

WHAT IS WRONG WITH THE BLM'S MANAGEMENT OF LIVESTOCK GRAZING ON THE PUBLIC LANDS?

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I. INTRODUCTION

An observer of the current controversy over livestock grazing on federal public lands¹ confronts drastically conflicting pictures of the state of rangeland management on the lands administered by the United States Bureau of Land Management (BLM). Historically, these lands have been managed primarily for the benefit of livestock ranchers, with environmental protection and alternative uses relegated to a secondary role at best.² Over the last two decades, new Congressional mandates have called on the BLM to serve a broader constituency and to ensure protection of environmental resources such as wildlife, water quality, and natural scenery.³ Spokespersons and publications of the BLM have claimed adherence to these mandates and success in restoring degraded rangelands and riparian areas.⁴ The Bureau's critics, however, argue that little has changed

1. See, e.g., Elizabeth Royte, *Showdown in Cattle Country*, N.Y. TIMES MAGAZINE, Dec. 16, 1990, at 60.

2. See, e.g., BUREAU OF LAND MANAGEMENT, U.S. DEPT' OF THE INTERIOR, EFFECTS OF LIVESTOCK GRAZING ON WILDLIFE, WATERSHED, RECREATION AND OTHER RESOURCE VALUES IN NEVADA (1974) [hereinafter NEVADA BLM GRAZING REPORT]; DENZEL FERGUSON & NANCY FERGUSON, SACRED COWS AT THE PUBLIC TROUGH (1983); PHILLIP FOSS, POLITICS AND GRASS (1960); WILLIAM VOIGHT, JR., PUBLIC GRAZING LANDS: USE AND MISUSE BY INDUSTRY AND GOVERNMENT (1976).

3. See *infra* part II.C.2.

4. See, e.g., BUREAU OF LAND MANAGEMENT, U.S. DEPT' OF THE INTERIOR, THE NEW BLM: 1989 - 1992 (1992); BUREAU OF LAND MANAGEMENT, U.S. DEPT' OF THE INTERIOR, RIPARIAN—WETLAND INITIATIVE FOR THE 1990'S (1990); BUREAU OF LAND MANAGEMENT, U.S. DEPT' OF THE INTERIOR, STATE OF THE PUBLIC RANGELANDS 1990 (1990); Richard Conniff, *Treasuring 'The Lands No One Wanted'*, SMITHSONIAN, Sept. 1990, at 30.

on the ground and that the Bureau's managers still place the interests of livestock operators above environmental values.⁵

To obtain an accurate perspective on the current state of BLM range management, and to assess proposals for reform, it is necessary to consider the specific policies and practices that guide the Bureau's operations. Examination of these policies and practices reveals that, statutory mandates and BLM protestations to the contrary notwithstanding, livestock grazing remains the first priority of BLM range management, with environmental protection and alternative land uses relegated to a distant secondary role. The priority given to livestock grazing is manifested in three ways:

(1) The BLM authorizes livestock grazing on virtually all of the lands that it manages without determining whether grazing in particular areas is economically or environmentally justifiable or is in the public interest.

(2) The BLM treats the existing number of livestock authorized to graze on an allotment as an entitlement that will not be reduced without the consent of the permittee unless certain, narrowly prescribed data prove that a reduction is necessary. In most instances, these data are not collected and analyzed by the BLM. Even when the data are collected, they often do not reflect the most serious environmental impacts of grazing.

(3) Despite statutory requirements for public participation in public land management, critical year-to-year decisions about levels, dates, and locations of grazing are often either left to the permittee or are determined through private consultation between the permittee and the BLM. Other users of the public lands, whose uses and interests may be substantially affected by these decisions, are not involved in the decisionmaking process.

Part II of this article briefly reviews the nature and extent of the lands and resources managed by the BLM, the types of impacts that livestock grazing has on those resources, and the most important statutes and regulations affecting the BLM's management of such

5. See, e.g., GEORGE C. COGGINS, PUBLIC NATURAL RESOURCES LAW §§ 19.05[1], [3] (1990); LYNN B. JACOBS, WASTE OF THE WEST: PUBLIC LANDS RANCHING 20-32 (1991); PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY, PUBLIC TRUST BETRAYED: EMPLOYEE CRITIQUE OF BUREAU OF LAND MANAGEMENT RANGELAND MANAGEMENT (1993); U.S. GENERAL ACCOUNTING OFFICE, GAO/T-RCED-88-58, MANAGEMENT OF PUBLIC RANGELANDS BY THE BUREAU OF LAND MANAGEMENT (Aug. 2, 1988) (Statement of James Duffus III, Associate Director, before the House Subcommittee on National Parks and Public Lands); see also, Joseph M. Feller, *Grazing Management on the Public Lands: Opening the Process to Public Participation*, 26 LAND & WATER L. REV. 571, 571-72 & 572 n.7 (1991).

grazing. Part III discusses BLM policies and practices with respect to the determination of which BLM lands are used for livestock grazing and the numbers of livestock that the BLM permits to graze. Part IV presents examples, from the author's own experience, of the ways in which these policies and practices lead to the subordination of environmental values to livestock interests.

Finally, Part V is an epilogue that briefly reports three developments in BLM range management that occurred during the editing of this article. The first development is a decision by an administrative law judge concerning the BLM's management of the Comb Wash grazing allotment in southeastern Utah, which is the subject of part IV.A of this article. The decision confirms that the BLM policies and practices described in this article are contrary to federal statutes and BLM grazing regulations. The second development is a decision by the BLM to take action to protect the riparian area of the Santa Maria River in Arizona, which is the subject of part IV.B of this article. The third development is the issuance of the Clinton/Babbitt administration's proposed amendments to the BLM's grazing regulations. These amendments contain some significant positive features, but they fail to address the fundamental issue of whether some of the lands managed by the BLM are unsuitable or inappropriate for livestock grazing.

II. LIVESTOCK GRAZING ON BLM LANDS

A. The BLM Lands and Resources

The BLM, exercising authority delegated by Congress to the Secretary of the Interior, is the largest land manager, public or private, in the United States. It manages approximately 177 million acres of generally arid or semi-arid public land in the far western states,⁶ including over two thirds of the state of Nevada, more than a third of Utah, and more than a quarter of Oregon and Wyoming.⁷

While the lands now managed by the BLM were once considered virtually worthless for anything other than livestock grazing and—where minerals were found—mining, they contain a wealth of

6. There are approximately 177 million acres of BLM land in the eleven far-western states of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. See BUREAU OF LAND MANAGEMENT, U.S. DEPT' OF THE INTERIOR, PUBLIC LAND STATISTICS 1991, at 6 (1992) [hereinafter STATISTICS]. The BLM manages another ninety million acres in Alaska and about two million acres scattered among states east of the Rocky Mountains. *Id.*

7. See STATISTICS, *supra* note 6, at 4, 6.

environmental resources. The BLM manages more fish and wildlife habitat than any other agency.⁸ BLM lands are home to over three thousand species of animals,⁹ including scores of threatened and endangered species.¹⁰ Despite their general aridity, BLM lands include thousands of miles of streams and hundreds of thousands of acres of precious wetlands and riparian areas.¹¹ BLM lands also contain hundreds of thousands of archaeological sites.¹²

The lands managed by the BLM also contain tens of millions of acres of spectacular desert, mountain, and canyon scenery¹³ that constitutes a major recreational resource for millions of Americans. BLM lands support an estimated seventy two million annual visits¹⁴ for sightseeing, hiking, backpacking, wildlife watching, hunting, fishing, off-road vehicle use, and other recreational pursuits. The economic value of the recreational use of BLM land alone far exceeds the value of the livestock forage that the same land provides.¹⁵

8. STATISTICS, *supra* note 6, at 37.

9. STATISTICS, *supra* note 6, at 37.

10. STATISTICS, *supra* note 6, at 44.

11. STATISTICS, *supra* note 6, at 38. For the importance of riparian areas to wildlife and water quality, see U.S. ENVIRONMENTAL PROTECTION AGENCY, LIVESTOCK GRAZING ON WESTERN RIPARIAN AREAS 2-4 (1990); Richard H. Braun, *Emerging Limits on Federal Land Management Discretion: Livestock, Riparian Ecosystems, And Clean Water Law*, 17 ENVTL. L. 43, 45-49 (1986).

12. See, e.g., STATISTICS, *supra* note 6, at 49 (stating that 157,810 sites have been recorded on approximately 9 million acres of BLM land that have been inventoried to date).

13. See, e.g., T. WATKINS & C. WATSON, *THE LANDS NO ONE KNOWS: AMERICA AND THE PUBLIC DOMAIN* (1975). The BLM has classified approximately 23 million acres of its lands in the far west as wilderness study areas. See STATISTICS, *supra* note 6, at 57. The classification of an area as a wilderness study area represents a determination by the BLM that the area has "wilderness characteristics," 43 U.S.C. § 1782(a) (1988), including "outstanding opportunities for solitude or a primitive and unconfined type of recreation" 16 U.S.C. § 1131(c)(2) (1988).

14. STATISTICS, *supra* note 6, at 52.

15. The total authorized grazing use on BLM lands is about 10 million animal unit months (AUMs). STATISTICS, *supra* note 6, at 24-25. In the computer model that the BLM uses for cost-benefit analyses, the BLM values a single AUM at about eight dollars. At this rate, the total annual value of all authorized BLM grazing use is about eighty million dollars. The same model values a recreational visitor use day at about ten dollars. Even using this figure, which is quite low in the author's opinion, the value of the 72 million annual recreational visits to BLM land is over seven hundred million dollars, or nearly ten times the value of the livestock forage. See also, JERRY L. HOLECHEK ET AL., *RANGE MANAGEMENT: PRINCIPLES AND PRACTICES* 419 (1989) (stating that if present trends continue, "it appears likely that recreational value will exceed livestock grazing value on most rangelands within the next 15 to 20 years"); BUREAU OF LAND MANAGEMENT, U.S.

B. Environmental Impacts of Livestock Grazing

Grazing by domestic livestock, primarily cattle, is permitted on over 90 percent of the land under the BLM's jurisdiction.¹⁶ The cumulative environmental impacts of livestock grazing on BLM lands over the last century have been devastating.¹⁷

The environmental effect of livestock grazing that has received the most scientific attention is the depletion of the native perennial vegetative species that are palatable to livestock. When preferred perennial grasses and shrubs are defoliated too heavily and too often by grazing, they lose vigor, fail to reproduce, and eventually die.¹⁸ Grazing gives an ecological advantage to annual species, to plants that are unattractive or unpalatable to livestock, and to plants that are grazing-tolerant.¹⁹ Over millions of acres, heavy grazing has reduced or eliminated perennial grasses and replaced them with relatively unpalatable woody species such as juniper, snakeweed, rabbitbrush, mesquite, acacia, and cacti,²⁰ and with annual weeds

DEPT OF THE INTERIOR, ELKO [NEVADA] RESOURCE AREA DRAFT RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT 4-39 (1985) (revealing that gains in recreation-related jobs and income would exceed losses in livestock-related jobs and income if livestock grazing were eliminated in the BLM's Elko, Nevada, Resource Area) [hereinafter ELKO RMP].

16. See STATISTICS, *supra* note 6, at 26-27 (grazing permits or leases in force on 167 million acres out of 177 million acres managed by the BLM in the eleven far western states).

17. For an encyclopedic treatment of the effects of livestock grazing on the public lands, see JACOBS, *supra* note 5.

18. See, e.g., HAROLD F. HEADY, RANGELAND MANAGEMENT 128-29 (1975).

19. See, e.g., KARL G. PARKER, THE NATURE AND USE OF UTAH RANGE 28 (1978); Steven Archer & Fred E. Smeins, *Ecosystem Level Processes*, in GRAZING MANAGEMENT: AN ECOLOGICAL PERSPECTIVE 123, 123-135 (Rod K. Heitschmidt & Jerry W. Stuth eds., 1991); David D. Briske, *Developmental Morphology and Physiology of Grasses*, in GRAZING MANAGEMENT: AN ECOLOGICAL PERSPECTIVE 85, 93-106 (Rod K. Heitschmidt & Jerry W. Stuth eds., 1991); Paul T. Tueller, *Secondary Succession, Disclimax, and Range Condition Standards in Desert Shrub Vegetation*, in ARID SHRUBLANDS: PROCEEDINGS OF THE THIRD WORKSHOP OF THE UNITED STATES/AUSTRALIA RANGELANDS PANEL 57, 58-60 (D.N. Hyder ed., 1973).

20. See, e.g., U.S. ENVIRONMENTAL PROTECTION AGENCY, *supra* note 11, at 5 (1990); Archer & Smeins, *supra* note 19, at 135; CONRAD J. BAHRE, A LEGACY OF CHANGE: HISTORIC HUMAN IMPACT ON VEGETATION OF THE ARIZONA BORDERLANDS *passim* (1991); Tueller, *supra* note 19, at 58-60; Joseph R. McAuliffe, *Storm Over Desert Grasslands*, THE SONORAN QUARTERLY, Fall 1993, 10, 11-12; see also JAMES STUBBENDIECK, ET AL., NORTH AMERICAN RANGE PLANTS 247, 253, 361 (4th ed. 1992) (Dense stands of rabbitbrush "may indicate poor range management;" snakeweed an "indicator of overgrazing;" mesquite "especially abundant on abused rangeland.").

such as tumbleweed and cheatgrass.²¹ Besides being poor feed for livestock and wildlife, these replacement species generally do a poor job of stabilizing soils against erosion by wind and water.²²

A major focus of range science over the past several decades has been the concept of carrying capacity or grazing capacity, generally defined as the number of livestock that an area of land can support without damage to the vegetation.²³ Carrying capacity depends on the types and quantities of available vegetation and the degree of "utilization" (defoliation) that each species of vegetation can withstand while continuing to grow and reproduce.²⁴ The theory behind the concept is that if the number of livestock is kept within carrying capacity, then detrimental changes in vegetation of the type described above will not occur. Lands grazed in excess of carrying capacity are said to be "overgrazed."

Holding numbers of livestock within carrying capacity, however, by no means ensures that grazing will not have significant adverse environmental effects. Changes in vegetative composition are only one out of many potential impacts of grazing. Removal of plant material, even within limits that protect the health of the individual grazed plants, may decrease the ground cover necessary to prevent excessive erosion of soils by wind and rain.²⁵ Decrease in standing plant cover and in dead and fallen plant material ("litter") also decreases the ability of the land to absorb and hold water, thus causing accelerated surface runoff, increased flooding, and transformation of perennial streams into intermittent ones.²⁶ Trampling by livestock may destroy cryptogamic crusts and compact soils, decreasing infiltration by water and suppressing plant growth and further accelerating surface runoff.²⁷ Cattle and sheep manure and urine, as well as soil erosion, may pollute lakes, rivers, and

21. See, e.g., Archer & Smeins, *supra* note 19, at 135; see also STUBBENDIECK, ET AL., *supra* note 20, at 167, 317 (cheatgrass found on "heavily grazed rangeland"; tumbleweed found in "overgrazed pastures").

22. See, e.g., KARL G. PARKER, *supra* note 19, at 28; U.S. ENVIRONMENTAL PROTECTION AGENCY, *supra* note 11, at 5; Thomas L. Thurow, *Hydrology and Erosion*, in GRAZING MANAGEMENT: AN ECOLOGICAL PERSPECTIVE 141, 150, 155 (Rod K. Heitschmidt & Jerry W. Stuth eds., 1991).

23. See 43 C.F.R. § 4100.0-5 (1992) (defining "livestock carrying capacity").

24. See HEADY, *supra* note 18; at 116; E. Lamar Smith, *Use of Inventory and Monitoring Data for Range Management Purposes*, in NATIONAL RESEARCH COUNCIL/NATIONAL ACADEMY OF SCIENCES, DEVELOPING STRATEGIES FOR RANGELAND MANAGEMENT 809 (1984).

25. See, e.g., Thurow, *supra* note 22, at 154-56.

26. See, e.g., Thurow, *supra* note 22, at 148-50.

27. See, e.g., Thurow, *supra* note 22, at 151.

streams.²⁸ Livestock may compete with wildlife for water and forage, and the mere presence of livestock may keep some species of wildlife away from water sources and breeding and forage areas. Livestock also trample archaeological sites, toppling walls and breaking and displacing artifacts, and contaminating remains with urine and manure.²⁹

Limitation of livestock to numbers within carrying capacity also does not ensure protection of riparian, or streamside, areas. These areas, which are extremely important for wildlife, recreation, water quality, and streamflow regulation,³⁰ are as attractive to livestock as they are to people and wildlife. Even where livestock numbers are not excessive, livestock congregate in riparian areas, removing the vegetative cover necessary to slow and spread floodwaters and stabilize streambanks against erosion.³¹ As a result, stream channels are eroded into arroyos, water tables fall, and riparian meadows are transformed into barren uplands.³²

Another serious concern not encompassed by the concept of grazing capacity is the impact of livestock on aesthetics, on scenic beauty, and on recreational users of the public lands. Since the recreational value of BLM lands far exceeds their livestock production value,³³ these effects must be taken seriously. Even grazing that may be "moderate" from the standpoint of range management can turn a beautiful grassland into a moonscape of stubble,³⁴ defoliated shrubs, and trampled vegetation. Flies, dust,

28. See, e.g., Thurow, *supra* note 22, at 151-52.

29. See ALAN OSBORN ET AL., IMPACTS OF DOMESTIC LIVESTOCK GRAZING ON THE ARCHAEOLOGICAL RESOURCES OF CAPITOL REEF NATIONAL PARK, UTAH (1987); Transcript of Proceedings, Vol. 7, at 30-50, National Wildlife Fed'n, No. UT-06-91-01 (U.S. Dep't of the Interior, Office of Hearings and Appeals, Hearings Division, May 12, 1992) (testimony of Winston Hurst) [hereinafter Comb Wash Transcript].

30. See, e.g., Braun, *supra* note 11, at 45-48.

31. See, e.g., William S. Platts & Robert F. Raleigh, *Impacts of Grazing on Wetlands and Riparian Habitat*, in NATIONAL ACADEMY OF SCIENCES/NATIONAL RESEARCH COUNCIL, DEVELOPING STRATEGIES FOR RANGELAND MANAGEMENT 1105, 1110 (1984).

32. See, e.g., U.S. ENVIRONMENTAL PROTECTION AGENCY, *supra* note 11, at 5.

33. See *supra* note 15.

34. Grazing that removes 50% of the annual growth of grasses is generally considered "moderate" by range managers. But the utilization is measured by weight, not by height. Since the weight of the plant is concentrated near the bottom, removal of the top half of the plant's weight involves removing much more than half of the plant's height. See ROCKY MOUNTAIN FOREST AND RANGE EXPERIMENT STATION, U.S. FOREST SERVICE, UTILIZATION GAUGE: AN INSTRUMENT FOR MEASURING THE UTILIZATION OF GRASSES (1980). For example, for galleta grass (*hilaria jamesii*), a common southwestern perennial bunchgrass, 50%

and ubiquitous manure add to the aesthetic degradation.³⁵

C. Legal Mandates

Before 1934, grazing on the lands now managed by the BLM was largely unrestricted.³⁶ Through inaction, the federal government was held to have granted an implied license for anyone who wished to graze as many livestock as he pleased on the public domain.³⁷ Excessive and unmanaged grazing caused widespread destruction and deterioration of vegetation, soils, and watersheds.³⁸

1. The Taylor Grazing Act

The Taylor Grazing Act of 1934³⁹ introduced a semblance of order to the federal rangelands. The stated purposes of the Act were "to regulate [the] occupancy and use" of the public rangelands, "to preserve the land and its resources from destruction or unnecessary injury," and "to provide for the orderly use, improvement, and development of the range."⁴⁰ Under the authority of the Act, the lands now administered by the BLM have been divided into grazing allotments.⁴¹ The BLM issues ten-year permits specifying the number and kind of livestock authorized to graze on each allotment and the season of use.⁴²

The Taylor Grazing Act gives priority in the issuance of grazing

utilization reduces a twenty-inch plant to a height of two and one-half inches. *Id.*

35. See E. Bruce Godfrey & C. Arden Pope, III, *The Trouble With Livestock Grazing on Public Lands*, in CURRENT ISSUES IN RANGELAND ECONOMICS, reprinted in SOUTHERN UTAH WILDERNESS ALLIANCE NEWSLETTER, WINTER 1991/1992, at 2-3; NEVADA BLM GRAZING REPORT, *supra* note 2, at 50. For hundreds of photographs of the effects of livestock grazing, see JACOBS, *supra* note 5, *passim*. See also *infra* text accompanying notes 188-99 (regarding the impacts of grazing on aesthetics and recreation on the BLM's Comb Wash Allotment in Utah).

36. George C. Coggins & Margaret Lindeberg-Johnson, *The Law of Public Rangeland Management II: The Commons and the Taylor Act*, 13 ENVTL. L. 1, 27-32 (1982).

37. See *Buford v. Houtz*, 133 U.S. 320, 327-28 (1890).

38. See George C. Coggins, *The Law of Public Rangeland Management IV: FLPMA, PRRA, and the Multiple Use Mandate*, 14 ENVTL. L. 1, 2 (1983); see *supra* part II.B.

39. 43 U.S.C. §§ 315-315-o-1 (1988). See also Coggins & Lindeberg-Johnson, *supra* note 36, at 40-100 (explaining the history, provisions and implementation of the Act).

40. 43 U.S.C. § 315a (1988).

41. Feller, *supra* note 5, at 573-74.

42. See 43 U.S.C. § 315b; 43 C.F.R. § 4130.6-1 (1993); see also 43 U.S.C. § 1752(a), (e) (1988).

permits to owners of land or of water rights near the permitted federal lands.⁴³ Further, when a permit expires, the holder of the expiring permit has first priority for receipt of a new permit.⁴⁴ The Act does not guarantee, however, that permits will be renewed,⁴⁵ nor does it entitle the priority-holder to a permit for any particular number of livestock. Nonetheless, authorized livestock numbers under the Act generally were, and in many instances still are, based on pre-1934 stocking levels.⁴⁶

2. FLPMA and PRIA

Explicit direction for the BLM to manage the land for purposes other than livestock production is found in the Federal Land Policy and Management Act of 1976 (FLPMA)⁴⁷ and in the Public Rangelands Improvement Act of 1978.⁴⁸ FLPMA declares a congressional policy that

the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use⁴⁹

FLPMA's guidance for balancing potentially conflicting objectives and uses on the public lands is found in the concept of "multiple use," which is defined as

the management of the public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people; . . . the use of some land for less than all of the resources; a combination of balanced and diverse resource

43. 43 U.S.C. § 315b; Coggins & Lindeberg-Johnson, *supra* note 36, at 84-87.

44. 43 U.S.C. §§ 315b, 1752(c).

45. 43 U.S.C. § 315(b) (renewal "in the discretion of the Secretary of the Interior").

46. See Coggins & Lindeberg-Johnson, *supra* note 36, at 82-84.

47. 43 U.S.C. §§ 1701-1784 (1988); see also Coggins, *supra* note 38, at 5-30 (explaining in detail the provisions of the Act).

48. 43 U.S.C. §§ 1901-1905 (1988). See Coggins, *supra* note 38, at 109-130 (explaining in detail the provisions of the Act).

49. 43 U.S.C. § 1701(a)(8).

uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values; . . . without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources⁵⁰

FLPMA instructs the BLM to develop land use plans, now called Resource Management Plans,⁵¹ "which provide by tracts or areas for the use of the public lands."⁵² In general, each plan covers one "resource area."⁵³ A typical resource area covers about 1 million acres of BLM land and includes on the order of one hundred grazing allotments.⁵⁴

In developing land use plans, the BLM must, among other things,

(1) use and observe the principles of multiple use and sustained yield . . . ;

. . . .
(5) consider present and potential uses of the public lands;
(6) consider the relative scarcity of the values involved and the availability of alternative means (including recycling) and sites for realization of those values;
(7) weigh long-term benefits to the public against short-term benefits

. . . .⁵⁵

In 1978, Congress supplemented the multiple-use mandate of FLPMA, which applies to all resource management on BLM lands, with guidance specific to range management in PRIA.⁵⁶ PRIA declared a "national policy and commitment" to "manage, maintain and improve the condition of the public rangelands so that they become as productive as feasible for all rangeland values"⁵⁷ Rangeland values recognized by PRIA include not only livestock

50. 43 U.S.C. § 1702(c).

51. See 43 C.F.R. § 1601.0-5(k) (1993).

52. 43 U.S.C. § 1712(a).

53. See 43 C.F.R. § 1601.0-5(j) (1993).

54. Feller, *supra* note 5, at 577.

55. 43 U.S.C. § 1712(c).

56. 43 U.S.C. §§ 1901-1908 (1988).

57. *Id.* § 1901(b)(2).

forage but also "wildlife habitat, recreation" and "water and soil conservation benefits."⁵⁸ PRIA goes on to provide:

Except where the land use planning process . . . determines otherwise or the Secretary determines, and sets forth his reasons for this determination, that grazing uses should be discontinued (either temporarily or permanently) on certain lands, the goal of such management shall be to improve the range conditions of the public rangelands so that they become as productive as feasible. . . .⁵⁹

PRIA's definition of range condition refers to soil quality, wildlife habitat, and "watershed and plant communities" as well as forage production.⁶⁰

3. BLM Authority to Discontinue Grazing on Selected Areas

FLPMA and PRIA make clear that the BLM is not required to permit livestock grazing on all of its lands. FLPMA's definition of "multiple use" specifically includes "the use of some land for less than all of the resources,"⁶¹ and PRIA explicitly refers to the BLM's authority to temporarily or permanently discontinue grazing on selected lands.⁶² FLPMA's definition of multiple use as "the combination [of uses] that will best meet the present and future needs of the American people"⁶³ and the instruction to give consideration to "the relative values of the resources"⁶⁴ suggest that the BLM should permit grazing only where it makes a positive net contribution to meeting public needs, i.e., where grazing's economic, social, and environmental benefits exceed its harms.⁶⁵

58. *Id.* § 1901(a)(1).

59. *Id.* § 1903(b).

60. *Id.* § 1902(d).

61. *Id.* § 1702(c).

62. *Id.* § 1903(b). BLM regulations also recognize the Bureau's authority to discontinue grazing on selected lands. Grazing permit and lease renewals are conditioned on "[t]he lands for which the permit or lease is issued remain[ing] available for grazing." 43 C.F.R. § 4130.2(d)(1) (1992). Grazing permits may be issued for terms shorter than ten years if "the land will be devoted to a public purpose which precludes grazing." *Id.* § 4130.2(c)(2). Grazing permits may be cancelled, suspended, or modified "[w]here there is a decrease in public land acreage available for livestock grazing within an allotment." *Id.* § 4110.4-2(a)(1). Permits may be cancelled on two years' notice "[w]hen public lands are disposed of or devoted to a public purpose which precludes livestock grazing." *Id.* § 4110.4-2(b).

63. 43 U.S.C. § 1702(c).

64. *Id.*

65. The United States Forest Service, which operates under a nearly

The land use planning mandated by FLPMA should provide a process for determining on which lands grazing is in the public interest and on which lands it is not.⁶⁶ FLPMA explicitly conditions the renewal of grazing permits on the permitted lands "remain[ing] available for domestic livestock grazing in accordance with land use plans."⁶⁷ Requirements to consider present and potential land uses,⁶⁸ to consider alternative means and sites,⁶⁹ and to weigh long-term benefits against short-term benefits⁷⁰ in the land use planning process all indicate that the process should be a forum for weighing and balancing the pros and cons of grazing on particular tracts of BLM land.⁷¹

4. BLM Authority to Reduce Stocking Levels

Since the BLM has the authority, and arguably the duty, to discontinue grazing on lands where grazing is not in the public interest, it follows *a fortiori* that the BLM is not required to continue present or historic stocking levels. Any doubt about the authority of the BLM to adjust stocking levels to meet public needs is removed by another provision of FLPMA, as amended by PRIA, which provides that the Secretary of the Interior (or the Secretary of Agriculture with respect to National Forest lands)⁷²

identical statutory multiple use mandate, compare 16 U.S.C. § 531(a) (1988) with 43 U.S.C. § 1702(c), provides for such a test in its regulations. See 36 C.F.R. § 219.20 (1993) (requiring the Forest Service to identify which of its lands are suitable for grazing); *id.* § 219.3 (defining "suitability" as "the appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative uses foregone").

66. See BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, BLM MANUAL § 1622.31.A.1 (1986) [hereinafter BLM MANUAL] (Resource management plans should "[i]dentify public lands where livestock grazing will be excluded considering terrain characteristics, potential of the soil and vegetation, the presence of undesirable vegetation or the presence of other resources that may require special management or protection, e.g., special recreation management areas."); *id.* § 1622.32.A ("The effects of various levels and intensities of livestock grazing on other resource values and uses should be analyzed.").

67. 43 U.S.C. § 1752(c)(1).

68. *Id.* § 1712(c)(5).

69. *Id.* § 1712(c)(6).

70. *Id.* § 1712(c)(7).

71. See also 43 C.F.R. § 1601.0-5(k)(2) (1993) (land use plans should establish "[a]llowable resource uses"); *id.* § 1601.0-5(k)(1) (land use plans should establish "[l]and areas for limited, restricted or exclusive use").

72. See 43 U.S.C. § 1752(a).

may reexamine the condition of the range at any time and, if he finds on reexamination that the condition of the range requires adjustment in the amount or other aspect of grazing use, that the permittee or lessee shall adjust his use to the extent the Secretary concerned deems necessary.⁷³

PRIA defines the "condition" of the range to refer to soils, watershed, and wildlife habitat as well as livestock forage.⁷⁴

The BLM's broad authority under FLPMA and PRIA to adjust livestock numbers to meet public needs is reflected in the BLM's regulations:

The authorized officer shall periodically review the grazing preference specified in a grazing permit or grazing lease and may make changes in the grazing preference status. These changes shall be supported by monitoring, as evidenced by rangeland studies conducted over time, *unless the change is either specified in an applicable land use plan or necessary to manage, maintain or improve rangeland productivity.*⁷⁵

This regulation gives the local BLM officer, usually the Resource Area Manager, plenary authority to make changes in livestock numbers through the land use planning process as well as authority to make changes outside that process whenever necessary to "manage, maintain or improve rangeland productivity."⁷⁶ As the BLM explained when it promulgated this regulation, the words "manage, maintain or improve rangeland productivity" are taken from PRIA,⁷⁷ which relates "rangeland productivity" to wildlife, recreation, watershed, and soil conservation as well as livestock forage.⁷⁸ The use of those words in the regulation were intended to "clearly indicate[] that changes in active use may be triggered by various management objectives."⁷⁹

73. *Id.* § 1752(e).

74. *See* 43 U.S.C. § 1902(d).

75. 43 C.F.R. § 4110.3 (1992) (emphasis added).

76. *Id.*

77. *See* 53 Fed. Reg. 10,224, 10,227 (1988) (citing 43 U.S.C. §§ 1901(b)(2), 1903(b); *supra* text accompanying notes 56-60).

78. *See supra* text accompanying notes 56-60.

79. 53 Fed. Reg. at 10,228 (1988).

5. Procedural Requirements

BLM regulations require the BLM to notify permittees and other "affected interests" of proposed grazing decisions and to provide them with an opportunity to protest.⁸⁰ Final decisions may be appealed to administrative law judges,⁸¹ whose decisions are in turn appealable to the Interior Board of Land Appeals (IBLA).⁸² In the past, when the BLM has exercised its authority to reduce livestock numbers or otherwise restrict grazing on an allotment, permittees have frequently filed appeals challenging the legal or factual bases for the reductions or restrictions. In some cases, those appeals have been successful at the first level of appeal. However, when appeals by permittees have reached the IBLA, the BLM has almost always prevailed.⁸³

6. Requirements for Public Participation

FLPMA contains a broad mandate for public participation in public land management:

In exercising his authorities under this Act, the Secretary, by regulation, shall establish procedures, including public hearings where appropriate, to give the Federal, State, and local governments and the public adequate notice and opportunity to comment upon the formulation of standards and criteria for, and to participate in, the preparation and execution of plans and programs for, and the management of,

80. 43 C.F.R. § 4160.1-1 (1992); see Feller, *supra* note 5, at 581-82.

81. *Id.* §§ 4.470, 4160.4 (1992).

82. *Id.* § 4.410 (1992).

83. See, e.g., Joe Saval Co., 119 IBLA 202 (1991) (reversing decision by an administrative law judge (ALJ) who had reversed a BLM decision to restrict domestic sheep grazing in order to protect bighorn sheep); Miller, 118 IBLA 354 (1991) (reversing decision by an ALJ who had reversed a BLM decision to deny a request for increased grazing on an allotment); Bar X Sheep Co., 56 IBLA 258 (1981) (reversing decision by an ALJ who had reversed a BLM decision to reduce livestock numbers on five allotments in order to provide forage for excess wild horses).

The author has found fifteen IBLA cases since 1980 in which a rancher challenged a BLM decision limiting or restricting livestock grazing. In only two of the fifteen did the rancher prevail. See Dorius, 83 IBLA 29 (1984) (affirming decision by an ALJ who had reversed a BLM decision to reduce the number of livestock on an allotment); Claridge, 71 IBLA 46 (1983) (reversing decision by an ALJ who had affirmed a BLM decision to reduce the number of livestock on an allotment).

the public lands.⁸⁴

The United States Court of Appeals for the District of Columbia Circuit has held that this mandate applies not only to the development of resource management plans by the BLM, but to "all decisions that may have significant impact on Federal lands."⁸⁵

BLM's grazing regulations provide for participation in allotment-level grazing decisions by "affected interests" as well as by permittees.⁸⁶ The regulations require consultation with affected interests when the BLM develops allotment management plans,⁸⁷ when it makes changes in authorized grazing levels,⁸⁸ when it modifies the terms and conditions of grazing permits,⁸⁹ and when it renders formal decisions related to grazing permits.⁹⁰

III. BLM GRAZING ADMINISTRATION IN PRACTICE

A. Universal Grazing

Despite the BLM's authority to decide that some lands that it administers will not be used for livestock grazing, grazing is authorized on almost all BLM lands that are physically capable of supporting livestock. BLM grazing permits in the eleven far western states cover approximately 167 million acres, or 94% of the land managed by the BLM.⁹¹ The ten million acres of land on which grazing is not authorized consists mostly of lands on which there is so little vegetation that grazing is not economically feasible, or where grazing is not practical because of physical inaccessibility or lack of drinking water for livestock.⁹²

84. 43 U.S.C. § 1739(e); *see also id.* § 1712(f) (similar requirement).

85. *National Wildlife Fed'n v. Burford*, 835 F.2d 305, 322 (D.C. Cir. 1987), *rev'd on other grounds*, 497 U.S. 871 (1990).

86. 43 C.F.R. § 4100.0-5 (1992) (defining "affected interest"); *Feller*, *supra* note 5, at 580-81; *see also* Donald K. Majors, 123 IBLA 142, 149 (1992) (holding that a person who uses the land on a grazing allotment "for any legitimate purpose" may be determined to be an "affected interest").

87. 43 C.F.R. § 4120.2(a) (1992).

88. *See id.* § 4110.3-3.

89. *See id.* § 4130.6-3.

90. *See id.* § 4160.1-1.

91. *See* STATISTICS, *supra* note 6, at 26-27; *see also* PUBLIC EMPLOYEES FOR ENVIRONMENTAL RESPONSIBILITY, *supra* note 5, at 8 (grazing authorized on over 90% of BLM land in all far western states except California and Oregon).

92. *See, e.g.*, MIMBRES [NEW MEXICO] RESOURCE AREA, BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, PROPOSED RESOURCE MANAGEMENT PLAN/FINAL ENVIRONMENTAL IMPACT STATEMENT 3-6 (1992) (finding 10 percent of planning area unsuitable for grazing due to steep slopes or barren areas)

For the most part, the land-use planning process mandated by FLPMA has not been used by the BLM to evaluate the environmental impacts of grazing in particular areas or to consider whether those impacts can be justified by the grazing's economic or environmental benefits. Although each BLM land use plan comes with an environmental impact statement (EIS)⁹³ that considers alternative management prescriptions, some of these EISs do not consider any alternative that would exclude livestock grazing from a significant portion of the resource area covered by the plan.⁹⁴ Others consider a straw man alternative that would exclude grazing from an entire resource area,⁹⁵ but no intermediate alternative that selectively determines which portions of the resource area are appropriate for grazing and which are not. Of course, the BLM never adopts the blanket no-grazing alternative.

[hereinafter MIMBRES RMP]; BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, BISHOP [CALIFORNIA] RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT 2-46 (1991) (excluding livestock grazing from a Wilderness Study Area because "there is not enough forage in this area for grazing to be practical") [hereinafter BISHOP RMP]; NEVADA BLM GRAZING REPORT, *supra* note 2, at 59; *see also, e.g.*, SAN JUAN RESOURCE ARENA, MOAB DISTRICT, BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, PROPOSED SAN JUAN [UTAH] RESOURCE MANAGEMENT PLAN 38 (1989) [hereinafter SAN JUAN RMP]. The San Juan RMP excludes livestock grazing from 137,440 acres (about 215 square miles) of BLM land, consisting mostly of canyons and mesa tops. *Id.* However, the amount of grazing taking place on those 215 square miles before exclusion was only 260 animal unit months, or the equivalent of about 22 cows. *Id.* Clearly, most of the acreage was already in disuse because of its physical characteristics.

93. An EIS is required by the National Environmental Policy Act (NEPA). Section 102(C) of NEPA, 43 U.S.C. § 4332(C) (1988 & Supp. IV), requires an EIS to be included "in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment." For a discussion of the application of NEPA to public lands management, see G. COGGINS, *supra* note 5, ch. 12. The BLM's issuance of grazing permits has been determined to be a major federal action significantly affecting the human environment. *See* Natural Resources Defense Council, Inc., v. Morton, 388 F. Supp. 829 (D.D.C. 1974), *aff'd*, 527 F.2d 1386 (D.C. Cir. 1976), *cert. denied*, 427 U.S. 913 (1976).

94. *See, e.g.*, BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, FINAL DIAMOND MOUNTAIN RESOURCE AREA [UTAH] RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT 2.23, 2.27, 2.31, 2.34, 2.37 (1993) (considering five alternatives that would authorize grazing on, respectively, 99%, 99%, 87%, 99%, and 99% of the resource area) [hereinafter DIAMOND MOUNTAIN RMP].

95. *See, e.g.*, ELKO RMP, *supra* note 15, at S-5; BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, LOWER GILA NORTH [ARIZONA] DRAFT GRAZING ENVIRONMENTAL IMPACT STATEMENT 37-38 (1982) [hereinafter LOWER GILA NORTH EIS].

More commonly, the BLM will exclude grazing from an area where a high-priority resource such as an endangered species, an archaeological site, or a developed recreation area is incompatible with livestock.⁹⁶ These areas are usually quite small.⁹⁷ The BLM virtually never considers removing grazing from larger areas where its routine impacts—trampling, soil erosion, watershed deterioration, water pollution, scenic degradation, competition with wildlife,— or the costs of grazing administration, may exceed its economic benefits.⁹⁸ Moreover, the EISs accompanying the land use plans generally do not contain the site-specific information on harms and benefits that would be needed to develop such an alternative.⁹⁹

The plans and their accompanying EISs generally assume that most environmental problems caused by grazing will eventually be resolved by the development of grazing management systems¹⁰⁰ and

96. See, e.g., MIMBRES RMP, *supra* note 92, at 2-27 (exclusion of domestic sheep and goats from bighorn sheep habitat areas); MIMBRES RMP, *supra* note 92, at 4-6 (discussing the possible exclusion of livestock from “[a]reas of significant cultural and historic resources”); MIMBRES RMP, *supra* note 92, at 4-6 (discussing the exclusion of livestock from “[h]igh use developed recreation areas”); BISHOP RMP, *supra* note 92, at 1-13 (fencing of springs and seeps to exclude livestock); BISHOP RMP, *supra* note 92, at 1-14 (fencing of riparian areas if conflicts cannot be otherwise resolved); BISHOP RMP, *supra* note 92, at 2-38 (discussing the prohibition of grazing in an Area of Critical Environmental Concern to protect endangered fish and other resources); BISHOP RMP, *supra* note 92, at 2-41 (discussing the elimination of grazing on “crucial” mule deer and tule elk habitat); BISHOP RMP, *supra* note 92, 92, 96, at 2-46 (discussing the prohibition of livestock grazing in an Area of Critical Environmental Concern containing rare bristlecone pines); DIAMOND MOUNTAIN RMP, *supra* note 94, at 1.8 (“Restrictions on use of resources or limitations on use of federal lands . . . are considered only where an analysis demonstrates a clear need and there is no practical way to avoid adverse impacts without them.”).

97. See, e.g., MIMBRES RMP, *supra* note 92, at S-7, S-11 (discussing the exclusion of livestock from area totalling 8,026 acres, or about one fourth of one percent, of a BLM resource area of over three million acres of public land; exclusion results in loss of 90 animal unit months of grazing, or about eight cows).

98. See, e.g., MIMBRES RMP, *supra* note 92, at 3-8 (identifying 800,000 acres of “fragile” lands with poor range condition and “critical soils” with high erosion potential, but not considering excluding grazing from those acres).

99. See, e.g., ELKO RMP, *supra* note 15, at 4-1 (stating that the impacts to several important resources “are difficult to determine due to a lack of site-specific project information”); MIMBRES RMP, *supra* note 92, at 4-1 (stating that a site-specific environmental analysis will be deferred until later); *But see* BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, THREE RIVERS [OREGON] RESOURCE MANAGEMENT PLAN, RECORD OF DECISION, AND RANGELAND PROGRAM SUMMARY Appendix 9 (1992) (providing more allotment-specific information than most BLM land use plans).

100. See, e.g., *Natural Resources Defense Council, Inc. v. Hodel*, 624 F. Supp.

the construction of range improvements.¹⁰¹ However, the management systems and improvements generally are not specified in the plans;¹⁰² their efficacy is taken on faith. Moreover, despite the BLM's reliance on grazing systems and range improvements, continued grazing is authorized regardless of whether such management systems actually are or ever will be instituted, regardless of whether the range improvements actually are or ever will be built,¹⁰³ regardless of whether funds are available to construct the range improvements,¹⁰⁴ and regardless of whether the cost of the range improvements exceeds the value of the livestock forage.¹⁰⁵

1045, 1050, 1057 (D. Nev 1985) *aff'd* 819 F.2d 927 (1987); MIMBRES RMP, *supra* note 92, at 2-22, 2-43, 2-44, 4-8; *id.* at 4-6 ("There are no conflicts between properly managed livestock grazing and wildlife."); *id.* at 4-12 (stating that rotational grazing systems enhance recreational opportunities); BISHOP RMP, *supra* note 92 at 1-12.

101. *See, e.g., Natural Resources Defense Council*, 624 F. Supp. at 1050, 1057; BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, ELKO [NEVADA] RESOURCE MANAGEMENT PLAN RECORD OF DECISION 21 (1987) [hereinafter ELKO ROD].

102. *See, e.g., Natural Resources Defense Council*, 624 F. Supp. at 1051 ("[T]he proposed action does not promise any specific measures will be taken by any particular dates."); MIMBRES RMP, *supra* note 92, at S-1 ("The alternatives in this EIS are designed to provide general management guidance. Specific projects for a given area or resource will be detailed in future activity plans. These plans discuss more precisely how a particular area or resource is to be managed, and ensure compliance with the approved RMP's resolution of the issues."); BISHOP RMP, *supra* note 92, at 1-17 to 1-18 (deferring specific actions needed to meet vegetation goals to subsequent planning); ELKO ROD, *supra* note 101, at 23-24, 30-33 (listing possible grazing treatments and techniques, but not specifying which will be implemented in which areas); ELKO ROD, *supra* note 101, at 40 (stating that soils and water quality will be "maintained or improved," but not specifying how).

103. *See, e.g., MIMBRES RMP*, *supra* note 92, at 2-20 to 2-21 (stating that nine years after two previous plans called for numerous range improvements, the majority have not been built, but not discussing reducing or eliminating grazing pending completion of the needed improvements).

104. *See, e.g., Natural Resources Defense Council*, 624 F. Supp. at 1051 ("All of these actions are, to some extent, hypothetical" and are dependent on "the assumption that the BLM will have the funding to carry out the specific actions eventually required."); ELKO ROD, *supra* note 101, at 21 (describing the \$4.7 million cost of proposed range land improvement projects for livestock); ELKO RMP, *supra* note 15, at 4-1 (stating that an environmental analysis is based on assumption that funding and personnel will be available).

105. *See infra* note 159.

B. Livestock Numbers

1. Preference and "Non-Use"

Each BLM grazing permit specifies a "grazing preference," which the BLM defines as "the total number of animal unit months of livestock grazing on public lands apportioned and attached to base property owned or controlled by a permittee or lessee."¹⁰⁶ An animal unit month (AUM) is the amount of forage consumed by one cow in one month.¹⁰⁷

The "grazing preference" is generally greater than the amount of grazing that is actually authorized on an allotment. Grazing preferences were established when allotments were created after the passage of the Taylor Grazing Act, and were based on historic (unregulated) use.¹⁰⁸ If the BLM subsequently reduced the authorized level of grazing, it did not change the preference,¹⁰⁹ but instead placed the difference between the preference and the reduced authorized use level in "suspension."¹¹⁰ The preference thus usually consists of a "suspended" portion and an "active" portion, and the permittee is allowed to use only the "active" portion.¹¹¹

Even the "active" portion of the preference, however, may substantially exceed the actual grazing use of an allotment. Each year the permittee submits to the BLM an application¹¹² specifying how much of the active preference he or she would like to use that year and how much he or she would like to dedicate to "non-use."¹¹³ The permittee's voluntary "non-use" is often used by the BLM in lieu of a reduction in active preference.¹¹⁴ It is not uncommon for the BLM to maintain an active preference for an allotment that substantially exceeds both the carrying capacity and the number of livestock that the permittee ever places on the allotment.¹¹⁵ Such a

106. 43 C.F.R. § 4100.0-5 (1992).

107. *Id.*

108. *See* 53 Fed. Reg. 10,224, 10,227 (1988).

109. *Id.*

110. *See* 43 C.F.R. § 4100.0-5 (1992) (defining "suspension").

111. *See id.* (defining "active use").

112. *See* BLM MANUAL, *supra* note 66, at § H-4130-1.1.1.A.

113. BLM MANUAL, *supra* note 66, at §§ H-4130-1.13.A., H-4130-1.15.

114. One administrative law judge has held that the BLM is *required* to give a permittee the option of taking voluntary non-use in lieu of a suspension of preference. *See* Vetere, No. UT-06-89-03 (U.S. Dep't of the Interior, Office of Hearings and Appeals, Hearings Division, Aug. 24, 1990).

115. *See* Feller, *supra* note 5, at 575-76 & notes 30, 32; NEVADA BLM GRAZING REPORT, *supra* note 2, at 60-61; U.S. GENERAL ACCOUNTING OFFICE, PUB.

permit serves as a blank check, allowing actual use to be determined each year by the amount of "non-use" that the permittee requests. The amount of "non-use" may be determined by agreement between the BLM¹¹⁶ and the permittee or may be left entirely to the discretion of the permittee.

In either case, the determination of livestock numbers is removed from the BLM's public decisionmaking procedures and becomes a private matter between the BLM and the permittee. Although the BLM's granting of a permittee's annual application for use and non-use seems to be a "decision" within the meaning of the BLM's regulations, and therefore should require notice to affected parties and opportunity for protest and appeal,¹¹⁷ the BLM does not treat it as such. The BLM takes the one-sided view that it is only making a "decision" when it *denies* the permittee's application.¹¹⁸ As long as the permittee and the BLM are in agreement, the BLM sees no need to consult with anyone else.¹¹⁹

Moreover, the use of "non-use" as a substitute for a reduction in active preference leaves no record documenting the need for the reduced use, and no assurance that the unused portion of the active preference will not be reactivated at the will of the permittee. It forces the public to depend on the continued forbearance of the permittee, rather than the legal authority of the BLM, to protect the public rangelands from overgrazing.

NO. GAO/RCED-92-51, RANGELAND MANAGEMENT: INTERIOR'S MONITORING HAS FALLEN SHORT OF AGENCY REQUIREMENTS at 43 (1992) (on average, 19.8% of active preference is in non-use) [hereinafter GAO MONITORING REPORT].

116. See GAO MONITORING REPORT, *supra* note 115, at 36. This type of agreement seems to be recognized by the BLM's regulations. See 43 C.F.R. § 4160.1-1 (1990) (referring to a "documented agreement" between the BLM and the permittee). However, a "documented agreement" is not mentioned elsewhere in the regulations, and is not defined.

117. See 43 C.F.R. §§ 4160.1-1, 4160.3 (1992); see also *supra* text accompanying notes 80-82; Feller, *supra* note 5, at 592.

118. See BLM MANUAL, *supra* note 66, § H-4160-1.1.

119. Three years ago, BLM officials in the San Juan Resource Area in Utah and the Phoenix District in Arizona indicated to the author that they would begin to consult with affected interests on these annual determinations. See Feller, *supra* note 5, at 584 n. 106. Since that time, the BLM in these two areas has reaffirmed its policy of refusing to involve affected interests in these determinations. See *infra* text accompanying notes 226-230; Letter from John R. Christensen, Area Manager, Lower Gila Resource Area, Phoenix District, to Thomas D. Lustig, National Wildlife Fed'n (Feb. 4, 1992) (on file with author).

2. The Numbers Maintenance Policy

The BLM may order a temporary, involuntary reduction in the number of livestock on an allotment because of drought, fire, insect infestation, or other short-term problems.¹²⁰ But, under its current regulations, the only way that the BLM may permanently reduce livestock numbers without the agreement of the permittee is to reduce the active preference by placing part of it in suspension.

Since the early 1980s,¹²¹ the BLM has followed a policy of refusing to reduce an active grazing preference unless and until a need for reduction is proven by many years' worth of certain narrowly-prescribed data related to the intensity of livestock grazing and to changes in the condition of the livestock forage resource.¹²² These data are known as "range monitoring" data.¹²³ The BLM will not reduce the number of livestock permitted to graze on a BLM grazing allotment unless such monitoring data demonstrate the need for a reduction.¹²⁴ If, for budgetary or other reasons, the monitoring is not conducted,¹²⁵ or if the data are incomplete or inconclusive, the BLM will not require a reduction. Moreover, damage to environmental resources—including watersheds, soils, wildlife habitat, scenery, and recreational opportunities—that is not reflected in the monitoring data will not be considered as a basis for reducing permitted numbers. I will call this policy, which has been in place for a decade now, the "numbers maintenance" policy. It has become such

120. See 43 C.F.R. § 4110.3-3(c) (1992).

121. See Letter from James Watt, Secretary of the Interior, U.S. Dep't of Interior, to Honorable Robert List, Governor, State of Nevada, (June 12, 1981) (on file with author) [hereinafter 1981 Watt Letter].

122. See 47 Fed. Reg. 41,702, 41,703-04 (1982); *Natural Resources Defense Council, Inc. v. Hodel*, 624 F. Supp. 1045, 1050, 1056 n.6, 1057-58, 1060-62 (D. Nev. 1985); *Dahl v. Clark*, 600 F. Supp. 585, 586, 589-90 (D. Nev. 1984); COGGINS, *supra* note 5, §§ 19.03[2], 19.05[1]; 1981 Watt Letter, *supra* note 121, at 1-2; Bureau of Land Management, U.S. Dep't of the Interior, Instruction Memorandum No. 86-462 (May 15, 1986).

123. See, e.g., 43 C.F.R. § 4110.3-2(b) (1988); *Natural Resources Defense Council*, 624 F. Supp. at 1057; Bureau of Land Management, U.S. Dep't of the Interior, Instr. Memo. No. 90-177 (Dec. 6, 1989), No. 86-706 (Sept. 23, 1986); BLM Manual, *supra* note 66, ch. H-4400-1: Rangeland Monitoring and Evaluation (1989).

124. See, e.g., MIMBRES RMP, *supra* note 92, at 2-23; ELKO ROD, *supra* note 101, at 2.

125. See GAO MONITORING REPORT, *supra* note 115, at 2-5 (stating that approximately half of BLM grazing allotments are not monitored, some of the rest are not monitored adequately, and even when allotments are monitored the BLM usually fails to analyze the data and use it for decisionmaking).

a mainstay of BLM range management that many, if not most, field-level BLM employees (incorrectly) believe it to be a legal limitation on the Bureau's authority.

While other BLM policies call for management measures to protect environmental values, those policies are pursued only within the limits imposed by the numbers maintenance policy. Specifically, any management plan intended to protect or enhance environmental resources on a grazing allotment will be designed to accommodate the existing number of livestock. In other words, the number of livestock, rather than being an output of the BLM's planning and management processes, is instead imposed as an external constraint on those processes. If that constraint effectively precludes the protection of other resources, then the other resources will be sacrificed.

3. Origin of the Policy

The numbers maintenance policy was introduced by the Reagan/Watt administration as a backlash against the Carter administration's attempts to reduce livestock numbers on overgrazed allotments in the late 1970s. Some of the proposed reductions were based on estimates of carrying capacity derived from range surveys or vegetation inventories.¹²⁶ These surveys or inventories were attempts to assess systematically the types and quantities of vegetation present on grazing allotments and thus to determine the number of livestock that they could reasonably support without depleting the vegetation.¹²⁷ The incoming administration criticized these inventories and surveys as being "one point in time" views of range condition.¹²⁸ They claimed that grazing capacity estimates based on such inventories were unreliable and that the only sound method of determining livestock carrying capacity was through

126. See, e.g., GEORGE C. COGGINS, ET AL., *FEDERAL PUBLIC LAND & RESOURCES LAW* 719-22 (3d ed. 1993).

127. See generally James O. Klemmedson, et al., *Inventory of Rangeland Resources: Summary and Recommendations*, in NATIONAL ACADEMY OF SCIENCES/NATIONAL RESEARCH COUNCIL, *DEVELOPING STRATEGIES FOR RANGELAND MANAGEMENT* 571 (1984); Paul G. Risser, *Methods for Inventory and Monitoring of Vegetation, Litter, and Soil Surface Condition*, in NATIONAL ACADEMY OF SCIENCES/NATIONAL RESEARCH COUNCIL, *DEVELOPING STRATEGIES FOR RANGELAND MANAGEMENT* 647 (1984); E. Lamar Smith, *Use of Inventory and Monitoring Data for Range Management Purposes*, in NATIONAL ACADEMY OF SCIENCES/NATIONAL RESEARCH COUNCIL, *DEVELOPING STRATEGIES FOR RANGELAND MANAGEMENT* 809 (1984).

128. See, e.g., 47 Fed. Reg. 41,702, 41,704 (1982); 1981 Watt Letter, *supra* note 121.

monitoring, that is, through periodic observation of the effects of a given number of livestock on vegetative conditions.¹²⁹

In fact, the BLM itself had already recognized the importance of monitoring over time. The BLM's policy was to use existing data, including range surveys and any available monitoring data, to initiate phased adjustments in livestock numbers, and to monitor the results and make such mid-course adjustments as were indicated by the monitoring.¹³⁰

The new administration, however, rejected the use of any existing information that tended to show a need for livestock reductions. Under the new administration's policy, which remains in effect today, existing numbers of livestock are permitted to remain on an allotment unless and until changes are justified by data obtained through new range monitoring. Although this policy was billed as a switch from reliance on range surveys to reliance on monitoring, in fact it was a decision to ignore all extant information on range conditions and resource conflicts.

4. Critique of the Policy

The range monitoring performed under the new policy consists primarily of the collection of two types of data:

(1) Utilization, which is the percentage, by weight, of each year's growth of forage plants that is consumed by grazing animals.¹³¹

(2) Trend, which is the change over time in the numbers and types of plants.¹³²

Under the policy, a reduction in livestock numbers on an allotment may be justified only by data showing excessive utilization or an unsatisfactory trend.

Although the purported unreliability of vegetation inventories was offered as a justification for the numbers maintenance policy, the effects of the policy are far greater than a simple change in methodology for evaluating the condition and capacity of the range. The policy not only rejects the use of vegetation inventories as a basis for setting stocking levels; it precludes the use of *any* information

129. See, e.g., *Natural Resources Defense Council v. Hodel*, 624 F. Supp. 1045, 1057-58, 1060-62 (D. Nev. 1985); *Dahl v. Clark*, 600 F. Supp. 585, 586, 589-90 (D. Nev. 1984).

130. See 43 Fed. Reg. 5784, 5785-86 (1981).

131. See BLM MANUAL, *supra* note 66, ch. H-4400-1, at II-2 (1989); Risser, *supra* note 127, at 667-72; Smith, *supra* note 127, at 815-16.

132. See BLM MANUAL, *supra* note 66, ch. H-4400-1, at II-2 to II-4; Smith, *supra* note 127, at 824-27, 830.

other than the narrowly prescribed monitoring data. Thus, it removes the setting of livestock numbers from the weighing and balancing of interests and effects that is prescribed by the multiple-use mandate.¹³³ Effects on resources that are not measured by the prescribed monitoring—water quality and watershed condition, soil and stream channel erosion, wildlife habitat and populations, scenery and recreational opportunities, the condition of riparian areas—are not permitted to influence the numbers of livestock.

The policy, in effect, establishes a presumption in favor of maintaining existing numbers of livestock and severely restricts the kind of evidence that may be used to overcome that presumption. It requires the Bureau to ignore all existing information that may indicate that rangelands are overstocked and to continue present stocking levels while new data are collected. If adequate data are not collected, existing stocking levels will continue indefinitely.

The purported justification for the numbers maintenance policy—that monitoring data collected over time is more reliable than “one point in time” range surveys—is questionable at best. Long-term grazing capacity, which should be the basis for the BLM’s ten-year grazing permits, depends on perennial vegetation. On most of the arid and semi-arid lands managed by the BLM the types and densities of perennial vegetation change very slowly. When a range survey reveals areas where grazing capacity is low because they are covered by bare sand or rock, or by unpalatable plants such as snakeweed, rabbitbrush, or juniper, it is extremely unlikely that grazing capacity will increase substantially in a period of a few years. Further, if the BLM is sincere about its intentions to monitor changes in vegetation, then there is no reason not to initially adjust livestock numbers based on one-point-in-time surveys, since numbers may be re-adjusted if and when the monitoring reveals vegetative improvement.

Moreover, the information from range surveys that the BLM’s policy requires the Bureau to ignore is often far superior to the information collected through the Bureau’s monitoring. A range survey inventories and classifies vegetation throughout an allotment.¹³⁴ In contrast, the utilization and trend monitoring performed by the BLM is often pitifully spotty. Typically, the BLM

133. See *supra* text accompanying notes 50-55.

134. See, e.g., LOWER GILA RESOURCE AREA, PHOENIX DISTRICT OFFICE, BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, SANTA MARIA RANCH LEASE GRAZING ALLOTMENT INVENTORY NARRATIVE REPORT: ECOLOGICAL SITE INVENTORY (1992).

measures utilization and trend on a handful of monitoring plots, each a small fraction of an acre in size, and assumes these to represent conditions throughout an allotment that may be tens or even hundreds of thousands of acres in size.¹³⁵

The assumption of representativeness is generally not valid. Cattle do not distribute themselves uniformly across an allotment. They concentrate in areas near water and their movement is inhibited by steep slopes, rock outcrops, and other terrain features.¹³⁶ Grazing pressure may be very heavy in a river floodplain and nonexistent on a hilltop a short distance away. Also, most allotments comprise several different pastures, separated either by fences or by natural barriers such as mountain ridges, cliffs, or river canyons. Measurements of forage utilization and trend in one pasture reveal nothing about grazing impacts in another pasture. Yet, on some BLM allotments, the number of monitoring sites is less than the number of pastures.¹³⁷

Finally, an allotment generally will contain many different "range sites," i.e., ecological communities, determined by elevation, slope, exposure, rainfall, groundwater, and soil type.¹³⁸ The types of plants, and the impacts of grazing, are different on each range site. To adequately monitor grazing impacts on an allotment with a multiplicity of pastures, range sites, and topographic conditions would require scores of monitoring plots in order to sample each topographic setting and range site in each pasture. This intensity of sampling is virtually never achieved in the BLM's range monitoring.

135. See, e.g., LOWER GILA RESOURCE AREA, PHOENIX DISTRICT OFFICE, BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, ENVIRONMENTAL ASSESSMENT FOR LIVESTOCK USE AUTHORIZATION ON THE SANTA MARIA RANCH LEASE ALLOTMENT at Table I (1991) (planning for five trend photo points and one trend pace frequency plot to monitor grazing impacts on an allotment with 27,573 acres of BLM land) [hereinafter SANTA MARIA RANCH EA]; SAN JUAN RESOURCE AREA, MOAB DISTRICT, BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, COMB WASH EVALUATION 1-2 (1991) (using data from eight monitoring sites used to assess grazing impacts on a 71,739-acre allotment).

136. Jerry Stuth, *Foraging Behavior*, in *GRAZING MANAGEMENT: AN ECOLOGICAL PERSPECTIVE* 65, 67-68 (Rod K. Heitschmidt & Jerry W. Stuth eds., 1991).

137. See, e.g., SANTA MARIA RANCH EA, *supra* note 135, at 5, Table I (describing eight-pasture rotation system with monitoring at five photo points and one frequency plot); see also Comb Wash Transcript, *supra* note 29, Vol. 17, at 46, *National Wildlife Fed'n* (No. UT-06-91-01) (testimony of William Paul Curtis) (testifying that there are no trend plots in any of the canyons or riparian areas on the Comb Wash Allotment).

138. See SOIL CONSERVATION SERVICE, U.S. DEPT OF AGRICULTURE, NATIONAL RANGE HANDBOOK § 302 (1976).

Ironically, the only sources of information even approaching the requisite density of data are the "one point in time" range surveys that are rejected by current BLM policy as a basis for setting livestock numbers.

5. The Policy in Practice

In practice, the BLM's numbers maintenance policy has amounted to a freeze on authorized livestock numbers on most allotments. This result has come about for two reasons. First, as noted above, the policy does not permit reductions in order to mitigate any environmental impacts or to resolve any conflicts that are not reflected in the narrowly prescribed monitoring data.

Second, in most instances, the requisite monitoring and data analysis simply have not been performed. According to statistics gathered by the United States General Accounting Office,¹³⁹ no monitoring has been conducted on half of all BLM grazing allotments.¹⁴⁰ On another 20 percent of allotments, only utilization or only trend data have been collected.¹⁴¹ On only about 30 percent of all allotments have both utilization and trend data been collected.¹⁴² Further, on the majority of allotments where monitoring has been performed, the data has never been analyzed to determine if it indicates a need for changes in livestock numbers or other aspects of grazing management.¹⁴³

On the majority of allotments where monitoring was not performed or where monitoring data was collected but never analyzed, BLM range managers cited lack of staff, and staff commitment to higher-priority work, as major reasons for the lack of monitoring and analysis.¹⁴⁴ Over 40 percent of BLM range managers described their staffs and budgets as "very inadequate" to perform range monitoring and another forty percent described them

139. GAO MONITORING REPORT, *supra* note 115, at 15. The GAO surveyed ninety-five BLM resource areas, or about two thirds of all BLM resource areas. GAO MONITORING REPORT, *supra* note 115, at 15. The ninety-five chosen for the survey were those for which more than five years had passed since the preparation of an environmental impact statement that called for the collection of five years of monitoring data in order to determine whether changes in grazing levels were needed. GAO MONITORING REPORT, *supra* note 115, at 15.

140. GAO MONITORING REPORT, *supra* note 115, at 4.

141. GAO MONITORING REPORT, *supra* note 115, at 40.

142. GAO MONITORING REPORT, *supra* note 115, at 40.

143. GAO MONITORING REPORT, *supra* note 115, at 4.

144. GAO MONITORING REPORT, *supra* note 115, at 19-20, 25.

as "somewhat inadequate."¹⁴⁵ Less than ten percent considered their resources adequate.¹⁴⁶

The lack of adequate staff for monitoring is not an accident. The BLM's policy making monitoring a prerequisite to reductions in livestock numbers creates a situation where it is in the interest of livestock permittees to ensure that the BLM does not have adequate staff and funding for monitoring. For most other public land resources, environmental analysis is a prerequisite to agency action authorizing extraction of the resource. For example, public timber may not be cut, and oil and gas may not be tapped, without an environmental assessment or environmental impact statement under the National Environmental Policy Act (NEPA).¹⁴⁷ The timber and oil and gas industries therefore generally support adequate agency funding for their programs in order to ensure that the necessary groundwork is performed. Livestock permittees, however, face a situation in which they stand to lose if the BLM has adequate funding to perform the monitoring and analysis that might lead to reductions in authorized livestock numbers.¹⁴⁸ For this among other reasons, the public lands livestock industry has generally favored a low level of funding for BLM range management.

The inverse relationship between agency funding and the level of range resource extraction is reflected in the history of the BLM's budget. The Reagan administration, which favored intensive development and extraction of economic resources from the public lands, substantially increased the BLM's budget for energy and minerals, while cutting the budget for range management.¹⁴⁹ As a result, the number of BLM range conservationists declined by nearly

145. GAO MONITORING REPORT, *supra* note 115, at 39.

146. GAO MONITORING REPORT, *supra* note 115, at 39.

147. See COGGINS, *supra* note 5, §§ 20.02[4][a], 23.02[4][b].

148. In principle, monitoring could result in an increase in authorized numbers as well as in a reduction. However, in the great majority of instances where monitoring and analysis have resulted in a change in livestock numbers, the change has been a decrease. See GAO MONITORING REPORT, *supra* note 115, at 24 (351 reductions, 146 increases).

149. Frederic H. Wagner, *Progress and Problems, 1934-1984, in Improvement of Wildlife Habitat*, in PROC. NAT'L CELEBRATION OF THE 50TH ANNIV. OF THE TAYLOR GRAZING ACT 51, 54-55. In a related context, President Reagan's Secretary of the Interior, stated that "[w]e will use the budget system to be the excuse to make major policy decisions." Shabecoff, *Administration Seeks Greater Role for Entrepreneurs at Federal Parks*, N.Y. TIMES, Mar. 29, 1981, at 1, col. 1. Cf. COGGINS, *supra* note 5, at § 13.04[2] ("BLM planning has been hampered by a chronic (and sometimes self-induced) shortage of resources [and] personnel . . .").

a quarter from 1980 to 1990.¹⁵⁰

6. The Effect of the Policy on Riparian Management

On an allotment with the authorized number of livestock frozen by the numbers maintenance policy, the existing number of livestock acts as a quota that the BLM has obligated itself to fulfill. The result is an administrative straitjacket that prevents rational management. It forces management planning to accommodate the predetermined number of livestock instead of determining what number of livestock is compatible with the capacity of the land, with other resources and uses, and with the practicalities of grazing management.

The policy's devastating effect is most dramatically reflected in the BLM's attempts to rehabilitate riparian areas that have been degraded by grazing.¹⁵¹ Restoration of riparian areas requires rest from livestock grazing.¹⁵² In other words, livestock must be removed from the riparian area for all or part of the year. Since riparian areas are generally contained within larger pastures, resting a riparian area may require resting or retiring the pasture that contains it.

In most instances, rest from grazing is *all* that is required to restore a riparian area. Experience has repeatedly shown that, given adequate rest, degraded riparian areas will heal themselves through natural revegetation without human intervention.¹⁵³ Thus, riparian restoration should be a simple, inexpensive process, requiring only time and forbearance.

But the BLM's numbers maintenance policy makes everything infinitely more complicated. Since the need to rest riparian areas is usually not reflected in the trend or utilization data that the BLM requires as a prerequisite to a reduction in stocking rate on an allotment, BLM managers generally feel compelled to ensure that

150. See GAO MONITORING REPORT, *supra* note 115, at 38.

151. See *supra* text accompanying note 31.

152. For examples of riparian areas rehabilitated by partial or total rest from livestock grazing, see U.S. ENVIRONMENTAL PROTECTION AGENCY, *supra* note 11, at 9-31; U.S. GENERAL ACCOUNTING OFFICE, GAO/RCED-88-105, RANGELAND MANAGEMENT: SOME RIPARIAN AREAS RESTORED BUT WIDESPREAD IMPROVEMENT WILL BE SLOW 18-30 (1988) [hereinafter RIPARIAN AREAS RESTORED]; see also William S. Platts & Fred J. Wagstaff, *Fencing to Control Livestock on Riparian Habitats Along Streams: Is It a Viable Alternative?*, 4 N. AM. JOUR. OF FISHERIES MANAGEMENT 266, 269 (showing that the elimination of livestock grazing was "highly beneficial" to riparian habitat in thirteen of fifteen areas, and "slightly beneficial" in one of fifteen areas).

153. See Wayne Elmore & Robert L. Beschta, THE FALLACY OF STRUCTURES AND THE FORTITUDE OF VEGETATION (1989) (USDA Forest Service Gen. Tech. Rep. PSW-110); see also *supra* note 152.

riparian restoration is achieved without any reduction in livestock numbers.¹⁵⁴ In short, the BLM insists that every cow that is removed from a riparian area be provided a home elsewhere on the same allotment.

The BLM's insistence on providing an alternative home for every expatriate riparian cow makes riparian restoration difficult, expensive, and sometimes environmentally destructive. The alternative homes are virtually always created by providing water in upland (non-riparian) areas that have previously received little or no grazing use because of lack of available water.¹⁵⁵ Water may be obtained by digging wells, by building catchments to capture runoff, or by pumping water from a stream.¹⁵⁶ Providing water to the cattle may also require construction of water troughs, pipelines, and storage tanks.¹⁵⁷ In addition, new fences may be required to keep the cattle from returning to the riparian areas.

Relocation of cattle from a riparian area to a previously ungrazed or lightly grazed upland area creates, in effect, a new upland grazing operation within the boundaries of the same allotment, and supporting the same number of cattle, as the old, riparian grazing operation. The new operation is being created not by market forces, but by the BLM's self-imposed obligation to keep the rancher in business with the same number of cattle as before.

A question that is generally not asked is whether the new operation makes economic sense. For a typical allotment supporting a few hundred cattle, the cost of the water developments and fences will typically be many tens of thousands of dollars.¹⁵⁸ This cost may well exceed the value of the livestock production supported by the new facilities.¹⁵⁹

154. Many BLM managers believe that upper management will not support riparian protection measures if the measures are harmful to the interests of livestock permittees. RIPARIAN AREAS RESTORED, *supra* note 152, at 46-50.

155. See, e.g., BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, SANTA MARIA COMMUNITY/GRAPEVINE SPRINGS AMP ENVIRONMENTAL ASSESSMENT 2 (1990).

156. See JACOBS, *supra* note 5, at 211-220.

157. See JACOBS, *supra* note 5, at 211-220.

158. A typical water development costs between \$2,000 and \$10,000. JACOBS, *supra* note 5, at 382. Fencing costs between \$2,000 and \$4,000 per mile. JACOBS, *supra* note 5, at 381.

159. If the capitalized value of livestock production on public lands is measured by the amount that ranchers are willing to pay for the grazing privilege, then the value is on the order of \$1,000 per cow. See JACOBS, *supra* note 5, at 377-78. The average stocking rate on BLM allotments is 12.3 acres per animal unit month, or approximately 4 cattle per square mile. U.S. GENERAL ACCOUNTING

While the cost of fencing and water developments is generally ascribed to riparian improvement, the facilities are not being constructed for the benefit of the riparian area; they are being constructed for the benefit of the permittee and his cattle. The riparian area would be equally well served either by terminating grazing on the allotment or by reducing the overall stocking rate to the number of cattle that can be accommodated using existing water sources and facilities while giving the riparian area the requisite rest. In many instances, it would be cheaper to follow this route and to compensate the permittee for the lost business than to invest in the facilities necessary to maintain existing livestock numbers. This option, however, is rarely if ever considered by the BLM.

The BLM's practice of building facilities to expand upland grazing and avoid stocking reductions is often environmentally questionable as well as economically dubious. While protection of riparian areas is currently a top priority of the environmental community, upland grazing is not environmentally harmless. Expanded upland grazing will generally bring with it expanded impacts on upland vegetation, soils, scenery, recreation, cultural resources, and wildlife.¹⁶⁰

The greatest impact of the numbers maintenance policy, however, is on the riparian areas themselves. Because the policy makes expanded upland grazing a prerequisite to riparian protection, riparian areas continue to be abused where the BLM lacks the personnel and funds to plan and construct the requisite upland facilities, where environmental constraints or opposition prevents their construction, or where sufficient unused upland forage cannot be located within an allotment. The result is that riparian restoration has proceeded at a snail's pace. While there have been a number of high-profile, well-publicized success stories, the vast majority of riparian areas on BLM land continue to be abused and degraded by

OFFICE, No. GAO/RCED-92-213FS, RANGELAND MANAGEMENT: PROFILE OF THE BUREAU OF LAND MANAGEMENT'S GRAZING ALLOTMENTS AND PERMITS 12 (1992) [hereinafter RANGELAND MANAGEMENT]. If a water development costs \$10,000 and provides water for cattle grazing two square miles of average BLM rangeland, then the value of the livestock production supported by that development is \$8,000, which is less than the cost of the development.

160. See *supra* part II.B. The U.S. Fish & Wildlife Service has identified the development of livestock waters in previously ungrazed areas as a major factor contributing to the decline of the desert tortoise, which is now listed as a threatened species. See 55 Fed. Reg. 12,178, 12,181, 12,185 (1990). For a discussion and photographs of the impacts of water developments, see JACOBS, *supra* note 5, at 211-220.

excessive and uncontrolled livestock grazing.¹⁶¹

IV. TWO CASE STUDIES

In this Part I will present two examples—one from Utah and one from Arizona—of BLM grazing allotments that illustrate the BLM's grazing management policies and practices. These two allotments, both in the Southwest, clearly do not constitute a geographically representative sample. Nor is the picture presented here of these allotments necessarily an unbiased one; the author has been deeply involved in attempting to reform the BLM's management of these allotments. Nonetheless, these examples must be presented, because it is simply not possible to fully understand the problems that are discussed in this article without having some view of how they are manifested on the ground.

Moreover, these examples are not accidents or oversights by the BLM. In each case, the situation was brought clearly and repeatedly to the attention of the responsible BLM officials and to their superiors.¹⁶² The actions and inactions of those officials were taken with full knowledge of their significance and of the attention being given to them, and were in keeping with current BLM policy. In fact, the management patterns on these allotments were virtually inevitable in light of the prevalent BLM policies and practices described above. To the best of the author's knowledge, these patterns are typical of BLM management practices throughout much, if not all, of the west.

A. Utah: The Comb Wash Allotment

The Comb Wash grazing allotment in southeastern Utah illustrates vividly both the BLM's refusal to consider whether grazing is an appropriate use of some of its lands and the BLM's refusal to allow meaningful public participation in the management of the public's rangelands.

1. The Allotment

The Comb Wash Allotment is located in the heart of southeastern Utah's world-famous canyon country, about 15 miles

161. RIPARIAN AREAS RESTORED, *supra* note 152, at 35.

162. In the case of the Utah Allotment, the facts were also presented to the Director of the BLM, the Deputy Director, and the Chief of the Division of Rangeland Resources. The facts concerning the three Arizona allotments were discussed with the Director of the Arizona State Office of the BLM.

southwest of the town of Blanding, 10 miles northwest of Bluff, and 20 miles southeast of Natural Bridges National Monument.¹⁶³ The allotment comprises approximately sixty-three thousand acres (about 100 square miles) of BLM land, with approximately eight thousand acres of state and private inholdings.¹⁶⁴

Comb Wash is a grassy valley running north-south for about twenty miles and varying in width from one to five miles.¹⁶⁵ It is flanked on the east by Comb Ridge, a red sandstone rib running parallel to the wash. To the west of Comb Wash is Cedar Mesa, a flat-topped plateau covered with pinyon-juniper woodland.

Cutting through Cedar Mesa and draining into Comb Wash from the west are five spectacular redrock canyons: Arch Canyon, Mule Canyon, Fish Creek Canyon, Owl Creek Canyon, and Road Canyon (hereinafter the Comb Wash canyons). These canyons are from five to fifteen miles long and up to eight hundred feet deep. The canyon floors are relatively narrow—typically a quarter-mile in width—and are flanked by near-vertical walls of orange, red, and white sandstone that has been eroded into fantastic buttresses, pinnacles, and natural arches.¹⁶⁶ Scattered throughout the canyon floors and on ledges and niches in the canyon walls are thousands of archaeological sites consisting of dwellings, kivas, granaries, and other remnants of the ancient Anasazi Indian culture.¹⁶⁷

The Comb Wash canyons are visited by several thousand people each year for camping, hiking, backpacking, sightseeing,

163. A map showing the location of the allotment can be found in Christopher Smith, *Cattle May Lose Their Home on BLM Range*, THE SALT LAKE TRIBUNE, Dec. 24, 1993, at A1.

164. BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, COMB WASH EVALUATION 1 (1991) [hereinafter COMB WASH EVALUATION].

165. The allotment and its vicinity are depicted in detail on a map published by Trails Illustrated, P.O. Box 3610, Evergreen, CO 80439. GRAND GULCH PLATEAU (1991). The allotment is also depicted on BEARS EARS (1954), BLUFF (1962), BRUSHY BASIN WASH (1957), and CEDAR MESA (1963), which are fifteen-minute topographic quadrangle maps published by the U.S. Geological Survey. A less detailed map can be found in Smith, *supra* note 163.

166. For descriptions of the canyons, see F.A. BARNES, CANYON COUNTRY HIKING 140-41, 163-64 (1981); BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, UTAH BLM STATEWIDE WILDERNESS FINAL ENVIRONMENTAL IMPACT STATEMENT VOL. V: SOUTHEAST REGION, at Road Canyon WSA 17-18, 23-24, Fish Creek Canyon WSA 16-17, 22-23 (1990) [hereinafter WILDERNESS EIS]; DAVE HALL, THE HIKER'S GUIDE TO UTAH 181-87 (1982); MICHEAL R. KELSEY, CANYON HIKING GUIDE TO THE COLORADO PLATEAU 136-41 (1986); BILL WEIR, UTAH HANDBOOK 397-98, 404 (1988).

167. See WILDERNESS EIS, *supra* note 166, at Road Canyon WSA 23-24, Fish Creek Canyon WSA 22-23.

photography, and archaeological research.¹⁶⁸ They are recommended to recreationists by several nationally-distributed guidebooks.¹⁶⁹ The BLM has recognized the outstanding scenic and recreational values of three of the canyons (Road, Fish Creek, and Owl Creek) by recommending them for inclusion in the National Wilderness Preservation System,¹⁷⁰ and has included all five in an Area of Critical Environmental Concern¹⁷¹ because of their outstanding and sensitive archaeological resources.

2. Grazing on the Allotment

The Comb Wash Allotment is one of six BLM and Forest Service allotments that are grazed by cattle owned by the Ute Mountain Ute Indian Tribe. The Tribe obtained the grazing preference on the allotment when it purchased the private base property associated with the allotment from non-Indian owners in 1956.

The BLM has estimated the grazing capacity of the allotment at approximately 2,700 animal unit months (AUMs).¹⁷² The active grazing preference is approximately 4,100 AUMs,¹⁷³ but the actual use has been substantially less, at least since 1956 when the Tribe obtained the preference.¹⁷⁴ Over the last decade, actual use has fluctuated from a low of 1,396 AUMs in a drought year to a high of 3,266 AUMs.¹⁷⁵

Although most of the grazing use takes place in Comb Wash, cattle are also grazed on the floors of the Comb Wash canyons. Part of the permittee's herd is driven up into each of the canyons from Comb Wash and kept there for a month at a time. The steep canyon walls, along with fences across the canyon mouths, prevent cattle from leaving the canyons.

Because the canyons are so narrow, they contain relatively little

168. See COMB WASH EVALUATION, *supra* note 164, at 4-5.

169. See *supra* note 166.

170. See WILDERNESS EIS, *supra* note 166, at 24. Owl Creek Canyon is included in the Fish Creek Canyon Wilderness Study Area (WSA). WILDERNESS EIS, *supra* note 166, at 24.

171. See SAN JUAN RMP, *supra* note 92, at 62-64 (Cedar Mesa Area of Critical Environmental Concern).

172. COMB WASH EVALUATION, *supra* note 164.

173. COMB WASH EVALUATION, *supra* note 164.

174. No records are available of the level of actual use before 1956.

175. Bureau of Land Management's Answer to Appellants' First Request for Admissions, at 1-2, National Wildlife Fed'n, No. UT-06-91-01 (U.S. Dep't of the Interior, Office of Hearings & Appeals, Hearings Div.) (Feb. 24, 1992) (admiss. 3 & 11).

foraging area. For the last few years, the total annual grazing use of the five canyons combined has averaged about 250 AUMs, or about one tenth of the grazing use on the entire allotment.¹⁷⁶ The market value of the annual 250 AUMs is approximately two thousand five hundred dollars.¹⁷⁷ In the last grazing year, there was unused, available forage elsewhere on the allotment that exceeded the forage in the canyons.¹⁷⁸

3. Impacts of Grazing in the Canyons

The environmental impacts of grazing on the vegetation, the riparian areas, the archaeological resources, and the scenic and recreational resources in the Comb Wash canyons have been severe.¹⁷⁹ The stream channels in the canyon bottoms are badly downcut, with raw, exposed banks that erode back with each rainstorm. Continued grazing prevents the development of riparian vegetation that could stabilize the streambanks, slow floodwaters, trap sediment, and rebuild the riparian areas.¹⁸⁰ Above the streambanks, vast areas of the alluvial terraces that fill the canyon bottoms are nearly devoid of perennial grasses and are covered instead with annual grasses and forbs, rabbitbrush, and snakeweed¹⁸¹—all characteristic of overgrazed areas.¹⁸² In the distant upper reaches of the canyons, which are less accessible to the cattle, conditions are better.¹⁸³

Cattle trample archaeological sites in the canyons and break artifacts.¹⁸⁴ They threaten to topple the remaining accessible

176. See Bureau of Land Management's Answer to Appellants' First Request for Admissions, at Request No. 22, National Wildlife Fed'n, No. UT-06-91-01 (U.S. Dep't of the Interior, Office of Hearings & Appeals, Hearings Div.) (Feb. 24, 1992) (admiss. 3 & 11); Bureau of Land Management's Answer 2, National Wildlife Fed'n, No. UT-06-91-01 (U.S. Dep't of the Interior, Office of Hearings and Appeals, Hearings Division) (1992) (admiss. 8, 9, & 10).

177. Comb Wash Transcript, *supra* note 29, Vol. 9, at 116-118 (testimony of John Shive).

178. Comb Wash Transcript, *supra* note 29, Vol. 17, at 98-99 (testimony of William Paul Curtis).

179. See *National Wildlife Fed'n*, No. UT-06-91-01, at 11-16 (U.S. Dep't of the Interior, Office of Hearings & Appeals, Hearings Div.) (Dec. 20, 1993).

180. *Id.* at 11; Comb Wash Transcript, *supra* note 29, Vol. 3, at 82-95 (testimony of Robert D. Ohmart).

181. *National Wildlife Fed'n*, No. UT-06-91-01 at 14; Comb Wash Transcript, *supra* note 29, Vol. 3, at 109, 124-40, Vol. 4, at 32, Vol. 15, at 41-44, 51, 62-66.

182. See *supra* notes 20-21.

183. *National Wildlife Fed'n*, No. UT-06-91-01 at 14.

184. *National Wildlife Fed'n*, No. UT-06-91-01 at 15.

standing ruins because they use them for shelter from the wind and they rub up against them to scratch themselves.¹⁸⁵ Removal of vegetation and disturbance of the soil by cattle causes erosion of the sites.¹⁸⁶ Cattle manure and urine also contaminate the sites.¹⁸⁷

Grazing in the Comb Wash canyons also has a severe effect on their scenic and recreational values. Although the cattle cannot change the "hard rock" features—cliffs, pinnacles, buttresses, arches—that make the canyons famous, they radically transform the canyon bottoms where recreational visitors hike and camp.¹⁸⁸ These visitors have encountered ground that has been "beat out,"¹⁸⁹ grasses grazed down "to the ground,"¹⁹⁰ vegetation that has been "pounded right in the ground" and "smashed and packed . . . like somebody has gone through with a Rototiller,"¹⁹¹ young trees with their leaves stripped off,¹⁹² extensive areas that have been denuded of perennial vegetation and are therefore virtually devoid of wildlife,¹⁹³ air filled with dirt and dust because there is insufficient vegetation to hold it down when the wind blows,¹⁹⁴ a dead cow¹⁹⁵ and a cow placenta¹⁹⁶ in drinking water sources, abundant manure in drinking water sources,¹⁹⁷ hordes of flies,¹⁹⁸ and manure so thick that campsites have to be shoveled out.¹⁹⁹

185. *National Wildlife Fed'n*, No. UT-06-91-01 at 15.

186. *National Wildlife Fed'n*, No. UT-06-91-01 at 15.

187. *National Wildlife Fed'n*, No. UT-06-91-01 at 15.

188. *See National Wildlife Fed'n*, No. UT-06-91-01 at 15.

189. Comb Wash Transcript, *supra* note 29, Vol. 6, at 108, 124-40 (testimony of Janet Ross).

190. Comb Wash Transcript, *supra* note 29, Vol. 7, at 154 (testimony of John Ritchey).

191. Comb Wash Transcript, *supra* note 29, Vol. 2, at 53-4 (testimony of Jim Hook). *See also* Comb Wash Transcript, *supra* note 29, Vol. 2, at 122-28, Vol. 7, at 177 (additional description of areas affected by grazing).

192. Comb Wash Transcript, *supra* note 29, Vol. 2, at 123 (testimony of Jim Hook).

193. Comb Wash Transcript, *supra* note 29, Vol. 2, at 55, 59, 69 (testimony of Jim Hook).

194. Comb Wash Transcript, *supra* note 29, Vol. 2, at 55, 57, 85, 89 (testimony of Jim Hook).

195. Comb Wash Transcript, *supra* note 29, Vol. 2, at 86 (testimony of Jim Hook).

196. Comb Wash Transcript, *supra* note 29, Vol. 2, at 120, 123 (testimony of Jim Hook).

197. Comb Wash Transcript, *supra* note 29, Vol. 2, at 86, Vol. 6, at 109, Vol. 7, at 155, 177.

198. Comb Wash Transcript, *supra* note 29, Vol. 6, at 110, Vol. 7, at 134, 177.

199. Comb Wash Transcript, *supra* note 29, Vol. 2, at 88, Vol. 6, at 112, Vol.

The degradation of the scenic and recreational values of the canyons by grazing has had an economic impact on the neighboring communities that far exceeds the value of the livestock forage in the canyons. An outfitter in the neighboring town of Bluff had to discontinue running pack trips into two of the canyons after his customers found conditions there to be unacceptable.²⁰⁰ He calculated his lost annual revenue to be approximately \$15,000.²⁰¹ He also estimated that, if the canyons were relieved from grazing, they could support operations by two or three other outfitters and generate an additional \$20,000 - \$30,000 in annual revenue to the local economy.²⁰²

Additional losses of revenue to the local economy may be occurring as individual recreationists change their plans to avoid the Comb Wash canyons.²⁰³ A representative of the American Automobile Association (AAA), who regularly visits the area to update an AAA map and guide, has advised AAA offices and National Park Service staff to steer hikers and backpackers away from the Comb Wash canyons because of the impacts of cattle there.²⁰⁴

4. The BLM's Planning for the Comb Wash Allotment

The folly of incurring substantial damage to riparian areas, vegetative communities, archaeological sites, and scenic and recreational values in a spectacular and extraordinary place, in order to extract an insignificant amount of livestock forage that is not even needed by the grazing operation, is apparent. The question is: Why does the BLM permit this to occur? The answer is that, under current BLM policies and practices, the BLM simply does not take into account the types of environmental impacts occurring in the Comb Wash canyons, nor does it consider whether the public interest would be better served by eliminating grazing in such places. The BLM's planning for the Comb Wash Allotment vividly illustrates these policies and practices.

7, at 154.

200. Comb Wash Transcript, *supra* note 29, Vol. 2, at 20-22, 101-02, 105-06 (testimony of Jim Hook).

201. Comb Wash Transcript, *supra* note 29, Vol. 2, at 106-07 (testimony of Jim Hook).

202. Comb Wash Transcript, *supra* note 29, Vol. 2, at 107-08 (testimony of Jim Hook).

203. See *National Wildlife Fed'n*, No. UT-06-91-01, at 15 (U.S. Dep't of the Interior, Office of Hearings & Appeals, Hearings Div.) (Dec. 20, 1993).

204. Comb Wash Transcript, *supra* note 29, Vol. 7, at 177-82 (testimony of Tom Casacky).

The Comb Wash Allotment is in the BLM's San Juan Resource Area, which includes approximately 1.8 million acres of public land²⁰⁵ and seventy grazing allotments²⁰⁶ in southeastern Utah. In 1990, the BLM completed a Resource Management Plan (RMP)²⁰⁷ and accompanying environmental impact statement (EIS)²⁰⁸ for the San Juan Resource Area. In principle, the development of the RMP and EIS should have been the occasion for evaluating and considering the types of impacts described above and determining which portions of the San Juan Resource Area should be used for grazing and which should not.

In fact, however, the San Juan RMP and EIS, like many such documents produced by the BLM over the last decade, contain no detailed, site-specific evaluation of the environmental impacts—or of the economic benefits—of livestock grazing in the Comb Wash canyons or anywhere else.²⁰⁹ The EIS does list the acreage in the vicinity of each canyon, and contains a statement that each canyon “provides primitive recreational values in a relatively natural setting.”²¹⁰ There is a one-sentence reference to “disagreement . . . in past years between backpackers and ranchers over cattle use” in the canyons.²¹¹ A table in the EIS shows the length of the riparian area in each canyon, and a mark in a column in that table for each canyon indicates that there is a conflict between riparian habitat and livestock grazing.²¹² The EIS does not discuss at all the nature and extent of the conflict, the relative values of the resources in the canyons, the condition of the vegetation and the riparian areas in the canyons, the effects of livestock grazing on scenic, recreational, and archaeological resources in the canyons, the importance (or lack thereof) of the canyons to the grazing operation, or the effects of grazing in the canyons on the local economy.²¹³ Nor does the RMP or the EIS consider or evaluate the alternative of removing livestock from the canyons.²¹⁴

205. SAN JUAN RMP, *supra* note 92, at 3.

206. SAN JUAN RMP, *supra* note 92, at 30-37.

207. SAN JUAN RMP, *supra* note 92.

208. SAN JUAN RESOURCE AREA, MOAB DISTRICT, BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, DRAFT SAN JUAN RESOURCE MANAGEMENT PLAN ENVIRONMENTAL IMPACT STATEMENT (1986) [hereinafter cited as SAN JUAN EIS].

209. See *National Wildlife Fed'n*, No. UT-06-91-01, at 8-9, 21 (U.S. Dep't of the Interior, Office of Hearings & Appeals, Hearings Div.) (Dec. 20, 1993).

210. SAN JUAN EIS, *supra* note 208, at A-68, A-69.

211. SAN JUAN EIS, *supra* note 208, at 3-78.

212. SAN JUAN EIS, *supra* note 208, at 3-50.

213. *National Wildlife Fed'n*, No. UT-06-91-01 at 24.

214. These specific deficiencies of the San Juan RMP and EIS with respect to

The San Juan RMP does appear to hold out the possibility that the BLM may give closer consideration to the resources on the Comb Wash Allotment in the future. The RMP classifies the allotment as an "T" category allotment, meaning that it is in need of improvement, and lists it among those allotments for which a new allotment management plan (AMP) will be developed.²¹⁵ The RMP also provides that changes in livestock numbers may be made in response to data obtained through monitoring.²¹⁶

The monitoring, however, does little or nothing to address the environmental impacts in the canyons described above. On the Comb Wash Allotment, the BLM monitors utilization and trend²¹⁷ and, occasionally, water quality.²¹⁸ This monitoring does not reflect the impacts of grazing on scenery, recreation, archaeological sites, or riparian areas in the canyons.²¹⁹ Moreover, because the canyons contain so little livestock forage, the BLM has not established any trend monitoring plots in any of them.²²⁰ The utilization data may be useful for establishing the grazing capacity of the canyons, but they shed no light on the question of whether grazing in the canyons is justifiable in the first place.

It also appears that the development of the AMP for the Comb Wash Allotment will not be an occasion for consideration of whether grazing in the canyons is appropriate or in the public interest. When the issue was raised by several individuals and organizations at an allotment planning meeting, the BLM's lead representative at the meeting stated that this issue had already been addressed in the San Juan RMP and EIS and that "the Comb Wash Allotment has been

the Comb Wash Allotment were raised in a protest to the Director of the BLM. See Southern Utah Wilderness Alliance & The Wilderness Society, Protest of Proposed Resource Management Plan/Final EIS for the San Juan Resource Area, Moab District, Utah (Aug. 28, 1989). The protest was denied. The letter of denial did not mention the Comb Wash Allotment, but it advised the protestors to "visit with the Moab District Manager to discuss specific instances and situations." Letter from Director, Bureau of Land Management, U.S. Dep't of Interior, to Rodney Greeno, Southern Utah Wilderness Alliance 4 (October 19, 1990) (on file with author).

215. SAN JUAN RMP, *supra* note 92, at 31.

216. SAN JUAN RMP, *supra* note 92, at 29.

217. See *National Wildlife Fed'n*, No. UT-06-91-01, at 6; see also *supra* text accompanying notes 131-132 (defining utilization and trend).

218. *National Wildlife Fed'n*, No. UT-06-91-01 at 6. The BLM made water quality measurements once a year from 1978 through 1981, and then made no further measurements until 1991.

219. *Id.*

220. Comb Wash Transcript, *supra* note 29, Vol. 17, at 46 (testimony of William Paul Curtis).

designated for grazing—period.²²¹

This pattern—failure to consider the appropriateness of grazing in particular areas during the land-use planning process, followed by refusal to consider it subsequently on the grounds that it has already been addressed—is apparently typical of BLM range management. It is essentially a shell game, in which the BLM always claims either that site-specific grazing impacts and issues of grazing suitability will be addressed in the future or that they have already been addressed in the past. In fact, they are never addressed.

5. The BLM's Actual Management of the Comb Wash Allotment

In reality, besides serving as an excuse for the BLM's refusal to consider whether grazing in the canyons is in the public interest, the San Juan RMP and EIS are nearly irrelevant to the management of the Comb Wash Allotment. Because they contain no site-specific environmental analysis or management prescriptions, they have very little effect on the BLM's management of the allotment.²²² Similarly, the BLM's public process for developing an AMP for the allotment, which began nearly three years ago, has not affected management of the allotment to date.

The allotment is actually managed through a private, closed decision-making process in which only the BLM and the permittee participate. Each year, before the beginning of the allotment's grazing season, the BLM and the permittee meet to discuss conditions on the allotment and to develop a grazing schedule and a

221. See Letter from John M. Ritchey, Professor of Chemistry, Fort Lewis College, to Joe Feller, Professor of Law, Arizona State University 1-2 (Jan. 17, 1992) (reporting statement of BLM Moab District Assistant Manager Del Backus at Comb Wash Coordinated Resource Management Planning (CRMP) meeting on January 10, 1992) (on file with author); see also Minutes of the CRM Planning Group Meeting, Jan. 10, 1992, at 3 ("BLM's position was again stated. That position is that an EIS has been completed in conjunction with the San Juan RMP. The RMP identifies the Comb Wash Allotment as an area where livestock grazing will be authorized.")

At another planning meeting, a representative of the permittee revealed that a private donor had offered to pay the permittee to refrain from grazing livestock in the canyons. The representative of the permittee inquired whether the BLM might facilitate such an arrangement by providing assurances that use of the canyons would not be granted to another permittee. The BLM's representative at the meeting replied that the BLM would not cooperate because such an arrangement "would set a precedent for removal of livestock from the public lands."

222. See Comb Wash Transcript, *supra* note 29, Vol. 9, at 193-94 (testimony of Sherwin Sandberg).

set of management stipulations for the coming year.²²³ The grazing schedule and stipulations specify all the parameters that determine the effects of livestock grazing on the allotment's resources: the total number of livestock, which pastures will be used and which rested, the number of livestock and dates of use for each pasture, and forage utilization limits.²²⁴ With respect to the canyons, which have been the subject of such intense controversy, the grazing schedule determines which of the canyons will be grazed that year, by how many livestock, in what season, and for how long.²²⁵

The grazing schedule and stipulations agreed upon by the BLM and the permittee are reflected in an annual letter that the BLM subsequently sends to the permittee,²²⁶ and in the permittee's application for grazing use by the agreed number of livestock. The permittee applies for "non-use" of the remainder of the active preference.²²⁷

Because the annual grazing schedule and stipulations are the exclusive vehicle for managing the Comb Wash Allotment, the individuals and organizations that have been designated as "affected interests"²²⁸ on the allotment have attempted to persuade the BLM to give them an opportunity to participate in the development of the schedule and stipulations. They have requested advance notice of the proposed grazing schedule and stipulations and an opportunity to submit comments.²²⁹ The BLM has refused.²³⁰

B. Arizona: The Santa Maria Community Allotment

The Santa Maria Community Allotment in western Arizona demonstrates the irrational results that flow from the BLM's insistence on maintaining livestock numbers in the absence of monitoring data, and from the distortions caused by the maintenance of paper livestock authorizations that far exceed actual grazing use.

223. See Comb Wash Transcript, *supra* note 29, Vol. 16, at 286-88 (testimony of William Paul Curtis); Deposition of Edward Scherick at 11-13, National Wildlife Fed'n, No. UT-06-91-01 (U.S. Dep't of the Interior, Office of Hearings and Appeals, Hearings Division) (Feb. 26, 1992).

224. See *National Wildlife Fed'n*, No. UT-06-91-01, at 26 (U.S. Dep't of the Interior, Office of Hearings & Appeals, Hearings Div.) (Dec. 20, 1993).

225. *Id.* at 26-7.

226. Comb Wash Transcript, *supra* note 29, Vol. 17, at 5 (testimony of William Paul Curtis).

227. See *supra* text accompanying notes 111-119.

228. See *supra* note 86 and accompanying text.

229. *National Wildlife Fed'n*, No. UT-06-91-01 at 27.

230. *Id.* at 26-7.

1. The Allotment

The Santa Maria Community Allotment is in hot, arid, low elevation, sparsely vegetated country where the Sonoran and Mojave Deserts meet in west-central Arizona.²³¹ It is approximately 40 miles northwest of Wickenburg, Arizona. The allotment contains crucial habitat for the Sonoran desert tortoise²³² as well as potential reintroduction sites for desert bighorn sheep.²³³ Approximately half of the allotment is in the Arrastra Mountain Wilderness.²³⁴ Despite its low elevation, the allotment contains rugged and spectacular desert mountains as well as extensive areas of relatively level terrain.²³⁵

The allotment is bisected by the Santa Maria River, one of the largest remaining undeveloped desert riparian areas in Arizona. The BLM has recognized the outstanding potential and ecological importance of the Santa Maria, which provides habitat or potential habitat for numerous species of wildlife, including the endangered bald eagle and peregrine falcon.²³⁶

2. Grazing on the Allotment

The permittees on the Santa Maria Community Allotment, two retired law enforcement officers, have an active preference for grazing approximately two hundred cattle year-long.²³⁷ In the decade from 1980 to 1990, however, their actual use of the allotment averaged only about sixty-six head.²³⁸

231. For general information about the allotment, see BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, DRAFT SANTA MARIA COMMUNITY/GRAPEVINE SPRINGS RANCH ALLOTMENT MANAGEMENT PLAN (1990) [hereinafter DRAFT SANTA MARIA COMMUNITY AMP] and SANTA MARIA COMMUNITY/GRAPEVINE SPRINGS AMP ENVIRONMENTAL ASSESSMENT (1990) [hereinafter SANTA MARIA COMMUNITY EA].

232. LOWER GILA NORTH EIS, *supra* note 95, at 56.

233. LOWER GILA NORTH EIS, *supra* note 95, at 52.

234. See Arizona Desert Wilderness Act of 1990, Pub. L. No. 101-628, tit. I, § 101(a)(8), 104 Stat. 4469 (1990). For a description of the Arrastra Mountain Wilderness, see BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, UPPER SONORAN FINAL WILDERNESS ENVIRONMENTAL IMPACT STATEMENT 110-12 (1987) [hereinafter UPPER SONORAN EIS].

235. See UPPER SONORAN EIS, *supra* note 234, at 110-11.

236. See BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, DRAFT KINGMAN RESOURCE AREA RESOURCE MANAGEMENT PLAN AND ENVIRONMENTAL IMPACT STATEMENT 216 (1990).

237. DRAFT SANTA MARIA COMMUNITY AMP, *supra* note 231, at 3.

238. Joseph M. Feller, Comments on the Draft Allotment Management Plan

Since 1990, the permittees have grazed about 100 cattle on the allotment. Currently, about two-thirds of the cattle graze on the south end of the allotment, several miles away from the Santa Maria River, while one third graze in the bed of the Santa Maria River.

3. Protecting the River

The biological foundation, as well as the most imperiled component, of desert riparian areas like the Santa Maria River is the riparian forest of cottonwood and willow trees.²³⁹ Such riparian forests are threatened by livestock grazing because cattle consume the young seedlings. As older trees die and are not replaced by young ones, such riparian forests may disappear or be severely depleted.²⁴⁰

The BLM determined over a decade ago that it needed to remove cattle from the Santa Maria River for several years in order to allow cottonwood and willow seedlings to grow beyond the reach of livestock.²⁴¹ A 1987 evaluation and a 1989 inventory confirmed that the riparian area was in unsatisfactory condition and was being heavily degraded by cattle grazing.²⁴² In 1990, the BLM issued a proposed allotment management plan (AMP)²⁴³ that purported to give the river the needed rest.

4. Trashing the Uplands?

The proposed plan called for the development of water tanks on the dry, upland areas of the allotment²⁴⁴ to serve the cattle that would be removed from the riparian area. While the riparian area could have been protected simply by requiring the permittees to reduce their herd by the number of cattle that were grazing in the river, the BLM did not consider any alternative that would reduce the number of cattle on the allotment. In fact, despite the fact that actual use of the allotment had averaged fewer than 100 cattle since 1980, the BLM refused to consider any alternative that would require the permittee to graze fewer than 200 cattle, since that was the amount of the permittee's active preference.

and Environmental Assessment for the Santa Maria Community Allotment 4-5 (June 8, 1990) (on file with author).

239. LOWER GILA NORTH EIS, *supra* note 95, at 55, 57, 80.

240. LOWER GILA NORTH EIS, *supra* note 95, at 55, 57, 80.

241. LOWER GILA NORTH EIS, *supra* note 95, at 80.

242. See Feller, *supra* note 238, at 6-7 (quoting BLM evaluation and inventory).

243. DRAFT SANTA MARIA COMMUNITY AMP, *supra* note 231.

244. SANTA MARIA COMMUNITY EA, *supra* note 231, at 1.

Several individuals, organizations, and government agencies criticized the proposed plan on the grounds that the increased upland grazing it would bring would be detrimental to desert tortoise and bighorn sheep habitat.²⁴⁵ Some of the commenters argued that the proposed water developments were inconsistent with existing BLM management plans for the habitat of the tortoise and the sheep.²⁴⁶ Further, there was no evidence that the dry, sparsely vegetated uplands of the allotment were capable of supporting the cattle that would be removed from the river, let alone the 200 cattle that the BLM insisted on permitting, without damaging the fragile desert vegetation.²⁴⁷ Moreover, the BLM had never considered whether the costs of the water developments and the environmental impacts of the increased upland grazing were justified by the economic benefits of the grazing.²⁴⁸

BLM officials refused to consider these issues. In the absence of utilization or trend data showing that a reduction was needed, they insisted on providing the permittees the opportunity to graze 200 cattle on the allotment.²⁴⁹ If none of these cattle were to be in the river, then they would all have to be on the uplands.

Of course, there was no monitoring data showing what impacts 200 cattle would have on the uplands, for the simple reason that the permittees had never grazed 200 cattle on the uplands, or at least not in recent history. In effect, the BLM's position was that it was obligated to "try it and see" that is, to build the tanks, move cattle to the uplands, monitor the impacts, and have second thoughts only if and when the monitoring revealed unacceptable impacts.

To date, however, the upland water tanks have not been built. In the face of the strong opposition to the new water tanks, the BLM

245. See, e.g., Memorandum from Area Manager, Kingman Resource Area Office of the BLM, to Area Manager, Lower Gila Resource Area Office of the BLM, 2, 4, 5 (June 13, 1990) (on file with author); Letter from James W. Norton, Southwest Regional Director, The Wilderness Society, to Carole K. Hamilton, Area Manager, Lower Gila Resource Area Office of the BLM 2 (June 7, 1990) (on file with author); Memorandum from Dr. Julie Stromberg, Arizona State University, Center for Environmental Studies, to Carole Hamilton, Area Manager, Lower Gila Resource Area Office of the BLM 2 (May 29, 1990) (on file with author).

246. See Feller, *supra* note 238, at 12-13; Letter from Duane L. Shroufe, Director, Arizona Game & Fish Department, to Carole Hamilton, Area Manager, Lower Gila Resource Area Office of the BLM 5 (June 11, 1990) (on file with author).

247. Feller, *supra* note 238, at 10-11.

248. Feller, *supra* note 238, at 27.

249. See BUREAU OF LAND MANAGEMENT, U.S. DEPT OF THE INTERIOR, SANTA MARIA COMMUNITY ALLOTMENT PUBLIC MEETING 1 (March 5, 1991).

deferred plans to construct them. But, because of the quota system, the BLM would not require removal of cattle from the riparian area without an alternative place to locate them. The result has been paralysis. Cattle continue to graze in the riverbed year-round and prevent riparian recovery.

V. EPILOGUE

This epilogue reports three significant developments in BLM range management that occurred during the editing of this article. The first two developments concern the two grazing allotments that are discussed in the preceding part of the article. The third development is a recent proposal by the administration in Washington for revision of the BLM's grazing regulations.

A. The Comb Wash Decision

On December 20, 1993, an administrative law judge in the Department of the Interior issued a decision in an appeal directly implicating the issues discussed in this article. In *National Wildlife Federation v. Bureau of Land Management*,²⁵⁰ Chief District Administrative Law Judge John Rampton, Jr., held that the BLM had violated the National Environmental Policy Act (NEPA),²⁵¹ the Federal Land Policy and Management Act (FLPMA),²⁵² and its own regulations in managing the Comb Wash Allotment in southeastern Utah, one of the two BLM grazing allotments discussed above.²⁵³ Specifically, Judge Rampton held that:

(1) the BLM had violated NEPA by failing to prepare an environmental impact statement (EIS) that analyzed the specific environmental impacts of livestock grazing on the Comb Wash Allotment.²⁵⁴ Judge Rampton found that the EIS accompanying the BLM's land use plan for the area²⁵⁵ did not satisfy the requirements of NEPA because it lacked site-specific information about the Comb Wash Allotment;²⁵⁶

(2) the BLM had violated FLPMA by authorizing cattle grazing

250. *National Wildlife Fed'n*, No. UT-06-91-01 (U.S. Dep't of the Interior, Office of Hearings & Appeals, Hearings Div.) (Dec. 20, 1993).

251. *See supra* note 93.

252. *See supra* note 47 and accompanying text.

253. *See supra* part IV.A.

254. *National Wildlife Fed'n*, No. UT-06-91-01 at 17-22.

255. *See supra* note 208 and accompanying text.

256. *National Wildlife Fed'n*, No. UT-06-91-01 at 21.

in the five canyons on the Comb Wash Allotment²⁵⁷ without weighing and balancing the grazing's harms and benefits to determine whether it is in the public interest;²⁵⁸

(3) the BLM had violated FLPMA by determining authorized livestock numbers on the allotment solely on the basis of utilization and trend data²⁵⁹ and ignoring other environmental factors;²⁶⁰

(4) the BLM had violated the grazing regulations by refusing to consult with affected interests about its annual grazing authorizations²⁶¹ for the allotment.²⁶²

As a remedy for the BLM's violations of NEPA and FLPMA, Judge Rampton prohibited the BLM from authorizing grazing in the Comb Wash canyons unless and until the BLM prepares an EIS and makes a reasoned and informed decision that grazing in the canyons is in the public interest.²⁶³ The decision allows grazing to continue on the remaining ninety percent²⁶⁴ of the allotment pending environmental compliance.

Judge Rampton's decision has been appealed to the Interior Board of Land Appeals (IBLA).²⁶⁵ If upheld on appeal, the decision confirms that the elements of grazing reform discussed in this article—consideration of whether grazing in particular areas is in the public interest, consideration of the full spectrum of environmental impacts when setting stocking rates, and consultation with affected parties other than the permittee about critical year-to-year management decisions—are requirements of federal law as well as good policy.

B. Protection of the Santa Maria River Riparian Area

On February 22, 1994, over ten years after the BLM had committed itself to protect the riparian area of the Santa Maria River from livestock grazing,²⁶⁶ the BLM finally announced that it was taking a first step towards meeting that commitment. In a letter to

257. See *supra* note 166 and accompanying text.

258. *National Wildlife Fed'n*, No. UT-06-91-01 at 23-25.

259. See *supra* text accompanying note 131.

260. *National Wildlife Fed'n*, No. UT-06-91-01 at 25. The judge also held that the BLM had violated its land use plan by setting utilization limits for the allotment that were higher than those specified in the plan. *Id.* at 28-29.

261. See *supra* text accompanying note 223-30.

262. *National Wildlife Fed'n*, No. UT-06-91-01 at 25-28.

263. *Id.* at 34.

264. *Id.* at 30.

265. See *supra* note 82 and accompanying text.

266. See *supra* text accompanying note 241.

the author,²⁶⁷ the BLM stated that it would place a term and condition on the grazing permit for the Santa Maria Community Allotment that would require removal of livestock from the riparian area during the spring and summer growing season in 1994.²⁶⁸ In the same letter, the BLM also for the first time acknowledged a duty to consult with affected interests regarding annual grazing authorizations for the allotment.²⁶⁹ The BLM still did not, however, address the issue of whether the upland portion of the allotment is suitable for supporting the number of cattle that were previously authorized to graze in the riparian area.²⁷⁰

C. Proposed Amendments to the Grazing Regulations

On March 25, 1994, the Department of the Interior issued proposed amendments to the BLM's grazing regulations.²⁷¹ These proposed amendments are a substantially revised version of an earlier proposal contained in an Advance Notice of Proposed Rulemaking issued in August, 1993.²⁷²

The proposed amendments contain several prominent features that suggest a change from the BLM's past philosophy of deference to livestock interests.²⁷³ They also offer progress with respect to two out of the three major problems in BLM range management identified in this article. They fail, however, to address the fundamental issue of whether some BLM lands are unsuitable or inappropriate places for livestock grazing.

With respect to livestock numbers,²⁷⁴ the proposal would make clear that changes in stocking levels may be justified by a variety of

267. Letter from John R. Christensen, Area Manager, BLM Lower Gila Resource Area, to Joe Feller, 1-3 (Feb. 22, 1994) (on file with author).

268. *Id.*

269. *Id.*

270. *See supra* part IV.B.4.

271. 59 Fed. Reg. 14,314 (1994) (to be codified at 43 C.F.R. pts. 4, 1780, 4100) (proposed March 25, 1994).

272. 58 Fed. Reg. 43,208 (1993).

273. *See, e.g.*, 59 Fed. Reg. at 14,327-28 (replacing existing grazing fee advisory boards, consisting entirely of ranchers, with Multiple Resource Advisory Councils on which a variety of interest groups would be represented); *id.* at 14,335-36 (proposing to increase the grazing from the current level of approximately two dollars per AUM to approximately four dollars per AUM); *id.* at 14,336-37 (proposing a surcharge on permittees who sublease their grazing privileges); *id.* at 14,339-40 (proposing establishment of standards and guidelines to be incorporated in all BLM grazing permits).

274. *See supra* part III.B for a discussion of existing BLM policy on livestock numbers.

types of information, not just by narrowly-defined monitoring data.²⁷⁵ However, the proposed regulations still appear to assign the BLM the burden of justifying any reductions, as opposed to requiring the BLM to determine whether or not existing stocking levels are acceptable.²⁷⁶

With respect to public participation,²⁷⁷ the proposed amendments would eliminate the existing provision that the BLM has used to circumvent notice to other interested parties when it reaches an "agreement" with a permittee.²⁷⁸ The proposal would also clarify that interested members of the public must be consulted before grazing permits are issued or renewed.²⁷⁹

The greatest deficiency in the new administration's proposal concerns the issue of which areas of the public lands should be used for livestock grazing.²⁸⁰ The proposal contains no provision for reviewing BLM lands to identify those areas where grazing is not in the public interest because its cost and its environmental harms are disproportionate to its benefits. The proposal thus offers no indication that the BLM will even consider stopping grazing in places such as the Comb Wash canyons²⁸¹ described above. In this respect, the new administration's proposal fails to satisfy the multiple-use mandate of FLPMA, as interpreted by Judge Rampton in the Comb Wash decision.²⁸²

275. See 59 Fed. Reg. 14,336 (1994) (to be codified at 43 C.F.R. § 4110.3) (proposed March 25, 1994) (clarifying that changes in permitted use may be justified by "monitoring, field observations, ecological site inventory or other data acceptable to the authorized officer").

276. See *id.* (providing that changes in permitted use, but not existing use levels, must be justified by data).

277. See *supra* text accompanying notes 117-19 (describing how current practices exclude the public from critical decisions).

278. Compare 43 C.F.R. § 4160.1-1 (1993) (referring to a "documented agreement") with 59 Fed. Reg. 14,352 (1994) (to be codified at 43 C.F.R. § 4160.1(a)) (proposed March 25, 1994).

279. See 59 Fed. Reg. 14,348 (1994) (to be codified at 43 C.F.R. § 4130.2(b)) (proposed March 25, 1994).

280. See *supra* part II.C.3 (discussing BLM's legal authority to discontinue grazing in areas where it is not in the public interest); see *supra* part III.A (discussing BLM's failure to exercise that authority).

281. See *supra* parts IV.A.1, IV.A.3.

282. See *supra* part V.A.