v. Hodel*, 848 F.2d 1068, 1085 (10th Cir. 1988); *Rocky Mountain Oil & Gas Ass’n v. Watt*, 696 F.2d 734, 749 (10th Cir. 1982); *Utah v. Andrus*, 486 F. Supp. 995, 1004 (D. Utah 1979).

79. 43 U.S.C. § 1782(c) (1988).

80. *Id.*

81. FLPMA § 701(h), 43 U.S.C. § 1701 note (1988).

82. *Sierra Club v. Hodel*, 848 F.2d 1068, 1086 (10th Cir. 1988).

83. *See S. REP. No. 583*, 94th Cong., 1st Sess. (1975). The wording of the provision

the impairment threshold may proceed.⁸⁴ More importantly, although the BLM begins by analyzing all activity under the nonimpairment standard,⁸⁵ the expressly grandfathered uses and other valid existing rights are not limited by this standard if such rights could not be exercised under the standard.⁸⁶ Therefore, some activities that appear contrary to wilderness preservation can take place so long as they do not unnecessarily or unduly degrade the area.

If activities are neither grandfathered uses nor required for the exercise of valid existing rights, however, the nonimpairment standard governs. The BLM must forbid these activities if they would impair the suitability of the area for wilderness preservation. Generally, evaluating activities requires a case-by-case analysis, but some activities are presumptively incompatible with wilderness suitability. For instance, road building is not allowed in WSA's because, by definition, a wilderness contains no roads.⁸⁷ Some would also consider mining⁸⁸ and logging⁸⁹ necessarily violative of wilderness character.

discussed in this report differed from that ultimately enacted; it provided that review "shall not of itself either change or prevent change in the management or use" of lands. S. 507, § 102(a), 94th Cong., 1st Sess. (1975). Therefore, this part of the legislative history, while informative, is not conclusive evidence on the meaning of the enacted statute. See Short, *Wilderness Policies and Mineral Potential on the Public Lands*, 26 ROCKY MTN. MIN. L. INST. 39, 41 (1980) (arguing that preclusion of activity during WSA inventory is contrary to FLPMA).

84. Solicitor I, *supra* note 70, at 99; Committee for Idaho's High Desert, 108 Interior Bd. Land App. 277, 278 (1989).

85. The BLM first sees if existing rights could be exercised in a manner that would not impair the area's suitability for wilderness before resorting to the unnecessary or undue degradation standard. Solicitor's Opinion, The Bureau of Land Management Wilderness Review and Valid Existing Rights (M-36910, Supp. 1981) 88 Interior Dec. 909, 914 (1981) [hereinafter Solicitor II].

86. Existing rights, defined as both those actually being used or those authorized at the time of FLPMA's passage, are not subject to the nonimpairment standard. *Sierra Club v. Hodel*, 848 F.2d 1068, 1086-87 (10th Cir. 1988); see Solicitor II, *supra* note 85, at 913-15; Interim Management Policy and Guidelines for Land Under Wilderness Review, 44 Fed. Reg. 72,014 (1979) [hereinafter IMP]; Interim Management Policy and Guidelines, 48 Fed. Reg. 31,854 (1983) [hereinafter Revised IMP]. The IMP and Revised IMP, as the BLM's interpretation of its duty, provide standardized guidance. For earlier interpretations of the scope of the grandfather clause, see *Rocky Mountain Oil & Gas Ass'n v. Watt*, 696 F.2d 734, 750 (10th Cir. 1982) (upholding prior Interior interpretation in Solicitor I); *Utah v. Andrus*, 486 F. Supp. 995, 1006 (D. Utah 1979) ("existing uses being carried out in the same manner and degree" refers to "actual uses, not merely a statutory right to use").

87. 16 U.S.C. § 1131(c) (1988); see *Sierra Club*, 848 F.2d at 1085 (right-of-way uses cannot be grandfathered in WSA's because such areas are roadless by definition).

88. See *Izaak Walton League v. St. Claire*, 353 F. Supp. 698, 715 (D. Minn. 1973) ("Mineral development . . . by its very definition cannot take place in a wilderness area."), *rev'd*, 497 F.2d 849 (8th Cir.), *cert. denied*, 419 U.S. 1009 (1974) (agency must determine what impact mining will have on wilderness). *But see* *Cabinet Mountains Wilderness/Scotchman's Peak Grizzly Bears v. Peterson*, 685 F.2d 678, 687 (D.C. Cir. 1982) (mining exploration allowed to proceed in WSA); *Sierra Club v. Watt*, 608 F. Supp. 305, 333 (C.D. Cal. 1985) (Wilderness Act expressly allows for the preservation of mining claims in wilderness areas); *Mansfield*, *supra* note 23, at 110-13 (concrete facts must govern).

89. See *Parker v. United States*, 309 F. Supp. 593, 601 (D. Colo. 1970), *aff'd*, 448 F.2d

The BLM has introduced some flexibility to the nonimpairment management directive. For example, the BLM allows activities to proceed even if they will temporarily impair an area's suitability for wilderness, provided their impacts can later be substantially eradicated.⁹⁰ Despite this flexibility, the activities allowable under the nonimpairment provision must differ from those allowable under the unnecessary or undue degradation standard or Congress would not have employed different language.⁹¹ One interpretation of the difference is that the nonimpairment standard requires stricter control than prevention of unnecessary or undue degradation.⁹² Management for nonimpairment does permit the BLM to reject proposed activities that might not violate the unnecessary or undue degradation standard.⁹³ The conclusion that the unnecessary degradation standard was less strict than the nonimpairment directive led courts and the BLM to a second postulate: if the BLM must use the less rigid standard, as in the case of valid existing rights or grandfathered uses, it cannot prevent the exercise of those private rights.⁹⁴ The BLM's actions, however, need not be more limited under the unnecessary degradation standard. In fact, the opposite may be true: in assessing improper degradation, the BLM may have broader management authority because it can consider impacts to resources other than wilderness.⁹⁵

793 (10th Cir. 1971), *cert. denied sub nom. Kaibab Industries v. Parker*, 405 U.S. 989 (1972).

90. See IMP, *supra* note 86, at 72,018; Revised IMP, *supra* note 86, at 31,856 (requiring reclamation by the time the Secretary of the Interior is required to make a recommendation regarding wilderness status for that area to the President; Secretary is currently required to make these recommendations by October 21, 1991 (43 U.S.C. § 1782(a) (1988))); see *Sierra Club v. Clark*, 774 F.2d 1406, 1408-09 (9th Cir. 1985) ("substantially unnoticeable" may refer to area in total, not specific site); *Utah v. Andrus*, 486 F. Supp. at 1007 (allowing temporary impairment "consistent with Congress' attempt to balance competing interests"). See generally Hall, *Mineral Exploration and Development in Bureau of Land Management Wilderness Study Areas*, 21 ARIZ. L. REV. 351, 370-71 (1979) (temporary impacts definition allows new mineral activity in WSA's).

91. *Utah v. Andrus*, 486 F. Supp. at 1005 ("[I]f Congress had not intended to mandate two standards, it would merely have indicated that the Secretary was to continue to manage all lands so as to prevent unnecessary degradation."); see *id.* at 1005 n.14.; Ralph E. Pray, 105 Interior Bd. Land App. 44, 48 (1988) (BLM must reconsider if its approval was made under wrong standard).

92. The *Utah v. Andrus* court took this position:

The word 'impair' would prevent many activities that would not be prevented by the language of 'unnecessary or undue degradation.' For example, commercial timber harvesting, if conducted carefully, would not result in unnecessary or undue degradation of the environment. But the same activity might well impair wilderness characteristics as [defined in the Wilderness Act].

486 F. Supp. at 1005 (citations and footnotes omitted).

93. *Id.*

94. *Sierra Club v. Hodel*, 848 F.2d 1068, 1090-91 (10th Cir. 1988) (BLM must allow exercise of right-of-way); *Utah v. Andrus*, 486 F. Supp. at 1009-10 (BLM may not forbid access to state land grants).

95. The Interior Solicitor's analysis of the BLM's ability to regulate a miner who was using explosives on the date of FLPMA's enactment illustrates this view. According to the

B. *Administrative Interpretation of Unnecessary or Undue Degradation*

The BLM has addressed the meaning of unnecessary or undue degradation most extensively in two regulatory contexts. First, as discussed above, the regulations and Interim Management Plans governing WSA's indicated that the standard does not authorize the BLM to regulate existing uses and rights to the point that they become unexercisable.⁹⁶ Second, the BLM has interpreted the unnecessary or undue degradation standard in managing the surface impacts of mining activities undertaken on unpatented mining claims.⁹⁷ Placing these mining regulations in a historical perspective may illuminate the BLM's view of the scope of its power under the FLPMA management standard.

Prior to FLPMA's passage, the government exerted little control over mining activities on the public lands. Under the Mining Law of 1872, these lands were simply open to persons exploring for minerals.⁹⁸ If a private party discovered a "valuable mineral deposit," a claim could be located and worked without further ado; the claimant could also choose to seek a "patent," or fee simple title.⁹⁹ Mining required no approval or authorization from the BLM.¹⁰⁰

FLPMA was a compromise between those who desired to completely revamp the Mining Law and those who did not.¹⁰¹ Although FLPMA left much of the earlier mining law intact,¹⁰² it did make a sig-

Interior Solicitor, the BLM could not regulate the operation to preserve wilderness suitability because FLPMA allowed existing uses to continue in the same "manner and degree." However, if the blasting caused unnecessary degradation, it could be stopped. Solicitor I, *supra* note 70, at 119. *But see id.* at 121 n.82 (nonimpairment is "at least theoretically more strict").

96. *See supra* notes 83-86 and accompanying text. BLM regulations defining trespass treat the unnecessary or undue degradation standard similarly. *See* 43 C.F.R. §§ 2800.0-5(w), 2800.0-5(x), 2881.3, 9230, 9260 (1989).

97. 43 C.F.R. §§ 3802, 3809 (1989).

98. 30 U.S.C. § 22 (1988); *see* *United States v. Curtis-Nevada Mines, Inc.*, 611 F.2d 1277, 1281 (9th Cir. 1980). Mining activities could be controlled only by "withdrawing" lands from the reach of this statute. *See* Getches, *Managing the Public Lands: The Authority of the Executive to Withdraw Lands*, 22 NAT. RESOURCES J. 279 (1982).

99. 30 U.S.C. §§ 29, 35-38 (1988).

100. *See generally* Kimball, *Impact of BLM Surface Management Regulations on Exploration and Mining Operations*, 28 ROCKY MTN. MIN. L. INST. 509, 510-12 (1983) (providing background discussion of the Mining Law of 1872). For arguments in favor of not requiring any government grant or permission prior to mining and simply allowing individuals to initiate mining, *see* Marsh & Sherwood, *supra* note 28, at 309-10; Mock, *Mining Law Trends*, 54 DEN. L.J. 567, 576-78 (1977).

101. *See, e.g.,* Clark, *The Mining Law: PLLRC Recommendations — What Happened to Them?*, 54 DEN. L.J. 551, 562-66 (1977).

102. FLPMA expressly stated that it did not, for the most part, change the existing law with respect to mining claims:

Except as provided in [certain listed sections] and the last sentence of this paragraph, no provision of this section or any other section of this Act shall in any way amend the Mining Law of 1872 or impair the rights of any locators or claims under that Act, including, but not limited to, rights of ingress and egress.

43 U.S.C. § 1732(b) (1988).

nificant change by including mining operations within the scope of the BLM's duty to prevent unnecessary or undue degradation of the public lands.¹⁰³

In implementing this change, the BLM promulgated two sets of regulations applicable to mining operations, one for claims located inside WSA's¹⁰⁴ and one for claims found on other public lands.¹⁰⁵ The two sets of regulations have some similarities because they address the same activity. However, they differ in some respects because of the management authorities and priorities that govern WSA's. This discussion concentrates on the treatment of unnecessary or undue degradation by the two sets of regulations.¹⁰⁶

The BLM's first draft regulations for the wilderness review program and general mining claim regulation¹⁰⁷ did not directly define unnecessary and undue degradation.¹⁰⁸ The proposed regulations prompted voluminous and vocal reaction,¹⁰⁹ however, and the BLM retreated to the accommodation principle in fashioning the final regulations.¹¹⁰ While these rules allow the BLM to place some increased burden on the miner, mining may not be precluded.¹¹¹ No court has yet considered whether

103. *Id.* FLPMA thus directly authorized regulation of mining activities, mooted the debate over whether the Mining Law had authorized such regulation. *Compare* Bales v. Ruch, 522 F. Supp. 150, 154 (E.D. Cal. 1981) (Mining Law authorized regulation) *with* Miller, *Surface Use Rights Under the General Mining Law: Good Faith and Common Sense*, 28 ROCKY MTN. MIN. L. INST. 761, 789-90 (1988) (Mining Law did not by itself authorize regulation).

104. 43 C.F.R. § 3802 (1989).

105. *Id.* § 3809.

106. For differences in the definition of this standard in the two sets of regulations, see *infra* note 110.

107. 41 Fed. Reg. 53,428 (1976).

108. 44 Fed. Reg. 2623-29 (1979).

109. 45 Fed. Reg. 78,902 (1980); *see also* 45 Fed. Reg. 13,956, 13968 (1980) (second set of draft regulations promulgated).

110. *See infra* notes 152-55, 165-76 and accompanying text for a more detailed discussion of the accommodation principle. The regulations applicable outside WSA's most clearly illustrate this principle because they note that what constitutes unnecessary or undue degradation may vary based on what other resources are impacted:

'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 operation on other resources and land uses*, including those resources and land uses outside the area 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.

43 C.F.R. § 3809.0-5(k) (1989) (emphasis added). The regulations applicable to claims located within a WSA simply define unnecessary or undue degradation as "impacts greater than those that would normally be expected from an activity being accomplished in compliance with current standards and regulations and based on sound practices, including use of the best reasonably available technology." 43 C.F.R. § 3802.0-5(l) (1989). Under this formulation, the best reasonable methods of proceeding would always be required, without individual appraisal of damage to other resources. Perhaps in defining this standard the BLM deemed all lands in WSA's to be equally deserving of protection.

111. The rules state that they are designed not to "unduly hinder" mining. 43 C.F.R.

the BLM correctly gauged the scope of its authority in developing these regulations.¹¹²

Earlier regulatory actions dealing with mining, however, may provide insight into the BLM's ability to issue regulations that might preclude private development. First, the Multiple Use Mining Act of 1955¹¹³ expressly changed the regulatory climate for mining on the public lands. It gave the BLM authority to manage nonmineral resources within the boundaries of unpatented mining claims.¹¹⁴ Although the Act did not change the primary purpose of these claims, it ended the claimants' exclusive right of possession.¹¹⁵ Moreover, miners now clearly had to employ reasonable means of production. Unreasonable mining methods would unnecessarily destroy surface resources, a result which would conflict with the BLM's directive to manage those resources.¹¹⁶ Under the Multiple Use Mining Act, mining on the public lands was no longer an unbridled privilege, but the boundary of regulatory control was determined by the reasonableness of the mining endeavor judged as such. Nevertheless, the Act began to moderate a miner's expectations of free development and emphasized the need to make mining a regulated industry.

The Forest Service has also produced regulations applicable to mining activities on federal lands.¹¹⁷ The Forest Service regulations strike a fundamental compromise between the rights of mineral owners and protection of federal lands. Miners have "a statutory right to enter upon the public lands to search for minerals [but their operations] shall be con-

§ 3809.0-2(a) (1989); see Kimball, *supra* note 100, at 515-16; Shanahan, *Hardrock Mining on the Public Lands*, 2 PUB. LAND L. REV. 57, 71 (1981).

112. Some other issues have been addressed. See, e.g., *Bales v. Ruch*, 522 F. Supp. 150, 156-57 (E.D. Cal. 1981) (disturbing ecology of area and excluding public exceeded casual use and therefore required miner to submit a plan of operations for BLM approval). Courts have shown deference to Forest Service regulations attempting to control mining impacts. See *United States v. Doremus*, 658 F. Supp. 752, 758 (D. Idaho 1987) (regulation prohibiting the "damaging [of] any natural feature" not unconstitutionally vague).

113. 30 U.S.C. §§ 611-615 (1988).

114. *Id.* § 612; see also *id.* § 601. See generally Kimball, *supra* note 100, at 512-13; Miller, *supra* note 103, at 781-88.

115. Lower courts have held that the Act requires the claimant to tolerate some other uses of the land on which the claim is located. See, e.g., *Silbrico Corp. v. Ortiz*, 878 F.2d 333, 337 (10th Cir. 1989) (no injury if other uses do not interfere with mining); *United States v. Fahey*, 769 F.2d 829, 837 (1st Cir. 1985) (no expectation of privacy on mining claim); *United States v. Curtis-Nevada Mines*, 611 F.2d 1277, 1286 (9th Cir. 1980) (claim holders cannot bar public recreational use of land unless claim is actually being mined and public access interferes with the mining activity).

116. *United States v. Richardson*, 599 F.2d 290 (9th Cir. 1979), *cert. denied*, 444 U.S. 1014 (1980); *Converse v. Udall*, 399 F.2d 616 (9th Cir. 1968), *cert. denied*, 393 U.S. 1025 (1969). But see *Marsh & Sherwood*, *supra* note 28, at 224-29 (right to manage other resources did not give the BLM the right to manage mineral deposits or grant correlative rights to surface owner); Miller, *supra* note 103, at 787 (*Richardson* based on misreading of cases concerned with non-mining uses of lands).

117. 36 C.F.R. § 228 (1989).

ducted so as to minimize adverse environmental impacts on National Forest System surface resources."¹¹⁸ The Forest Service may not prohibit mining, but may regulate mining activities.¹¹⁹

This compromise is required by the Forest Service Organic Act, which forbids action that "would prohibit any person from entering upon such national forests for all proper and lawful purposes, including . . . prospecting, locating, and developing . . . mineral resources."¹²⁰ By contrast, the BLM is not required by statute to allow all mineral development to proceed. Although some statutes applicable to the BLM emphasize mineral development, they refer only to *critical* mineral needs.¹²¹ Thus, the BLM's statutory mandate would allow it to strike a balance between mineral development and other activities, rather than always approving mineral development.

Nevertheless, the mining regulations issued by the BLM after FLPMA's enactment mirror the restricted interpretation of unnecessary or undue degradation that grew out of the wilderness review process and ensuing litigation.¹²² The regulations allow the BLM to fine tune development, but emphasize making the exercise of preexisting rights feasible, both in economic and legal terms. Under these regulations, degradation is "unnecessary" if chosen means are not truly needed to achieve the desired end because alternative means exist. It is "undue" if the best feasible methods economically possible are not used. The regulations essentially compress the two requirements into one investigation.¹²³

118. *Id.* § 228.1. The regulation further states that its purposes do not include management of mineral resources. *Id.*

119. *Skaw v. United States*, 740 F.2d 932, 941 (Fed. Cir. 1984), *cert. denied*, 488 U.S. 854 (1988) (Forest Service may not prohibit use or circumscribe it too strictly); *United States v. Weiss*, 642 F.2d 296, 299 (9th Cir. 1981) (Forest Service authorized to minimize harm, not to encroach on mining rights). See generally Wilkinson & Anderson, *Land and Resource Planning in the National Forests*, 64 OR. L. REV. 1, 254-61 (1985) (public and political opinion has encouraged Forest Service to regulate mining operations more closely; whether agency could sanction noncompliance remains unclear).

120. 16 U.S.C. § 478 (1988). For history and interpretation of the Forest Service Organic Act, see *Weiss*, 642 F.2d at 297-98; *Izaak Walton League v. St. Claire*, 353 F. Supp. 698, 702, 713 (D. Minn. 1973); Wilkinson & Anderson, *supra* note 119, at 46-60.

121. For example, the President is required to "coordinate the responsible departments and agencies to . . . encourage federal agencies to facilitate availability and development of domestic resources to meet *critical* materials needs." National Materials and Minerals Policy, Research & Development Act of 1980, 30 U.S.C. § 1602(7) (1988) (emphasis added); see Mining and Minerals Policy Act of 1970, 30 U.S.C. § 219 (1988).

122. See *supra* notes 71-95 and accompanying text.

123. The BLM's most recent regulatory definition of the statutory standard, in a rule governing rights-of-way, also adopts the accommodation principle. This new definition is virtually identical to that given in the regulations governing activities outside WSA's. Compare 43 C.F.R. § 2800.0-5(x) (1989) with *id.* § 3809.0-5(k). Cf. Rohlif & Honnold, *supra* note 64, at 279 ("minimum tool" approach reflects accommodation under the Wilderness Act; it would permit actions only when specifically authorized in the Act and when achieved by the least intrusive means).

C. Judicial Interpretation of Unnecessary or Undue Degradation

Only a few courts have analyzed FLPMA's unnecessary or undue degradation standard. These judicial decisions have not yet finally resolved the boundaries of the BLM's authority under FLPMA. Examination of these cases demonstrates that, although FLPMA's directive to prevent unnecessary or undue degradation does not give the BLM unlimited authority, it is not a toothless charge. The BLM need not rubber-stamp plans or blindly accept current methods and uses.

The unnecessary or undue degradation standard does allow the BLM to prevent haphazard misuses of the public lands. The Department of the Interior has asserted that, because it may prevent unnecessary or undue degradation, the WSA grandfather clause does not require the BLM to tolerate the continuation of excessive or unwarranted activities.¹²⁴ A federal district court apparently adopted this view when it declared that "careful" commercial timber harvesting might not violate the standard.¹²⁵ Wanton or unnecessarily destructive existing uses, however, need not be allowed to continue.

Other courts have also recognized that the "unnecessary or undue degradation" clause provides the BLM with considerable regulatory muscle, at least with regard to activities affecting WSA's. For example, the Tenth Circuit has held that the BLM has the authority, and in some circumstances the duty, to order a right-of-way to be moved from its current location. In *Sierra Club v. Hodel*, the court ordered the BLM to review a county's improvement of twenty-eight miles of right-of-way to determine if that improvement would cause unnecessary or undue degradation of a WSA.¹²⁶ The county planned to upgrade a one-lane dirt road to a two-lane graveled road. The route of the dirt road passed through a mile of riparian area. The court held that if widening and graveled that section would cause unnecessary or undue degradation of the WSA, the BLM could require use of a less harmful route.¹²⁷ In essence, the court declared that the BLM's duty was to satisfy the purpose of the private right, but not necessarily to preserve the status quo. The BLM could force abandonment of the old right-of-way so long as it approved an alternate means of achieving the same end.¹²⁸

124. Solicitor II, *supra* note 85, at 914 n.6.

125. *Utah v. Andrus*, 486 F. Supp. 995, 1005 (D. Utah 1979). As support for this proposition, the *Utah* court quoted the brief of the American Mining Congress: "A reasonable interpretation of the word 'unnecessary' is that which is not necessary for mining. 'Undue' is that which is excessive, improper, immoderate, or unwarranted." *Id.* at 1005 n.13.

126. *Sierra Club v. Hodel*, 848 F.2d 1068 (10th Cir. 1988). Because the *Sierra Club* failed to allege duties under the general management directive, only the FLPMA provision dealing with management of WSA's was considered in this case. *Id.* at 1100.

127. *Id.* at 1088.

128. *Id.* This holding echoes the accommodation doctrine. See *infra* notes 152-55, 167-76 and accompanying text. Reasonable available alternatives must be employed if they would

In *Sierra Club v. Hodel*, the Tenth Circuit treated impacts from activities occurring on land surrounded by WSA's and those from more distant undertakings somewhat differently. Thirty percent of the route proposed for the two-lane road formed the boundary between two WSA's.¹²⁹ The court continued the lower court order enjoining construction on this stretch of road pending proper compliance with the National Environmental Policy Act (NEPA),¹³⁰ and held that the duty to prevent unnecessary or undue degradation made the construction a federal action.¹³¹ In reaching its decision, the court implicitly held that road construction on lands directly adjoining a WSA could unduly or unnecessarily degrade the WSA; therefore, the BLM would have to comply with NEPA before allowing construction in such areas.¹³²

The court did not foreclose the possibility that construction could also cause unnecessary or undue degradation even where the road was not directly adjacent to a WSA.¹³³ The decision clearly sanctioned extension of WSA management to activities beyond the boundaries of the WSA, if such activities could cause unnecessary or undue degradation.¹³⁴ Thus, the court held that permissible regulation under FLPMA may extend beyond the physical boundaries of the land directly protected by the statute.

The Ninth Circuit has also examined the BLM's authority under FLPMA, holding that the BLM may not, under the unnecessary or undue degradation standard, completely forbid an activity which Congress

cause less impact on the servient estate's existing uses. The private right, however, is dominant and must be fulfilled. As the district court summarized, in this case the BLM required that each project "employ the latest available technology and the least degrading alternatives." *Sierra Club v. Hodel*, 675 F. Supp. 594, 610 (D. Utah 1987). For further proceedings in this case following remand, see *Sierra Club v. Hodel*, 737 F.Supp. 629 (D. Utah 1990); *Sierra Club*, 111 Interior Bd. Land App. 122 (1989) (BLM finding that graveling road would produce no significant environmental impact upheld; similar finding with respect to paving overturned); *Sierra Club*, 108 Interior Bd. Land App. 381 (1989) (BLM decision to approve upgrade with mitigation stayed pending appeal).

129. *Sierra Club v. Hodel*, 848 F.2d at 1085. Ten miles bordered one WSA and twelve miles bordered the other, with some overlap. *Id.* at 1092. These sections of the road were clearly adjacent to WSA's. Regarding the meaning of "adjacent" see *supra* note 70.

130. 42 U.S.C. §§ 4321-4370a (1988).

131. *Sierra Club v. Hodel*, 848 F.2d at 1090-91.

132. *Id.*

133. *Id.* at 1096. The court remanded the case to the trial court with instructions to examine the evidence and determine if the injunction should be continued as to the portions of the road not directly adjacent to WSA's. The trial court was told to dissolve the injunction with respect to those parts of the route that did not border a WSA and would not lead to unnecessary or undue degradation. *Id.* On remand the injunction was lifted in part. *Sierra Club v. Hodel*, 737 F. Supp. 629, 632 (D. Utah 1990).

134. *Sierra Club v. Hodel*, 848 F.2d at 1096. On one level, this case did not involve regulation beyond federal boundaries because the United States retained the fee interest underlying the county's right-of-way. See *id.* at 1073 & n.1. The court, however, relied only on the provisions dealing with WSA's; the road was not within a WSA, or, in some places, even directly adjacent to one. *Id.* at 1090.

has implicitly authorized. In *Sierra Club v. Clark*, the Ninth Circuit examined a BLM decision to permit an off-road motorcycle race on BLM lands in the Mojave Desert.¹³⁵ The Sierra Club argued that the race would cause "unnecessary or undue degradation" because the potential environmental damage from the race would be "severe, and in some cases irreversible."¹³⁶ The Sierra Club claimed that these environmental impacts were neither necessary nor appropriate, and were thus "undue."¹³⁷ As a result, the Sierra Club contended, FLPMA required that the BLM prohibit the race.

The Ninth Circuit rejected the Sierra Club's argument, reasoning that off-road vehicle traffic would cause the same type of destruction in any portion of the desert region.¹³⁸ Congress, however, had declared some off-road use acceptable.¹³⁹ Therefore, the court declined to interpret the unnecessary or undue degradation standard to compel the BLM to prohibit all use of off-road vehicles.¹⁴⁰ The decision does not foreclose site-specific banning of activities that could proceed in other locales without causing similar harm.¹⁴¹ The court simply refused to read FLPMA as authorizing the BLM to categorically enjoin an entire class of activities.

III

THE PRIVATE ANALOGUE: RELATIONSHIPS BETWEEN MINERAL AND SURFACE OWNERS

Public land law does not exist in a vacuum. Other types of law also moderate conflicting property rights. This part explores one particularly relevant paradigm: the law governing the relationship between private owners of mineral and surface rights.¹⁴² When the mineral and surface

135. *Sierra Club v. Clark*, 774 F.2d 1406 (9th Cir. 1985). The area involved is part of the California Desert Conservation Area. See 43 U.S.C. § 1781 (1988).

136. *Sierra Club v. Clark*, 774 F.2d at 1410.

137. *Id.*

138. *See id.*

139. *See id.* (citing 43 U.S.C. § 1781(a)(4) which requires the BLM to manage California deserts to provide, *inter alia*, "outdoor recreation uses," including the use, where appropriate, of off-road recreational vehicles).

140. *Id.*

141. Nor does the decision in *Conner v. Burford*, 848 F.2d 1441 (9th Cir. 1988) necessarily preclude a finding that the BLM could forbid specific activities in specific areas. *Conner* involved an oil and gas lease, and the court held that absent a stipulation of no surface occupancy, a contractual right to develop precluded prohibition of necessary drilling. Despite this apparent limit on BLM authority, the holding does not foreclose a BLM denial of development under the unnecessary and undue degradation standard because authority under FLPMA was not argued.

142. Naturally, private rights other than mineral rights may impact public lands, and the BLM may seek to regulate their exercise under the unnecessary or undue degradation standard. Mineral law precedent may be useful in determining the extent of these other rights because it reveals that property rights are subject to change. Mineral law is not directly relevant to other private owners' expectations about developing their property. Changing views of

rights to a single plot of land are held by different parties, property rights often conflict at a basic level. Two distinct interests exist, and the exercise of either one could greatly impede the usefulness of the other. The law regulating these situations can be used to give content to FLPMA's unnecessary or undue degradation standard.

A. Development of the Doctrine: Traditional Restraints on Dominance

Under traditional common law doctrine, an owner of land controlled it from the heavens to the center of the earth.¹⁴³ The owner could carve land into different estates, separating the right to enjoy the surface, for example, by farming or building, from the right to remove minerals.¹⁴⁴ When rights to land had been divided in this manner, all parties might need or want to use the surface to pursue the benefits of their respective estates. If the parties had failed to specify their relative rights by deed, the common law resolved conflicts among them by making the mineral estate dominant.¹⁴⁵ One justification for allowing the mineral estate to assert its rights to the detriment of the surface estate was that the mineral estate's benefit could only be realized through mineral production.¹⁴⁶

the nature of public lands, however, would be as relevant to these prospective users as to mineral users.

The law of easements is another relevant private analogue. The easement owner, holder of the dominant estate, must not unreasonably burden the servient estate. *See, e.g.,* Ryan v. Southern Natural Gas Co., 879 F.2d 162, 164 (5th Cir. 1989). For a comparison of WSA management to the law of easements, see *Sierra Club v. Hodel*, 848 F.2d 1068, 1087 (10th Cir. 1988).

143. *See* *United States v. Causby*, 328 U.S. 256, 260-61 (1946) (he who owns the land owns everything above it and everything beneath it).

144. An owner may create as many separate estates as there are different minerals or strata of minerals. *See, e.g.,* *Beulah Coal Mining Co. v. Heihn*, 46 N.D. 646, 651, 180 N.W. 787, 789 (1920); *Chartiers Block Coal Co. v. Mellon*, 152 Pa. 286, 294, 25 A. 597, 598 (1893). *See generally* Lear, *Multiple Mineral Development Conflicts: An Armageddon in Simultaneous Mineral Operations?*, 28 ROCKY MTN. MIN. L. INST. 79, 81-89 (1988) (discussing conflicts that result from application of traditional property law and mining techniques to subjacent deposits).

145. *See* Stoebuck, *A General Theory of Eminent Domain*, 47 WASH. L. REV. 553, 562-608 (1972) (dominance of the mineral estate derived from king's right to do everything necessary and proper to coin money); *see also* Ferguson, *Severed Surface and Mineral Estates — Right to Use, Damage, or Destroy the Surface to Recover Minerals*, 19 ROCKY MTN. MIN. L. INST. 411, 412-14 (1974); Huffman, *The Allocative Impacts of Mineral Severance: Implications for the Regulation of Surface Mining*, 22 NAT. RESOURCES J. 201, 203-06 (1982); Lopez, *Upstairs/Downstairs: Conflicts Between Surface and Mineral Owners*, 26 ROCKY MTN. MIN. L. INST. 995, 996-98 (1980). *But see* Dycus, *Legislative Clarification of the Correlative Rights of Surface and Mineral Owners*, 33 VAND. L. REV. 871, 874-76 (1980) (respective rights should be determined by deed and policy rather than by relying upon custom).

146. *See* *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 414 (1922); Martz, Love & Kaiser, *supra* note 57, at 1077. Courts are also reluctant to forbid mineral production because it furwards the public interest by providing raw materials. *Chartiers Block*, 152 Pa. at 297, 25 A. at 599; *see* Mining and Mineral Policy Act of 1970, 30 U.S.C. § 21a (1988); Minerals Policy, Research & Development Act of 1980, 30 U.S.C. §§ 1601-1602 (1988).

The rule of dominance was never absolute.¹⁴⁷ Two doctrines have evolved which moderate the rights of mineral owners. First, the mineral estate owes a duty of subjacent support to the surface estate.¹⁴⁸ The mineral estate owner is liable for subsidence, even if the damage results from proper mining techniques rather than from negligence.¹⁴⁹ Second, the mineral owner may use only so much of the surface as is reasonably necessary to recover the minerals.¹⁵⁰ This doctrine at first glance might seem to provide added protection to the surface, but it has a dual function. The mineral owner's "necessity" can be used to justify uses that damage the surface.¹⁵¹

The interplay of the dominance principle with these two moderating doctrines led to the development of three models for reconciling the competing interests of private surface and mineral estate owners: the "accommodation" doctrine of reasonable use; the equitable balancing of "correlative rights;" and the "compensation principle" employed when the desired mining technique is too destructive to be permitted without paying damages. Each restrains the dominance of the mineral estate to some degree, but they differ in the degree of deference shown to surface concerns. These models could, by analogy, help resolve conflicts between private rights and public land values. More importantly for a resolution of the contours of the BLM's authority, a survey of judicial methods for resolving private conflicts demonstrates that the degree of legal protection given to specific property rights may change over time.

B. Reasonable Necessity and Due Regard: Toward Accommodation

The accommodation doctrine, developed in the context of oil and gas leases, is one method courts have used to protect the interests of surface owners. Accommodation requires the oil and gas developer to avoid

147. See generally Ferguson, *supra* note 145; Hultin, *Recent Developments in Statutory and Judicial Accommodation Between Surface and Mineral Owners*, 28 ROCKY MTN. MIN. L. INST. 1021 (1988) (mineral lessees liable to surface owners for damage caused by activity not "reasonable and necessary" for mining operations); Kramer, *Conflicts Between the Exploitation of Lignite and Oil and Gas: The Case For Reciprocal Accommodation*, 21 HOUS. L. REV. 49 (1984) (developmental conflicts a result of Anglo-American system of property ownership).

148. Dycus, *supra* note 145, at 874-79. See generally Twitty, *Law of Subjacent Support and the Right to Totally Destroy the Surface in Mining Operations*, 6 ROCKY MTN. MIN. L. INST. 497, 498-99 (1961) (absent waiver, "the surface estate is entitled to support which it requires in its natural condition from the underlying mineral estate").

149. *Breeding v. Koch Carbon, Inc.*, 726 F. Supp. 645, 648-49 (W.D. Va. 1989) (strict liability standard for damage to land and buildings when subjacent support is withdrawn unless the buildings contributed to subsistence); *Humphries v. Brogden*, 116 Eng. Rep. 1048, 1050 (1850). *But see* *Kenny v. Texas Gulf Sulphur Co.*, 351 S.W.2d 612 (Tex. Ct. App. 1961) (duty of subjacent support may be waived by implication).

150. *Marland Oil Co. v. Hubbard*, 168 Okla. 518, 519, 34 P.2d 278, 279 (1934), *overruled on other grounds*, *Pure Oil Co. v. Chisholm*, 181 Okla. 618, 622, 75 P.2d 464, 468 (1936); *see* H. WILLIAMS & C. MEYERS, *OIL & GAS LAW* §§ 218.4-8 (1989).

151. See, e.g., Dycus, *supra* note 145, at 879-80.

substantially impairing existing surface uses if reasonable alternatives exist.¹⁵²

The typical oil and gas lease grants the lessee the exclusive right to drill for and produce the oil and gas beneath the leased tract.¹⁵³ If the lease contains no express provisions for surface use, the lessee may reach the oil and gas estate through an implied easement of use.¹⁵⁴ The lessee may use the portion of the surface that is reasonably necessary for mineral production to the exclusion of the surface owner.¹⁵⁵

Under the traditional dominance regime, the mineral owner or lessee was said to be liable only for wanton or negligent damage, or for use of more land than necessary.¹⁵⁶ The surface owner could not recover damages for any injury to the surface caused by ordinary development.¹⁵⁷ Despite this rule, courts required mineral estate owners to consider impacts on surface owners in designing their operations.¹⁵⁸ This judicially imposed requirement created a tension between surface and mineral rights.

Traditionally, the standard that activities be "reasonably necessary" for mineral production was used primarily as a sword to authorize a lessee's activities despite disturbance of surface uses.¹⁵⁹ Reasonableness

152. See *infra* notes 165-76 and accompanying text.

153. Mansfield, *Relief From Express Drilling Obligations in an Uneconomic Market: The Federal Response and the Doctrines Of Force Majeure, Commercial Impracticability and the Prudent Operator*, 22 TULSA L.J. 483, 515-16 (1987).

154. If the lease specifies the lessee's rights to use the surface, those specific contractual provisions will control. The implied easement supplements any noncontradictory lease term about surface use. This implied easement is similar to the common law "way of necessity" which arises when a subdivision creates a landlocked parcel. See *Feland v. Placid Oil Co.*, 171 N.W.2d 829, 834 (N.D. 1969); *Texaco, Inc. v. Faris*, 413 S.W.2d 147, 149 (Tex. Ct. App. 1967).

155. See *Placid Oil*, 171 N.W.2d at 834-35.

156. *Wilcox Oil Co. v. Lawson*, 301 P.2d 686, 688 (Okla. 1956); Browder, *The Dominant Oil and Gas Estate — Master or Servant of the Servient Estate*, 17 SW. L.J. 25, 42-43 (1963); see *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621 (Tex. 1971).

157. *Hunt Oil Co. v. Kerbaugh*, 283 N.W.2d 131, 134 n.4 (N.D. 1979). Statutes have altered the traditional rule in some jurisdictions. See *infra* note 326 and accompanying text. But see Polston, *Surface Rights of Mineral Owners — What Happens When Judges Make Law and Nobody Listens?*, 63 N.D.L. REV. 41 (1987) (companies, surface owners, and legislatures act as if lessee liable for damages from normal use of surface despite law).

158. See Browder, *supra* note 156, at 27-31; *Chartiers Block Coal Co. v. Mellon*, 152 Pa. 286, 296, 25 A. 597, 598 (1893) (mineral owner may enter surface "as might be necessary" but "with due regard to the owner of the surface").

159. For example, the placement of oil or gas wells close to residences or other buildings often displeased lessors, but if these wells enhanced production courts usually allowed them to remain. See, e.g., *Grimes v. Goodman Drilling Co.*, 216 S.W. 202 (Tex. Civ. App. 1919); Browder, *supra* note 156, at 27-35. Production facilities occupying large amounts of surface space, such as tank batteries, were also generally allowed, but the lessee could not use them to store or treat significant quantities of oil from other lands. See *Delhi Gas Pipeline Corp. v. Dixon*, 737 S.W.2d 96, 98 (Tex. Ct. App. 1987) (implied surface easement authorizes placement of gas pipeline across land if pipeline services only well for unit that includes leased land). Compare *Norum v. Queen City Oil Co.*, 81 Mont. 527, 264 P. 122 (1928) (extensive

was tested "unidimensionally": if the questioned activity was not negligent and served a valid business purpose it was generally permitted.¹⁶⁰ As one court recently declared, "[s]adly for the surface owner, [the law] . . . implies that a mineral lease gives a large measure of deference to the lessee's view of reasonableness."¹⁶¹ The mineral estate remains dominant despite the fact that some moderation of the superiority of rights has occurred.

The Texas courts of the late 1960's and early 1970's began to reconsider the meaning of reasonable necessity. First, these courts made necessity a true limitation on the mineral owner's use of the surface, rather than simply a justification for such use.¹⁶² A 1967 case emphasized the surface owner's right to use the surface as desired so long as no "unreasonable interference" with the lessee's use resulted.¹⁶³ This case served notice that the Texas courts would no longer rubberstamp a lessee's claim of necessity; protection of the lessor's interest could justify imposition of some inconvenience on the lessee.¹⁶⁴

Shortly thereafter, in *Getty Oil Co. v. Jones*,¹⁶⁵ Texas adopted the accommodation doctrine, which required even more from the lessee. The surface owner in *Jones* had installed a center-pivot irrigation system, identified as the most practical farming method for the location.¹⁶⁶ Getty subsequently drilled two new oil wells on the plot. The beam pumps Getty installed to serve these wells interfered with the irrigation system but were, the court found, reasonably necessary for production.¹⁶⁷ Another oil operator, faced with a similar conflict, had used alternative production methods that did not make center-pivot irrigation impossible.¹⁶⁸

structures on surface allowed as reasonable) and *Holbrook v. Continental Oil Co.*, 73 Wyo. 321, 329-36, 278 P.2d 798, 802-03 (1955) (dwelling houses reasonably incident to mining operation permitted) with *Bourdieu v. Seaboard Oil Corp.*, 38 Cal. App. 2d 11, 21, 100 P.2d 528, 534 (1940) (storing oil products from outside surface owner's land is an injury not permitted by doctrine of reasonable surface use or statute).

160. See *Kramer*, *supra* note 147, at 60-61. Therefore, under traditional theory, appraisal of mineral development consistently resulted in the decision to allow development.

161. *Vest v. Exxon Corp.*, 752 F.2d 959, 961 (5th Cir. 1985).

162. See *Brown v. Lundell*, 162 Tex. 84, 87, 344 S.W.2d 863, 866 (1961).

163. *Getty Oil Co. v. Royal*, 422 S.W.2d 591, 593 (Tex. Ct. App. 1967).

164. Some other isolated cases restrained oppressive acts by lessees. See, e.g., *Tenneco Oil Co. v. Allen*, 515 P.2d 1391, 1397 (Okla. 1973) (lessee must remove slush pits when surface use no longer required); *Bonds v. Sanchez-O'Brien Oil & Gas Co.*, 289 Ark. 582, 585, 715 S.W.2d 444, 446 (1986) (lessee must restore surface).

165. 470 S.W.2d 618 (Tex. 1971). Some commentators refer to the accommodation doctrine as the doctrine of alternative means. See, e.g., *Broyles, Oil and Gas Producers v. Coal Producers, Planning Impacts of a Developing Judicial Policy*, 15 FORUM 481, 482 (1980).

166. *Jones*, 470 S.W.2d at 622.

167. *Id.* at 620-21.

168. Two of this operator's wells were serviced by short hydraulic pumps; two others used beam pumps lowered into pits. *Id.* at 620.

The *Jones* court recognized the importance of both the mineral and surface estates. The court noted that, when land was capable of both agricultural and mineral production, public policy required that an accommodation between the two uses be reached, allowing realization of all possible benefits.¹⁶⁹ Therefore, if a planned mineral development would interfere with an existing surface use, the mineral lessee would have to use any reasonable less damaging alternative means to accomplish its purpose.¹⁷⁰ Refusal to use the less damaging alternative would be unreasonable, and hence an unauthorized use of the surface.¹⁷¹ Getty could not prevail merely because the alternative would cost more than its desired method.¹⁷² If the increase in costs was so great as to render production unprofitable, however, the less disruptive option would be considered unreasonable and need not be adopted.

The accommodation doctrine, as a model, treats reasonableness in a "multidimensional" manner.¹⁷³ Mineral development that is reasonable in one setting may not be reasonable in another situation involving a different surface use. Under the multidimensional method, the mineral estate may substantially interfere with surface uses, but only if no reasonable alternative exists. The accommodation model does not, however, employ a straight balancing process. It continues to favor the mineral estate.¹⁷⁴ Where no reasonable alternative to the proposed method exists, the test reverts to the unidimensional question of whether the proposed use is nonnegligent and will enhance mineral production.¹⁷⁵ The mineral and surface estates remain in a dominant and servient relationship.¹⁷⁶

169. *Id.* at 622-23.

170. *Id.* at 623.

171. The reasonableness of a use is tested by comparison with "usual, customary, and reasonable practices in the industry *under like circumstances of time, place, and servient estate use.*" *Id.* at 627 (emphasis added); *cf.* *Dyco Petroleum Corp. v. Smith*, 771 P.2d 1006, 1008 (Okla. 1989) (under statute requiring oil and gas lessee to pay damages for any surface use, damages to entire surface tract are considered, including whether lessee's use interferes with irrigation).

172. Lowering the pumps would have cost an additional \$12,000, but might have decreased maintenance costs; a hydraulic pump would have increased initial costs by \$5000 and also increased operating costs. *Jones*, 470 S.W.2d at 622.

173. See *Hultin*, *supra* note 147, at 1072-73; *Kramer*, *supra* note 147, at 60-61; *Lopez*, *supra* note 145, at 1010.

174. See *Hunt Oil Co. v. Kerbaugh*, 283 N.W.2d 131, 137 (N.D. 1979) ("The surface owner must show that under the circumstances, the use of the surface under attack is not reasonably necessary.").

175. See *id.* at 135-37. A number of other states have also adopted the accommodation doctrine. See, e.g., *Diamond Shamrock Corp. v. Phillips*, 256 Ark. 886, 891, 511 S.W.2d 160, 163 (1974); *Einsig v. Pennsylvania Mines Corp.*, 69 Pa. Commw. 351, 452 A.2d 558 (1982); *Flying Diamond Corp. v. Rust*, 551 P.2d 509, 511 (Utah 1976); *Buffalo Mining Co. v. Martin*, 267 S.E.2d 721, 725-26 (W. Va. 1980).

176. *Hunt Oil Co.*, 283 N.W.2d at 138. Because the accommodation doctrine requires a greater consideration of surface uses than the traditional dominance doctrine, one might say that it allows traffic to flow in two directions in determining the propriety of a use. However,

C. Correlative Rights: The Rule of Reason

The correlative rights¹⁷⁷ model reconciles conflicting interests in land without making one estate dominant. Under this doctrine, each competing estate deserves protection; neither estate owner may exercise its rights without due regard for the other. Duties are reciprocal and rights co-equal; a neutral rule of reason governs, allowing site-specific balancing of the two interests. The doctrine is by its very definition flexible and incapable of expression by hard-and-fast rules.

The correlative rights doctrine as a way to resolve conflicting rights in different resources originated in *Chartiers Block Coal Co. v. Mellon*.¹⁷⁸ In that case, the fee owner conveyed a particular stratum of coal to the plaintiff and then leased the oil and gas below the coal to the defendant, who drilled several wells through the coal stratum.¹⁷⁹ The court denied the coal company's request for an injunction without fully explaining its rationale.¹⁸⁰ Nevertheless, the court indicated that the coal estate was defined by its purpose, namely removal of the mineral. Accordingly, in conveying the coal rights, the fee owner relinquished only the coal and the access needed to remove it.¹⁸¹ The fee owner retained all other rights in the land, both above the coal and below it.¹⁸² The court refused to grant the requested injunction because it would have prevented recovery of minerals located below the coal.¹⁸³

surface and mineral concerns are not treated equally. The accommodation road is not a two-lane highway but a three-lane one: the mineral interest receives an extra passing lane.

177. "Correlative rights" is a term used to refer to co-equal rights in a common resource. It was initially applied to rights in common pools of oil and gas. See *Ohio Oil Co. v. Indiana*, 177 U.S. 190, 210 (1900) (upholding oil and gas conservation statute because preventing waste protected private property "from being taken by one of the common owners without regard to the enjoyment of the others"). Some courts say mineral and surface rights should not be considered correlative. See, e.g., *Hunt Oil Co.*, 283 N.W.2d at 138 ("[T]he term 'correlative rights' . . . is more appropriately used in referring to rights among various owners of mineral interests."). Other courts have intimated that mineral and surface owners also have correlative rights. See *Pennington v. Colonial Pipeline Co.*, 260 F. Supp. 643 (E.D. La. 1966), *aff'd*, 387 F.2d 903 (5th Cir. 1968); *Rostocil v. Phillips Petroleum Co.*, 210 Kan. 400, 502 P.2d 825 (1972).

178. 152 Pa. 286, 25 A. 597 (1893). Although *Chartiers Block* involved a conflict between mineral interests, its reasoning depended upon the rights retained by a surface owner after an initial mineral severance. Therefore, it also could apply to conflicts between surface and mineral owners.

179. *Id.* at 297, 25 A. at 597.

180. *Id.* at 298, 25 A. at 599. The court refused to find that the surface owner's rights to reach the oil and gas gave rise to a way of necessity, but denied the injunction nonetheless.

181. *Id.* at 295-96, 25 A. at 598 (mineral owner enters under "a right growing out of the contract of sale, the position of the *stratum* sold, and the impossibility of reaching it in any other manner"). Justice Williams expanded on this concept in his concurrence. See *infra* note 184.

182. *Chartiers Block*, 152 Pa. at 297-98, 25 A. at 598-99; see *Gearhart v. McAlester Fuel Co.*, 199 Ark. 981, 984-85, 136 S.W.2d 679, 680 (1940) ("surface" is more than "portion of the land which is or may be used for agricultural purposes").

183. *Chartiers Block*, 152 Pa. at 299, 25 A. at 599 (public policy forbids leaving "owner of

The concurring opinion in *Chartiers Block* looked to the natural layering of resources for an inherent definition of rights: the surface estate needed support and the mineral estate needed access.¹⁸⁴ Neither estate could be developed without infringing on the other. Courts could accommodate and reconcile these competing uses in the same way that they controlled a surface owner's right to subjacent support. In this situation, the right of access to the oil and gas could be made subject to any precautions necessary to preserve the coal estate. The oil and gas owner could also be required to compensate the coal owner for any actual injury.¹⁸⁵

Later Pennsylvania cases combined the approaches of the majority and concurring opinions in *Chartiers Block* to allow a judicial balancing of rights.¹⁸⁶ Using similar reasoning, other courts have held that physical realities must govern the relationships between holders of naturally adjacent property interests.¹⁸⁷

A scheme based on the ordering of nature has intuitive appeal, although weighing the rights of the conflicting estates on this basis may be difficult. As one case has described this exercise,

[E]ach of the parties is entitled to prevent the other from exercising its rights of ownership of the severed estate arbitrarily, capriciously, oppressively, or wantonly and thereby depriving the other of its respective estate, but each may use the respective estates in a reasonable, prudent manner, having due regard to and consistent with the interests and rights of the other.¹⁸⁸

The correlative rights model is thus inherently flexible. The owner of each estate must act rationally and consider the goals of the other. The

the surface at the absolute mercy of the owner of the coal").

184. Justice Williams stated that

One who buys a single *stratum* is bound to know where it is, and how it is situated with reference to the *strata* above and below it; and he must be conclusively presumed to have taken title subject to the servitudes imposed by nature upon it as the necessary consequence of its position among the rocks that underlie the surface. . . .

They are . . . the reciprocal obligations of access and support.

Id. at 300, 25 A. at 600 (Williams, J., concurring).

185. *Id.* at 296, 25 A. at 597.

186. See, e.g., *Pennsylvania Central Brewing Co. v. Lehigh Valley Coal Co.*, 250 Pa. 300, 302, 95 A. 471, 472 (1915). Outside of Pennsylvania, the "rule of reason" balancing used in *Chartiers Block* supplemented a way of necessity for access to lower strata. *Hoffstat v. Dickenson*, 71 F. Supp. 897, 903-05 (S.D. W.Va. 1947); *Pyramid Coal Co. v. Pratt*, 229 Ind. 648, 655, 99 N.E.2d 427, 429-30 (1951) (owners of land who sold stratum of coal have right of access through stratum via water well to underlying strata).

187. See, e.g., *Pennington v. Colonial Pipeline Co.*, 260 F. Supp. 643, 649 (E.D. La. 1966) (correlative rights language used in resolving conflict between mineral lessee and owner of fee); *Mid-America Terminal, Inc. v. Owensboro River Sand & Gravel Co.*, 532 S.W.2d 437, 441 (Ky. 1975) (bed of river analogized to a mineral estate retained by the surface owner); *Guffey v. Stroud*, 16 S.W.2d 527, 528 (Tex. Comm'n App. 1929) (right to take oil included right to "so much of the gas as was necessary in the proper drilling of oil" despite separate lease for gas).

188. *Mid-America Terminal*, 532 S.W.2d at 441.

standards that govern the reciprocal duties are "arbitrary" and "wanton" on one hand, and "reasonable" and "prudent" on the other. In making these determinations, courts must consider all of the surrounding facts. No hard-and-fast formula exists for resolving these disputes.

Correlative rights analysis differs from the accommodation doctrine because it rejects mineral estate dominance. Although conflicts may require that one estate yield to the other, the surface estate need not always be the one to yield.¹⁸⁹ In a given instance, the value of the surface estate might outweigh that of the mineral estate. In such a case, under the correlative rights model, the mineral estate would have to give way.

D. *Mineral Rights Without Mining Authority*

Traditional theory made the mineral estate dominant, a result mandated by the idea that it necessarily carried with it the right to extract minerals by any reasonable means.¹⁹⁰ Few serious conflicts between surface and mineral estates occurred when the pick and shovel dominated mining. Changes in both mining methods and the minerals sought, however, have forced reassessment of the premise that underlies the dominance principle. Seeking to protect surface owners from destructive mining techniques, some courts have held that a conveyance of mineral rights does not necessarily include ownership of all mineral resources or the right to use strip or surface mining. Some jurisdictions have adopted another approach, allowing the mineral owner to employ destructive methods but granting the surface owner compensation for the resulting damage.

1. *Prohibition of Surface Mining*

Mineral estate dominance produces particularly harsh results when the mineral estate consists of sand, gravel, or surface-recoverable uranium or lignite. These substances do not occur in deposits that can be reached economically by drilling or tunneling under the surface. They must be removed by strip or surface mining, which destroys the surface, precluding other surface uses.¹⁹¹

Inventive courts have developed two main responses to the problems posed by strip and surface mines. In order to avoid allowing the mineral

189. To complete the highway analogy developed in note 176, correlative rights would be the equivalent of a full, four-lane highway. Both mineral and surface values would be afforded passing lanes. Neither interest would be given an advantage; in resolving disputes, courts would seek to fulfill both values.

190. Because removal is essential to the enjoyment of a mineral estate, this traditional view usually conforms to the parties' intentions when minerals are severed from a surface estate. Kuntz, *The Law Relating to Oil and Gas in Wyoming*, 3 WYO. L.J. 107, 112 (1949).

191. See, e.g., Nevill, *Multiple Uses and Conflicting Rights*, 13 ST. MARY'S L.J. 783, 784-85 (1982) (surface mine producing 5.5 million tons of lignite per year will destroy 3000 acres of surface in five years).

estate owner to destroy the surface, these courts have held either that a conveyance does not permit surface mining, or that a general conveyance of "minerals" does not include resources which must be surface mined.¹⁹²

The first approach protects the surface owner even when a deed clearly conveys a specified mineral and the right to mine it. Nevertheless, some courts have refused to countenance strip mining in the absence of express authorization in such a deed. Their decisions have focused on the incongruity of either reserving or conveying the surface estate in a deed if the mineral owner holds the power to destroy that estate at will.¹⁹³ They have refused to assume that the conveyance implicitly waived the common law right to subjacent support.¹⁹⁴ By requiring a clear statement to waive the right of subjacent support, these courts have moved toward a substantive rule governing mineral rights.¹⁹⁵

Other courts have protected surface owners by excluding specific substances from a general mineral conveyance. In most of these cases, the word "mineral" was used as a catch all in a deed. Despite the use of the generic term, some courts have found that particular resources were

192. See generally Dycus, *supra* note 145, at 874-79; Kramer, *supra* note 147, at 67-68.

193. Courts have justified these decisions either on explicit policy grounds or based on the supposed intent of the parties. See, e.g., Payne v. Hoover, Inc., 486 So. 2d 426 (Ala. 1986); Skivolocki v. East Ohio Gas Co., 38 Ohio St. 2d 244, 248 n.4, 313 N.E.2d 374, 377 n.4 (1974) ("right to use" cannot include right to strip mine or basic purpose of two estates perverted); Wilkes-Barre Township School Dist. v. Corgan, 403 Pa. 383, 386-87, 170 A.2d 97, 98 (1961); see also Benton v. U.S. Manganese Corp., 229 Ark. 181, 185, 313 S.W.2d 839, 842 (1958) (mineral owner must pay damages or conveyance a nullity); Evans Fuel Co. v. Leyda, 77 Colo. 356, 362, 236 P. 1023, 1026 (1925) (customary mining method repugnant to general law). On the relationship between strip mining and the right to subjacent support, see Note, *Alternative Approaches to Analyzing the Intent of the Parties Upon Severance of Mineral and Surface Estates in Iowa*, 60 IOWA L. REV. 1365, 1378 (1975).

194. The common law doctrine of subjacent support required the mineral owner to maintain the surface estate's natural support. For underground mining, this would require leaving sufficient minerals to prevent subsidence. Strip mining, in contrast, removes the surface itself. Mineral deeds specifying that mining could occur without liability for damages or with liability limited to a predetermined amount have been variously interpreted as waivers of the common law rights. Compare Victor-American Fuel Co. v. Wiggins, 746 P.2d 58 (Colo. Ct. App. 1987) (mere reservation of right to use surface for specified damage payment insufficient to authorize strip mine) and Breeding v. Koch Carbon, Inc., 726 F. Supp. 645, 650 (W.D. Va. 1989) (severance of coal alone does not constitute waiver) with Alpine Constr. Corp. v. Fenton, 764 P.2d 1340, 1342-43 (Okla. 1988) (enforcing damage provision when deed specific) and Ball v. Island Creek Coal Co., 722 F. Supp. 1370, 1372 (W.D. Va. 1989) (clear waiver of support allows underground mining method that creates more subsidence than traditional techniques). Clear exculpatory clauses have been read to excuse not only negligent but willful and wanton actions by the mineral estate owner. Holmes v. Alabama Title Co., 507 So. 2d 922 (Ala. 1987). See generally Bratt and Greenwell, *Kentucky's Broadform Deed Amendment: Constitutional Considerations*, 5 J. MIN. L. & POL'Y 9 (1989-90) (discussing express waivers of liability for damage caused by mineral owner's use of surface commonly contained in mineral deeds).

195. But see Kennedy, *Form and Substance in Private Law Adjudication*, 89 HARV. L. REV. 1685, 1692-93 (1976) (rules are not truly substantive until courts refuse to allow disclaimers).

not conveyed to the holder of the mineral estate, but rather remained with the surface.¹⁹⁶ Various interpretive tests have been developed to determine which minerals have been conveyed and which have not.¹⁹⁷ These tests, most of which claim to determine the parties' intent, are both confused and confusing.

2. Compensation

Haphazard judicial attempts to protect surface owners by seeking the specific intent of parties to a deed did not prove satisfactory. Under this approach, parties were often unable to predict the effect of a conveyance. The difficulties and disparate results led Professor Eugene Kuntz to suggest another method of resolving the conflict between mineral and surface estates. Professor Kuntz argued that the ownership of resources should be determined in accordance with the means by which the resources are enjoyed. Thus, the mineral estate should "own" and be entitled to remove all resources that obtain their value from severance from the soil. If removal destroyed the surface, however, the mineral owner should compensate the surface owner for the damage.¹⁹⁸ Requiring compensation for surface damage adds an element of fairness to the dominance of the mineral estate.

Two jurisdictions have adopted this compensation compromise. In *Barker v. Mintz*,¹⁹⁹ decided before Professor Kuntz's article appeared, the Colorado Supreme Court used basic equitable balancing to compare the value of the surface estate with that of the mineral estate. The court allowed surface mining, but required the mineral owner to compensate the surface owner for damages. This resolution, the court stated, would allow both owners to receive the full value of their property.²⁰⁰

196. See, e.g., *Commissioners of Land Office v. Butler*, 743 P.2d 1334 (Okla. 1988), cert. denied, 488 U.S. 993 (1988) (reservation of interest in "oil, gas and other mineral rights" did not include coal); *Heinatz v. Allen*, 147 Tex. 512, 518, 217 S.W.2d 994, 997 (1949) (substances such as sand, gravel, and limestone, as they usually occur, are not "minerals" within the ordinary and natural meaning of the word, unless they are exceptional in character).

197. Some courts employ the rule of *ejusdem generis* when the collective word "minerals" is used together with listing of specific minerals; others seek the "normal and natural" or "scientific" meaning of the word "minerals." Courts differ on whether to limit their scrutiny to the deed itself, or to allow evidence of the state of knowledge of either the parties or the community. See, e.g., *McDonald v. Snyder Const. Co.*, 744 S.W.2d 550 (Mo. Ct. App. 1988) (reservation in deed granting right to "all coal, oil, gas, lead, zinc, and other materials" permitted removal of fill material of silica rock and clay from estate). An extensive discussion of the meaning of the word "mineral" is beyond the scope of this Article. For two excellent discussions of this issue see *Lowe, What Substances are Minerals?*, 30 ROCKY MTN. MIN. L. INST. 2-1 (1984); *Reeves, The Meaning of the Word "Minerals."* 54 N.D.L. REV. 419 (1978).

198. Kuntz, *supra* note 190, at 115.

199. 73 Colo. 262, 215 P. 534 (1923).

200. *Id.* at 266, 215 P. at 534-35. Additionally, since 1874 Colorado has by statute required mineral owners to post a bond before mining a severed estate. 1874 Colo. Sess. Laws 1888, § 12 (codified at COLO. REV. STAT. § 34-48-106 (1973)).

Texas, proceeding in two stages, has also adopted the compensation principle. In *Acker v. Guinn*,²⁰¹ the Texas Supreme Court adopted part of Professor Kuntz's solution. Looking to the general intent of the parties, the court concluded that a conveyance encompassing "all minerals" or specific named substances and "all other minerals" did not contemplate destruction of the surface. Instead of ordering compensation when mining caused surface destruction, however, the court proposed to exclude "near surface minerals" from the mineral estate.²⁰²

Later, the Texas Supreme Court embraced the second half of Professor Kuntz's proposal and ceased rearranging ownership of resources.²⁰³ Under the new interpretation, any resource that falls under the "ordinary and natural meaning" of the term "mineral" belongs to the mineral estate.²⁰⁴ If removal of the resource destroys the surface, however, damages must be paid.²⁰⁵

Several federal statutes creating severed estates have followed the compensation pattern to reconcile conflicting private interests. For example, some homestead acts gave the surface rights to the land to settlers but allowed the government to grant the mineral estate separately to other private parties.²⁰⁶ These statutes envisaged two distinct usable estates,²⁰⁷ but did not give surface owners the right to veto mineral development even if that development would destroy the surface. Rather, they assured the surface owners of compensation for destruction of surface resources.²⁰⁸ In addition, some of these acts required mineral own-

201. 464 S.W.2d 348 (Tex. 1971).

202. *Id.* at 352; see *Reed v. Wylie*, 597 S.W.2d 743 (Tex. 1980) (where an instrument is construed to the effect that a particular substance lying near the surface belongs to the owner of a granted surface estate, rather than to the owner of a reserved mineral estate, that particular substance is not a "mineral" for all purposes of that instrument); *Reed v. Wylie*, 554 S.W.2d 169 (Tex. 1977). For a sampling of commentary on the Texas approach, see *Ferguson, supra* note 145, at 415-17; *Kramer, supra* note 147, at 69-76; *Comment, Lignite: Surface or Mineral — The Surface Destruction Test and More*, 29 BAYLOR L. REV. 879 (1977); *Note, Ownership of Unspecified Minerals in Texas and Oklahoma after Reed v. Wylie II*, 16 TULSA L.J. 511 (1981).

203. *Moser v. United States Steel Corp.*, 676 S.W.2d 99 (Tex. 1984). The change in interpretation was applied prospectively only. See, e.g., *Atlantic Richfield Co. v. Lindholm*, 714 S.W.2d 390 (Tex. Ct. App. 1986).

204. *Moser*, 676 S.W.2d at 102. The "ordinary and natural meaning" test may lead to different results than Professor Kuntz's formulation. It might not include everything that gains its value from extraction. An earlier Texas case employing this test found that sand, gravel, and limestone would not be considered minerals unless the deposits were "rare and exceptional in character or possessed a peculiar character giving them special value." *Heinatz v. Allen*, 217 S.W.2d 994, 997 (Tex. 1949).

205. *Moser*, 676 S.W.2d at 102.

206. See, e.g., Act of June 22, 1910, 30 U.S.C. § 85 (1988); Stock-Raising Homestead Act of 1916 (SRHA), 43 U.S.C. § 299 (1988).

207. See *Watt v. Western Nuclear, Inc.*, 462 U.S. 36, 47-51 (1983) (construing SRHA); *Kinney-Coastal Oil Co. v. Kieffer*, 277 U.S. 488, 504 (1928) (construing Act of June 22, 1910 and other homesteading acts).

208. See 30 U.S.C. § 85 (1988); 43 U.S.C. § 299 (1988).

ers to post bonds. After posting a bond the developers could gain access to the surface over the objections of surface owners.²⁰⁹ More recently, some oil- and gas-producing states have enacted similar statutes requiring bonds and payment of damages for surface use. These laws reject earlier laws authorizing use without liability. Although at first glance they might seem to protect only the surface owner, they can also encourage mineral development.²¹⁰

Other modern statutes regulating mining give an even higher priority to surface concerns. Under the Surface Mining Control and Reclamation Act of 1977,²¹¹ Congress granted an interest in federally reserved coal to some private owners of overlaying land. The federal coal lessee may not remove the coal by strip mining without the consent of the surface owner.²¹² Several states have enacted similar legislation.²¹³ Under these laws, the owner of the surface estate is not merely a servant of the coal estate, but becomes a joint venturer with the coal estate owner. The absolute consent requirement allows the surface owner to veto surface mining of coal or to condition consent to mining on the mineral developer's agreement to exorbitant demands. By contrast, surface owners cannot make unreasonable demands of mineral owners under a regime allowing only court-appraised damages for destruction of the surface estate.

E. Application of These Models to Interpretation of FLPMA

Each of the models for settling conflicts between surface and mineral uses balances the rights of the two estates. The lesson these approaches teach, which might help interpret FLPMA's unnecessary or undue degradation standard, is that the dominance of the mineral estate has withered. The owners of mineral estates, and perhaps other dominant estates, can no longer completely disregard the servient estate.

209. See, e.g., 30 U.S.C. §§ 85, 1305 (1988); 43 U.S.C. § 299 (1988). See generally Gallinger & Arnott, *The Rights of Surface Owners Over Federally Reserved Coal as Defined by Federal Surface Mining Legislation*, 1 PUB. LAND L. REV. 57, 58-65 (1980); Miller, *supra* note 103, at 792-99; Twitty, *supra* note 148, at 512-25.

210. See generally Hultin, *supra* note 147, at 1028-41; Polston, *supra* note 157, at 51-62. Although initially resisted by oil and gas companies, surface damage acts may assist them because they give the companies a clear right to enter and drill once they have posted a bond. Courts have made damages under these acts the surface owner's sole remedy against the lessee. See, e.g., *Roye Realty & Developing, Inc. v. Watson*, 791 P.2d 821 (Okla. Ct. App. 1990) (lessee may enter and use surface as reasonably necessary for development of leased minerals); *Turley v. Flag-Redfern Oil Co.*, 782 P.2d 130 (Okla. 1989) (surface owner may not protest increased density of drilling).

211. 30 U.S.C. §§ 1201-1328 (1988).

212. *Id.* § 1304. See generally Gallinger & Arnott, *supra* note 209, at 65-82.

213. See generally Dycus, *supra* note 145, at 886-91. The Montana Supreme Court held that one such statute violated the state constitution. *Western Energy Co. v. Genie Land Co.*, 737 P.2d 478 (Mont. 1987). For a critique of efforts to modify the traditional relationship between surface and mineral estates, see Huffman, *supra* note 145.

The accommodation doctrine provides one potential definition for the phrase “unnecessary or undue” in FLPMA. Under this model, uses of the public lands would be considered unnecessary if they were not required to further the primary goal of the private right. Uses would create both unnecessary and undue degradation if reasonable alternative means would lessen the impact on the public lands. The private party would not have a right to proceed by the least expensive method. But a definition drawn from the accommodation doctrine is not one of even-handed interest balancing: one estate is identified as dominant. In the FLPMA context, the private right would be the dominant one.

The flexible doctrine of correlative rights provides an alternative interpretation of the BLM’s duty to prevent unnecessary or undue degradation. Under this model, the BLM could forbid the exercise of a private right that would cause an unreasonably severe impact on other public land functions. Neither the private right nor public or collective values would be enthroned as dominant. True balancing could occur. The system of reciprocal duties and correlative rights, if applied to the public lands, could force at least partial forbearance from mineral development.

Compensation doctrine helps to define “unnecessary and undue degradation” less directly than the other two models. It does not provide a clear decisional formula. The requirement of consent and the award of monetary damages, however, further underscore a growing trend of protecting uses other than the traditionally dominant mineral use. Under the compensation approach, if other values exceeded the value of mineral development, the land would not be mined.²¹⁴ Thus, lands bearing high surface values would only be disturbed to obtain commensurately high mineral values.

The BLM currently defines the unnecessary or undue degradation standard in a manner analogous to the accommodation doctrine, imposing conditions on mineral development only if those conditions do not make development impractical.²¹⁵ The legislative history and structure of FLPMA, however, do not require the BLM to define “unnecessary or

214. Requiring the payment of damages can be a potent protective measure even if damage awards are not used to restore the surface. Referring to an oil and gas surface damage act, the Eighth Circuit has noted that:

The requirement that mineral developers compensate surface owners for damage they cause may well serve as an incentive for developers not to drill . . . where drilling is not likely to yield enough oil or gas to justify the loss to the economy from disruption of surface productivity. The compensation requirement might also create an incentive for developers to not cause unnecessary surface damage, and to remedy any damage — avoidable or unavoidable — they may cause.

Murphy v. Amoco Prod. Co., 729 F.2d 552, 555 (8th Cir. 1984); see Davis Oil Co. v. Cloud, 766 P.2d 1347 (Okla. 1986).

215. See *supra* notes 122-23 and accompanying text.

undue degradation" in this limited fashion.²¹⁶ The discussion of legal doctrines used to reconcile competing private rights demonstrates that accommodation is not the only feasible model. Under a fully multidimensional approach, activities could be found to cause "undue" impacts to the public land even if no reasonable alternative means exists to fulfill the private objective. The gradual increase in judicial and legislative protection of surface rights in the context of private conflicts suggests that the BLM could legitimately take a stronger approach, forbidding private activity that would destroy high-value public land resources.²¹⁷ Under certain circumstances, the BLM could force a mineral owner to completely forego production.

IV

THE ARGUMENT FOR EXTENDED POWERS

The last section demonstrated that models exist to support the BLM if it adopted a stronger approach to the unnecessary or undue degradation standard. Correlative rights doctrine would require an overall balancing of all resources and interests in the land; collective values would be as important as private objectives. The question remains, however, whether adoption of a stronger, correlative rights approach would be desirable. Should the BLM do no more than channel a private project into the least damaging method, as it does under its current "weak" interpretation of FLPMA? Or do the unique values served by the public lands justify a more protective stance?

A. *The BLM Should Represent Collective Values*

Despite the increasing importance attached to protection and preservation of the public lands in the years before FLPMA's enactment, FLPMA did not clearly resolve conflicts in favor of environmental protection. The tensions in FLPMA's mandate are not surprising. FLPMA, like so much recent legislation, reflects the struggle between collective and consumer desires.²¹⁸ Environmental values are collective.

216. See *supra* notes 29-50 and accompanying text. For a general discussion of the legislative history of FLPMA, see Schwartz, *A Capsule Examination of the Legislative History of the Federal Land Policy and Management Act of 1976*, 21 ARIZ. L. REV. 285 (1979).

217. The trend toward greater surface rights also changes mineral owners' reasonable expectations of developing their subsurface estates. This change could determine the constitutionality of a specific application of the strong definition of unnecessary or undue degradation. See *infra* notes 308-22 and accompanying text.

218. The dichotomy between consumers and citizens is described in Sagoff, *supra* note 6. What a person does as an individual consumer may differ from what the same individual may recognize as being good for society as a whole. An exercise of good citizenship may not coincide with selfish desires. The conflict raises the ethical question "whether we [should] live by our beliefs or satisfy our interests." *Id.* at 303. For other descriptions of the dichotomy, see Michelman, *Politics and Values or What's Really Wrong with Rationality Review*, 13 CREIGHTON L. REV. 487, 509 (1979) ("individualistically self-serving activity" of private sphere versus

As a society, we want to preserve them because they constitute an integral part of our culture.²¹⁹ Nonetheless, both individuals and corporations within society act as consumers. As such they seek to maximize tangible returns and may allow economic values to drive their decisions to the exclusion of "soft" collective values.²²⁰

The BLM must champion the collective values expressed in some provisions of FLPMA. Without the BLM's advocacy, these values may be sacrificed in favor of others that appear more valuable in the short term. First, unlike timber and commodity resources, wilderness and other environmental values are not readily priced and thus do not lend themselves to traditional economic analysis.²²¹ Because other decision-making criteria are lacking, however, cost-benefit analysis often appeals to managers who must justify decisions.²²² Second, FLPMA expresses the policy that the public lands are to be managed "on the basis of multiple use."²²³ Despite hortatory language encouraging environmental protection in the definition of multiple use,²²⁴ multiple use planning generally favors uses that are compatible with others, so that particular parcels of land can support the greatest number of uses.²²⁵ Environmen-

"joint and mutual search for good and right answers" of public life); Sax, *supra* note 6, at 542 ("collective versus individualistic values"). But see Farber, *From Plastic Trees to Arrow's Theorem*, 1986 U. ILL. L. REV. 337, 343 (all aspects of life provide opportunities for both types of responses).

219. See Farber, *supra* note 218, at 357-58 ("Because environmental values are so closely linked with many other parts of American culture, Americans could excise them only by abandoning much that they consider valuable in human life."); see also *Wilderness: Past, Present, and Future*, 29 NAT. RESOURCES J. 1 (1989) (symposium issue); cf. Merryman, *The Public Interest in Cultural Property*, 77 CALIF. L. REV. 339, 341 (1989) ("[C]ultural objects have a variety of expressive effects that can be described, but not fully captured, in logical terms.").

220. FLPMA allows "soft" values such as environmental protection, which do not have "hard" monetary equivalents, to battle it out with commodity production. See Sagoff, *supra* note 6, at 303-04 (students want mountain undeveloped but also desire to ski on its slopes).

221. Rodgers, *Benefits, Costs, and Risks: Oversight of Health and Environmental Decision-making*, 4 HARV. ENVTL. L. REV. 191, 194-95 (1980); Teegarden, *Benefit-Cost Analysis in National Forest System Planning: Policy, Uses, and Limitations*, 17 ENVTL. L. 371, 427 (1987).

222. See Mohai, *Rational Decision Making in the Planning Process: Some Empirical Evidence from Rare II*, 17 ENVTL. L. 507, 508-19 (1987). NEPA requires that agencies adopt procedures to "insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations." 42 U.S.C. § 4332 (1988). The rules implementing NEPA recognize that cost-benefit analyses can be useful, but provide caveats:

[The Environmental Impact Statement] shall, when a cost-benefit analysis is prepared, discuss the relationship between that analysis and any analyses of unquantified environmental impacts, values, and amenities. For purposes of complying with the Act, the weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis and should not be when there are important qualitative considerations.

40 C.F.R. § 1502.23 (1990).

223. 43 U.S.C. § 1701(a)(7) (1988); see *id.* § 1712(c)(1) (requiring multiple-use principles for land-use planning).

224. *Id.* § 1702(c).

225. P. CULHANE, PUBLIC LANDS POLITICS: INTEREST GROUP INFLUENCE ON THE

tal considerations, such as wilderness and habitat preservation, are sometimes irreconcilable with commodity development, and thus may be passed over in a multiple use scheme.²²⁶

A third reason for strong institutional assertion of collective values is that certain assets, by their very nature, can only be protected by a central authority. Ecologically sound land management benefits all in a nonexclusive manner. It is therefore a "public good,"²²⁷ requiring governmental protection. Because of this need, some would argue, land must be used in a manner that preserves its natural ecological balance; no one should have a personal right to modify or destroy that balance.²²⁸ Such broad restrictions on use such a rule would entail might be resisted bitterly if applied to private land holdings. Nevertheless, they could more easily be imposed on public property.²²⁹

The public lands belong to both everyone and no one.²³⁰ More than any other lands, they are available to serve our collective values, which include protection of wilderness, wildlife, and the ecological balance. Privately held acreage is not as available for these purposes. Most individuals are unlikely to be willing to relinquish all use of their holdings in order to preserve land in a natural or wild state. But while we might not

FOREST SERVICE AND THE BUREAU OF LAND MANAGEMENT 327 (1981). Part of the reason for this is that multiple use is linked with "sustained yield" management. 43 U.S.C. §§ 1701(c)(7), 1712(c)(1) (1988). "Sustained yield" means "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use." *Id.* § 1702(h).

226. Comment, *Wilderness Land Preservation: The Uneasy Reconciliation of Multiple and Single Use Land Management Policies*, 8 B.C. ENVTL. AFF. L. REV. 873, 915-16 (1980).

227. Two criteria identify public goods: no individual can provide them individually, and no person can be excluded from their benefits. National defense is an easily recognized example of a public good. Leman & Nelson, *The Rise of Managerial Federalism: An Assessment of Benefits and Costs*, 12 ENVTL. L. 981, 1002 (1982). Wilderness is another example. *Id.*; Babbitt, *Federalism and the Environment: An Intergovernmental Perspective of the Sagebrush Rebellion*, 12 ENVTL. L. 847, 851-52 (1982). Wilderness, however, also attracts those with an individualistic perspective. See Huffman, *Governing America's Resources in the 1980's*, 12 ENVTL. L. 863, 898 (1982) (public ownership of wilderness promotes liberty).

228. See, e.g., Caldwell, *Land and Law: Problems in Legal Philosophy*, 1986 U. ILL. L. REV. 319; Hunter, *An Ecological Perspective on Property: A Call for Judicial Protection of the Public's Interest in Environmentally Critical Resources*, 12 HARV. ENVTL. L. REV. 311 (1988); Metzger, *Private Property and Environmental Sanity*, 5 ECOLOGY L.Q. 793 (1976).

229. See, e.g., Sax, *supra* note 6, at 541 ("Many people who are enraged at the idea of federal zoning of private lands are less exercised when the same controls are imposed on publicly owned lands through contract or lease.").

230. This is not to say that no one expresses care and concern over their use. *Cf.* *Lyng v. Northwest Indian Cemetery Protective Ass'n*, 485 U.S. 439, 453 (1988) (rights of Indians "do not divest the Government of its right to use what is, after all, its land"). Compare Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 712 (1986) ("From this [tragedy of the commons] perspective, 'public property' is an oxymoron: things left open to the public are not property at all, but rather its antithesis.") with Nelson, *Private Rights to Government Actions: How Modern Property Rights Evolve*, 1986 U. ILL. L. REV. 361, 373 (plans to sell public lands thwarted by disparate users who "reacted to the threat as vigorously as would any other private owners").

forgo building a dream house on our sole personal acre of land, we may nonetheless agree that open space is necessary and applaud our town's purchase of a park.²³¹ Decisions taken as individuals in the private land market might not reflect a person's recognition of park values.²³²

B. *The Error of Using Private Profit as the Principal Measure*

Inevitably, the BLM must choose among conflicting interests in managing the public lands. Under FLPMA, the BLM has broad management powers to consider and implement varying concerns and programs, including such disparate goals as preserving wilderness, fostering mineral self-sufficiency, and enhancing wildlife habitat.²³³ The public lands must provide needed resources, but they must also be available to satisfy the public need for unspoiled lands. As a guardian of collective values, the BLM must demand that actions taken upon the lands be environmentally sound to ensure that public land values will not be lost unnecessarily.²³⁴

In order to protect collective environmental values, the BLM must examine development proposals from a perspective that considers more than private profit. To focus on profit alone addresses only one half of the FLPMA land management directive, that is, allowance of activities "necessary" to private operations. FLPMA also requires the BLM to prevent "undue" degradation. Activities that involve too great a sacrifice of collective values for too little societal gain should be considered "undue," even if they would provide a private party with a positive economic return. Thus, even those actions "necessary" to implement a private goal and employing the least damaging economically feasible method might create "undue" degradation.

In fact, making economic feasibility the limit of the BLM's control would allow the most damaging activities to continue. If all profitable activities must be permitted, a thin potential profit margin could force

231. Cf. Sax, *supra* note 6, at 546 (church might retain rose garden for senior citizen use when individual would choose to sell it to realize profit).

232. The value people place on parks and other environmental amenities need not be measured strictly by land prices. Parks may be valued by the time people invest in them. Moreover, certain goods have "existence value;" the simple fact that they exist enriches the collective consciousness even if they are never used. Wilderness is often identified as a resource that provides such benefits. See, e.g., Leman & Nelson, *supra* note 227, at 1002; cf. Sax, *supra* note 6, at 551-52 (some value arises from the "bandwagon" effect; individuals are more likely to value wilderness if the community deems it important).

233. Keiter, *supra* note 66, at 932-33; Mansfield, *supra* note 9, at 493-94, 498-99.

234. Buttel & Larson, *Whither Environmentalism? The Future Political Path of the Environmental Movement*, 20 NAT. RESOURCES J. 323, 326 (1980) (because benefits are diffuse, environment has no natural constituency). But see Wandesforde-Smith, *Learning from Experience, Planning for the Future: Beyond the Parable (and Paradox?) of Environmentalists as Pin-Striped Pantheists*, 13 ECOLOGY L.Q. 715, 720 (1986) (environmental movement likely to remain a powerful political and legal force).

approval of destructive activities.²³⁵ Even marginal operations, which can least afford to undertake reclamation or to provide other environmental safeguards, would be allowed to proceed. On the other hand, if the BLM could prohibit activities that would destroy too many collective values, developers would bear the cost of environmental protection. Protection would become a prerequisite for development. Richer mineral deposits would be more exploitable than marginal ones, because they would justify the use of more costly protective measures.²³⁶ Moreover, forcing private actors to pay the costs of destroying public values would provide incentives for development of new technologies that would permit the achievement of private goals without irreparable damage to public resources.²³⁷

C. *Role of the Public Trust Doctrine*

The suggestion above that the BLM bears a special responsibility to protect the public values served by the public lands recalls the common law public trust doctrine. The public trust doctrine was developed to protect navigable waters and the submerged lands that form harbors.²³⁸ The first fiduciary duty imposed on the government by this doctrine was to preserve navigation routes, an obvious "public" attribute of navigable waters.²³⁹ One central proposition of the doctrine is that the government has a fiduciary duty to devote certain resources to the common benefit. This duty may preclude the government from selling these resources or

235. *Cf.* *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 414 (1922) ("To make it commercially impracticable to mine certain coal has very much the same effect for constitutional purposes as appropriating or destroying it."). Naturally, if mining is prohibited when marginally profitable at best and this prohibition is deemed to be a taking, little compensation would have to be paid because of the low value of the property right. *Cf.* Epstein, *Takings: Descent and Resurrection*, 1987 SUP. CT. REV. 1, 27 (only minimal compensation required for land destroyed by one flood and likely to be destroyed by another).

236. Additionally, large companies could afford to explore mineral deposits to ascertain their value without destroying the land's collective environmental values because they could spread the cost of environmental protection over several projects. For example, Marathon Oil drilled a wildcat oil and gas well in Shoshone National Forest using helicopter access and other measures that minimized harm to wildlife and the land. *See* *Park County Resource Council v. United States Dep't of Agric.*, 817 F.2d 609 (10th Cir. 1987).

237. *See, e.g.,* Sax, *Takings, Private Property, and Public Rights*, 81 YALE L.J. 149, 177-86 (1971).

238. *See* *Illinois Central R.R. Co. v. Illinois*, 146 U.S. 387 (1892).

239. Hunter, *supra* note 228, at 377; Rose, *supra* note 230, at 774-77. Some state cases impose the public trust on waters that may be subject to appropriation and broaden governmental duties beyond the original thrust, allowing basic environmental concerns to limit ownership rights. *See generally* Dunning, *The Public Trust: A Fundamental Doctrine of American Property Law*, 19 ENVTL. L. 515 (1989); Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 ENVTL. L. 425, 465-70 (1989). *See also* Gould, *supra* note 55, at 25-29 to 25-30 (noting that doctrine is shifting to limit private rights in resources other than public trust resources).

otherwise foreclosing public access to them.²⁴⁰ Beyond this, the public trust doctrine is vague.²⁴¹

Under one reading, the public trust doctrine would create a separate check on the actions of the BLM, imposing a judicially enforceable duty to protect the collective environmental attributes of the public lands.²⁴² The public trust doctrine as developed for navigable waters, however, has not been transferred to the federal land management context with any substantive vigor.²⁴³ One explanation for this failure is the strong tradition of transferring these lands and their resources into private hands.²⁴⁴ In the late 1970's, some cases appeared to adopt a substantive reading of the doctrine with respect to federal lands, but that movement has been aborted.²⁴⁵ Moreover, those cases dealt with the National Park Service,

240. For general background on the public trust doctrine, see *The Public Trust and the Waters of the American West: Yesterday, Today, and Tomorrow*, 19 ENVTL. L. (1989) (symposium issue); *The Public Trust Doctrine in Natural Resources Law and Management: A Symposium*, 14 U.C. DAVIS L. REV. 181 (1980); Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 643 n.75, 644 n.76 (1986).

241. Blumm, *Public Property and the Democratization of Western Water Law: A Modern View of the Public Trust Doctrine*, 19 ENVTL. L. 573, 579 (1989) ("public trust doctrine is chameleon-like, depending on the context at hand"); Rose, *supra* note 230, at 722 (public trust doctrine is "flexible" in response to 'changing public needs'").

242. See Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 471, 509, 521 (1970) [hereinafter Sax, *Trust I*] (doctrine not necessarily substantive but a strong "technique" for judicial review); Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C. DAVIS L. REV. 185, 192-93 (1980) [hereinafter Sax, *Trust II*] (substantive dimension of the public trust doctrine should be recognized).

243. See, e.g., *Illinois Central R.R. Co. v. Illinois*, 146 U.S. 387, 452 (1892) (lands under navigable waters distinguished from "public lands which are open to preemption and sale").

244. Wilkinson, *The Public Trust Doctrine in Public Land Law*, 14 U.C. DAVIS L. REV. 269, 273, 276 (1980); see Montgomery, *The Public Trust Doctrine in Public Land Law: Its Application in the Judicial Review of Land Classification Decisions*, 8 WILLAMETTE L. REV. 135, 152-53 (1972).

245. In *Sierra Club v. Dep't of the Interior*, the district court held that an enforceable public trust duty arising both from common law and statutory sources could preclude logging adjacent to Redwood National Park. 376 F. Supp. 90, 93-96 (N.D. Cal. 1974); see Keiter, *On Protecting the National Parks from the External Threats Dilemma*, 20 LAND & WATER L. REV. 355, 374 (1984) (*Sierra Club v. Dep't of Interior* is first instance of judicial imposition of public trust duty in national parks context). In later proceedings arising from this dispute, the statute's commands overshadowed any common law trust duty. See *Sierra Club v. Andrus*, 487 F. Supp. 443 (D.C. Cir. 1980), *aff'd on other grounds sub nom. Sierra Club v. Watt*, 659 F.2d 203 (D.C. Cir. 1981); *Sierra Club v. Dep't of the Interior*, 424 F. Supp. 172 (N.D. Cal. 1976); *Sierra Club v. Dep't of the Interior*, 398 F. Supp. 284 (N.D. Cal. 1975).

There has been considerable debate about whether the 1978 amendments to the National Parks Organic Act, Pub. L. No. 95-250, 92 Stat. 166 (codified at 16 U.S.C. § 1a-1 (1988)), created a statutory public trust responsibility applicable to the Park Service that would require it to regulate activity outside parks. Compare Keiter, *supra*, at 369-75 (affirmative duty to combat external threats to park resources) with Coggins, *supra* note 66, at 16-17 (evidence that statutes require action outside parks tenuous and balanced by language about protecting wildlife in parks). Keiter subsequently acknowledged that courts hesitate to impose a duty to combat external threats on government land management agencies. Keiter, *supra* note 66, at 949-50.

which has a clearer statutory directive to maintain the environmental values of the lands under its control than does the BLM.²⁴⁶

With respect to public lands management by the BLM, the public trust concept does not have independent life as a source of enforceable duties.²⁴⁷ The public trust doctrine, however, can help interpret the breadth of the BLM's powers in managing the public lands. Although the doctrine does not mandate particular actions in the public lands context, the rationale that gave rise to the public trust doctrine supports a strong reading of the duty to prevent unnecessary or undue degradation.

Some cases dealing with public land in the late nineteenth and early twentieth centuries did refer to those lands as being held by the government "in trust" for the people of the United States.²⁴⁸ The term "trust" was not, however, used in the same sense as in the classic public trust doctrine developed with respect to land under navigable waters. Under the classic doctrine, public trust property or access to its resources was to be kept indefinitely in common ownership.²⁴⁹ This was not so with respect to the public lands. The public lands were eventually to be disposed of,²⁵⁰ but they had to be protected while held by the government, and could be disposed of only as Congress dictated.²⁵¹ No trespasses nor fraudulent acquisitions could be allowed. The Secretary of the Interior's

246. See generally Lemons & Stout, *A Reinterpretation of National Park Legislation*, 15 ENVTL. L. 41 (1984) (tension arises between requirements to preserve parks unimpaired and to provide for public use and enjoyment, but Park Service's basic duty is to preserve).

247. See Mansfield, *supra* note 9, at 490-502; Wilkinson, *supra* note 52, at 26-28 (applicability of public trust doctrine to public lands uncertain and unsupported by case law); Wilkinson, *supra* note 244, at 276-77 (public trust doctrine not unsuited for application to public lands). But see *Sierra Club v. Watt*, 659 F.2d 203, 206 (D.C. Cir. 1981) (imposing trust-like duties on BLM). It has been suggested that the public trust doctrine is not an effective means of protecting environmental values. Comment, *The Public Trust Totem in Public Land Law: Ineffective — And Undesirable — Judicial Intervention*, 10 ECOLOGY L.Q. 455, 457 (1982) (environmentalists should seek more detailed statutory standards and participate in agency decisionmaking rather than rely on the "sham" public trust doctrine).

248. *Knight v. United States Land Ass'n*, 142 U.S. 161, 177-82 (1891); *Buford v. Houtz*, 133 U.S. 320 (1890); *United States v. Beebe*, 127 U.S. 338, 342 (1888); see also *Light v. United States*, 220 U.S. 523 (1911).

249. A recent case distilled three principles from prior law:

First, courts should be critical of attempts by the state to surrender valuable public resources to a private entity. Second, the public trust is violated when the primary purpose of a legislative grant is to benefit a private interest. Finally, any attempt by the state to relinquish its power over a public resource should be invalidated under the doctrine.

Lake Michigan Fed'n v. United States Army Corps of Engineers, 742 F. Supp. 441, 445 (N.D. Ill. 1990) (citations omitted).

250. See *supra* notes 17, 20-21 and accompanying text.

251. *Alabama v. Texas*, 347 U.S. 272, 277 (1954) (Reed, J., concurring):

The United States holds its resources in trust for its citizens in one sense, but not in the sense that a private trustee holds for a *cestui que trust*. The responsibility of Congress is to utilize the assets that come into its hands as sovereign in the way that it decides is best for the future of the Nation.

representatives were considered "trustees or guardians of lands under their jurisdiction."²⁵²

The concept of holding lands in trust increased federal power under the property clause and strengthened congressional authority to delegate that power to agencies. In an era of strict substantive due process and restrained delegation of legislative powers, the trust analogy provided a shorthand for an unusual deference accorded to congressional decisions regarding public lands. For example, in one case a court looked to the trust concept in upholding a trespass action for allowing cattle to graze on National Forest land despite a state law that precluded a trespass action unless the landowner had fenced out cattle.²⁵³ Judicial declaration of a federal trust responsibility did not allow courts to second-guess agencies; rather, it increased the power of both agencies and Congress with respect to management of the public lands.²⁵⁴

This historical application of a "public trust" concept to public lands can supply content to the congressional command to "take any action necessary to prevent unnecessary or undue degradation of the lands."²⁵⁵ The trust analysis supports a more powerful interpretation of the BLM's mandate to protect collective values than the weak interpretation currently followed by the BLM. In requiring the BLM to prevent unnecessary or undue degradation, Congress may have been exercising its full trust powers and therefore may have intended to authorize all measures necessary to protect the public lands.²⁵⁶ Under this interpreta-

252. *Knight*, 142 U.S. at 161; see *Beebe*, 127 U.S. at 342.

253. *Light*, 220 U.S. at 537:

All the public lands of the nation are held in trust for the people of the whole country. And it is not for the courts to say how that trust shall be administered. That is for Congress to determine. The courts cannot compel it to set aside the lands for settlement, or to suffer them to be used for agricultural purposes or grazing purposes, nor interfere when, in the exercise of its discretion, Congress establishes a forest reserve for what it decides to be national and public purposes.

See also *United States v Grimaud*, 220 U.S. 506, 516 (1910) (Congress may delegate authority to regulate uses of forest reserves). For commentary, see Engdahl, *supra* note 52, at 309 (interpreting *Grimaud* to approve delegation of proprietary powers under the Property Clause without the stricter standards required for delegation of other powers); Sullivan, *supra* note 52, at 97 (emphasizing that *Light*, which deferred to Congress, was decided during the heyday of restrictive interpretations of delegation).

254. For similar conclusions see, for example, Montgomery, *supra* note 244, at 159-60; Wilkinson, *supra* note 244, at 280-84; Comment, *supra* note 247, at 476-80; Note, *Protecting National Parks From Developments Beyond Their Borders*, 132 U. PA. L. REV. 1189, 1197-1201 (1984).

255. 43 U.S.C. § 1732(b) (1988).

256. See Getches, *supra* note 98, at 334 (public trust fills interstices of protective statutes); Wilkinson, *supra* note 52, at 35-38 (public trust resolves ambiguity in congressional legislation); Wilkinson, *supra* note 244, at 311-13 (public trust useful for statutory construction); cf. *Gould v. Greylock Reservation Comm'n*, 350 Mass. 410, 215 N.E.2d 114 (1966) (in interpreting state action, start with premise that state would not ordinarily intend to lessen public use when it disposes of public land). This view of the public trust as an interpretive guide and supplement to legislation is not inconsistent with the view that the public trust doctrine cannot substantively restrain congressional decisionmaking. See, e.g., Tarlock, Book Review, 34

tion, rather than simply seeking "accommodation" between collective values and private projects, the BLM could favor preservation of public land values over fulfillment of private purposes in some circumstances. The trust concept would not, however, require that the BLM always place environmental values above others.²⁵⁷

V

IMPLEMENTATION OF AUTHORITY

FLPMA allows the BLM considerable discretion in managing the public lands. Because FLPMA does not direct the BLM to favor any one type of interest, the agency may balance conflicting interests that affect particular parcels of land. Thus, the BLM could, and should, adopt a stronger interpretation of FLPMA's unnecessary or undue degradation standard. Under a strong interpretation of the standard, an activity could be prohibited as "unduly degrading" if it would cause excessive environmental harm or preclude an inordinate number of alternative uses of the public lands. The BLM should follow the model not of accommodation, which enshrines one interest as dominant, but rather of balancing correlative rights.

In accordance with this balancing approach, the BLM should not condemn an activity such as a mine or a road without also looking at its potential benefits. Straight cost-benefit analysis, which compares monetizable costs and benefits, should not be the only form of analysis.²⁵⁸ Such an analysis may be helpful in comparing the results of competing development proposals, but is less appropriate in comparing a development proposal with the option of preserving environmental amenities. The difficulty of expressing certain values in monetary terms may skew the results of cost-benefit analysis in favor of proposals that will produce readily monetized benefits and less readily monetized costs.²⁵⁹ This skewing will tend, for example, to favor mineral development over environmental preservation.

STAN. L. REV. 255, 268 (1981). The public trust doctrine, as a gap filler, would not limit Congress' choices, but merely would guide courts when Congress has not made its intentions explicit.

257. See Sax, *Trust I*, *supra* note 242, at 482 (government may accommodate new needs by reallocating resources even if property subject to public trust); Sax, *Trust II*, *supra* note 242, at 186 (public trust doctrine not rigid prohibition of change in land use); Wilkinson, *supra* note 244, at 307-10 (notion of disposing of public lands probably too ingrained in Property Clause for public trust to restrain Congress, even if doctrine is based in the constitution).

258. See, e.g., Coggins, *supra* note 22, at 20-23 (economic efficiency cannot be basis of public land law philosophy).

259. Rodgers, *supra* note 221, at 194-200; Teegarden, *supra* note 221, at 426-27; cf. Ohio v. Dep't of the Interior, 880 F.2d 432, 459 (D.C. Cir. 1989) (regulations restricting natural resource damages under CERCLA and the Clean Water Act to lesser of restoration cost or value of lost use alone held contrary to congressional intent); Colorado v. Dep't of the Interior, 880 F.2d 481, 490 (D.C. Cir. 1989) (same).

Numerical cost-benefit analysis may also mask value judgments behind a cloak of scientific respectability.²⁶⁰ Methods exist for assigning monetary values to environmental amenities, but their validity is questionable.²⁶¹ Nevertheless, in the absence of other decisional frameworks, this type of analysis receives credence as justification for decisions. It bolsters a claim of neutrality, but absolute neutrality is neither possible nor desirable for the BLM. Inevitably, managing the public lands requires value judgments.²⁶² The BLM should accept this truth and make its value judgments openly so all will know the basis of its choices.

Before making such choices, the BLM should fully hear the arguments in favor of differing allocative choices.²⁶³ Because the BLM must resolve conflicting demands without firm guidance from Congress, the interest representation model of administrative law is especially suited to its resource allocation decisions.²⁶⁴ Allowing all affected parties to participate ensures that all values are spoken for, broadens the BLM's information base, and provides the representation without which laws should not be made in a democracy.²⁶⁵ The BLM's eventual decision should promote what it determines to be the public interest. Making this determination requires the agency to exercise independent judgment, rather than simply summing the "votes" of interested persons.²⁶⁶ In some cases, this process will lead to the conclusion that development should be halted or greatly modified, but in other situations development will be allowed to proceed.

The conflicts caused by privately owned mineral estates beneath public lands illustrate the decisionmaking process the BLM should go

260. Rodgers, *supra* note 221, at 226.

261. d'Arge, *A Practical Guide to Economic Valuation of the Natural Environment*, 35 ROCKY MTN. MIN. L. INST. 5-1, 5-5 (1989) (there are major conceptual and practical problems in identifying accurate and meaningful prices for nonmarket goods); cf. Farber, *supra* note 218, at 358 (rather than attempting to justify environmental values rationally, we should accept that they are at least in part emotional).

262. Reich, *The Public and the Nation's Forests*, 50 CALIF. L. REV. 381, 402 (1962) (value choices occur despite myth that planning decisions are objective).

263. The interest representation model of administrative law requires such agency openness to public input. Professor Stewart was the first to note that many agencies had come to resemble mini-legislatures, and that a primary goal of administrative law should be to assure representation of all interests in this new forum. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1669, 1670 (1975).

264. See generally Mansfield, *supra* note 9, at 503-20 (evaluating usefulness of applying interest representation model to BLM).

265. *Id.* at 513-14.

266. See Coggins, *supra* note 22, at 24-26 (although the public interest is an elusive and changing standard, the search for it is crucial to good government). Agencies, however, tend to regard the "public interest" as being served by accommodating the desires of those demanding attention, rather than looking beyond the goals of these parties. P. CULHANE, *supra* note 225, at 208-31. See generally Reich, *supra* note 262, at 387-92 (lack of input from general public, as opposed to interest groups, in forest management decisionmaking); Sunstein, *Factions, Self-Interest, and the APA: Four Lessons Since 1946*, 72 VA. L. REV. 271 (1986).

through. In response to the mineral owner's proposal to undertake development, representatives of a number of interests will converge on the BLM District Manager's office. Ranchers may complain that the mineral development will cause loss of forage. Hunters may claim that mining will disrupt winter range essential to the deer population. Other wildlife advocates may point to the area's ecological importance for non-game species. In addition, the site of the proposed development may be exceptionally beautiful, and those who enjoy that beauty may seek to protect it. The District Manager will consider all of these values in deciding whether to forbid the project or restrict it to some extent. No hard-and-fast rules can structure these decisions because they ultimately require reconciling the irreconcilable. The BLM must exercise its discretion in each individual setting without relying upon a rigid framework.²⁶⁷

Some guidelines, however, can be formulated. The "strong" interpretation of the FLPMA mandate proposed in this Article would not require the BLM to halt all activities that disturb resources on the public lands or which are incompatible with other uses. Only those private enterprises that threaten core public values should be curbed.²⁶⁸ These values include recreational activities and protection of wilderness, watershed, and wildlife. Moreover, development need not be foreclosed even if it threatens these or other public land functions. The public benefits from the activity, such as jobs and independence from reliance on foreign sources of minerals, must enter the equation. In some instances, the gains from development will justify the loss of environmental values.

Therefore, the BLM should evaluate "unnecessary or undue degradation" on a sliding scale. The relative scarcity of both the mineral resources and threatened collective resources should influence the decision. For example, development of a particularly rare or major mineral deposit could justify more damage to other resources than smaller or more common deposits. Conversely, lands serving major ecological or recreational interests could demand more vigorous preservation than other public lands. Ultimately, private activities should be precluded only if they would affect public lands that provide significant collective benefits. This requirement would provide an element of fairness. In essence, the exceptional beauty, wildlife, or ecological importance of the lands would put

267. Discretion, in and of itself, is not necessarily an evil. BLM personnel can provide crucial professional knowledge and initiative. Congress lacks the time and expertise to define national policy completely or to manage each acre of the public lands. Therefore, it must delegate some discretion to administrative agencies such as the BLM. Mansfield, *supra* note 9, at 496-97.

268. Cf. Freyogle, *Context and Accommodation in Modern Property Law*, 41 STAN. L. REV. 1529, 1553-56 (1989) (should restructure property rights in water not on a wholesale basis, but only to preserve things that society values); Gaetke, *supra* note 55, at 183 (land management agencies should regulate activity beyond the borders of their lands only when imperative to preserve congressional policy).

the developer on notice that development could be restricted in order to preserve these values.

Recognition of the BLM's authority to forbid private activities would not be an unqualified defeat for mineral interests or other developers. In exercising this authority, the BLM would be allowed to consider the appropriateness of placing environmental concerns above all other values. If, after this type of review, the BLM decided to allow an activity, that decision should be accorded greater judicial deference than one in which the agency approved the activity simply because it lacked the power to forbid it. Thus environmentalists may gain greater protection of the resources they value, but mineral owners in return will enjoy greater certainty that decisions favorable to them will not be overturned.

To a large extent, the BLM's decisions are, and would continue to be, insulated from substantive judicial review.²⁶⁹ Judicial deference to the BLM's decisions is not necessarily undesirable. This deference allows the BLM to assess activities within the framework of its overall land management regime, rather than limiting its focus to the particular parcel of public land on which the activity would occur.²⁷⁰ So long as it provides all interested parties with access to the decisionmaking process, the BLM, rather than the federal judiciary, is the appropriate body to make decisions about public land management.²⁷¹

269. Mansfield, *supra* note 9, at 494-97.

270. *Utah v. Andrus*, 486 F. Supp. 995, 1003 (D. Utah 1979). Too little judicial deference to agency decisions can lead to the narrow view that has led one commentator to call judicial allocation of resources under the public trust doctrine "undemocratic." Gould, *supra* note 55, at 25-47 to 25-49. As Gould states:

The inevitable trade-offs and important social and economic issues which resource allocation policies must resolve require broad input. . . . Lawsuits limit the input to that provided by the parties before the court . . . [and] the issues are likely to be considered only in the context of the dispute before the court. . . . [A] legislative or administrative body might balance environmental losses in one place against environmental gains elsewhere in attempting to achieve a balanced, rational result.

Id. at 25-48 to 25-49. For a similar view see Huffman, *Trusting the Public Interest to Judges: A Comment on the Public Trust Writings of Professors Sax, Wilkinson, Dunning, and Johnson*, 63 DEN. U.L. REV. 565 (1986); Huffman, *Avoiding the Takings Clause Through the Myth of Public Rights: The Public Trust Doctrine and Reserved Rights Doctrines at Work*, 3 J. LAND USE & ENVTL. L. 171, 208-10 (1987). For a contrary view see Blumm, *supra* note 241 (lively response to Huffman).

271. Courts should not defer completely to agency decisions. They must ensure that decisions have been made rationally, using the agency's professional expertise. The basic review standard under the Administrative Procedure Act requires courts to overturn arbitrary and capricious actions. 5 U.S.C. § 706(2)(A) (1988). While fixing the appropriate level of judicial review is beyond the scope of this Article, there can be no meaningful review if the "arbitrary and capricious" test insulates the agency from criticism for unexplained and unexplainable choices. See *Northern Spotted Owl v. Hodel*, 716 F. Supp. 479, 483 (N.D. Wash. 1989) (rejecting agency decision that, without explanation, ignored expert opinions). The courts must seek a middle ground between total deference to and total distrust of agency actions. See Benfield, *The Administrative Record and The Range of Alternatives in National Forest Planning: Applicable Standards and Inconsistent Approaches*, 17 ENVTL. L. 371, 375 (1987) (arbitrary and capricious standard favors federal agency decisions but courts require at least

VI

THE REGULATORY TAKING ISSUE

A. *Constitutional Contours*

The Fifth Amendment provides that no "private property [shall] be taken for public use without just compensation."²⁷² Any acquisition of title, and almost any physical occupation, triggers this clause.²⁷³ According to some cases, a regulation restricting the use of private property may also constitute a taking for which the government must provide compensation if it imposes an extreme burden on the landowner.²⁷⁴

No firm test determines when a regulatory taking occurs.²⁷⁵ Two themes, however, run through regulatory takings cases. First, certain government purposes can validate even regulations that greatly impede private activity.²⁷⁶ Regulations directed at preserving important collective values are more likely to withstand a takings challenge than regulations not serving such a strong public purpose.

Second, the degree of interference with the landowner's reasonable expectations may determine whether a particular regulation amounts to a

"minimal factual support and reasonableness"). Compare *Perkins v. Bergland*, 608 F.2d 803, 807 n.12 (9th Cir. 1979) (agency's methods found "irrational" upon showing "that there is virtually no evidence in the record to support the agency's methodology") with *Hinsdale Livestock Co. v. United States*, 501 F. Supp. 773, 777 (D. Mont. 1980) (court effectively gave greater deference to ranchers' view than to agency's).

272. U.S. CONST. amend. V. See generally Costonis, *Presumptive and Per Se Takings: A Decisional Model for The Taking Issue*, 58 N.Y.U. L. REV. 465 (1983); Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165 (1967). To be upheld, a regulation also must be a valid exercise of governmental power. Prohibition of development such as mining would be valid under the Property Clause and FLPMA, provided that the BLM was not arbitrary and capricious in its analysis of the harms and benefits from the proposed development.

273. Recent cases suggest that any permanent physical occupation, no matter how minimal its effect on the landowner, may be a taking. See *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 430-35 (1982); see also Michelman, *Takings, 1987*, 88 COLUM. L. REV. 1600, 1603 (1988) (courts moving toward per se rules of what constitutes a taking). But see *PruneYard Shopping Center v. Robins*, 447 U.S. 74, 82-84 (1979) (temporary entry into shopping center literal but not constitutional taking); Costonis, *supra* note 272, at 511 (*Loretto* aberrational).

274. *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922) ("The general rule . . . is that, while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."). But see *Mugler v. Kansas*, 123 U.S. 623, 668-69 (1887): "A prohibition simply upon the use of property for purposes that are declared, by valid legislation, to be injurious to the health, morals, or safety of the community, cannot, in any just sense, be deemed a taking or an appropriation of property for the public benefit." These potentially inconsistent positions thread through takings jurisprudence. They are not, however, irreconcilable. The strength of the police power justifying the regulation distinguishes the two lines of cases. See generally Mansfield, *Regulatory Takings, Expectations, and Valid Existing Rights*, 5 J. MIN. L. & POL'Y 431, 444-45 (1990).

275. See *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 124 (1977) (cases are decided on the basis of ad hoc factual inquiries rather than on any set formula).

276. Regulations abating nuisances, protecting core economic values, or creating a reciprocity of advantage are typically upheld. Mansfield, *supra* note 274, at 440-46.

taking requiring the payment of compensation.²⁷⁷ This expectation component of takings analysis harks back to Bentham's definition of property as the expectation of deriving advantage from control over a thing.²⁷⁸ It also reflects Blackstone's recognition that the law limits individual dominion over property.²⁷⁹ The expectation measure is qualitative rather than quantitative. As one commentator explained, the old "diminution of value" test²⁸⁰ was similarly qualitative:

[T]he test poses not so loose a question of degree; it does not ask 'how much,' but rather . . . it asks 'whether or not': Whether or not the measure in question can easily be seen to have practically deprived the claimant of some distinctly perceived, sharply crystallized, investment-backed expectation.²⁸¹

A recent Supreme Court case, *Keystone Bituminous Coal Co. v. DeBenedictis*,²⁸² applied these two concepts to determine whether a regulatory taking had occurred. The facts of *Keystone* were nearly identical to those of *Pennsylvania Coal Co. v. Mahon*,²⁸³ decided more than sixty years earlier. Both cases involved challenges by owners of severed mineral estates to the constitutionality of Pennsylvania statutes that prohibited coal mining that could cause surface subsidence under private residences.²⁸⁴ The earlier case invalidated the regulation, holding that it was an unconstitutional taking without compensation because it was not authorized by the state's police power.²⁸⁵ By contrast, in the later case the Court ruled that no taking had occurred.²⁸⁶

Keystone, however, did not explicitly overrule *Pennsylvania Coal*. Instead, the *Keystone* majority distinguished the earlier case on two grounds. First, the *Keystone* Court took a different view of the property

277. Compare *Kaiser Aetna v. United States*, 444 U.S. 164, 179-80 (1979) (government consent to dredging raised property owner's expectation of right to exclude others from dredged area) and *Fallini v. Hodel*, 725 F. Supp. 1113, 1122-23 (D. Nev. 1989) (right to water cattle at well a distinct investment-backed expectation) with *United States v. Cherokee Nation of Oklahoma*, 480 U.S. 700, 704-05 (1987) (no taking of riverbed interests if U.S. exercises right to improve navigation because property owner holds property subject to navigation servitude) and *United States v. Fuller*, 409 U.S. 488, 489, 494 (1978) (government need not compensate for value added to property by grazing permits because statute specifies that they "shall not create any right . . . in or to the lands"). The Supreme Court has recognized some expectations not backed by monetary investment, such as the expectation of passing property to one's heirs. *Hodel v. Irving*, 481 U.S. 704, 715 (1987). Such transferability is a strong component of the Anglo-Saxon concept of individual property rights.

278. See *supra* text accompanying note 3.

279. See *supra* text accompanying notes 1-2.

280. This was the test used, for example, in *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

281. Michelman, *supra* note 272, at 1233.

282. 480 U.S. 470 (1987).

283. 260 U.S. 393 (1922).

284. Compare *id.* at 412 with *Keystone*, 480 U.S. at 478.

285. *Pennsylvania Coal*, 260 U.S. at 415.

286. *Keystone*, 480 U.S. at 501-02.

affected by the regulation. *Pennsylvania Coal* construed the interest affected as the right to mine coal without liability for surface subsidence, and the regulation extinguished the coal company's negative easement in the surface.²⁸⁷ The *Keystone* Court not only refused to take this narrow view but also declined to divide the coal estate into individual tonnage. The Court instead asked whether the regulation left the mineral-producing property uneconomical "as a whole," taking into account all the mining operations of the complaining companies.²⁸⁸ This broad view made the regulation appear to interfere less with the mining companies' expectations, thereby reducing the need for compensation.²⁸⁹

The *Keystone* majority also found the public purpose behind the later statute clearer²⁹⁰ despite the fact that, as the dissent pointed out, the purposes of the two statutes were virtually identical.²⁹¹ Acknowledging the similarities between the statutes, however, does not necessarily undermine the majority's result. Societal perceptions of the problems addressed by a statute may be more important than the literal wording of the statute's purpose clauses.²⁹² Changes in the social context within which the statutes were interpreted apparently swayed the *Keystone* ma-

287. *Pennsylvania Coal*, 260 U.S. at 414 ("To make it commercially impracticable to mine certain coal has very nearly the same effect . . . as appropriating or destroying it."); see Costonis, *supra* note 272, at 536 n.291 (statute in *Pennsylvania Coal* physically invaded property because it extinguished a negative easement; true regulatory taking cases involve mere impingement on landowner's fee interest).

288. *Keystone*, 480 U.S. at 496 ("We do know, however, that petitioners have never claimed that their mining operations, or even any specific mines, have been unprofitable since the Subsidence Act was passed. Nor is there evidence that mining in any specific location . . . has been unprofitable."). The dissenters refused to adopt this broad view. *Id.* at 517-28 (Rehnquist, J., dissenting). This dispute continues the battle begun in *Pennsylvania Coal* between Brandeis and Holmes. Rehnquist has taken up the Holmesian banner of conceptual severance, which considers each stick in the bundle of property rights individually. Another case, *Hodel v. Irving*, also reflects this tendency toward conceptual severance. 481 U.S. 704 (1987). *Irving*, however, presented an unusual opportunity to engage in conceptual severance. The challenged statute provided that existing small undivided interests could no longer pass by devise or descent but would escheat to the tribe to consolidate title. *Id.* at 709.

289. *Keystone*, 480 U.S. at 496-97. The *Keystone* language broadly referring to the property as all coal the party controls may allow for courts to distinguish between affected companies. In some circumstances, drawing such distinctions could be desirable, allowing the government to avoid imposing disproportionate harm on individuals, without overtaxing the public fisc. For example, compensation may be appropriate for a mineral owner who is unable to spread the cost of regulation across multiple mineral holdings, but not for an owner with many similar mineral holdings, only some of which are affected by the regulation. Mansfield, *supra* note 274, at 461-65.

290. *Keystone*, 480 U.S. at 492 (statute prohibited actions whose effect would be similar to public nuisance). *But see* Rose, *Mahon Reconstructed: Why the Takings Issue Is Still a Muddle*, 57 S. CAL. L. REV. 561, 580 (rejecting arguments for broad public purpose and characterizing the law as redistributive).

291. *Keystone*, 480 U.S. at 511 (Rehnquist, J., dissenting).

292. For example, in *Pennsylvania Coal*, Holmes apparently saw the case simply as a dispute between one family and a coal company, while Brandeis envisioned the City of Scranton sliding into a gaping hole. Compare *Pennsylvania Coal*, 260 U.S. at 413 with *id.* at 421-22 (Brandeis, J., dissenting).

majority. The growth of public concern for environmental protection since the 1920's allowed the Court to view the modern statute as serving a stronger public purpose.²⁹³

A comparison of *Keystone* to another case decided during the same term, *Nollan v. California Coastal Commission*,²⁹⁴ further emphasizes the importance of regulatory objectives in takings analysis. In *Nollan*, the California Coastal Commission had required a property owner to provide public access across a private beach in order to obtain a building permit. The Court invalidated this requirement as an unconstitutional taking because the condition imposed was not sufficiently related to the asserted governmental purpose.²⁹⁵ A distinction between *Nollan* and *Keystone* that contributed to their different outcomes is that *Nollan* dealt with a discrete easement which could readily be purchased,²⁹⁶ whereas *Keystone* dealt with both diffuse harm and diffuse benefits.²⁹⁷

Although the *Keystone* majority left the description of the regulatory takings test undisturbed, the opinion does not simply endorse prior judicial analysis. *Keystone* sanctioned a regulation virtually identical to one that an earlier court had disallowed. The *Keystone* decision demonstrates that even a burdensome regulation, if clearly aimed at preventing activity that would degrade the environment, can survive a takings challenge.²⁹⁸

B. Unnecessary or Undue Degradation and Compensation

Takings analysis can be used to examine whether the BLM can regulate private activity in such a manner as to make a private right unexercisable.²⁹⁹ The BLM could reasonably find that the exercise of many

293. Note, *Keystone Bituminous Coal v. DeBenedictis*, 7 UCLA J. ENVTL. L. & POL'Y 185, 192 (1988) (arguing that growth in concern for environment tipped balance in favor of public over private use).

294. 483 U.S. 825 (1987).

295. *Id.* at 837. *Nollan* was not an ordinary regulatory taking case. For a full discussion of this case and the three circumstances that distinguish it from more typical regulatory settings, see Mansfield, *supra* note 274, at 451-52 (involved a physical intrusion, affected a residence, and resembled compulsory land dedication). The Court required more than a reasonable relationship to a valid government purpose; it required a clear nexus between the evil to be avoided and the land use restraint imposed. *Nollan*, 483 U.S. at 837.

296. See Costonis, *supra* note 272, at 500-01 (measures that impose obligations akin to affirmative easements always troublesome to courts).

297. When benefits are diffuse, the government must act to protect "public rights." Sax, *supra* note 237, at 159. Diffusion of benefits and costs also increases the transaction costs of purchasing the private right. Merrill, *Trespass, Nuisance, and the Costs of Determining Property Rights*, 14 J. LEGAL STUD. 13, 31-32, 44 (1985).

298. See Laitos, *Regulation of Natural Resources Use and Development in Light of the 'New' Takings Clause*, 34 ROCKY MTN. MIN. L. INST. 1-1, 1-37 (1988) (*Keystone* takes nuisance exception to extreme and could render land use and environmental regulations immune to challenge).

299. This examination presupposes that any BLM decision limiting activity could survive a meaningful "arbitrary or capricious" test. See Plater & Norine, *Through the Looking Glass*

types of private rights would cause unnecessary or undue degradation in particular circumstances. Such a finding would be appropriate whenever substantial evidence showed that the gains from a private activity would not justify the destruction of other resource values that the activity would cause. Regulated activities could be as diverse as summer cabins, roads, or timber harvests. This Article, however, will continue to focus on a severed mineral estate.

Two different theories could support the imposition of restrictions on mineral development without payment of compensation. First, the BLM could assert that the private interest was subject to a "collective protection" servitude in favor of the public lands. This approach is briefly discussed below. Because it would represent a radical departure from current property law, the BLM is not likely to adopt this approach nor would it be appropriate. The second, more feasible approach would be to argue that the limited nature of the mineral owner's investment-backed expectations precludes a finding that restricting mineral development constitutes a taking. This approach, together with the argument that BLM control of the particular activity serves a strong public purpose, would place the analysis within existing regulatory takings jurisprudence.

1. Imposition of a "Collective Protection" Servitude Would Be Inappropriate

The FLPMA command to prevent unnecessary or undue degradation of the public lands perhaps could be stretched into a declaration that a private property interest never includes the right to interfere with important public land values. Under this interpretation, the government would hold a type of servitude on behalf of the public lands. This servitude would define the rights of private owners of property adjacent to the public lands and justify the imposition of restraints on the use of such private property, so long as those restraints were reasonably related to preserving collective values. Because the private party would never have "owned" the right to degrade the public lands, regulations designed to prevent degradation would not take any property.

Such a servitude could resemble the navigation servitude, under which the United States has jurisdiction to control the use of navigable waters for power and navigational purposes. No owner of riparian or submerged lands may object if the government acts pursuant to this right.³⁰⁰ A collective protection servitude similarly would allow protec-

of Eminent Domain: Exploring the "Arbitrary and Capricious" Test and Substantive Rationality Review of Government Decisions, 16 B.C. ENVTL. AFF. L. REV. 661 (1989).

300. See, e.g., *United States v. Cherokee Nation of Oklahoma*, 480 U.S. 700, 704-05 (1987). See generally Morreale, *Federal Powers on Western Waters: The Navigation Power and the Rule of No Compensation*, 3 NAT. RESOURCES J. 1 (1963); Note, *Determining the Parame-*

tion and promotion of public values to override private property rights. Like a public trust limitation on use, this servitude would be self-executing, restricting private expectations even in the absence of agency action.³⁰¹ In essence, the servitude would place special emphasis on the public's expectation that the collective values served by the public lands will be maintained.³⁰²

Despite growing recognition that all individuals bear some responsibility for stewardship of the land,³⁰³ a collective-protection servitude is not likely to be adopted in a form that would foreclose the sole viable use of private land. The implementation of new restraints on private rights generally proceeds by evolutionary, not revolutionary, steps.³⁰⁴ Environmental awareness is not yet so strong that society would be willing to automatically forbid all activity that might degrade public land values without weighing this protection against other factors.³⁰⁵ The BLM must only foreclose development following a site-specific analysis.

ters of the Navigation Servitude Doctrine, 34 VAND. L. REV. 461 (1981).

301. See *Marine One, Inc. v. Manatee County*, 898 F.2d 1490, 1492 (11th Cir. 1990) (revocation of permit to use lands which are subject to public trust does not constitute a taking); *Orion Corp. v. Washington*, 109 Wash. 2d 621, 641-42, 747 P.2d 1062, 1073 (1987) (because right to dredge and fill tidelands never existed, statute forbidding dredging and filling could not "take" property); Walston, *The Public Trust and Water Rights: National Audubon Society v. Superior Court*, 22 LAND & WATER L. REV. 701, 709-10 (1987). For criticism of the *Orion* case, see Gould, *supra* note 55. See also *Bell v. Town of Wells*, 557 A.2d 168, 178 (Me. 1989) (expansion of public trust limitations requires compensation of landowner).

302. Cf. Sax, *Trust II, supra* note 242, at 186-87 (concern for expectations traditionally confined to private owners but should not be so limited). But see Huffman, *A Fish Out of Water: The Public Trust Doctrine in a Constitutional Democracy*, 19 ENVTL. L. 527, 529 n.10 (1989) (Sax ignores distinction between legally cognizable expectations and other expectations).

303. See, e.g., *Graham v. Estuary Properties, Inc.*, 399 So. 2d 1374, 1382 (Fla. 1981), *cert. denied sub nom. Taylor v. Graham*, 454 U.S. 1083 (1981); *Just v. Marinette County*, 56 Wis. 2d 7, 17, 201 N.W.2d 761, 768 (1972); Anderson, *Takings and Expectations: Toward a "Broader Vision" of Property Rights*, 37 U. KAN. L. REV. 529, 530 (1989); Berger, *The Accommodation Power in Land Use Controversies: A Reply to Professor Costonis*, 76 COLUM. L. REV. 798, 811, 823 (1976); Caldwell, *supra* note 228, at 335; Hunter, *supra* note 228, at 317-20; Tideman, *Takings, Moral Evolution, and Justice*, 88 COLUM. L. REV. 1714, 1723 (1988); cf. Freyogle, *supra* note 268, at 1531, 1548-53 (property law should, like water law, be based on rights phrased in terms of responsibility and accommodation); Sax, *The Limits of Private Rights in Public Waters*, 19 ENVTL. L. 473, 475 (1989) (no private right can denigrate public interest).

304. As Professor Stoebuck has pointed out: "Of course the law changes and grows; adaptability is the genius of the common law. But the process is erosion, not earthquake; one can safely put a little new wine in old bottles if it is mixed sparingly with old." Stoebuck, *Police Power, Takings, and Due Process*, 37 WASH. & LEE L. REV. 1057, 1080 (1980).

305. Another problem with the imposition of such a servitude is that it could potentially eviscerate the Fifth Amendment. Huffman, *supra* note 270, at 212; Michelman, *Property as a Constitutional Right*, 38 WASH. & LEE L. REV. 1097, 1108 (1981); see Anderson, *supra* note 303, at 556-59 (describes criticisms of environmental servitude but nonetheless advocates its imposition).

2. Preclusion of Mining May Not Constitute a Taking

Under the "strong" interpretation of the unnecessary and undue degradation standard the BLM could promulgate regulations that would allow it, in an appropriate circumstance, to render a decision that would preclude private development. A BLM decision entirely forbidding the development of a private mineral estate would not constitute a taking requiring payment of compensation because of the nature of both the public purpose and the private party's expectations.

First, a decision made under the "strong interpretation would serve an important public purpose. Historically, despite the lack of a preexisting servitude preserving public lands, courts have more closely scrutinized actions that impinge on core collective values than other actions. As a result, the exercise of private rights that threaten such values receives less judicial protection in the context of a regulatory takings challenge.³⁰⁶ Furthermore, because the BLM would render such a decision only after a site-specific balancing of collective and private values, the public purpose served by the adjudication would be more evident than that of a general regulation aimed at environmental protection. A regulation by definition looks at overall impacts without appraising special considerations. By contrast, the BLM would consider the specific costs and benefits of the proposed project in rendering its decision to forbid mining.³⁰⁷

Second, the developer's expectations must take into account the recognized need to regulate mining in order to protect the environment. The limited nature of the mineral owner's investment-backed expectations could preclude a finding that restrictions imposed on mineral development constitute a taking. The road toward responsible land use, therefore, begins with existing regulations, which already limit investment-backed expectations. Thus, under traditional takings doctrine the BLM may have the authority to curb private uses that threaten collective public land values; courts need not take the revolutionary step of imposing a collective-protection servitude on private property.

For many courts and commentators, disruption of a property owner's reasonable investment-backed expectations has become the *sine qua non* of a taking.³⁰⁸ Obviously, if this is the test, the BLM's ability to

306. See, e.g., *Miller v. Schoene*, 276 U.S. 272, 277-80 (1928) (owners of cedar trees not entitled to compensation when trees destroyed to preserve commercial apple orchards vital to the economy).

307. Compare the Administrative Procedure Act, 5 U.S.C. § 551(4) (1988) (rulemaking) with *id.* § 551(6), (7), (8) (adjudication). Because appraisal of a specific development proposal in an adjudicatory setting involves neither "withdrawing" public lands nor making a management decision precluding a "principal or major use" of the public lands, see 43 U.S.C. § 1702(j), (l) (1988), the BLM need not follow the special procedures applicable to these decisions. See 43 U.S.C. §§ 1712(e), 1714 (1988).

308. See, e.g., *Utah v. Andrus*, 486 F. Supp. 995, 1011 (D. Utah 1979).

impose restrictions on the exercise of private rights depends on the reasonableness of private expectations of development.

In all circumstances, including mining, the outcome of the expectations test may depend on whether development is ongoing or merely planned when a restriction is imposed. Once development has begun, the public has a lesser expectation that the land will remain undisturbed. The mineral owner, on the other hand, has more reason to believe development is permissible. Moreover, once mining has begun the owner has made an objectively verifiable investment in a specific land use, with the expectation that the use will be allowed to continue.³⁰⁹ Imposition of new regulations on land held in anticipation of future development may also disrupt expectations, but these expectations are less concrete.³¹⁰ Moreover, a court may characterize these expectations as merely speculative and entitled to less protection because speculators take the risk that future events may make development less profitable.³¹¹ Thus, while regulations may, in some circumstances, restrict existing uses, such uses tend to receive more deference from courts than anticipated future development.³¹² The anticipation of yet unrealized profit is one of the least protected aspects of property ownership. The Supreme Court has stated that: "prediction of profitability is essentially a matter of reasoned speculation that courts are not especially competent to perform. Further, perhaps because of its very uncertainty, the interest in anticipated gains has traditionally been viewed as less compelling than other property-related interests."³¹³ Therefore, public needs may justify regulations that restrict future profitability, despite the fact that the power to profit is "a right usually incident to fortunately situated property."³¹⁴

The existing regulatory climate also affects a mineral owner's reasonable expectations. If a person acquires property knowing that certain

309. See Michelman, *supra* note 272, at 1233; *Kaiser Aetna v. United States*, 444 U.S. 169, 176-78 (1979) (private party would not have created harbor unless it believed it could recoup expenditure by controlling access).

310. See, e.g., *City of Berkeley v. Superior Court*, 26 Cal. 3d 515, 606 P.2d 362, 162 Cal. Rptr. 327, *cert. denied*, 449 U.S. 840 (1980) (public trust imposed on unfilled tracts but not on tracts which have already been filled).

311. *Izaak Walton League v. St. Claire*, 353 F. Supp. 698 (D. Minn. 1973), *rev'd on other grounds*, 497 F.2d 849 (8th Cir. 1974), *cert. denied*, 419 U.S. 1009 (1974) (failure to develop for many years showed speculative nature of mineral holdings).

312. See, e.g., *Penn Cent. Transp. Co. v. New York City*, 438 U.S. 104, 125-27 (1977); *Goldblatt v. Hempstead*, 369 U.S. 590 (1962); *Hadacheck v. Sebastian*, 239 U.S. 394 (1915); see also *Utah v. Andrus*, 486 F. Supp. at 1004 (government may regulate more stringently when no current use affected); *St. Bartholomew's Church v. New York*, 728 F. Supp. 958, 966 (S.D.N.Y. 1990) (law contemplates continuation of past use).

313. *Andrus v. Allard*, 444 U.S. 51, 66 (1979); see Sax, *Takings and the Police Power*, 74 *YALE L.J.* 36, 54-60 (1964) (Fifth Amendment compensation designed to prevent tyranny, not to protect existing economic advantage). *But see* Stoebeuck, *supra* note 304, at 1075-77 (Sax criticized for not recognizing that the "tyranny" the amendment seeks to prevent is destruction of property rights; amendment therefore designed to protect existing property rights).

314. *Block v. Hirsh*, 256 U.S. 135, 157 (1921).

restraints are imminent, the imposition of these restraints should not require compensation.³¹⁵ Nor should compensation be necessary for property acquired at a time when regulations precluded profitable development. In such a case, the purchaser is simply gambling on payment from the government, rather than intending or reasonably expecting to develop the property.³¹⁶

FLPMA is part of the regulatory climate and its passage put potential developers on notice that regulations might be imposed on activities undertaken on or near the public lands. People who acquired their rights before enactment of FLPMA may have had stronger expectations that they would be allowed to use their property as they saw fit. Thus, limitation of their property rights may require stronger justification.³¹⁷

Mining, however, is subject to many additional regulations that serve to limit development expectations; many of these regulations were in place long before FLPMA's enactment.³¹⁸ The trend over the past sixty-five years has been toward increased regulation and decreased expectations of free development.³¹⁹ Statutes that require permits before mining may begin are but one example of the extensive regulation of mining.³²⁰ Therefore, a mineral owner had only limited development expectations even before FLPMA.

315. Cf. *Izaak Walton League*, 353 F. Supp. at 710-11 (no compensation required if leases acquired after preservation intent clear); Michelman, *supra* note 272, at 1238 (no compensation required if land acquired with knowledge that a scenic easement was soon to be enforced). *But see* Blume & Rubinfeld, *Compensation for Takings: An Economic Analysis*, 72 CALIF. L. REV. 569, 586-87 (1984) (purchaser not injured if regulatory risk lowered purchase price, but seller injured by lower price); *Nollan v. California Coastal Comm'n*, 483 U.S. 825, 833 n.2 (1987) (buyers' knowledge of impending restriction immaterial where restriction could not constitutionally be imposed without compensation).

316. A directly analogous situation is the judicial refusal to require compensation for value traceable to the purpose for which the government acquires the property. For example, the government need not acquire undeveloped land for dam construction at the price homesites will command after completion of the dam. *United States v. Miller*, 317 U.S. 369, 377 (1943) ("[O]wners ought not to gain by speculating on probable increase in value due to the Government's activities.").

317. For example, rights acquired before and after enactment of FLPMA are subject to different management standards in WSA's. See *supra* text accompanying notes 78-95.

318. Pre-FLPMA regulation of mining claims by the BLM and the Forest Service is discussed in *supra* notes 113-20 and accompanying text. Mineral development on private lands was also subject to state regulation prior to the enactment of FLPMA. See, e.g., COLO. REV. STAT. tit. 34, §§ 32-101, 32-126 (1990) (reenacting Colorado Open Mining Land Reclamation Act of 1973).

319. States as well as the federal government may regulate mining on the public lands in order to protect the environment. *California Coastal Comm'n v. Granite Rock*, 480 U.S. 572, 584-89 (1987). Development of wetlands is another area in which anticipation of unlimited development rights might not be reasonable, given the regulatory climate. *Crow-New Jersey 32 Ltd. v. Township of Clinton*, 718 F. Supp. 278, 384 (D.N.J. 1989). See generally Blumm & Zaleha, *Federal Wetlands Protection Under the Clean Water Act: Regulatory Ambivalence, Intergovernmental Tension, and a Call for Reform*, 60 U. COLO. L. REV. 695, 754-60 (1989).

320. See, for example, the Surface Mining Control and Reclamation Act of 1977, 30 U.S.C. §§ 1201-1328 (1988), which provides permitting standards to bolster those that existed

Overall, statutes and regulations have transformed mining into a regulated industry.³²¹ In fact, a recent case classified an unpatented mining claim, which was traditionally considered a form of property, as a mere right to a stream of income, thus placing its regulation into the less critical realm of economic matters.³²² Any "reasonable" expectation about mining development must consider these omnipresent rules.

The popular conception, nevertheless, is that miners have no compunction about destroying the surface value of land. Correct or not, the mining industry's image may help protect the BLM against takings challenges brought by mining interests.³²³ The popular view of miners as ruthless exploiters of land appears to have contributed to judicial and legislative willingness to protect surface owners at the expense of owners of mineral rights.³²⁴ For example, some state statutes require payment for damages to the surface estate caused by oil and gas operations, even if the harm to the surface falls within the implied or express easement of use purchased with the mineral estate.³²⁵ Challenges to these statutes alleging unconstitutional takings have been unsuccessful.³²⁶

Mining, moreover, can cause pollution and subsidence, problems similar to those addressed by nuisance law.³²⁷ It is a basic tenet of law

previously in the various states.

321. Those doing business in a regulated field cannot object to statutory amendments added to buttress the original legislative end. *Atlas Corp. v. United States*, 895 F.2d 745, 758 (Fed. Cir.), *cert. denied*, 111 S. Ct. 46 (1990) (upholding Uniform Mill Tailings Radiation Control Act, 42 U.S.C. §§ 7901-7942 (1988)).

322. *United States v. Locke*, 471 U.S. 84, 105 (1985).

323. *Cf. Alexander, Takings, Narratives, and Power*, 88 COLUM. L. REV. 1752, 1753 (1988):

Takings doctrine is generated not by any abstract methodological or theoretical concern, but by the pictures that judges have in their heads about the participants in the public land use planning arena, pictures about who is empowered, who is unempowered and how those who enjoy a power monopoly have used the power to their strategic advantage.

324. For an overview of the development of judicial and legislative views on the rights of mineral owners and surface owners, see *supra* text accompanying notes 152 - 213. See also Dycus, *supra* note 145, at 915-16 (mineral owner may have no reasonable expectation to destroy or substantially interfere with surface owner's rights).

325. *E.g.*, N.D. CENT. CODE § 38-11.1-04 (1980 & Supp. 1989); OKLA. STAT. ANN. tit. 52, § 318.2-9 (1969 & Supp. 1990).

326. Some courts have declared these statutes to be mere rearrangements of tort liability. *Murphy v. Amoco Prod. Co.*, 729 F.2d 552, 558 (8th Cir. 1984); *Davis Oil Co. v. Cloud*, 766 P.2d 1347, 1349-52 (Okla. 1986). They have also been described as minor rearrangements of the bundle of rights. *Murphy*, 729 F.2d at 558 ("Amoco's right to not compensate Murphy for unavoidable damage to Murphy's surface estate, if indeed it is 'property' at all, amounts to a minor strand in the full bundle of rights which constitutes Amoco's mineral estate."); see Lowe, *Development in Non-Regulatory Oil and Gas Law: Issues of the Eighties*, 35 INST. ON OIL & GAS L. & TAX'N 1, 21-39 (1984) (discussion of the constitutionality of surface damage acts passed by several states).

327. *Keystone* suggests that the subsidence created by mining would be a nuisance. *Keystone Bituminous Coal Co. v. de Benedictus*, 480 U.S. 470, 491-93 (1987). *But see Florida Rock Indus., Inc., v. United States*, 21 Cl. Ct. 161, 167 (1990) (extensive limestone mining in area "never has been considered a nuisance").

that no person may unreasonably use private property to the detriment of any neighbor: "all property in this country is held under the implied obligation that the owner's use of it shall not be injurious to the community."³²⁸ Generally, nuisance law looks to the reasonableness of a specific use in a specific location.³²⁹ Naturally, this requires balancing the benefits of an activity against the degree of harm it causes.³³⁰ Regulation of mining could balance harms to the public and the private owner in much the same manner as traditional nuisance doctrine.³³¹

Both the history of regulation and the types of problems caused by mining lead to the conclusion that the BLM could regulate mining more strictly than other activities on the public lands. The almost all-encompassing requirements of varied environmental laws already restrain the expectation of development. The public views mining as an activity that must be restricted to protect other values. The benefits and adverse impacts of mining can be compared in a manner similar to traditional nuisance analysis. Should this balancing lead to the conclusion that mining must be precluded, compensation would not be required.

Other private property rights are not subject to the same regulatory climate and public perception as mineral rights. Therefore, courts would probably undertake a more searching review of the government interest to be protected and the harm to be avoided when the BLM regulates the exercise of other property rights. The burden of proof imposed on the government could vary based on the strength of the private party's reasonable expectations of development and the strength of public expectations that the land would either be protected or put to a different use.³³² Severe impacts on major public resources, such as important wildlife habitat, heavily used recreational areas, or ecologically unique lands,

328. *Mugler v. Kansas*, 123 U.S. 623, 665 (1887).

329. As Justice Sutherland's famous aphorism provides, "A nuisance may be merely a right thing in the wrong place, — like a pig in the parlor instead of the barnyard." *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 388 (1926).

330. See *RESTATEMENT (SECOND) OF TORTS* § 826 comment a (1979); *id.* § 827 (factors relevant to gravity of harm are the extent and character of the harm, the social value of the plaintiff's use, its suitability to the locality in question, and the burden on the plaintiff of avoiding the harm); *id.* § 828 (factors relevant to the utility of the actor's conduct are its social value, its suitability to the locality in question, and the impracticality of the defendant preventing the harm). Generally, the remedy for a nuisance is to enjoin it, but some cases have awarded damages and allowed the activity to continue. See *Boomer v. Atlantic Cement Co.*, 26 N.Y.2d 219, 228, 257 N.E.2d 870, 875, 309 N.Y.S.2d 312, 319 (1970).

331. See Laitos, *supra* note 298, at 1-34 to 1-43; Van Alstyne, *Taking or Damaging by Police Power: The Search for Inverse Condemnation Criteria*, 44 S. CAL. L. REV. 1, 13-15 (1970) (arguing that regulatory objectives similar to the prevention of nuisance enjoy greater judicial acceptance than others).

332. Such considerations could include, among others, financial expenditures, length of time held without development, and conformity with other uses of similar property.

should justify greater restrictions than impacts that are either less severe or affect less important resources.³³³

CONCLUSION

Congress has directed the BLM to take any action needed to prevent unnecessary or undue degradation of the public lands under its management. Although the command clearly calls for action, when examined closely it "breath[es] discretion at every pore."³³⁴ A court may invalidate a BLM decision for arbitrariness or compel the agency to consider whether an activity will cause improper degradation.³³⁵ Nonetheless, the BLM's interpretation of both the extent of its power and the impacts of the proposed action will receive deference from the courts.³³⁶ In many cases, therefore, the agency's interpretation will determine whether private or collective property interests prevail.

Currently, the agency uses its regulatory powers under FLPMA to accommodate private interests and collective values, but ultimately subordinates the collective values to private property interests. The BLM protects collective values only when doing so will not unreasonably burden a private party's exercise of its rights. This "weak" interpretation of the statute reflects the judicial doctrine of accommodation, a familiar tenet from oil and gas law. Because it is not patently unreasonable, this interpretation is entitled to judicial deference.³³⁷

The current "weak" interpretation is not, however, the only acceptable reading of the duty to prevent unnecessary or undue degradation.³³⁸ Under a "strong" interpretation, the BLM would not focus primarily on fulfilling private objectives. Instead, the BLM would balance the gains from a private endeavor against the costs to other public land values to

333. Placing a restrictive covenant on private rights to protect public lands will increase the value of the public lands, arguably making the decision an eminent domain taking. See Stoebuck, *supra* note 304, at 1091-93. However, because the BLM is acting for the public, compensation should not be automatic. See Sax, *supra* note 237, at 177-78. Compensation perhaps should be given to a private party denied the opportunity to act if the restriction enables another activity, which provides the government with revenue, to proceed. Cf. Van Alstyne, *supra* note 331, at 20, 23-26 (invalidate zoning that primarily aids adjacent private property and that is designed to lower cost of future government acquisitions).

334. *Sierra Club v. Hodel*, 848 F.2d 1068, 1074 (10th Cir. 1988) (quoting Brief of Federal Defendants).

335. *Id.* at 1088.

336. See *Utah v. Andrus*, 486 F. Supp. 995, 1008-09 (D. Utah 1979).

337. *Chevron U.S.A., Inc. v. Natural Resources Defense Council*, 467 U.S. 837, 865-66 (1984). For application of this doctrine to the Department of the Interior, see *Udall v. Tallman*, 380 U.S. 1, 18 (1965); *Colorado v. Dep't of the Interior*, 880 F.2d 481, 486 (D.C. Cir. 1989). Nevertheless, the courts are the final authority on statutory interpretation. *Webb v. Hodel*, 878 F.2d 1252, 1255 (10th Cir. 1989); *Oregon v. BLM*, 876 F.2d 1419, 1425 (9th Cir. 1989).

338. An agency may revise its statutory interpretation by issuing new regulations. See, e.g., *Sylvester v. U.S. Army Corps of Engineers*, 884 F.2d 394, 399-400 (9th Cir. 1989).

determine if the sacrifice were "undue." Such a flexible correlative rights doctrine would protect both public and private rights.

Under the strong interpretation, preservation of some public land attributes could override other concerns. The BLM, as an agency entrusted with the public interest, must not yield important collective values without fully considering the alternatives.³³⁹ A "strong" interpretation would allow the BLM to make explicit choices between the environmental and commodity values served by the public lands.³⁴⁰

No "crystalline" rules can be established to govern allocation decisions; the guidelines must vary in response to the varying situations they govern.³⁴¹ Proposals for activities that are likely to impinge on lands uniquely suited to meeting collective needs should be scrutinized with special care. The government's burden of proof on the validity of a decision should also vary with the character of the interest protected by the regulation. Because the BLM protects diffuse collective interests when it acts to protect its holdings, any decision forbidding private activity might withstand a takings challenge.

In sum, the line between "private" and "public" property is no longer clearly drawn. Although the blurring of this boundary can be seen in public land law, it is also occurring in other contexts. Private expectations of gaining advantage through control of property must change if the land, water, and air of the Earth are to continue to supply our needs. Governmental powers should be used to protect collective values wherever possible. Private property rights should not include the ability to unnecessarily or unduly degrade the environment upon which all rely.

339. In other words, a property rule protects public land that satisfies distinct collective values. See Calabresi & Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972) (property rules apply when an entitlement may not be transferred other than by voluntary sale).

340. The collective values served by the public lands need not be preserved at any cost. In other words, they need not be protected by a rule of inalienability. See *id.* at 1092-93. Congress has invoked a rule of complete protection in some instances, such as the Endangered Species Act. *Tennessee Valley Authority v. Hill*, 437 U.S. 153, 187 (1978). However, Congress has not required such absolute protection under FLPMA, and in fact it would be inconsistent with the BLM's allocative function.

341. See Merrill, *supra* note 297, at 19-20; see also Rose, *Crystals and Mud and Property Law*, 40 STAN. L. REV. 577 (1988) (property law varies between hard rules, so-called crystal, and discretionary standards, so-called mud, and each form of law has its own strengths). But see Radin, *The Liberal Conception of Property: Cross Currents in the Jurisprudence of Takings*, 88 COLUM. L. REV. 1667 (1988) (bright lines or clear rules preferable because they help avoid arbitrary action).