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The National Forest Management Act: Judicial Interpretation of a Substantive Environmental Statute

Part 1

by

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**THE NATIONAL FOREST MANAGEMENT ACT:
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ENVIRONMENTAL STATUTE**

Jack Tuholske*
Beth Brennan**

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I. INTRODUCTION: THE HISTORICAL PERSPECTIVE

The National Forest Management Act¹ (NFMA) is, both procedurally and substantively, a remarkable statute. Passed in the wake of a national controversy over the Forest Service's ability to manage the national forests properly, NFMA signaled a profound change in Congress's traditionally deferential attitude toward the agency. It has been

1. 16 U.S.C. §§ 1600-1614 (1988) (amending Forest and Rangeland Renewable Resources Planning Act of 1974).

called "the most complete forestry legislation ever passed."²

The NFMA has not resolved the problems associated with managing the nation's public forest lands, however. In the ensuing two decades, controversy over national forest management has intensified—socially, economically, and politically. This controversy has found its way into the courts as well.

Charles Wilkinson and Michael Anderson, in their seminal 1985 article on the National Forest Management Act,³ observed that the NFMA's first decade produced surprisingly little litigation, but they predicted much greater judicial involvement thereafter.⁴ The past decade has indeed seen an abundance of litigation.⁵

Several factors suggest that judicial review of the NFMA, and the increasingly active role of the courts in the management of the National Forest System, will continue. The intense, conflicting demands upon the various resources of the national forests will grow, as commodity production collides with resource protection and recreational use.⁶ At the same time, the ever-expanding web of environmental laws and regulations complicate management decisions and provide ample fodder for legal challenges.

Organizations representing industry and environmental groups regularly use the courts to further their overall objectives and to seek redress for specific Forest Service management actions. The spotted owl controversy in the Pacific Northwest rose to national prominence in April 1993, when President Clinton convened a conference to solve the dilemma posed by Judge William Dwyer's injunction banning the harvest of old growth

2. Arnold W. Bolle, *The Bitterroot Revisited: A University Re-view of the Forest Service*, 10 PUB. LAND L. REV. 1, 15 (1989).

3. Charles F. Wilkinson & H. Michael Anderson, *Land and Resource Planning in the National Forests*, 64 OR. L. REV. 1 (1985), reprinted as CHARLES F. WILKINSON & H. MICHAEL ANDERSON, *LAND AND RESOURCE PLANNING IN THE NATIONAL FORESTS* (1987). This article gives an in-depth overview of the history of national forest planning and the legislative history of the NFMA. Like many NFMA scholars, judges, lawyers, and Forest Service personnel, we are grateful for this outstanding, authoritative work, and have drawn extensively from it in this article.

4. *Id.* at 8.

5. This article examines approximately 20 federal court decisions on the NFMA, all of which have been decided since 1985.

6. Several statistics highlight these conflicts. The national forests contain approximately 50 percent of the nation's softwood timber. Waddell, Oswald, & Powell, *Forest Statistics of the United States*, 1987, reprinted in COGGINS, WILKINSON & LESHY, *FEDERAL PUBLIC LAND AND RESOURCES LAW* 642 (3d ed. 1993). Substantial reserves of hard rock minerals and oil and gas are also found on the national forests. Those same forests also provide recreational opportunities numbering 295,473,000 million visitor use days in 1993. FOREST SERVICE WASHINGTON OFFICE RIM REPORT, U.S. DEP'T OF AGRIC. (1993). The national forests contain 380 wilderness areas, comprising over 33 million acres, one third of the total wilderness nation-wide. COGGINS ET AL., *supra*, at 1032. National forests provide crucial habitat for much of the wildlife of the western U.S., from big game animals (e.g., elk, deer, big horn sheep) to endangered species (e.g., grizzly bears, spotted owls, and chinook salmon).

timber in spotted owl habitat on national forests.⁷ This is but one example of the battle over the national forests that is being played out in courtrooms from Texas⁸ to Montana,⁹ from Georgia¹⁰ to California.¹¹ Across the nation, people are demanding more from their national forests; more timber, more wilderness, more recreational opportunities. Yet the land base of the National Forest System — currently 191 million acres — has changed only minimally since 1921.¹² As competing demands continue to escalate on the National Forest System's limited land base, the laws that guide the Forest Service will continue to play a significant role in resolving these conflicts.¹³ It is important and timely to examine both the promise and the limitations of those laws, principally the NFMA, which serve as a paradigm for understanding the divergent social and political forces competing for use of the resources on the national forests.

This article will address the entire body of published decisions under the NFMA, and a number of unpublished opinions as well. Our intention is to analyze how courts have treated the NFMA's substantive and procedural provisions, to understand the NFMA in the context of other environmental laws and to analyze how NFMA litigation fits into the greater, more well-settled body of administrative law.

This Article is divided into four sections. Section One reviews the legal/historical context in which Congress passed NFMA. Section Two analyzes how courts have treated the substantive provisions of NFMA, and provides an overview of forest-plan litigation. Section Three examines procedural obstacles to judicial review under NFMA, such as standing, exhaustion, and the scope and standard of review. Section Four will draw some connecting threads and analyze future trends for NFMA litigation and judicial oversight of forest management.

7. The injunction was granted in *Seattle Audubon Soc'y v. Evans*, 771 F. Supp. 1081 (W.D. Wash. 1991). The "timber summit" was held in Portland, Oregon, on April 2, 1993. See generally Timothy Egan, *Thunder of Debate on Owls and Jobs Rings in Forests as Opponents Face Off*, N.Y. TIMES, Apr. 2, 1993, at A22; Timothy Egan, *Clinton Under Crossfire at Logging Conference*, N.Y. TIMES, Apr. 3, 1993, § 1 at 6.

8. See, e.g., *Sierra Club v. Espy*, 822 F. Supp. 356 (E.D. Tex. 1993).

9. See, e.g., *Native Ecosystems Defense Council v. Espy*, 15 F.3d 1087 (9th Cir. 1994); *Resources Ltd., Inc. v. Robertson*, 8 F.3d 1394 (9th Cir. 1993).

10. See, e.g., *Region 8 Forest Service Timber Purchasers Council v. Alcock*, 993 F.2d 800 (11th Cir. 1993).

11. See, e.g., *Marble Mountain Audubon Soc'y v. Rice*, 914 F.2d 179 (9th Cir. 1990).

12. DAVID A. CLARY, *TIMBER AND THE FOREST SERVICE* 3 (1986). We have drawn from this excellent work for the background information contained in this section of the article.

13. In addition to NFMA, the National Environmental Policy Act, 42 U.S.C. §§ 4321-4361 (1988) and the Endangered Species Act, 16 U.S.C. §§ 1531-1543 (1988) are the other statutes that have the greatest impact on Forest Service land management decisions.

A. *The Organic Act and Institutionalization of Timber Primacy*

In 1891, Congress passed legislation giving the President the authority to set aside Forest Reserves from the public domain.¹⁴ Over the next several years, President Harrison used this authority to reserve about 13 million acres in several western states.¹⁵ These acts were largely ceremonial line-drawing; no funds for management or federal control were provided.

Congress provided a mandate for the management of the forest reserves in 1897, when it passed legislation now referred to as the Organic Act.¹⁶ The forest reserves were established "to improve and protect the forest within the boundaries, or for the purpose of securing . . . a continuous supply of timber for the use and necessities of the citizens of the United States."¹⁷ Congress also provided appropriations for management of the reserves.¹⁸

The impetus for the creation of public forest reserves was linked to the perceived "timber famine" in the late nineteenth and early twentieth centuries.¹⁹ Immense tracts of virgin timber and a growing nation's thirst for wood fueled "cut and run" operations on a scale that today boggles the mind. Parts of entire regions—Appalachia, the Great Lakes, and the Ozarks, for example—were denuded in a single generation, leaving behind a legacy of barren landscapes and impoverishment.²⁰ The federal forest reserves were designed to protect the public from the ravages of the timber industry, according to proponents, providing another Progressive cure for the social ills of capitalism.

Initially, the creation of the reserves did not insure a steady supply of timber; they were little more than lines on a map. Congress did not provide more than a vague direction for management in the form of the Organic Act. The dawning of the Forest Service, and consequently the implementation of the laws that governed public forests, occurred in 1905 when Congress, at Gifford Pinchot's insistence, transferred the forest reserves to the Department of Agriculture,²¹ named them national forests, and

14. Act of March 6, 1891, 26 Stat. 1103, repealed by 90 Stat. 2792 (1976).

15. Wilkinson & Anderson, *supra* note 3, at 18 n.57.

16. 16 U.S.C. §§ 473-481 (repealed in part 1976).

17. 30 Stat. 34, 35, 36 as amended, now codified in part at 16 U.S.C. § 475 (1988). The Organic Act also recognized that the forest reserves were to protect watersheds, and as a concession to western politicians, "bona fide settlers, miners, residents and prospectors" were permitted to freely remove timber and stone from the reserves for mining, agricultural, and domestic purposes. 16 U.S.C. § 477 (1988).

18. CLARY, *supra* note 12, at 2.

19. *Id.* at 4-28.

20. *Id.* at 14.

21. Transfer Act of Feb. 1, 1905, ch. 288 § 1, 33 Stat. 628, now codified at 16 U.S.C. § 472 (1988).

created the Forest Service to manage them.²²

Pinchot, a European-trained forester, Progressive politician, and confidante of President Teddy Roosevelt, imbued the agency with a mission: to avert a national timber famine through professional forest management.²³ In the process, the national forests would provide a steady flow of timber to small communities. The robber-baron industrial concerns that fostered cut-and-run forestry would not serve the Forest Service's mission. Instead, European-based professional forestry management would be the hallmark of federal forestry management.²⁴ The commercial sale of federal timber—a central tenet of Pinchot's concept of forest management—became the mainstay of the agency's mission.²⁵

Pinchot was removed from office for insubordination after serving just five years as the Chief.²⁶ His legacy—the emergence of timber management (which included conservation and utilitarian purposes) as the agency's primary responsibility—remains strong to this day. As one chronicler of the Forest Service observed, "Pinchot left behind him an organization that was thoroughly dominated by foresters with an outlook all their own. They were on a righteous crusade to guarantee more wood for the nation and to prevent a timber famine."²⁷

The original legal mandate of the Forest Service, the Organic Act, served this mission well because it provided the Forest Service with broad latitude to develop its own management direction. Conflict over resource use was minimal: the undeveloped national forests of the sparsely populated Western states had room for timber harvest, recreation, solitude, and whatever else the forests had to offer. Consequently, there is a remarkable dearth of judicial involvement with Forest Service management in the pre-World War II era. The significant cases challenged Forest Service regulatory authority.²⁸ The agency almost always won, no doubt reinforc-

22. See CLARY, *supra* note 12, at 23-28.

23. Pinchot received his training in Europe, where the science of silviculture was well developed by the late nineteenth century. Though timber had been commercially harvested in this country since its earliest days, the seemingly endless timbered frontier help foster the cut-and-run mentality that dominated commercial timber production in the nineteenth century. It was not until 1892, when Pinchot was hired to manage the Vanderbilt estate, that silviculture was actively practiced on American forests. See CLARY, *supra* note 12, at 8-9.

24. *Id.*

25. The Organic Act granted authority to sell timber, and the program was implemented immediately. The first timber sale from the Forest Reserves occurred in 1898 in what is now the Black Hills National Forest in South Dakota. See generally CLARY, *supra* note 12, at 30-46.

26. Pinchot was the only chief forcibly removed from office until October 1993, when the Clinton administration forced F. Dale Robertson to transfer into another job within the Department of Agriculture.

27. CLARY, *supra* note 12, at 28.

28. See, e.g., *United States v. Grimaud*, 220 U.S. 506 (1911) (upholding Forest Service authority under the Organic Act to promulgate regulations requiring permits for grazing and imposing

ing the righteousness of its mission.

The post-World War II years brought significant change to the management of the national forests. Instead of a much-heralded timber famine, there was a timber boom. The demand for housing fueled the nation's thirst for wood products, and the Forest Service was eager to provide the raw materials. The annual cut increased from national forests from 2 billion board feet in 1940 to 8 billion board feet in 1959, and to 12 billion board feet in 1966, a 600 percent increase in just 26 years.²⁹ This same post-war prosperity created a more mobile and leisure-oriented society, and recreational use of the national forests skyrocketed as well.³⁰

While the nation grew and changed, the laws governing the Forest Service did not. The Organic Act remained the Forest Service's only legal authority, though it was supplemented by an expanding web of administrative regulations, which were created and enforced almost entirely within the agency.³¹

The legal mandate of the Forest Service changed in 1960, with the passage of the Multiple Use Sustained Yield Act (MUSY).³² MUSY broadens the national forests' original purpose of providing timber and water to include the promotion and protection of recreation, wildlife, and fish and range resources in the management of national forests.³³ The listing of the multiple-use resources in alphabetical order symbolized their supposedly equal footing.³⁴ MUSY also required that the national forests

criminal penalties for violations); *Light v. United States*, 220 U.S. 523 (1911) (denying rancher's claim that Forest Service must either fence Forest Reserves or allow them to be used as public rangeland).

29. *COGGINS ET AL.*, *supra* note 6, at 606 (citing BUREAU OF THE CENSUS, HISTORICAL STATISTICS OF THE UNITED STATES, SERIES L 15-23, 534 (1970)). The increase in timber production was justified as part of the timber famine mentality addressed earlier in this article. For example, in 1958, Forest Service Chief Richard E. McArdle opined that the Forest Service perceived the nation as having a permanent expanding market for wood products, and that the nation would require 24 billion board feet from the national forests by the year 2000. *CLARY*, *supra* note 12, at 158.

30. *See generally* *CLARY*, *supra* note 12, at 147-68. The increased demand for amenity resources led to the implementation of the "multiple use" concept embodied in MUSY, which was introduced in 1956 and passed by Congress in 1960. Recreational use of the national forests continues to grow dramatically. Recreational Visitor Days (defined as a 12 hour period of recreational use on a national forest) increased from 150,725,900 in 1966 to 295,473,000 in 1993. FOREST SERVICE RIM REPORT ON RECREATIONAL USE, U.S. DEP'T OF AGRIC. (1966 & 1993).

31. Forest Service policies and land management practices are governed by the Forest Service Manual and the Forest Service Handbook, both of which are multi-volume sets consisting of thousands of pages of internal regulations. Neither the Handbook nor the Manual are promulgated by formal or informal rule-making under the Administrative Procedure Act, but are developed and implemented entirely within the agency. The Manual and Handbook had their genesis in the early 1900s, stemming from the Forest Reserve Manual (a publication of the General Land Office) and Gifford Pinchot's Use Book, first published in 1905. *See* *CLARY*, *supra* note 12, at 30.

32. 16 U.S.C. §§ 528-531 (1988).

33. 16 U.S.C. § 528.

34. 16 U.S.C. § 528. This alphabetical listing represents a classic case of form over substance, with the Forest Service taking pains to show its sensitivity to recreation by calling it "outdoor

be managed on a sustained yield basis, "without impairment of the productivity of the land."³⁵ In practice, the statute did not change the agency's emphasis on timber production.³⁶

MUSY has been labeled "an attempt to deal with realities of a new age—one of which was that the clients of the national forests were many."³⁷ It did provide statutory recognition for non-consumptive resources such as fish, wildlife, and recreation, and was actively supported by the agency.³⁸ However, MUSY did not provide standards by which those dissatisfied with Forest Service decisions could successfully challenge them in court. The oft-quoted passage from *Perkins v. Bergland*³⁹—that MUSY "breathe[s] discretion at every pore"⁴⁰—summarizes judicial review under MUSY. As with the Organic Act, the agency has been remarkably successful in the handful of challenges to its authority under MUSY.⁴¹ MUSY remains on the books, though it is largely a statutory anachronism, supplanted by the more explicit and detailed dictates of the NFMA.⁴²

B. *The Seeds of Change*

The mid-1960s and early 1970s was a time of great change and ferment in this country. The environmental movement emerged during this period, and became a political and social force in this country. Symbolized by the first Earth Day on April 1, 1970, the greening of America eventually

recreation," so it would be listed first. COGGINS ET AL., *supra* note 6, at 622.

35. 16 U.S.C. §§ 531(a), (b).

36. The fact that the annual harvest from the national forests increased from 8 billion board feet in 1959 to 12 billion board feet in 1966 is a good example of the agency's priorities during this period, despite the rhetoric embodied in MUSY. See generally CLARY, *supra* note 12, at 156-65.

37. CLARY, *supra* note 12, at 163.

38. *Id.* at 154-56.

39. 608 F.2d 803 (9th Cir. 1979).

40. *Perkins*, 608 F.2d at 807.

41. See, e.g., *Sierra Club v. Hardin*, 325 F. Supp. 99, 123 (D. Alaska 1971) ("Congress has given no indication as to the weight to be assigned to each [multiple-use] value, and it must be assumed that the decision as to the proper mix of uses within any particular area is left to the sound discretion and expertise of the Forest Service."). This case was remanded by the Ninth Circuit in an unpublished opinion, *Sierra Club v. Butz*, 3 E.L.R. 20292 (9th Cir. 1973), for further findings as to whether the Forest Service had indeed given "due consideration" to values other than timber harvest. See also *National Wildlife Fed'n v. U.S. Forest Service*, 592 F. Supp. 931, 938 (D. Or. 1984), *appeal dismissed*, 801 F.2d 360 (9th Cir. 1986); *Dorothy Thomas Found. v. Hardin*, 317 F. Supp. 1072 (W.D.N.C. 1970).

It should be noted that the Forest Service has been successful in defending challenges to MUSY brought by the timber industry as well as by environmental groups. See, e.g., *Intermountain Forest Indus. Ass'n v. Lyng*, 683 F. Supp. 1330 (D. Wyo. 1988).

42. MUSY is still alive, but largely useless for litigation from both the industry and environmental perspectives. Recent decisions continue to affirm its status as a "statement of principle" with no legal teeth. See, e.g., *Sierra Club v. Marita*, 843 F. Supp. 1526 (E.D. Wis. 1994); see also *Intermountain Forest Indus. Ass'n*, 683 F. Supp. 1330 (D. Wyo. 1988).

had a profound impact on the Forest Service — and the role of the courts in forest management.

The emergence of the modern environmental movement is reflected in the rash of environmental legislation spawned during this period: the Endangered Species Acts (ESA) of 1969 and 1973,⁴³ the National Environmental Policy Act (NEPA),⁴⁴ the Wilderness Act,⁴⁵ the National Wild and Scenic Rivers Act (WSRA),⁴⁶ the Clean Air Act,⁴⁷ and the Clean Water Act.⁴⁸ Some of these laws, such as NEPA and the ESA, had an immediate impact on the way that the Forest Service did business. NEPA in particular opened the door for greater public involvement—and challenge—to Forest Service decisions.⁴⁹

The demand for greater accountability from the Forest Service was also coming from Congress. In 1969, Senator Metcalf from Montana requested that a faculty committee from the University of Montana, headed by then-dean of the Forestry School, Arnold Bolle, investigate timber harvest practices on the nearby Bitterroot National Forest.⁵⁰ Persistent citizen complaints about excessive clearcutting on the nearby Bitterroot National Forest provided the impetus for the investigation.⁵¹ The Bitterroot is quintessential Montana: a broad valley dominated by ranches, blessed with abundant water and surrounded by stunning mountains, the latter of which are part of the Bitterroot National Forest. Local citizens were concerned about the degradation of the landscape and water quality caused by the rapid increase in timber production.⁵²

Bolle and his Forestry School colleagues toured the forest, met with local citizens, conservation groups, Forest Service officials, and professional foresters.⁵³ The committee issued its report—now known as The Bolle Report—to Senator Metcalf in November of 1970 with little

43. 16 U.S.C. §§ 1531-1543 (1988).

44. 42 U.S.C. §§ 4321-4361 (1988).

45. 16 U.S.C. §§ 1131-1136 (1988).

46. 16 U.S.C. §§ 1271-1287 (1988).

47. 42 U.S.C. §§ 7401-7642 (1988).

48. 33 U.S.C. §§ 1251-1387 (1988).

49. Environmentalists quickly applied NEPA to timber sale decisions. For example, the plaintiffs in *Minnesota Public Interest Research Group v. Butz*, 358 F.Supp. 584 (D. Minn. 1973), *aff'd*, 498 F.2d 1314 (8th Cir. 1974), requested an Environmental Impact Statement (EIS) for timber sales in the Superior National Forest's Boundary Waters Canoe Area. The Forest Service balked, and suit was filed. The result was an unequivocal determination that timber sales, because of their adverse affect on the environment, triggered NEPA's requirement that the responsible federal agency prepare an EIS. *Id.* at 1323-24.

50. Bolle, *supra* note 2, at 1, 8. Dean Bolle provides an entertaining first-hand account of the Bitterroot controversy and events leading to the passage of the NFMA.

51. *Id.* at 5-8.

52. *Id.*

53. *Id.* at 8-10.

foresight as to the uproar it would create.⁵⁴

The report was critical of the agency's overemphasis on timber production (in violation of the multiple use mandate) and its reliance on clearcutting.⁵⁵ In the words of Dean Bolle: "[C]learcuts were the symbol which drew the criticism. The real problem was timber primacy, which now dominated and controlled Forest Service activity. This marked a clear departure from the broader Congressional policy of multiple use as earlier conceived."⁵⁶

The Bolle Report aroused nationwide concern for forestry practices on public lands, and was a catalyst for the 1972 Senate hearings on clearcutting chaired by the late Senator Frank Church of Idaho.⁵⁷ It vindicated concerns expressed by environmental groups over clearcutting and Forest Service mismanagement of public lands, not only in Montana, but in other parts of the country as well. The Church hearings⁵⁸ foreshadowed a statutory change in the Forest Service legal mandate, from the broad, discretionary delegation of authority in the Organic Act and MUSY to a more precise directive. The focus of the hearings was the Forest Service's overemphasis on timber production and the increasingly vocal public concern over resource damage stemming from clearcutting.⁵⁹ The product of those hearings, the Church Guidelines,⁶⁰ marked a new role for Congress in the management of the National Forests.

The Church Guidelines contained a number of specific limitations on timber harvest practices, including the size of clearcuts, a regeneration requirement, and protection for soil and watersheds.⁶¹ These guidelines became the framework for many of the substantive provisions of the NFMA, some of which were incorporated verbatim.⁶² Although Congress never enacted the Church Guidelines into law, the Fifth Circuit relied on

54. *Id.* at 10-13. "To our surprise, the report became a hot local and national issue," Dean Bolle wrote. *Id.* at 11.

55. *Id.* at 9-10; U.S. FOREST SERVICE, MANAGEMENT PRACTICES ON THE BITTERROOT: A TASK FORCE APPRAISAL, FILES 1500 & 2470 (May 1969 - April 1970) (available from the Forest Service Region One office, Missoula, Mont.) [hereinafter THE BOLLE REPORT].

56. Bolle, *supra* note 2, at 11.

57. *Id.* at 11-14.

58. See SUBCOMM. ON PUBLIC LANDS OF THE SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, 92D CONG., 2D SESS., CLEARCUTTING ON FEDERAL TIMBERLANDS (Comm. Print 1972) reprinted in FOREST AND RANGELAND MANAGEMENT: JOINT HEARINGS BEFORE THE SUBCOMM. ON ENVIRONMENT, SOIL CONSERVATION, AND FORESTRY OF THE SENATE COMM. ON AGRICULTURE AND FORESTRY AND THE SUBCOMM. ON THE ENVIRONMENT AND LAND RESOURCES OF THE SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, 94th Cong., 2d Sess. 953-54 (Comm. Print 1976). [hereinafter CHURCH SUBCOMM. REPORT].

59. See generally *id.*

60. See generally *id.*

61. *Id.*

62. See, e.g., 16 U.S.C. §§ 1604(g)(3)(E), (F) (1988).

them to allow clearcutting,⁶³ and the Ninth Circuit referred to them as congressionally mandated restrictions on “timbering practices to be used on all national forests pending the development of permanent NFMA guidelines.”⁶⁴ In the words of one court, “the Church guidelines are the outer boundary of the Forest Service’s discretion and are judicially enforceable.”⁶⁵

Part of the concern over forest management stemmed from a perceived lack of uniform planning for all resources. Congress responded with the Forest Rangeland and Renewable Resources Planning Act of 1974 (RPA).⁶⁶ In contrast to the management-oriented nature of the Church Guidelines, the RPA was designed to foster uniform planning by the Forest Service for all resources on a nationwide basis. It requires an assessment of renewable resources every ten years,⁶⁷ a program setting out long-term objectives as well as short-term costs,⁶⁸ and an annual report comparing the agency’s actions with those forecast in the program.⁶⁹ The RPA also contained provisions directing the President to submit information to Congress relative to the agency’s budget and resource outputs.⁷⁰

The RPA represents an attempt to instill centralized planning for the Forest Service at the national level.⁷¹ However, as one commentator

63. *Texas Comm. on Natural Resources v. Bergland*, 573 F.2d 201 (5th Cir. 1978), *cert. denied*, 439 U.S. 966 (1978).

64. *California v. Block*, 690 F.2d 753, 775 (9th Cir. 1982) (citing *Texas Comm. on Natural Resources*, 573 F.2d at 209-10).

65. *National Wildlife Fed’n v. U.S. Forest Service*, 592 F. Supp. 931, 937 (D. Or. 1984), *appeal dismissed*, 801 F.2d 360 (9th Cir. 1986). In this litigation, known as the Mapleton case, the Forest Service took the position that its 1979 Timber Resource Plan was exempt from both the Church Guidelines, which it claimed were unenforceable, and the NFMA, which it argued did not apply until after the Suislaw Forest adopted its Forest Plan. *Id.* at 936-37. The court rejected this “falling through the cracks” argument, *id.* at n.13, but relied on NEPA rather than the NFMA in enjoining timber harvests under the Timber Resource Plan. *Id.* at 944.

66. 16 U.S.C. §§ 1601-1613 (1988) (as amended).

67. 16 U.S.C. § 1601(a).

68. 16 U.S.C. § 1601.

69. 16 U.S.C. § 1606(c).

70. 16 U.S.C. § 1606(c).

71. Tension exists between the RPA, with its centralized planning requirements emanating from the Washington, D.C. office of the Forest Service, and the forest plans developed on each local forest under NFMA. This conflict surfaced in a debate during the 1980s as to whether the Forest Service was required to engage in “top down” planning, by taking the RPA targets for timber, and distributing them to the individual forest plans, or “bottom up” planning, where harvesting targets were generated locally as a result of information gathered during the planning process. For a more detailed discussion of the relation between RPA and NFMA, see Wilkinson & Anderson, *supra* note 3, at 76-90. They conclude that Congress wanted a “bottom up” planning process implemented through the NFMA, with timber targets derived from local plans, rather than a nationally mandated harvest level. *Id.* at 90. Critics of the NFMA mandated forest planning process charged that the Forest Service continued to use a “top down” planning process, whereby harvest levels contained in forest plans were derived from national targets and rationalized through the planning process. RANDAL O’TOOLE, *REFORMING THE FOREST SERVICE* 23, 55-58 (1986).

observed, "Despite high (and in retrospect idealistic) expectations, the RPA has not fundamentally altered the Forest Service budget or budgetary politics in the White House or Congress."⁷² Litigation aimed at forcing more funds for non-commodity programs based on the RPA has been unsuccessful.⁷³

Neither the Church Guidelines nor the RPA quelled the public outcry over clearcutting. The Natural Resources Defense Council targeted the Forest Service for litigation over the practice, and a test case was brought on the Monongahela National Forest. The result, *West Virginia Division of the Izaak Walton League of America v. Butz*,⁷⁴ is widely regarded as the catalyst for the passage of NFMA.⁷⁵ The Fourth Circuit's declaration that clearcutting violated the plain language of the Organic Act⁷⁶ jeopardized the entire timber sale program.⁷⁷

The NFMA was introduced into Congress, debated extensively, and passed less than two years later. The statute embodied concerns expressed in the Bolle Report and embraced the work of the Church subcommittee⁷⁸ by placing limits on clearcutting and offering specific protection for soil, fish, and water quality. It thereby garnered the support of the conservation community.⁷⁹ The timber industry supported language repealing those portions of the Organic Act that prevented clearcutting, thereby rendering *Monongahela* impotent.⁸⁰

In the authors' opinion, the debate over top-down versus bottom-up planning has been mooted by on-the-ground realities (less timber than estimated), budget constraints (less money), and restrictions caused by other laws, chiefly the Endangered Species Act. Many national forests are producing far less timber than envisioned under RPA or NFMA. For example, the Bitterroot Forest Plan, adopted in 1987, set an Allowable Sale Quantity of 33.4 million board feet, which was essentially the same as the RPA target for the Bitterroot National Forest. See U.S. FOREST SERVICE, FOREST PLAN RECORD OF DECISION, BITTERROOT NAT'L FOREST 6 (1987); U.S. FOREST SERVICE, FOREST PLAN, BITTERROOT NAT'L FOREST V-10 (1987) [hereinafter BITTERROOT FOREST PLAN] (copies on file with author). Timber harvest levels have been significantly lower than the ASQ since the forest plan was implemented. For example, in 1990, the Bitterroot Forest offered only 7.9 million board feet and sold only 3.4 million board feet. (Statistics compiled by the author based on information provided by the Bitterroot National Forest).

72. COGGINS ET AL., *supra* note 6, at 631.

73. National Wildlife Fed'n v. United States, 626 F.2d 917 (D.C. Cir. 1980).

74. 367 F. Supp. 422 (D.W.Va. 1973), *aff'd*, 522 F.2d 945 (4th Cir. 1975) [hereinafter *Monongahela*].

75. See Bolle, *supra* note 2, at 15; Wilkinson & Anderson, *supra* note 3, at 155.

76. *Monongahela*, 522 F.2d at 949-50.

77. While the Fourth Circuit's holding was binding only upon the agency in the Southeast, suits were brought in other areas of the country. See, e.g., Zieske v. Butz, 406 F. Supp. 258 (D. Alaska 1975). The Fourth Circuit's holding was easily applied to timber sales throughout the National Forest System.

78. See Wilkinson & Anderson, *supra* note 3, at 155-159.

79. *Id.* at 158 n.814.

80. Clearcutting is not forbidden under NFMA, as it was under *Monongahela*. See generally 16 U.S.C. § 1604(g)(3)(F). It is subject to several limitations, the judicial enforcement of which is analyzed *infra* Section II(A)(4).

Conceptually, NFMA can be divided into two parts, one procedural and the other substantive. First, Congress mandated that the agency embark on a nationwide forest planning process for each of 156 separate units of the National Forest System.⁸¹ The planning process was to be conducted in accordance with NEPA,⁸² thus insuring formal public involvement. Forest planners were directed to use an interdisciplinary approach, incorporating the full range of natural sciences in to the process.⁸³ The forest plans, as they are now known, were to be completed by September 30, 1985, and revised periodically thereafter.⁸⁴ Once completed, the forest plans were to serve as blueprints for all future management projects, such as timber sales, which must be consistent with the forest plan.⁸⁵

While no two forest plans are exactly the same, they all share basic features. A forest plan is akin to a zoning map, with the entire forest divided into various zones or "Management Areas." Each Management Area contains standards and guidelines that control the type of activity that may occur. For example, on the Beaverhead National Forest in southwestern Montana, Management Areas are denoted for wildlife winter range, riparian areas, semi-primitive recreation, and timber production/wildlife.⁸⁶ In some Management Areas, timber harvest is forbidden; in others, it takes a back seat to wildlife needs; in others, it is the dominant use.⁸⁷ The forest plan also contains standards and guidelines, which apply to all Management Areas within the forest.

81. 16 U.S.C. 1604(a).

82. 16 U.S.C. § 1604(g)(1); *see also* *California v. Block*, 690 F.2d 753, 775 (9th Cir. 1982) (NFMA does not exempt the Forest Service from NEPA review).

83. 16 U.S.C. §§ 1604(b), (f)(3).

84. 16 U.S.C. § 1604(c).

85. 16 U.S.C. § 1604(i); *see also* *Citizens for Envtl. Quality v. United States*, 731 F. Supp. 970, 977 (D. Colo. 1989) (stating that implementation of plans is achieved through individual projects, which must be consistent with the forest plan).

86. U.S. FOREST SERVICE, *BEAVERHEAD NAT'L FOREST LAND AND RESOURCE MANAGEMENT PLAN III* (1986) [hereinafter *BEAVERHEAD FOREST PLAN*].

87. *See, e.g., id.* The Beaverhead Forest Plan uses a format similar to many other forest plans. It contains a set of forest-wide management goals, standards, and objectives. The plan divides the forest into 29 separate Management Areas (MAs), "each with different management goals, resource potential and limitations." *Id.* at III-1. Each of the Management Areas contains a separate set of additional standards that, in theory, complement the goals and objectives of that particular Management Area. For example, MA #8 consists of 366,740 acres with high wilderness and recreational values. MA #8 lands are not, however, designated wilderness. MA #8 has a standard that does not allow any new road construction, or commercial timber harvest. *Id.* at III-20-25. By contrast, MA #16, which comprises 159,492 acres, is characterized as suitable for timber production, and contains a standard that allows timber harvest to be scheduled on suitable lands, and allows road construction to support management activities. *Id.* at III-48-51. Another Management Area, MA #11, consists of 24,716 acres of riparian lands. MA #11 has a standard that allows timber harvesting, but only on MA #11 lands area adjacent to other MAs where commercial timber harvest is prohibited. *Id.* at III-35.

NFMA also contains a wide range of unprecedented substantive restrictions on timber harvest. Many of these were to be implemented along with forest plans. Clearcutting is recognized as a legitimate method of timber harvest, but may be used only where it is determined to be the "optimum method."⁸⁸ Strict limitations are placed on the size of clearcuts, and protection must be provided for soil and watersheds.⁸⁹ In addition, Congress required that harvest units be able to achieve regeneration within five years.⁹⁰

Congress also reaffirmed both the multiple-use and sustained-yield concepts of MUSY⁹¹ and recognized wilderness as one of those uses.⁹² The principle of sustained-yield timber harvest was more precisely defined as non-declining even flow under a separate statutory provision.⁹³ Other substantive provisions include a requirement that "unsuitable lands" be excluded from harvest,⁹⁴ that forest roads be constructed in a cost-effective manner,⁹⁵ and that the national forests maintain biological diversity.⁹⁶

Overall, the NFMA signaled a dramatic departure from seven decades of nearly unbridled administrative discretion in managing the National Forest System. It can be seen as an attempt to control "timber primacy" within the agency. After the passage of NFMA, forest management decisions would receive much greater scrutiny from within the agency, by outside interest groups, and ultimately, by the courts.

II. JUDICIAL REVIEW

A. *Judicial Review of Substantive NFMA Provisions*

Unlike NEPA, NFMA has substantive as well as procedural requirements.⁹⁷ These include limitations on determining whether land is suitable for timber harvesting,⁹⁸ limitations on the use of even-aged management,⁹⁹

88. 16 U.S.C. § 1604(g)(3)(F)(i).

89. 16 U.S.C. §§ 1604(g)(3)(F)(iii), (v).

90. 16 U.S.C. § 1604(g)(3)(E)(ii).

91. 16 U.S.C. § 1604(e)(1).

92. 16 U.S.C. § 1604(e)(1).

93. See 16 U.S.C. § 1604(e)(1); 36 C.F.R. § 219.3 (1993).

94. 16 U.S.C. § 1604(g)(3)(E).

95. 16 U.S.C. § 1608(a).

96. 16 U.S.C. § 1604(g)(3)(B).

97. 16 U.S.C. § 1604; Wilkinson & Anderson, *supra* note 3, at 69 (NFMA "fundamentally altered the traditional relationship between Congress, the courts, and the Forest Service by adding procedural requirements for planning and by imposing substantive restrictions on timber harvest in the national forests"). The Forest Service argued in *Sierra Club v. Espy* that the NFMA was only a "planning statute" with "no substantive component." 822 F. Supp. 356, 363 (E.D. Tex. 1993). The court disagreed: "[T]he NFMA does erect unambiguous, substantive 'outer boundaries' on the Forest Service's discretion in terms of forest management valuations (i.e., the setting of agency goals or 'ends') and concomitant, consistent practices." *Id.*

98. This includes limitations regarding soils, slope, watershed, and restocking. See generally 16

and specific requirements for insuring diversity of plant and animal communities.¹⁰⁰ Dean Arnold Bolle, author of the 1970 Bolle Report, said a few years ago, "When the NFMA was enacted in 1976, I had a great feeling of accomplishment. I felt that the law clearly stated what must and must not be done."¹⁰¹ Many participants in the legislative process believed that NFMA imposed unprecedented limitations on forestry practices, particularly the controversial practice of clearcutting, and mandated consideration of resources such as wildlife, water, and recreation in timber-management decisions.¹⁰²

NFMA covers five general substantive areas: diversity of plant and animal communities,¹⁰³ monitoring and assessment of management practices on land productivity,¹⁰⁴ conditions under which the Forest Service can increase harvest levels,¹⁰⁵ suitability guidelines for timber harvesting,¹⁰⁶ and limitations on the use of even-aged management.¹⁰⁷ Some of these have been the basis for several forest plan or timber sale challenges; others have never been raised in litigation. We shall analyze each substantive provision, the implementing regulations, and the reported cases involving that section, and will then discuss the potential for future challenges under these provisions.¹⁰⁸

U.S.C. § 1604(g)(3)(E).

99. 16 U.S.C. § 1604(g)(3)(F)(v).

100. 16 U.S.C. § 1604(g)(3)(B). The regulations interpret this section to require that "habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species." 36 C.F.R. § 219.19.

101. Bolle, *supra* note 2, at 5-9.

102. See Wilkinson & Anderson, *supra* note 3, at 40 ("The 1976 Act amounted to a bitterly-contested referendum on Forest Service timber harvesting practices."). The famous decision enjoining the Forest Service from using clearcutting was *West Virginia Div. of Izaak Walton League of America v. Butz*, 522 F.2d 945 (4th Cir. 1975), more commonly known as *Monongahela*.

NFMA is not the first statute to mention wildlife as a co-equal factor in forest management; MUSY mentions it as well. 16 U.S.C. § 528 ("It is the policy of the Congress that the national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes . . ."); see also Wilkinson & Anderson, *supra* note 3, at 285-87. But MUSY simply recites policy goals; it places no substantive restrictions on timber harvesting. See 16 U.S.C. §§ 528-31. Judicial review under MUSY has rarely resulted in any change in planned management action. See, e.g., *Sierra Club v. Hardin*, 325 F. Supp. 99 (D. Alaska 1971) (upholding the Forest Service sale of 8.7 billion board feet of timber from the Tongass National Forest); see also *National Wildlife Fed'n v. U.S. Forest Service*, 592 F. Supp. 931 (D. Or. 1984), *appeal dismissed*, 801 F.2d 360 (9th Cir. 1986).

103. 16 U.S.C. § 1604(g)(3)(B).

104. 16 U.S.C. § 1604(g)(3)(C).

105. 16 U.S.C. § 1604(g)(3)(D).

106. 16 U.S.C. § 1604(g)(3)(E).

107. 16 U.S.C. § 1604(g)(3)(F).

108. We will focus exclusively on 16 U.S.C. § 1604, which addresses forest planning.

1. *Ensuring Diversity — § 1604(g)(3)(B)*

a) The Statute and Regulations

NFMA requires that the implementing regulations specify guidelines to:

provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives, and within the multiple-use objectives of a land management plan adopted pursuant to this section, provide, where appropriate, to the degree practicable, for steps to be taken to preserve the diversity of tree species similar to that existing in the region controlled by the plan.¹⁰⁹

The statute does not define diversity; that job was left to the Committee of Scientists and the Forest Service.¹¹⁰ The regulations translate the statute into two overall management directives: first, that viable populations of existing forest vertebrates be maintained and well distributed; and second, that the Forest Service designate certain vertebrate and/or invertebrate species whose population changes are believed to indicate the effects of management activities as Management Indicator Species (MIS).¹¹¹ Furthermore,

[m]anagement prescriptions, where appropriate and to the extent practicable, shall preserve and enhance the diversity of plant and animal communities . . . so that it is at least as great as that which would be expected in a natural forest and the diversity of tree species similar to that existing in the planning area.¹¹²

This regulation makes clear that the Forest Service may reduce the diversity of plant, animal and tree species “only where needed to meet overall multiple-use objectives.”¹¹³ The planners must justify such a decision with “an analysis showing biological, economic, social, and environmental design consequences, and the relation of such conversions to the process of natural change.”¹¹⁴

Although neither the statute nor the definition of diversity in the

109. 16 U.S.C. § 1604(g)(3)(B).

110. Wilkinson & Anderson, *supra* note 3, at 296. The Committee of Scientists was convened to advise the Forest Service on suggested regulations, as required by statute. *See id.*; 16 U.S.C. § 1604(h)(1).

111. 36 C.F.R. § 219.19; *see also* Wilkinson & Anderson, *supra* note 3, at 297 (citing an additional management directive that timber harvesting practices be changed if they result in fish habitat changes).

112. 36 C.F.R. § 219.27(g).

113. *Id.*

114. *Id.*

regulations¹¹⁵ refers to “viability” or “viable populations,” the regulations state that “[f]ish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species in the planning area.”¹¹⁶ The ambiguity of the regulations—one of which imposes a strict duty on the Forest Service, the other of which appears to mitigate that duty considerably—has led to varying interpretations of the Forest Service’s responsibility in regards to diversity of both tree species and wildlife.

b) The Intent of the Diversity Provision

The diversity section of NFMA is conceptually linked to even-aged management limitations. Both reflect the clearcutting controversy out of which the NFMA arose. Congress was concerned about the lack of consideration accorded wildlife and other resources in timber management decisions, or what Dean Bolle has referred to as “timber primacy.”¹¹⁷ To interpret 1970s congressional concerns in 1990s language, Congress was concerned about the loss of diverse ecosystems. Nonetheless, while Congress was willing to require consideration and, in some cases, maintenance of other resources in timber-management decisions,¹¹⁸ it was unwilling to flatly prohibit even-aged management, even where it would reduce the natural diversity of plant and animal life. Instead, Congress conferred substantial discretion on scientific experts within the Forest Service and on the Committee of Scientists to determine the best course for on-the-ground timber-management decisions. Congress did, however, safeguard against possible Forest Service bias in favor of timber harvesting by requiring the regulation-promulgating Committee of Scientists to be non-Forest Service employees.¹¹⁹

c) Litigation Involving the Diversity Section

The diversity provision has been the basis for numerous challenges to

115. 36 C.F.R. § 219.3.

116. 36 C.F.R. § 219.19 (defining a viable population as “one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area”).

117. Bolle, *supra* note 2, at 11.

118. *See, e.g.*, 16 U.S.C. § 1604(e)(1) (“the Secretary shall assure that [forests] provide for multiple use and sustained yield . . . and, in particular, include coordination of outdoor recreation, range, timber, watershed, wildlife and fish, and wilderness”); 16 U.S.C. § 1604(g)(3)(B) (diversity provision); 16 U.S.C. § 1604(g)(3)(F)(v) (requiring clearcuts to be “consistent with the protection of soil, watershed, fish, wildlife, recreation, and esthetic resources”).

119. 16 U.S.C. § 1604(h)(1). The Senate Agriculture and Forestry Committee report stated, “The Committee believes that this technical advisory committee will help assure a broad based, interdisciplinary, technical review.” S. REP. No. 893, 94th Cong., 2d sess. 36 (1976), *reprinted in* 1976 U.S.S.C.A.N. 6662, 6695.

forest plans in the Northwest alleging the plans' failure to maintain viable populations of spotted owls.¹²⁰ District courts have also addressed the diversity requirement of NFMA in regards to species other than spotted owls, and more generally, in regards to general diversity of trees as well as wildlife.¹²¹ The Ninth Circuit is the only appellate court to have interpreted the diversity requirements of NFMA. Its interpretations in the spotted owl litigation have been generally favorable for environmental-group plaintiffs. No conclusions can necessarily be drawn from that fact, as the Ninth Circuit has not yet addressed some of the more difficult questions regarding NFMA and diversity.

The Ninth Circuit has addressed important issues, however. For example, it has held that the NFMA diversity requirement applies to species listed as threatened or endangered under the Endangered Species Act (ESA).¹²² The Forest Service argument was a syllogism: the regulations require the agency to maintain a viable population of owls; a listed species is no longer viable; the spotted owl was listed under the ESA; therefore, NFMA no longer applied and the agency did not have to plan for viability of the owl in its forest plans.¹²³ Neither the district court nor the Ninth Circuit agreed with the agency's reasoning, however.¹²⁴ The Ninth Circuit affirmed the district court's holding that the Forest Service must revise its standards and guidelines to ensure the owl's viability and prepare an environmental impact statement in compliance with NEPA and NFMA.¹²⁵ The appeals court also affirmed the district court's order

120. See, e.g., *Portland Audubon Soc'y v. Babbitt*, 998 F.2d 705 (9th Cir. 1993); *Seattle Audubon Soc'y v. Moseley*, 798 F.Supp. 1473 (W.D. Wash. 1992), *aff'd*, 998 F.2d 699 (9th Cir. 1993); *Seattle Audubon Soc'y v. Evans*, 771 F. Supp. 1081 (W.D. Wash. 1991), *aff'd*, 952 F.2d 297 (9th Cir. 1991). For an excellent detailed overview of the spotted owl litigation, see Victor Sher, *Travels with Strix: The Spotted Owl's Journey Through the Federal Courts*, 14 PUB. LAND L. REV. 41 (1993).

121. See, e.g., *Sierra Club v. Marita*, 843 F. Supp. 1526 (E.D. Wis. 1994) (focusing on biological diversity of tree species); *Krichbaum v. Kelley*, 844 F. Supp. 1107 (W.D. Va. 1994) (holding that even-aged management can create diversity); *Oregon Natural Resources v. Lowe*, 836 F. Supp. 727 (D. Or. 1993) (addressing Forest Service duty to designate certain woodpeckers as management indicator species); *Sharps v. U.S. Forest Service*, 823 F. Supp. 668 (D. S.D. 1993) (plaintiff challenging agency decision that would result in loss of black-tailed prairie dogs); *Sierra Club v. Robertson*, 810 F. Supp. 1021 (W.D. Ark. 1992) [hereinafter *Robertson III*] (focusing primarily on diversity of tree species); *Sierra Club v. Robertson*, 784 F. Supp. 593 (W.D. Ark. 1991) [hereinafter *Robertson II*] (holding that NFMA does not require diversity of plants and animals within each sale area).

122. *Seattle Audubon Soc'y v. Evans*, 952 F.2d 297, 301-02 (9th Cir. 1991). This holding was a relatively easy one for the court to reach, based upon the plain language of NFMA and the ESA. Another situation in which it was relatively easy for courts to refuse to defer to the agency interpretation of NFMA was the Forest Service's use of a seven-year restocking standard in a forest plan; the statute clearly specifies a five-year standard. *Sierra Club v. Cargill*, 732 F. Supp. 1095 (D. Colo. 1990), *rev'd on other grounds*, 11 F.3d 1545 (10th Cir. 1993); see *infra* notes 224-30 and accompanying text.

123. *Evans*, 952 F.2d at 301-302.

124. *Id.*, *aff'g* 771 F. Supp. 1081 (W.D. Wash. 1991).

125. *Id.* at 298.

permanently enjoining timber sales in owl habitat until such a plan was prepared.¹²⁶

i) The Agency's Affirmative Duty to Protect Wildlife

After the Forest Service prepared an owl management plan and an accompanying Final Environmental Impact Statement (FEIS), plaintiffs again sued, alleging violations of both NEPA and NFMA. The district court held for the plaintiffs under NEPA. In one of the most significant NFMA decisions to date, the court relied on NFMA to articulate the Forest Service's duty to protect wildlife.¹²⁷ The court found that the FEIS violated NEPA because it failed to explain or justify the finding that the selected alternative would result in a "low to medium-low probability of providing for viable populations of late-successional forest associated wildlife species other than northern spotted owls,"¹²⁸ which would in turn violate NFMA.¹²⁹ The NFMA requirement was clear, according to the court: section 1604(g)(3)(B) "confirms the Forest Service's duty to protect wildlife."¹³⁰ The court stated that, "To adopt a plan that would preserve a management indicator species ("MIS"), such as the spotted owl, in a way that exterminated other vertebrate species would defeat the purpose of monitoring to assure general wildlife viability."¹³¹ The court enjoined all timber sales in spotted owl habitat pending completion of a supplemental EIS and established a timetable for completion of the EIS.¹³²

This interpretation of NFMA means that land management plans must take into account the entire spectrum of vertebrate species in the area covered by the plan, and must not allow the diminution of any of those species.¹³³ This is one of the more complex issues raised under NFMA, as

126. *Id.* These decisions had an enormous impact on timber harvesting in the Northwest, leading to congressional exemptions from the injunction for certain forests, Northwest Timber Compromise, Dep't of the Interior and Related Agencies Appropriations Act, Pub. L. No. 101-121, § 318, 103 Stat. 745 (1989), and a "timber summit" in Portland, Oregon, which was facilitated by President Bill Clinton. See *supra* note 7 and accompanying text.

127. *Seattle Audubon Soc'y v. Moseley*, 798 F. Supp. 1484, 1488-90 (W.D. Wash. 1992).

128. *Id.* at 1488.

129. *Id.*

130. *Id.* at 1489.

131. *Id.*

132. *Id.* at 1493. The decision has been appealed by both the defendants and the plaintiffs; the Ninth Circuit heard oral arguments in late 1992, but no decision has yet been issued. *Sher, supra* note 120, at 75.

133. In *Moseley*, the court indicated that NEPA requires only an adequate explanation of the agency's choice. 798 F. Supp. at 1492-93 (enforcing *Seattle Audubon Soc'y v. Evans*, 771 F. Supp. 1081 (W.D. Wash. 1991), *aff'd*, 952 F.2d 297 (9th Cir. 1991)). However, the court's discussion of the Forest Service's duties under NFMA does not appear to provide much room for making any but the "right" choice, i.e., one which will ensure the viability of the spotted owl. See *id.* at 1489-90. This is where a procedural statute differs significantly from a substantive one: when interpreted literally, a

the statute and regulations offer ambiguous guidance. For instance, the regulations require planners to identify MIS, which are described as those species whose "population changes are believed to indicate the effects of management activities."¹³⁴ The purpose of using MIS is to "estimate the effects of each [management] alternative on fish and wildlife populations."¹³⁵ If NFMA is violated by a management alternative that will not adversely affect the MIS, such as the spotted owl, but will affect other species, one may reasonably wonder why planners must bother designating MIS.

To answer that, the district court looked to Congress' intent in enacting NFMA, namely, to treat wildlife as a "controlling, co-equal factor in forest management."¹³⁶ It also relied on Wilkinson and Anderson, who state that "[t]he use of MIS in no way diminishes the requirement to maintain well-distributed, viable populations of existing vertebrates; in fact, proper use of MIS should help to ensure them."¹³⁷ But neither the district court nor Wilkinson and Anderson address the more difficult issue, i.e., what happens if it is not possible to maintain viable populations of both an MIS and other species.¹³⁸ Furthermore, the district court omitted any mention of the regulation which allows for reductions in diversity if such reductions will further "overall multiple-use objectives."¹³⁹ If the Forest Service were to adduce expert evidence that maintaining viable populations of all vertebrate species is impossible, or that reducing the viability of certain species would further multiple-use objectives, the court would face a situation in which it may be difficult not to defer to the agency's interpretation.¹⁴⁰ However, even then, if the court followed Judge Dwyer's interpretation of the Forest Service's duty to protect wildlife, it could

substantive statute lacking phrases such as "to the degree practicable" or "as is feasible" does not allow for environmental degradation. There is no balancing test to be done by the court, nor any discretion to be exercised by the agency. Congress has spoken. *See, e.g., Tennessee Valley Auth. v. Hill*, 437 U.S. 153 (1978).

134. 36 C.F.R. § 219.19(a)(1).

135. *Id.*

136. *Moseley*, 798 F. Supp. at 1489 (citing Wilkinson & Anderson, *supra* note 3, at 296).

137. *Moseley*, 798 F. Supp. at 1489 (citing Wilkinson & Anderson, *supra* note 3, at 300).

138. Theoretically, this should not happen. Management indicator species are selected by habitat type; e.g., the spotted owl is an MIS because it is an old-growth dependent species. If the MIS remains viable, then presumably the habitat upon which the species depend is healthy. That in turn is supposed to suggest that other old-growth dependent species are also viable. Sometimes, preserving an old-growth species, or late-successional forest species, may result in lower viability for early-succession forest species. But in *Moseley*, the FEIS for the chosen management alternative specifically stated there was a "low to medium-low probability of providing for viable populations of late-successional forest species *other than northern spotted owls.*" *Moseley*, 798 F. Supp. at 1488 (emphasis added).

139. 36 C.F.R. § 219.27(g).

140. Traditionally, the court will not substitute its judgment, or that of a plaintiff's expert, for that of an agency expert. *See generally infra* notes 565-75 and accompanying text for a discussion of judicial deference to agency fact-finding.

conceivably forbid any management action whatsoever. That is the potential power of a substantive statute: even under a deferential standard of review, the statute places clear limitations on the agency's discretion.

Seattle Audubon Society v. Moseley, if upheld on appeal, will have far-reaching consequences in forests throughout the Ninth Circuit. But the limitations on diversity may not be as clear as the district court in *Moseley* portrayed them. The language of 36 C.F.R. section 219.27(g) allows for substantial agency discretion to make decisions that could adversely affect diversity. The Forest Service did not offer evidence of either the impossibility of maintaining viable populations of spotted owls and other vertebrate species or of the necessity for reducing diversity to meet other multiple-use objectives at the district-court level. Without such evidence, the Ninth Circuit is likely to affirm, especially if the court follows its approach in *Seattle Audubon Society v. Evans*, where it addressed NFMA's applicability to a threatened or endangered species.¹⁴¹ In *Evans*, like the district court in *Moseley*, the Ninth Circuit looked at the underlying consequences of the Forest Service's position and concluded that the agency's interpretation of the statute was "directly contrary to the legislative purpose of the National Forest Management Act."¹⁴² In *Moseley*, too, the court can safely rely on the underlying intent of NFMA to uphold the broad duty imposed by the district court on the Forest Service to protect wildlife as well as sell timber.

Even if the Ninth Circuit were to include the qualifying language of 36 C.F.R. section 219.27(g) in its analysis, it would not dilute the agency's duty to protect wildlife; the duty would simply have to be balanced against the agency's concurrent duty to meet other multiple-use objectives. More importantly, the regulation itself may be an incorrect interpretation of the statute. Ultimately, Judge Dwyer is correct in reading the NFMA and its regulations the way that he did. Absent such a duty on the part of the Forest Service, the NFMA is rendered impotent.

Oregon Natural Resources Council v. Lowe provides an example of a more deferential judicial interpretation.¹⁴³ In *Lowe*, plaintiffs alleged that the Forest Service violated the NFMA diversity requirements by adopting a forest plan amendment which did not ensure the viability of old-growth indicator species.¹⁴⁴ Plaintiffs also alleged that the agency violated its

141. 952 F.2d 297 (9th Cir. 1991).

142. *Evans*, 952 F.2d at 301. This is an example of a court's refusal to defer to an agency's interpretation of its implementing statute. It suggests how extreme an agency's interpretation must be before a court will refuse to defer to it.

143. 836 F. Supp. 727 (D. Or. 1993).

144. *Lowe*, 836 F. Supp. at 730, 733. The species to which plaintiffs were referring were the pileated woodpecker, goshawk, and three-toed woodpecker, all of which were designated MIS in the original forest plan. *Id.* at 730. Plaintiffs also made several NEPA claims. *Id.*

regulations by failing to designate the white-headed and black-backed woodpeckers as MIS.¹⁴⁵

Although the court stated that "NFMA imposes a substantive duty on the Forest Service to provide sufficient habitat" for viable species,¹⁴⁶ it then compared NFMA to MUSY in terms of the "wide discretion" given the Forest Service to manage the national forests.¹⁴⁷ The court concluded that the Forest Service had not acted arbitrarily and capriciously in meeting the MIS habitat requirements or in selecting the MIS.¹⁴⁸ The court did not list its reasons for finding that the agency had complied with the statute, but simply referred to the findings in the agency's brief.¹⁴⁹

This type of unquestioning judicial review, in which the court does not critically analyze either the statute and regulations or the agency action, strips substantive statutes of their meaning and renders judicial review a mere procedural exercise. The *Lowe* court concluded without discussion that plaintiffs have "failed to show any arbitrary and capricious violations of the regulations pertaining to wildlife habitat."¹⁵⁰ But failure to ensure viability of a wildlife species may very well violate NFMA. At the very least, plaintiff's claim was not frivolous and deserved more critical judicial analysis.

ii) Diversity Should Apply to Projects as Well as Plans

In *Sierra Club v. Robertson (Robertson II)*, plaintiffs challenged two timber sales, alleging four violations of NFMA.¹⁵¹ Plaintiffs contended that the Forest Service must maintain diversity within each sale compartment, and that the agency had failed to study the effects of even-aged management on diversity in the sale area.¹⁵² The defendants asserted, and the court agreed, that NFMA does not require diversity within each sale

145. *Id.* at 730 (claiming a violation of 36 C.F.R. § 219.19(a)(1)).

146. *Id.* at 729.

147. *Id.* at 733 (citing the Multiple Use Sustained Yield Act (MUSY), 16 U.S.C. §§ 528-531 (1988), and *Big Hole Ranchers Ass'n v. U.S. Forest Service*, 686 F. Supp. 256, 264 (D. Mont. 1988)). However, the section in *Big Hole Ranchers* on which the Oregon court relied involved an interpretation of MUSY, not NFMA. *Id.* The discretionary power under MUSY is commonly acknowledged. See *Perkins v. Bergland*, 608 F.2d 803, 806 (9th Cir. 1979) (MUSY "breathes discretion at every pore"). But it was that very broad discretion which led to the restrictions on timber harvesting in the NFMA. See *Wilkinson & Anderson, supra* note 3, at 69-75.

148. *Lowe*, 836 F. Supp. at 734.

149. *Id.*

150. *Id.* at 733.

151. *Robertson II*, 784 F. Supp. at 593. The plaintiffs' NFMA claims included even-aged management, inventory, wetlands, and diversity claims. In addition to deferential review, another factor that may have played a role in *Robertson* was the relatively small size of the proposed sales areas. A shelterwood sale was scheduled for 40 acres, and a thinning program was scheduled for 122 acres. See also *Cronin v. U.S. Dep't of Agric.*, 919 F.2d 439 (7th Cir. 1990) (26 acres to be logged).

152. *Robertson II*, 784 F. Supp. at 609.

area, but only within the entire area covered by the forest plan.¹⁵³ A similar issue arose in *Sharps v. U.S. Forest Service*, where the plaintiff, a wildlife biologist, appealed a decision memo implementing an earlier decision that changed district management of the black-tailed prairie dog.¹⁵⁴ The plaintiff, who conducted research in the area, claimed that the management decision violated the diversity requirement of NFMA and the NFMA regulations.¹⁵⁵ The court ruled for the Forest Service because the prairie-dog management plan covered only a district, not a forest or a region.¹⁵⁶ The court held that the NFMA regulation requiring fish and wildlife habitat to be managed to maintain viable populations of vertebrate species¹⁵⁷ applies only to forest and regional plans, because these are "planning areas."¹⁵⁸

The regulations protect against significant loss of diversity from particular timber sales by requiring viable populations to be maintained throughout the "planning area."¹⁵⁹ Courts should follow the regulations and allow reductions of diversity in sale areas only where those reductions will not result in a decrease in the "estimated numbers and distribution of reproductive individuals" needed to ensure that the species continues to exist throughout the planning area.¹⁶⁰

153. *Id.* The size of the sale area is probably relevant to such a determination. In *Robertson II*, the challenged sales included a 40-acre shelterwood sale, a 61-acre shelterwood sale, and 87 acres of prescribed burning. *Id.* at 597, 600.

The Arkansas district court also addressed diversity in *Robertson III*, which involved the same parties as *Robertson II*. *Sierra Club v. Robertson*, 810 F. Supp. 1021 (W.D. Ark. 1992). There, the court refused to give the diversity requirements substantive meaning, describing them as "well-qualified," leaving "a great deal of room for honest debate." *Id.* at 1027. Because the interpretation of the diversity requirement involved "a high level of technical expertise," the court deferred to the agency's expertise. *Id.* at 1028.

154. 823 F. Supp. 668, 671 (D.S.D. 1993). Specifically, an August decision authorized the use of any EPA-approved pesticide on prairie dogs, the consolidation of prairie dog colonies, and a one-mile buffer zone between prairie dog colonies and adjacent private and Indian lands. *Sharps*, 823 F. Supp. at 671-72. An October decision memo established a specific number of colonies, necessitating consolidation of some colonies, and implemented a one-mile buffer zone. *Id.* at 672. *Sharps* appealed only the October decision memo, not the August one. *Id.* at 671.

155. *Sharps*, 823 F. Supp. at 678. In arguing for standing, *Sharps* asserted that the management change would reduce or eliminate the northern swift fox, whose diet depends largely on black-tailed prairie dogs. *Id.* at 673. Presumably, this was the basis of his diversity claim under NFMA.

156. *Id.* at 679.

157. 36 C.F.R. § 219.19.

158. *Sharps*, 823 F. Supp. at 679. "Planning areas are only those areas covered by a forest plan or regional plan." 36 C.F.R. § 219.19.

159. 36 C.F.R. § 219.19. It is not clear what a planning area is, though. The Forest Service routinely designates timber sale project areas as "planning areas," for example. *See, e.g.*, *Sierra Club v. U.S. Forest Service*, No. 92-5101, slip op. at 1-2 (D.S.D. Oct. 28, 1993).

160. 36 C.F.R. § 219.19. This may very well occur with certain old-growth-dependent species, such as the spotted owl or marbled murrelet, primarily because the old-growth forests have been almost completely logged.

The issue of whether the diversity requirement is intended to apply to forest plans, not individual timber sales, is not so easily resolved, however.¹⁶¹ This interpretation appears to be supported by legislative history: Congress was concerned with maintaining the diversity of the national forests so that they did not become "tree farms."¹⁶² Congress was not willing to dictate in detail how those forests should be managed, however. It therefore vested a tremendous amount of discretion in the agency to determine optimum management practices within the boundaries set by NFMA. Further, the purpose of forest plans is to guide the Forest Service in making project-level and forest-level decisions.

The *Sharps* interpretation that a district plan is not required to provide for diversity appears to be supported by Wilkinson and Anderson, who note that "the viable populations requirement apparently applies to regional guides as well as to forest plans."¹⁶³ Although *Sharps* was not appealing the entire forest plan, the court could have analyzed the impact that the challenged management decision would have had on diversity throughout the forest. To refuse to apply the statute because the appealed decision does not cover the entire forest means that only forest-plan appeals can include diversity claims. Given that a forest plan is in force for 10-15 years, and that project-level decisions are made throughout that time, the *Sharps* interpretation would severely restrict the usefulness of the diversity requirement. Courts should be willing to examine the effect of a particular project, such as a timber sale or a new management decision, by analyzing the project's impact on diversity throughout the planning area. If the reductions are acceptable, then the project complies with NFMA. If, however, the actions taken in a particular project will result in a significant reduction in diversity throughout the planning area, the court should then analyze the multiple-use objectives being met by the project and make its decision in accordance with both 36 C.F.R. section 219.19 and section 219.27(g).

iii) Consideration of Diversity Is Not Enough

Even if courts follow this in-depth analysis, they still must determine what type of Forest Service action will satisfy the NFMA diversity requirement. The *Robertson II* court noted, for example, that the Environmental Assessment for the challenged timber sale concluded that "diversity, on balance, will increase because certain animal species will benefit

161. 16 U.S.C. § 1604(g) addresses regulations to guide the development of "land management plans." 16 U.S.C. § 1604(g)(1). The plans are to cover "units of the National Forest System." 16 U.S.C. § 1604(a).

162. See generally Wilkinson & Anderson, *supra* note 3, at 171-73.

163. Wilkinson & Anderson, *supra* note 3, at 297 n.1587.

from the timber clearing”¹⁶⁴ and held that this “consideration” of diversity fulfilled the agency’s duty under NFMA. The court did not specifically find whether certain species would decline as a result of the timber sales.¹⁶⁵

Mere consideration of diversity in no way fulfills the mandate of the statute¹⁶⁶ or the regulations.¹⁶⁷ As Judge Parker of the Eastern District of Texas recently stated, “No amount of means—or words of “consideration”—can take the place of the statutorily-compelled end—or action—that the Service must perform.”¹⁶⁸ This is what differentiates a procedural statute such as NEPA from substantive provisions such as those in NFMA. While NEPA requires that agencies make informed decisions, it neither requires nor prohibits particular outcomes.¹⁶⁹ It demands, in the words of the *Robertson II* court, that an agency “consider” the potential impacts of its action. NFMA, however, requires much more than consideration; it imposes an affirmative duty on the agency to take actions that will “ensure” certain outcomes, such as diversity.

iv) Summary

Courts should interpret the diversity requirement of the statute and the viability requirement of the regulations as imposing a substantive duty on the Forest Service to protect wildlife.¹⁷⁰ This duty is not diminished merely because a species is listed as threatened or endangered under the Endangered Species Act.¹⁷¹ More importantly, it should be enforced as articulated in the regulations: to ensure the continued existence of vertebrate and non-vertebrate species throughout the area covered by a forest plan. That application should occur whether the plaintiff has appealed a forest plan, a timber sale or a wildlife-management decision. Finally, this is a substantive duty. Although it includes procedural components, it is not satisfied by mere “consideration.”

164. *Robertson II*, 784 F. Supp. at 611.

165. *Id.*

166. “The regulations shall [specify] guidelines for land management plans . . . which . . . provide for diversity of plant and animal communities” 16 U.S.C. § 1604(g)(3)(B) (emphasis added).

167. “Fish and wildlife habitat shall be managed to maintain viable populations of existing native and desired non-native vertebrate species. . . . [H]abitat must be provided to support, at least, a minimum number of reproductive individuals” 36 C.F.R. § 219.19 (emphasis added).

168. *Sierra Club v. Espy*, 822 F. Supp. 356, 364 (E.D. Tex. 1993).

169. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 351 (1989).

170. *See, e.g., Seattle Audubon Soc’y v. Moseley*, 798 F. Supp. 1484, 1489 (W.D. Wash. 1992).

171. *Seattle Audubon Soc’y v. Evans*, 771 F. Supp. 1081, 1086 (W.D. Wash. 1991) (citations omitted), *aff’d*, 952 F.2d 297 (9th Cir. 1991).

2. Post-Plan Changes: Monitoring, Assessment and Plan Amendment — § 1604(g)(3)(C)

NFMA states that the regulations shall require forest plans to provide for continuous monitoring and assessment of the effects of management practices to ensure that they “will not produce substantial and permanent impairment of the productivity of the land.”¹⁷² The regulations state that forest plans shall contain “[m]onitoring and evaluation requirements that will provide a basis for a periodic determination and evaluation of the effects of management practices.”¹⁷³ They also list what types of activities and effects the agency must monitor.¹⁷⁴

NFMA further provides that forest plans shall be revised “from time to time when the Secretary finds that conditions in a unit have significantly changed, but at least every fifteen years. . . .”¹⁷⁵ The regulations state that the “Forest Supervisor may amend the forest plan,”¹⁷⁶ and that the supervisor “shall review the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have change [sic] significantly.”¹⁷⁷

The monitoring and assessment section has not been invoked by plaintiffs seeking judicial review in any reported decisions¹⁷⁸ although the

172. 16 U.S.C. § 1604(g)(3)(C).

173. 36 C.F.R. § 219.11(d).

174. Specifically, the regulations require monitoring to include:

- (1) A quantitative estimate of performance comparing outputs and services within those projected by the forest plan;
- (2) Documentation of the measured prescriptions and effects, including significant changes in productivity of the land; and
- (3) Documentation of costs associated with carrying out the planned management prescriptions as compared with costs estimated in the forest plan.
- (4) A description of the following monitoring activities:
 - (i) The actions, effects, or resources to be measured, and the frequency of measurements;
 - (ii) Expected precision and reliability of the monitoring process; and
 - (iii) The time when evaluation will be reported.
- (5) A determination of compliance with the following standards:
 - (i) Land are adequately restocked as specified in the forest plan;
 - (ii) Lands identified as not suited for timber production are examined at least every 10 years to determine if they have become suited; and that, if determined suited, such lands are returned to timber production;
 - (iii) Maximum size limits for harvest areas are evaluated to determine whether such size limits should be continued; and
 - (iv) Destructive insects and disease organisms do not increase to potentially damaging levels following management activities.

36 C.F.R. § 219.13(k)(1)-(5).

175. 16 U.S.C. § 1604(f)(5).

176. 36 C.F.R. § 219.10(f).

177. 36 C.F.R. § 219.10(g).

178. In an unreported decision, plaintiffs Sierra Club and Native Ecosystems Council unsuccessfully argued that the Forest Service had failed to monitor management indicator species

amendment section was used as the basis for a claim in *Citizens for Environmental Quality v. United States*.¹⁷⁹ Monitoring and amendment are clearly related: monitoring may lead to recognition of "significant changes" that have occurred as a result of management activities, thereby triggering the duty to amend under section 1604(f)(5). In *Citizens for Environmental Quality*, however, the court did not adequately distinguish the two in its analysis. The plaintiffs claimed that forest plan implementation had caused "significant landslides and slope failures" and that the Forest Service must therefore revise the plan to protect soils as required by NFMA.¹⁸⁰ The court refused to make a finding as to whether the landslides and slope failures had actually occurred or, if they had, whether they required plan amendment, because plaintiffs had failed to exhaust their administrative remedies before seeking judicial review.¹⁸¹

Had the plaintiffs been able to prove that conditions had deteriorated significantly, the court could have relied on the monitoring requirement as well as the mandate to avoid irreversible damage to soils and the amendment provision to order the Forest Service to either further study the issue or amend the plan. Instead, the court simply reiterated that the duty to amend is discretionary and that the regulations require the forest plan to provide for continual monitoring. The *Citizens for Environmental Quality* court declined to impose an affirmative duty on the Forest Service, stating, "We must assume the good faith of the Forest Service in dealing with the changes revealed as part of the monitoring process."¹⁸² Like other substantive sections of NFMA, however, the monitoring requirement can and should be interpreted as imposing a duty on the Forest Service to ensure that its chosen management alternative does not cause unintended "substantial and permanent impairment of the productivity of the land."¹⁸³ This language reflects the concern expressed by Congress that increasing the amount of timber cut from national forest lands without regard for whether the land is capable of regeneration within a reasonable amount of time may eventually deplete the timber resource and adversely

(MIS). *Sierra Club v. U.S. Forest Service*, No. 92-5101, slip op. at 45-46 (D.S.D. Oct. 28, 1993). The court concluded from the administrative record that adequate monitoring had occurred, although it did so with no further explanation of underlying facts. *Id.* at 46.

179. 731 F. Supp. 970 (D. Colo. 1989).

180. *Citizens for Envtl. Quality*, 731 F. Supp. at 992.

181. *Id.* "Plaintiff may not circumvent established agency procedures and remedies by asking us to conduct a de novo hearing as to this issue." *Id.* See also *infra* notes 483-511 and accompanying text for a discussion of the exhaustion doctrine.

182. *Id.* at 992. The court was unwilling to review this issue because plaintiffs were raising it for the first time and had not afforded the agency an opportunity to respond. *Id.* Therefore, its comments are dicta and do not necessarily reflect judicial deference to the agency's actions as much as to the agency's right to establish a factual record and have the initial opportunity to respond to appeals.

183. 16 U.S.C. § 1604(g)(3)(C).

affect non-timber resources.¹⁸⁴ Amending the plan may be discretionary, but monitoring the effects of management activities is not.

3. Suitability Guidelines — § 1604(k) and § 1604(g)(3)(E)

a) Economic Suitability and Below-Cost Timber Management

NFMA imposes two sets of suitability guidelines on the Forest Service: physical suitability¹⁸⁵ and economic suitability.¹⁸⁶ Section 1604(k) requires the Forest Service to “identify lands within the management area which are not suited for timber production, considering physical, economic, and other pertinent factors . . . and . . . assure that . . . no timber harvesting shall occur on such lands for a period of 10 years.”¹⁸⁷ Plaintiffs have argued unsuccessfully that this section requires the Forest Service to manage the national forests on a cost-efficient basis.¹⁸⁸ The legislative history of section 1604(k) is ambiguous as to congressional intent.¹⁸⁹ Although uneconomical timber management was a concern of both the Bolle Report and the Church Subcommittee,¹⁹⁰ the Forest Service’s ability to cut timber for nonmonetary objectives such as wildlife

184. The Senate Agriculture and Forestry Committee report states:

The rapid, widespread cutting of currently mature trees may well be an advisable practice on privately-held lands where the basic management objective is maximizing short-term economic returns. The Committee believes, however, that such practices are incompatible with the management of the National Forests, where decisions must be based on the numerous public values of the forest, in addition to economic returns.

S. REP. NO. 893, 94th Cong., 2d Sess. 27 (1976), reprinted in 1976 U.S.C.C.A.N. 6662, 6686.

185. See 16 U.S.C. § 1604(g)(3)(E).

186. 16 U.S.C. § 1604(k).

187. 16 U.S.C. § 1604(k). The statute further states that the Secretary of Agriculture “shall review his decision to classify these lands as not suited for timber production at least every 10 years and shall return these lands to timber production whenever he determines that conditions have changed so that they have become suitable for timber production.” *Id.*

188. See *Citizens for Envtl. Quality*, 731 F. Supp. at 988-89. Plaintiffs in *Resources Ltd., Inc. v. Robertson* challenged a forest plan EIS for not considering a cost-efficient alternative and claimed that the Forest Service must take into consideration economic efficiency in selecting lands for timber harvesting. 789 F. Supp. 1529, 1537-39 (D. Mont. 1991), *aff’d in part, rev’d in part*, 8 F.3d 1394 (9th Cir. 1993). Like the court in *Big Hole Ranchers Ass’n v. U.S. Forest Service*, 686 F. Supp. 256 (D. Mont. 1988) (below-cost timber sales challenged), the *Resources Ltd.* court relied on *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985), for the proposition that national forests do not have to be managed on an economically efficient basis. *Resources Ltd.*, 789 F. Supp. at 1538; *Big Hole Ranchers*, 686 F. Supp. at 263. *Thomas* was based on 16 U.S.C. § 1608, a section in NFMA that specifically addresses road construction. *Big Hole* and *Resources Ltd.* both indicate that *Thomas* will be interpreted broadly, and will apply even when plaintiffs rely on different sections of NFMA.

A further difficulty for plaintiffs challenging below-cost timber sales has been their inability to obtain standing. See, e.g., *Big Hole Ranchers*, 686 F. Supp. at 263 (holding that plaintiff failed to allege any harm from below-cost sales); *Churchwell v. Robertson*, 748 F. Supp. 768, 776 (D. Idaho 1990) (holding that taxpayer plaintiffs did not allege sufficient “personal stake in the outcome”).

189. See *Wilkinson & Anderson*, *supra* note 3, at 162-70.

190. *Id.* at 162.

habitat improvement offset any possibility of an outright ban on below-cost timber production.¹⁹¹ As a result, the Committee of Scientists concluded that section 1604(k) does not mandate any clear direction for economical management.¹⁹²

The ambiguity of the legislative history, the difficulty for plaintiffs in achieving standing and the precedent set by *Thomas v. Peterson*¹⁹³ have rendered section 1604(k) ineffective as a tool to prevent timber sales that generate less revenue than they cost. As long as Congress is willing to endorse uneconomical forest management, the courts will probably not step in to interfere.

b) Physical Suitability

Section 1604(g)(3)(E) specifies that timber harvesting may take place only where the Forest Service can insure that certain resources will be protected.¹⁹⁴ The physical suitability guidelines have been called "some of the strongest medicine that Congress prescribed in NFMA."¹⁹⁵ The first two provisions, covering soils and regeneration, were adopted directly from the Church Guidelines.¹⁹⁶ However, while the Church Guidelines applied only to clearcutting, the NFMA guidelines apply to all timber harvesting.¹⁹⁷ In addition, NFMA guidelines regarding water quality protection restrict timber harvesting more stringently than the Church Guidelines.¹⁹⁸

The physical suitability analysis process is divided into three stages, as set forth in the regulations.¹⁹⁹ In the first stage, lands are to be identified as

191. *Id.* at 162-64.

192. *Id.* at 168 (citing *Final Report of the Committee of Scientists*, 44 Fed. Reg. 26,599, 26,607 (1979)).

193. *See supra* note 188; *see also* Wilkinson & Anderson, *supra* note 3, at 168-69.

194. The regulations shall include, but not be limited to . . . specifying guidelines for land management plans . . . which . . . insure that timber will be harvested from National Forest System lands only where—

(i) soil, slope or other watershed conditions will not be irreversibly damaged;
(ii) there is assurance that such lands can be adequately restocked within five years after harvest;

(iii) protection is provided for streams, streambanks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat; and

(iv) the harvesting system to be used is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber.

16 U.S.C. § 1604(g)(3)(E)(i)-(iv).

195. Wilkinson & Anderson, *supra* note 3, at 159.

196. *Id.* at 160; *see also supra* notes 57-65 and accompanying text.

197. Wilkinson & Anderson, *supra* note 3, at 160.

198. *Id.*

199. 36 C.F.R. § 219.14.

not suited for timber production if (1) they are not forest land,²⁰⁰ (2) technology is not available to ensure timber production without irreversible damage to soil productivity or watershed conditions,²⁰¹ (3) there is no reasonable assurance that the lands can be "adequately restocked,"²⁰² or (4) the land has been withdrawn from timber production.²⁰³ Land that is suitable under stage one is then evaluated under the economic analyses of stages two and three.²⁰⁴ In stage two, the agency is to analyze the costs and benefits of a range of timber management intensities.²⁰⁵ Stage three provides that lands which are not "cost-efficient" are not suitable for timber production, evaluating both timber and non-timber uses.²⁰⁶ The regulations allow timber harvesting on unsuitable lands in the case of salvage sales, sales necessary to protect multiple-use values or "activities that meet other objectives on such lands if the forest plan establishes that such actions are appropriate."²⁰⁷

i) Soil, Slope & Watershed Limitations

The statute requires that timber be harvested only where soil, slope or other watershed conditions will not be irreversibly damaged.²⁰⁸ As mentioned above, the regulations include this limitation as part of a three-stage suitability analysis.²⁰⁹ Specifically, the regulations state that lands are not suited for timber production if "[t]echnology is not available to ensure timber production from the land without irreversible resource damage to soils productivity, or watershed conditions."²¹⁰

In *Citizens for Environmental Quality*, plaintiffs challenged the

200. 36 C.F.R. § 219.14(a)(1). The regulations define forest land as land that is at least 10 percent covered with trees of any size, or land that used to have trees on it and is not currently developed for non-forest use, such as agriculture, residential use, or roads. 36 C.F.R. § 219.3.

201. 36 C.F.R. § 219.14(a)(2).

202. 36 C.F.R. § 219.14(a)(3). Adequate restocking is defined as:

When trees are cut to achieve timber production objectives, the cuttings shall be made in such a way as to assure that the technology and knowledge exists [sic] to adequately restock the lands within 5 years after final harvest. Research and experience shall be the basis for determining whether the harvest and regeneration practices planned can be expected to result in adequate restocking. Adequate restocking means that the cut area will contain the minimum number, size, distribution, and species composition of regeneration as specified in regional silvicultural guides for each forest type.

36 C.F.R. § 219.27(c)(3).

203. 36 C.F.R. § 219.14(a)(4).

204. 36 C.F.R. § 219.14(b)-(c); see also *Sierra Club v. Cargill*, 732 F. Supp. 1095, 1099-1100 (D. Colo. 1990).

205. 36 C.F.R. § 219.14(b); *Cargill*, 732 F. Supp. at 1100.

206. 36 C.F.R. § 219.14(c)(3); *Cargill*, 732 F. Supp. at 1100.

207. 36 C.F.R. § 219.27(c)(1).

208. 16 U.S.C. § 1604(g)(3)(E)(i).

209. 36 C.F.R. § 219.14(a)-(d).

210. 36 C.F.R. § 219.14(a)(2).

implementing regulation and the Forest Service's interpretation and application of it in the Rio Grande National Forest Plan.²¹¹ The Forest Service relied on the regulations to conclude that forest land was suitable for timber production if the technology existed to harvest timber without irreversibly harming soil and water.²¹² The technology did not have to be available in the local area, nor did it have to be cost-efficient to use it.²¹³

The court upheld the regulation, finding that it conforms to the statutory intent, which is to provide adequate guidelines for insuring against irreversible damage.²¹⁴ It further held that the Forest Service may identify unsuitable lands on a project-by-project basis, rather than in the forest plan, if the agency lacks sufficient inventory data at the time it makes its suitability analysis.²¹⁵ It did not uphold the Forest Service's guidelines regarding the availability of technology, however. If lands would be unsuitable except for available technology, the agency must specifically identify the technology and provide for its use.²¹⁶ The court ordered the agency to identify any technology upon which it relied for the suitability exception, and to outline provisions for implementation of the technology.²¹⁷ The court therefore found a middle ground in interpreting NFMA and its regulations. It rejected plaintiffs' interpretation—that the agency must never damage soil or water resources in timber harvesting—but it similarly rejected defendants' interpretation—that technology must simply be available. The court properly sought to determine and enforce the underlying intent of the statute.

ii) Five-Year Restocking

NFMA requires the Forest Service to promulgate regulations to ensure that timber will be harvested only from national forest lands where "there is assurance that such lands can be adequately restocked within five

211. 731 F. Supp. 970, 983 (D. Colo. 1989) (challenging 36 C.F.R. § 219.14(a)(2)).

212. *Id.* at 984.

213. *Id.*

214. *Id.*

215. *Id.* The court clearly stated, however, that "provisions must be made for the completion of the necessary data base before projects are implemented." *Id.*

216. *Id.* at 985. The court interpreted 36 C.F.R. § 219.14 as following:

If there exists technology which is capable of adequately repairing short-term damage due to timber harvesting within a reasonable time, and provisions are made for the use of that technology, then timber production may be carried out despite whatever short-term damage may be caused. However, where timber harvesting is contemplated on potentially unsuitable lands, then the technology to be used in preventing irreversible damage must be identified and provisions made for its implementation.

Id.

217. *Citizens for Envtl. Quality*, 731 F. Supp. at 986.

years after harvest."²¹⁸ In outlining the timber suitability analysis which the Forest Service must perform during the planning process, the NFMA regulations state that lands are not suitable for timber harvesting unless there is "reasonable assurance" that lands can be adequately restocked.²¹⁹ The meaning of "adequately restocked" is amplified in a separate regulation,²²⁰ which also states that timber shall be harvested in such a way "to assure that the technology and knowledge exists [sic] to adequately restock the lands within 5 years after final harvest."²²¹ The duty of the Forest Service under this standard was litigated in two relatively early NFMA cases.²²² The agency must create a "realistic" restocking plan which identifies the technology to be used and provides for its implementation.²²³

The plaintiffs in *Sierra Club v. Cargill* asked the court to order the Forest Service to amend the Bighorn National Forest Plan and enjoin the agency from harvesting timber except in those areas where it could assure adequate restocking within five years.²²⁴ The Forest Service used a seven-year restocking standard in its timber suitability analysis, not a five-year standard.²²⁵ In its final administrative decision, the agency found that the seven-year standard complied with the statute and the regulations.²²⁶

The court held that the seven-year standard violated NFMA²²⁷ and ordered the agency to amend the forest plan.²²⁸ In delineating the

218. 16 U.S.C. § 1604(g)(3)(E)(ii).

219. 36 C.F.R. § 219.14(a)(3).

220. 36 C.F.R. § 219.27(c)(3).

221. *Id.*

222. *Big Hole Ranchers Ass'n v. U.S. Forest Service*, 686 F. Supp. 256 (D. Mont. 1988); *Sierra Club v. Cargill*, 732 F. Supp. 1095 (D. Colo. 1990), *rev'd on other grounds*, 11 F.3d 1545 (10th Cir. 1993).

223. *Cargill*, 732 F. Supp. at 1100.

224. *Id.* at 1096-97.

225. *Id.* at 1098.

226. *Id.* A year later, the Forest Service Chief ordered the regional forester to amend the plan to assure adequate restocking within five years. *Id.* The court held that this did not moot the lawsuit, as the agency had not amended the plan and still considered the seven-year standard to be legal. *Id.*

227. *Id.* at 1099.

228. *Id.* at 1101. The Forest Service did not appeal this decision. It amended the forest plan to include a five-year restocking standard, but did so without going through the three-stage suitability analysis. Based on an Environmental Assessment, the agency found the change from a seven-year standard to a five-year standard was not significant, and therefore did not require a full suitability analysis under 36 C.F.R. § 219. See 36 C.F.R. § 219.10(f). The district court refused to dissolve the injunction, however, and ordered the agency to do a three-stage analysis. *Sierra Club v. Cargill*, 11 F.3d 1545, 1546-50 (10th Cir. 1993).

The Forest Service appealed that decision, and the Tenth Circuit held for the Forest Service, finding that the lower court had abused its discretion. *Id.* at 1550. "Applying the proper deferential standard, this Court cannot say, nor could the district court appropriately say, that the Forest Service acted arbitrarily or capriciously or abused its discretion in treating the move from a seven-year to a five-year regeneration standard as a 'non-significant' change." *Id.* at 1548-49. The dissent argued that the

parameters of the duty imposed on the Forest Service by NFMA and its regulations, the court sought to maintain the "integrity" of the statute.²²⁹ The court refused to interpret the statute and regulations as requiring only that restocking be hypothetically possible, without requiring the agency to specify the technology and its implementation in the planning area.²³⁰ Again, this interpretation enforces the underlying intent of NFMA by requiring more than a promise from the Forest Service, while still deferring to the agency's expertise to actually manage the forests.

In the only other restocking case, *Big Hole Ranchers Ass'n v. U.S. Forest Service*, the court deferred to the Forest Service without analyzing NFMA or its implementing regulations.²³¹ The plaintiffs claimed that the Forest Service had not assured that the challenged sale areas would regenerate within five years.²³² The court found that the agency had made the necessary assurances.²³³ The issue in *Big Hole Ranchers* was a factual one: whether regeneration in the proposed timber sale areas was possible within five years. The Forest Service contended that it was but the plaintiffs disagreed, relying on their own expert.²³⁴ The court was not persuaded by plaintiffs' expert, however, and found that the Forest Service's determination was not arbitrary, was well-reasoned and was "based on considerable agency expertise and experience."²³⁵ The agency is responsible for developing the factual record, and is considered to have the expertise necessary to make a determination on the issue. It is proper for courts to decide whether such factual findings are arbitrary or capricious, however, for in that case the agency has abdicated its responsibility as a steward of the land.²³⁶

iii) Water conditions and fish habitat

NFMA requires the Forest Service to promulgate regulations which

agency had not appealed the injunction, and the district court was simply enforcing the terms of its injunction. *Id.* at 1550 (Seymour, J., dissenting).

This decision does not affect the substantive determination made by the lower court regarding the restocking standard.

229. *Cargill*, 732 F. Supp. at 1101.

230. *Id.*

231. *Big Hole Ranchers*, 686 F. Supp. at 263-64.

232. *Id.* at 264.

233. *Id.*

234. *Id.*

235. *Id.*

236. Such a determination may necessitate going beyond the agency record to decide whether a factual issue, which seems reasonable on its face, is based upon scientific findings that are arbitrary and capricious. Some courts are extremely reluctant to do this. See *infra* notes 511-35 and accompanying text. In *Big Hole Ranchers*, however, Judge Hatfield conducted a three-day trial before making his ruling.

ensure that timber will be harvested only where waterways are protected.²³⁷ In *Sierra Club v. Robertson (Robertson III)*,²³⁸ plaintiffs argued that the agency had failed to meet this obligation because it had not promulgated any implementing regulations.²³⁹ The court directed plaintiffs' attention to 36 C.F.R. section 219.27(e), which states that "[n]o management practices causing detrimental changes in water temperature or chemical composition, blockages of water courses, or deposits of sediment shall be permitted within these areas which seriously and adversely affect water conditions or fish habitat."²⁴⁰ While this regulation does limit the effects of management activities on water and fish habitat, it is not included in the physical suitability analysis section of the regulations, which implements section 1604(g)(3)(E).²⁴¹ Section 219.27(e) requires the agency to protect water, but does not completely exclude from timber harvesting land on which waterways cannot be adequately protected. Although the court's opinion does not lay out plaintiffs' argument, it appears to be this: that water protection should be a basis for declaring land unsuitable for harvesting. The court did not interpret plaintiffs' argument in this manner, although such an interpretation may have merit.

In one of the few other claims raised under this section, plaintiffs claimed that the Forest Service had defined wetlands incorrectly, thereby violating NFMA and its implementing regulations.²⁴² The court refused to address the NFMA claims, however, because the agency had made a factual determination that no wetlands or floodplains existed in the relevant area and plaintiffs had not adduced any contrary evidence.²⁴³ The court's brief discussion makes it difficult to fully understand this issue, but because the plaintiffs argued that the Forest Service had defined wetlands improperly, the fact that the Forest Service had concluded there were no wetlands in the timber-sale area was irrelevant. Plaintiffs' claim may have been that the incorrect definition was the basis for the Forest Service's finding, and that the finding was therefore erroneous. If so, it was unreasonable for the court to justify its decision on the agency's finding.²⁴⁴

237. 16 U.S.C. § 1604(g)(3)(E)(iii). The statute states that regulations shall allow timber harvesting "only where . . . protection is provided for streams, streambanks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperatures, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat." *Id.*

238. 810 F. Supp. 1021 (W.D. Ark. 1992).

239. *Robertson III*, 810 F. Supp. at 1025-26.

240. *Id.* (quoting 36 C.F.R. § 219(27)(e)).

241. 36 C.F.R. § 219.14.

242. *Robertson II*, 784 F. Supp. at 609.

243. *Id.*

244. The court did not indicate it was deferring to the agency's factual findings. It may have been that the plaintiffs failed to adequately brief the issue.

The Arkansas court should not have immediately deferred to the agency's factual finding. When the agency has interpreted the law arbitrarily or capriciously, any factual determination made on the basis of that interpretation should be scrutinized.

In another claim raised under this section, plaintiffs challenging the Flathead National Forest Plan and accompanying EIS in *Resources Limited, Inc. v. Robertson* contended that the Forest Service did not adequately analyze the impacts of increased sediment from timber harvesting on water quality and fisheries.²⁴⁵ The Forest Service agreed that it had not made site-specific analyses, but that it would do so at the project level.²⁴⁶ In addition, the plan stated that every timber sale must meet or exceed state water quality standards.²⁴⁷ The district court held for the Forest Service, and the Ninth Circuit affirmed.²⁴⁸

The district court analyzed the claim under NEPA rather than NFMA,²⁴⁹ relying on a decision which held that site-specific analyses are not required in a programmatic EIS.²⁵⁰ The Ninth Circuit affirmed, distinguishing the water-quality case cited by plaintiffs²⁵¹ by noting that it concerned a site-specific plan, whereas *Resources Limited* involved a forest-wide plan.²⁵² "We are convinced that such specific analysis is better done when a specific development action is to be taken, not at the programmatic level," the court wrote.²⁵³ The case cited by the Ninth Circuit,²⁵⁴ *Northwest Indian Cemetery Protective Ass'n v. Peterson*,²⁵⁵ rested on NEPA and the Clean Water Act and did not address possible effects on fish habitat. While *Northwest Cemetery* may be relevant to plaintiffs' water quality claims, it does not fully address their NFMA claim.

245. 789 F. Supp. 1529 (D. Mont. 1991), *aff'd in part, rev'd in part*, 8 F.3d 1394 (9th Cir. 1993).

246. *Resources Ltd.*, 789 F. Supp. at 1536.

247. *Id.*

248. *Id.*; *Resources Ltd.*, 8 F.3d at 1401. The district court also held that the plaintiffs lacked standing and the issues were not ripe for review, 789 F. Supp. at 1534, but the Ninth Circuit reversed that holding, 8 F.3d at 1398. *See also infra* notes 389-482 and accompanying text for a more thorough discussion of standing and ripeness.

249. 789 F. Supp. at 1534-40. NEPA claims are inextricably entwined with NFMA claims in forest-plan and timber-sale appeals. Every forest plan has an accompanying EIS, and plaintiffs usually appeal both the plan and the EIS. *See infra* Section II(B)(2). Because NEPA case law is more extensive than NFMA case law, plaintiffs may make a claim under NFMA but find that the court decides it under NEPA, as happened in *Resources Ltd.*

250. 789 F. Supp. at 1536 (citing *Natural Resources Defense Council v. Hodel*, 819 F.2d 927, 930 (9th Cir. 1987)).

251. *Northwest Indian Cemetery Protective Ass'n v. Peterson*, 795 F.2d 688 (9th Cir. 1986), *rev'd on other grounds*, 485 U.S. 439 (1988).

252. 8 F.3d at 1401.

253. *Id.*

254. *Id.*

255. 764 F.2d 581 (9th Cir. 1985).

Resources Limited provided the Ninth Circuit with an opportunity to analyze and articulate the standard necessary to prove that timber harvesting is "likely to seriously and adversely affect water conditions or fish habitat."²⁵⁶ Unfortunately, the court sidestepped the issue. It is difficult to predict how section 1604(g)(3)(E)(iii) may be used by plaintiffs in future challenges to forest plans or timber sales. If the Forest Service specifies in a forest plan that all projects must meet or exceed state water quality standards, as in *Resources Limited*, the court will probably find that the agency has met its statutory duty under both NEPA and NFMA. Plaintiffs may still challenge site-specific projects, however.

Still to be decided by courts are such questions as: If timber harvesting will increase sediment enough to decrease the number of fish in a waterway, is that a "serious" impact? Should adverse impacts be allowed within the Forest Service discretion? Neither the statute nor the legislative history provide much guidance. For example, the Senate Committee Report states:

The Committee believes that the Forest Service should make greater use of the expertise of State fish and wildlife agencies, the Fish and Wildlife Service, and the National Marine Fisheries Service. Activities that may affect significant fish and wildlife habitat must be very carefully planned and monitored to assure that habitat values are recognized and properly protected.²⁵⁷

Obviously, preserving water quality and fish habitat was an important goal of those who drafted and passed NFMA. Section 1604(g)(3)(E)(iii) should not be taken lightly; instead, it should be interpreted as a substantive limitation on Forest Service timber harvesting. The duty is imposed on the Forest Service, although the drafters envisioned a cooperative approach among various agencies. The duty is not absolute, but should not be interpreted as a rigid, isolated restriction. NFMA is a multiple-use statute, after all. Preserving the integrity of this substantive requirement may further limit the use of particular harvest techniques, or timber sales in particular areas, but would conform with the intent of the NFMA and its drafters.

4. *Even-Aged Management* — § 1604(g)(3)(F)

a) The Statute and Regulations

NFMA requires the Forest Service to promulgate regulations which

256. 16 U.S.C. § 1604(g)(3)(E)(iii).

257. S. REP. NO. 893, 94th Cong., 2d Sess. 39 (1976), reprinted in 1976 U.S.C.C.A.N. 6662, 6698.

will insure that even-aged management be used in national forests only when certain conditions are met.²⁵⁸ For all methods of even-aged management, the agency must insure that "such cuts are carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and esthetic resources, and the regeneration of the timber resource."²⁵⁹

The implementing regulations provide a detailed definition of even-aged management.²⁶⁰ They further provide that all management prescriptions involving "vegetative manipulation of tree cover" shall be "best suited to the multiple-use goals established for the area," with a variety of considerations to be stated in the regional guides and forest plans.²⁶¹

Clearcutting, the most common and controversial method of even-aged management, was a primary focus of Congress at the time NFMA was enacted.²⁶² Specifically, NFMA provides that for clearcutting to be used, it must be "determined to be the optimum method . . ."²⁶³ The regulations go so far as to prescribe size limitations on clearcuts,²⁶⁴ allowing exceptions "where larger units will produce a more desirable combination of net public benefits."²⁶⁵

Some of the strongest language in the statute is that which requires

258. 16 U.S.C. § 1604(g)(3)(F)(i)-(v). The statute states that clearcutting, seed-tree cutting and shelterwood cuts are examples of even-aged management, but suggests that the test for whether a particular harvest technique is even-aged management is whether the goal of the harvest method is to regenerate an even-aged stand of trees. See 16 U.S.C. § 1604(g)(3)(F).

259. 16 U.S.C. § 1604(g)(3)(F)(v).

260. The regulation describes even-aged management as:

[t]he application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and, therefore, tree sizes) throughout the forest area. The difference in age between trees forming the main canopy level of a stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed-tree cutting produce even-aged stands.

36 C.F.R. § 219.3.

261. 36 C.F.R. § 219.27(b)(1). For example, environmental, biological, cultural resource, aesthetic, engineering, and economic impacts are to be considered. *Id.*

262. See *supra* notes 50-80 and accompanying text discussing the controversy over clearcutting in the early 1970s; see also Wilkinson & Anderson, *supra* note 3, at 69 (Congress' long history of deference to Forest Service shifted after the "clearcutting controversy" in *Monongahela*; the time was ripe to place substantive controls on the agency).

263. 16 U.S.C. § 1604(g)(3)(F)(i).

264. The regulation states:

Individual cut blocks, patches or strips . . . may be less than, but will not exceed, 60 acres for the Douglas-fir forest type of California, Oregon, and Washington; 80 acres for the southern yellow pine types of Alabama, Arkansas, Georgia, Florida, Louisiana, Mississippi, North Carolina, South Carolina, Oklahoma, and Texas; 100 acres for the hemlock-sitka spruce forest type of coastal Alaska; and 40 acres for all other forest types . . .

36 C.F.R. § 219.27(d)(2).

265. 36 C.F.R. § 219.27(d)(2)(i).

clearcutting to be the "optimum method."²⁶⁶ The Church guidelines, which placed substantive limitations on timber harvest practices prior to the passage of NFMA,²⁶⁷ allowed clearcutting only if the agency determined it was "silviculturally essential."²⁶⁸ The Senate Committee report from the NFMA hearings states that "'optimum method' means it must be the most favorable or conducive to reaching the specified goals of the management plan. . . [and] is, therefore, a broader concept than 'silviculturally essential' or 'desirable'—terms considered and rejected by the Committee."²⁶⁹ That language indicates that Congress did not intend to prohibit clearcutting or even require it to be the scientifically best harvest method. It was intended that clearcutting could be used to create wildlife habitat or promote recreation.²⁷⁰ Congress did not intend, however, to allow clearcutting simply because it produces the highest rate of return. In section 1604(g)(3)(E)(iv), NFMA places yet another restriction on timber management by requiring that "the harvesting system to be used is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber."²⁷¹ There is a balance to be struck, then, between economic considerations and resource considerations. Nonetheless, when taken as a whole, section 1604(g) suggests that even-aged management should be used with great care, in rare circumstances.

b) Economic Feasibility Studies

NFMA also states that even-aged management is to be used only where the "potential environmental, biological, esthetic, engineering, and economic impacts on each advertised sale area have been assessed."²⁷² In *Citizens for Environmental Quality*, the plaintiffs claimed that this section required the Forest Service to conduct an economic feasibility study on each timber sale it offered.²⁷³ The court disagreed, holding that the agency had met its duty under the statute by promulgating an implementing regulation.²⁷⁴ It held that the statute and regulation did not mandate an

266. 16 U.S.C. § 1604(g)(3)(F)(i).

267. See *supra* Section I for a full discussion of the passage of NFMA; see also Wilkinson & Anderson, *supra* note 3.

268. Wilkinson & Anderson, *supra* note 3, at 187 (citing CHURCH SUBCOMMITTEE REPORT, *supra* note 58).

269. Wilkinson & Anderson, *supra* note 3, at 187 n.965 (citing S. REP. NO. 893, 94th Cong., 2d Sess. 39, reprinted in 1976 U.S.C.C.A.N. 6662, 6698, and in SENATE COMM. ON AGRICULTURE, NUTRITION, AND FORESTRY, 96th Cong., 1st Sess., COMPILATION OF THE FOREST AND RANGELAND RENEWABLE RESOURCES ACT OF 1974, at 319 (Comm. Print 1979)).

270. Wilkinson & Anderson, *supra* note 3, at 187-88.

271. 16 U.S.C. § 1604(g)(3)(E)(iv).

272. 16 U.S.C. § 1604(g)(3)(F)(ii).

273. 731 F. Supp. 970, 991 (D. Colo. 1989).

274. *Id.* (quoting 36 C.F.R. § 219.27(a)(7): "Resource protection. All management prescrip-

economic feasibility study in the forest plan, but “any time prior to the implementation of the project.”²⁷⁵ Here, the court holds that NFMA does not mandate an analysis at the project stage, but only at the plan stage. In general, this appears to be true: NFMA establishes guidelines for forest planning, with the caveat that all projects—“[r]esource plans, permits, contracts and other instruments for the use and occupancy of National Forest system lands”—must conform with the controlling forest plan.²⁷⁶

c) Judicial Review: “Optimum Method”

Only one court has reviewed Forest Service actions in light of the “optimum method” language.²⁷⁷ In *Resources Limited, Inc. v. Robertson*, plaintiffs alleged that the forest plan violated NFMA because the agency failed to demonstrate that clearcutting was the optimum harvest method for any proposed sales in the plan.²⁷⁸ The court interpreted NFMA as requiring “the Forest Service[, when it] is about to authorize a sale, . . . to determine whether clearcutting is the optimum method to meet the objectives and requirements of the relevant land management plan.”²⁷⁹ In other words, according to the district court, the “optimum method” determination is a post-plan decision.²⁸⁰ The statute, however, applies specifically to forest plans and clearly requires the Forest Service to promulgate regulations to insure that clearcutting is used only where it is determined to be the optimum method.²⁸¹

On appeal, the Ninth Circuit did not directly address the optimum-method issue. It did, however, affirm the district court’s holding that the Forest Service had considered an adequate range of alternatives in the plan, even though no alternative allocated less than 75 percent of the

tions shall . . . [b]e assessed prior to project implementation for potential physical, biological, aesthetic, cultural, engineering, and economic impacts and for consistency with multiple uses planned for the general area . . .”).

275. *Citizens for Envtl. Quality*, 731 F. Supp. at 991.

276. 16 U.S.C. § 1604(i).

277. This is surprising, given that clearcutting was the impetus for the Bolle Report, the *Monongahela* decision and, ultimately, NFMA. It is the authors’ belief and experience that this is a major issue in administrative appeals of timber sales; however, only a very small percentage of those appeals are further appealed to the courts. For example, the Forest Service decided 1,182 appeals in fiscal year 1991. F. Dale Robertson, Chief, U.S. Forest Service, before the Subcomm. on Public Lands, National Parks and Forests, Senate Comm. on Energy and Natural Resources, *The Effect of Forest Service Plan and Timber Appeals on Timber Supply 5* (Nov. 21, 1991) (unpublished copy on file with the author). Approximately half of those involve timber sales. *Id.* In contrast, fewer than 50 NFMA cases have been heard by the courts over the past decade.

278. *Resources Ltd., Inc. v. Robertson*, 789 F. Supp. 1529, 1536 (D. Mont. 1991), *rev’d in part, aff’d in part*, 8 F.3d 1394 (9th Cir. 1993).

279. *Id.* at 1537.

280. *Id.*

281. 16 U.S.C. § 1604(g)(3)(F)(i).

harvest to even-aged management.²⁸² Plaintiffs argued that the Forest Service chose its range of alternatives as a result of economic factors rather than silvicultural factors. The Ninth Circuit reiterated section 1604(g)(3)(E)(iv) and held that the Forest Service may include economic factors in its planning as long as “the harvesting system to be used is not selected primarily because it will give the greatest dollar return or the greatest unit output for timber.”²⁸³ It went on to state that the plaintiffs would be able to challenge site-specific EISs or EAs “if clearcutting is improperly endorsed as the optimum harvest method.”²⁸⁴ This holding suggests the Ninth Circuit is affirming the district court’s holding, but in dicta. The court did not analyze the optimum-method issue and failed to enforce the underlying intent of the statute by allowing such a high percentage of timber to be in even-aged management, further muddying the “optimum method” waters.

d) Judicial Review: Duty to Protect Other Resources

Not all courts have been so reluctant to look at the underlying statutory intent. In addition to requiring clearcuts to be the “optimum method,” NFMA requires all even-aged cuts to be “carried out in a manner consistent with the protection of soil, watershed, fish, wildlife, recreation, and esthetic resources, and the regeneration of the timber resource.”²⁸⁵ This requirement formed the basis of a challenge to a forest plan, EIS and several proposed timber sales in Texas.²⁸⁶ In issuing a preliminary injunction to halt several timber sales, the district court stated:

It appears quite likely that Plaintiffs will succeed in demonstrating that Defendants have failed to fulfill the latter’s substantive NFMA obligations. Defendants have taken the extreme, and untenable, position that there is no provision of the APA or the NFMA allowing the plaintiffs to judicially challenge actual, on-the-ground practices of the Forest Service.²⁸⁷

282. *Resources Ltd.*, 8 F.3d at 1402.

283. *Id.* (quoting 16 U.S.C. § 1604(g)(3)(E)(iv)).

284. *Id.*

285. 16 U.S.C. § 1604(g)(3)(F)(v).

286. *Sierra Club v. Espy*, 822 F. Supp. 356 (E.D. Tex. 1993). At least four decisions address plaintiffs’ challenges to the forest plan and EIS for the Texas National Forests. In the first decision, the court refused to waive the administrative exhaustion requirement for plaintiffs. *Sierra Club v. Lyng*, 694 F. Supp. 1256, 1264 (E.D. Tex. 1988). The next two decisions address plaintiffs’ Endangered Species Act claims. *Sierra Club v. Lyng*, 694 F. Supp. 1260 (E.D. Tex. 1989), *aff’d in part, vacated in part, and remanded sub nom.* *Sierra Club v. Yeutter*, 926 F.2d 429 (5th Cir. 1991).

In the most recent decision, the court ruled on the likelihood of plaintiffs’ success on their NFMA and NEPA claims concerning the Forest Service’s even-aged management plans. *Espy*, 822 F. Supp. at 358.

287. *Espy*, 822 F. Supp. at 363.

The Forest Service argued that NFMA was a "mere 'planning statute,' i.e., with no substantive component."²⁸⁸ The court disagreed.²⁸⁹ Relying on the section requiring the protection of other resources when even-aged cuts are used, the court stated that NFMA "contemplates that even-aged management techniques will be used only in exceptional circumstances."²⁹⁰ It found, however, that the Forest Service used even-aged management "as if it comprised the statutory 'rule,' rather than the exception."²⁹¹

The court interpreted this section of NFMA as unambiguous, requiring even-aged management to be used only when it is "consistent with the protection of the forests' natural resources," which the court specified "requires protection of the entire biological community—not of one species."²⁹² It also drew an important distinction between the imposition of an affirmative duty to act, which is created by a substantive statute, and the requirement that an agency simply "consider" some factor in its decision, which is created by a procedural statute.²⁹³ The court stated that NFMA clearly placed substantive limitations on Forest Service logging practices.²⁹⁴

This decision is similar to those in *Seattle Audubon Society v. Moseley*²⁹⁵ and *Seattle Audubon Society v. Evans*²⁹⁶ in the court's refusal to "rubber stamp" agency action. Rather than narrowly focus on the language of one section of NFMA, the court looked at the statute as a whole to find that the Forest Service was not obeying the law. The court's language regarding the "protection of the entire biological community" appears to be drawing on the diversity requirements of NFMA as well as the even-aged restrictions. In other words, the *Espy* court construed NFMA as a whole to derive the Forest Service's duties. It did not construe each section of NFMA in isolation. This contextual analysis is arguably the best way to enforce congressional purpose and, therefore, statutory intent.²⁹⁷

288. *Id.*

289. *Id.*

290. *Id.* at 363-64.

291. *Id.* at 364. According to the forest plan, 82 percent of the Texas forest was to be under even-aged management. *Id.* Of the nine scheduled timber sales being challenged, comprising more than 6,000 acres, less than 10 percent were to be cut using uneven-aged management methods. *Id.*

292. *Id.*; accord *Seattle Audubon Soc'y v. Moseley*, 798 F. Supp. 1484, 1489 (W.D. Wash. 1992); see also *supra* notes 109-71 and accompanying text.

293. *Espy*, 822 F. Supp. at 364.

294. *Id.*

295. 798 F. Supp. at 1488-90.

296. 952 F.2d 297, 299-302 (9th Cir. 1991).

297. See generally Cynthia R. Farina, *Statutory Interpretation and the Balance of Power in the Administrative State*, 89 COLUMBIA L.R. 452, 458 n.28 (1989).

e) Summary

As has been shown throughout this article, a court's level of deference to the agency's interpretation of its controlling statute plays a crucial role in substantive interpretation. Judicial interpretation of the NFMA restrictions on clearcutting, for example, is completely different in *Resources Limited* than in *Espy*. Both involved challenges to even-aged management plans for an entire forest. But while one court accepted the agency's interpretation, the other did not.

The difference may lie in the court's approach to judicial review. The judiciary's role in reviewing a statute is to ensure that the agency charged with implementing the statute is following the law. Too many courts misinterpret *Chevron v. Natural Resources Defense Council* as requiring the court to defer to the agency interpretation as long as it is reasonable.²⁹⁸ That conclusion should come as the result of the second step of *Chevron*; the first step is to determine whether the statute itself is ambiguous or silent as to the issue at hand.²⁹⁹ The first step is wholly a judicial responsibility.³⁰⁰ While ambiguity exists in almost every statute, the process of analyzing the statute and searching for underlying intent is a valuable one, not only for the litigants but for all those who rely on case law to clarify statutory duties. In NFMA cases, as in all administrative law cases, courts would do well to heed the *Chevron* mandate and attempt to discern statutory intent prior to deferring to an agency's interpretation of the law. Failing to do so results in administrative law-making, which is not per se undesirable, but which in excess can and will disrupt the balance of power.³⁰¹

5. Identifying Suitable/Unsuitable Lands and Timber Sales — § 1604(f)(2)

NFMA states that “[p]lans developed in accordance with this section shall . . . be embodied in appropriate written material, including maps and other descriptive documents, reflecting proposed and possible actions, including the planned timber sale program and the proportion of probable methods of timber harvest within the unit necessary to fulfill the plan.”³⁰² Using this provision, plaintiffs have argued that the Forest Service must clearly identify suitable lands on a map rather than simply describe them.

298. *Chevron U.S.A., Inc. v. Natural Resources Defense Council, Inc.*, 467 U.S. 837 (1984). *Chevron* is the leading Supreme Court case on statutory interpretation. For a more complete discussion of *Chevron*, see *infra* notes 543-45 and accompanying text.

299. *Chevron*, 467 U.S. at 842-43.

300. See Clark Byse, *Judicial Review of Administrative Interpretation of Statutes: An Analysis of Chevron's Step Two*, 2 ADMIN. L.J. 255, 256 (1988).

301. See generally Farina, *supra* note 297.

302. 16 U.S.C. § 1604(f)(2).

For example, in *Sierra Club v. Robertson (Robertson III)*,³⁰³ the plaintiffs contended that the forest plan should have more specifically identified lands that were unsuitable for timber production.³⁰⁴ However, the court held that “NFMA does not require acre-by-acre specificity.”³⁰⁵ Furthermore, the court stated, “the agency’s decision not to draw a map and make a site-by-site analysis of unsuitability is not arbitrary; rather, it is a reasonable interpretation of a statute within the agency’s special expertise that the court will not disturb.”³⁰⁶ The court first interpreted the statute as not requiring a certain level of specificity and then found that the agency interpretation was reasonable. Under *Chevron*, the court did not have to make a finding as to reasonableness of the agency’s interpretation because it had already found the statute itself to be unambiguous.³⁰⁷

In fact, the statute does appear to be ambiguous about the level of specificity required. For example, the “planned timber sale program”³⁰⁸ implies that someone should be able to look up a proposed timber sale in a forest plan and find enough description to be able to identify exactly where the sale would be.³⁰⁹ But the statute is not as ambiguous regarding what “appropriate written materials” are, in that they include “maps and other descriptive documents.”³¹⁰ The court could have further analyzed the specificity requirements without disturbing the agency’s finding as to the adequacy of written descriptions rather than maps.

Similarly, the plaintiffs in *Resources Limited* claimed that the plan violated NFMA because the timber sale program area was not identified in a map.³¹¹ The court listed the descriptive materials in the plan, and concluded that the public had sufficient notice of where timber sales may be conducted.³¹² The court did not appear to think very highly of plaintiffs’ argument,³¹³ and in fact, the statute unambiguously allows written descriptions to suffice.

303. *Robertson III*, 810 F. Supp. 1021 (W.D. Ark. 1992).

304. *Id.* at 1027.

305. *Id.*

306. *Id.* The statute requires plans to “be embodied in appropriate written material, including maps and other descriptive documents.” 16 U.S.C. § 1604(f)(2).

307. *Chevron*, 467 U.S. at 842-43.

308. 16 U.S.C. § 1604(f)(2).

309. Some forest plans are this specific, and include a ten-year proposed timber-sale program with sale described by location and harvest volume. *See, e.g., Appendix E, U.S. FOREST SERVICE, LOLO NAT’L FOREST LAND AND RESOURCE MANAGEMENT PLAN (1986) [hereinafter LOLO FOREST PLAN]*.

310. *Id.*

311. *Resources Ltd.*, 789 F. Supp. at 1537.

312. *Id.*

313. *Id.* (stating that “[p]laintiff’s claim is not well taken and borders on the edge of frivolous”).

B. Forest Plan Litigation Overview

1. Litigation over Forest Plans

The procedural foundation of NFMA is the requirement that each national forest prepare and implement a forest-wide land and resource management plan.³¹⁴ Once adopted, the forest plan serves as a blueprint that controls management decisions.³¹⁵ The forest planning process, after substantial effort, controversy, and expense, is now complete. With the exception of the Pacific Northwest, final forest plans are in place for each national forest. Forest plans have generated less litigation than one would have predicted several years ago. While every forest plan has been subject to administrative appeal,³¹⁶ only a handful have been subjected to judicial review.

Since forest plans are prepared in accordance with NEPA,³¹⁷ and must conform to the substantive requirements of the NFMA as well,³¹⁸ many forest-plan appeals raise issues under both statutes.³¹⁹ Some appeals are sophisticated legal efforts with expert affidavits and substantial supporting documentation.³²⁰ Others are "citizen" appeals, organized by local grassroots groups and citizens on both sides of the environmental fence.

One of the unresolved issues concerning forest plans is their "essence," that is, are they programmatic documents with no impact until implemented as projects, or do they represent an "irretrievable commitment of resources"? The Forest Service has consistently taken the position that forest plans do not have "on-the-ground" consequences.³²¹ Forest

314. 16 U.S.C. § 1604(a).

315. 16 U.S.C. § 1604(i); 36 C.F.R. § 210(e); *see also Citizens for Env'tl. Quality*, 731 F.Supp. at 976-78.

316. To appreciate the Forest Service's frustration over the appeals process, one must understand the sheer magnitude of work generated by forest plan appeals. Reaching a peak in the late 1980s, the appeals created a mini-industry of local groups, resource consultants, and attorneys, and spawned a number of conferences and workshops as well. For example, the Wilderness Society set up a forest plan appeal center, publishing regular newsletters and booklets. *See, e.g., THE WILDERNESS SOCIETY, ISSUES TO RAISE IN FOREST PLAN APPEALS* (1986). On the west coast, Randal O'Toole and his Cascade Holistic Economic Consultants (CHEC) provided consultation on numerous forest plan appeals, mostly on timber economics and an analysis of how FORPLAN was applied on individual forests. *See, e.g., Bitterroot Forest Plan Appeal # 2215* (on file with author).

317. 16 U.S.C. § 1604(g)(1) states that NEPA applies to the forest planning process. The regulations require that each forest plan be accompanied by a draft and final EIS. 36 C.F.R. § 219.10(b).

318. 16 U.S.C. § 1604.

319. *See, e.g., Kootenai Forest Plan Appeal # 2117, Bitterroot National Forest Plan Appeal # 2215* (on file with the author).

320. *See, e.g., Flathead Forest Plan Appeal # 1513.*

321. *See, e.g., Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1515-16 (9th Cir. 1992) (Forest Service arguing that agency action can be challenged only at project level because forest plans

plans, according to the agency, are therefore immune from judicial review on the basis of standing and ripeness,³²² and because the substantive provisions of the NFMA and disclosure requirements of NEPA do not apply until individual timber sales are proposed.³²³ Environmental and industry group plaintiffs have taken the opposite view: that forest plans make decisions with profound environmental consequences.³²⁴ The position of the judiciary lies somewhere in between.

This problem is illuminated by the vexing question of the relationship of forest plans to annual timber outputs. One resource output analyzed during forest planning is the allowable timber sale quantity (ASQ). The ASQ, as defined in the regulations, is the maximum amount of timber that can be offered for sale during the time period specified in the forest plan.³²⁵ The NFMA does not mandate that the ASQ will be sold on any particular forest in a particular year, and the forest plans clearly state that the ASQ is not a guaranteed sale amount.³²⁶ The Forest Service has consistently taken the position that the ASQ is not a hard and fast number and does not control resource decisions.³²⁷

However, both environmental and industry groups know that the ASQ is not an empty number; it means something. The timber industry relies on the ASQ as an indication of how much timber will be sold. This reliance led to litigation in Wyoming in a pre-forest plan case, when the Forest Service did not offer timber volumes projected in the Timber Management Plan (TMP) for the Bridger-Teton National Forest.³²⁸ The district court held that the Forest Service was not bound to offer volumes projected in the TMP, classifying the plan as a "general statement of policy" which did not interfere with the agency's discretion to offer less

do not make irretrievable commitment of resources).

322. *Id.* at 1515-19; *see also infra* notes 389-482 and accompanying text.

323. *See, e.g., Idaho Conservation League v. Mumma*, 21 *Env't. L. Rep.* (*Env't. L. Inst.*) 20,666, 20,668 (D. Mont. Aug. 8, 1990).

324. *See, e.g., Nevada Land Action Ass'n v. U.S. Forest Service*, 8 F.3d 713 (9th Cir. 1993); *Resources Ltd., Inc. v. Robertson*, 8 F.3d 1394 (9th Cir. 1993).

325. 36 C.F.R. § 219.3. For planning purposes, the ASQ is computed on a ten-year basis. The annual ASQ is 1/10th of the ten-year ASQ. A forest may offer more than the predicted ASQ in a given year, but cannot exceed the ten-year total. *See, e.g., LOLO FOREST PLAN, supra* note 309, at II-6; U.S. FOREST SERVICE, LOLO FOREST PLAN RECORD OF DECISION 8 (1986).

326. For example, the Beaverhead National Forest Land and Resource Management Plan defines ASQ as "[t]he quantity of timber that *may* be sold from the area of suitable land covered by the Forest Plan for a time period specified by the plan." BEAVERHEAD FOREST PLAN, *supra* note 86, at VIII-1. In the Record of Decision for the Beaverhead Forest Plan, the Regional Forester stated that "projected production levels here for the various resources are not the decision in and of themselves. Although all outputs can be accomplished . . . the Forest Plan does not guarantee that they will be accomplished." U.S. FOREST SERVICE, BEAVERHEAD NAT'L FOREST, RECORD OF DECISION 3 (1986).

327. *See, e.g., Intermountain Forest Indus. Ass'n v. Lyng*, 683 F. Supp. 1330 (D. Wyo. 1988); *Resources Ltd.*, 8 F.3d at 1399.

328. *Intermountain Forest Indus.*, 683 F. Supp. at 1322.

timber.³²⁹ This holding is directly applicable to the ASQ in forest plans, and is one reason why the timber industry has not challenged the Forest Service in court when timber volumes have fallen below the ASQ levels set in forest plans.

On the other hand, as the Ninth Circuit has stated, the ASQ cannot "be drawn out of a hat."³³⁰ In *Resources Limited, Inc. v. Robertson*, the ASQ was projected at a level that conflicted with standards designed to protect grizzly bears. Even though the Forest Service took the position that the ASQ is only a projection, and that site-specific decisions would control the amount of timber harvested, the court found that the selection of the ASQ "perhaps more than any other element of forest-wide planning, is critical in providing 'long-term direction.'"³³¹ Because the Forest Service's own studies raised questions about the conflict between the ASQ and its effects on the grizzly bear, the court determined the ASQ to be arbitrary and capricious.³³²

The cattle industry raised a concern similar to that voiced by the timber industry with respect to grazing levels set in forest plans. Grazing levels, signified by AUMs (Animal Unit Months),³³³ are specified in the forest plan, like the ASQ. When the Toiyabe National Forest in Nevada adopted its forest plan in 1986, projected grazing levels were similar to pre-plan levels. In fact, one of the goals in the forest plan was to maintain current grazing levels. The plan left open the possibility of reduced grazing in the future, however, to protect watersheds.³³⁴ When it appeared that implementation of the plan would result in decreased grazing, the Nevada Land Action Association sued, claiming the forest plan did not disclose the subsequent reduction in grazing. The district court granted summary judgment for the Forest Service.³³⁵ The Ninth Circuit held the plaintiffs lacked standing under NEPA, and affirmed summary judgment on all other claims,³³⁶ upholding the grazing levels in the forest plan as professional estimations by range managers familiar with the land and the applicable management standards.³³⁷ The court held, in effect, that the Forest Service is not bound to provide commodity outputs equal to those

329. *Id.* at 1341 (citations omitted). The court relied on both the Organic Act and MUSY as affirmed in NFMA to conclude that the Forest Service still retains broad discretion in determining the amount of timber it actually offers for sale. *Id.* at 1336-39.

330. *Resources Ltd.*, 8 F.3d at 1399.

331. *Id.* at 1400.

332. *Id.*

333. An AUM is defined as the amount of forage eaten by a mature cow or the equivalent in one month, which is approximately 1,000 pounds. See *Nevada Land Action Ass'n*, 8 F.3d at 717 n.4.

334. *Id.* at 718.

335. *Id.* at 715.

336. *Id.*

337. *Id.* at 717.

projected in the forest plan when the plan has indicated that those outputs may be reduced to meet other forest plan goals, such as the protection of range and riparian lands.³³⁸

On the one hand, resource projections in forest plans are not binding commitments. Forest plans are programmatic blueprints to guide, but not control, on-the-ground decisions. In this sense, forest plans do not mandate decisions about the use of resources. Rather, they guide future decisions.³³⁹ On the other hand, the Ninth Circuit decision in *Resources Limited* signifies that the ASQ levels set forth in forest plans are not meaningless numbers, and must be consistent with the protection of other resources, such as the grizzly bear.

Overall, the Forest Service has prevailed in litigation over the adequacy of forest plans. There are several reasons for this. First, it is difficult to ask a court to fault the agency for a programmatic document when the alleged environmental harm, in the form of timber sales or grazing allotments, for example, will not occur until after the plan is implemented. Second, the Forest Service has settled forest plan appeals both before and during litigation, thus avoiding judicial review of some of the more blatant violations of the law.³⁴⁰ Third, the Forest Service has amended some plans, and in the case of the Lolo National Forest, drastically reduced the ASQ, thereby eliminating the primary concern of environmental groups.³⁴¹

338. *Id.* at 718.

339. See generally MICHAEL J. GIPPERT & VINCENT L. DEWITTE, FOREST PLAN IMPLEMENTATION: GATEWAY TO COMPLIANCE WITH NFMA, NEPA AND OTHER FEDERAL ENVIRONMENTAL LAWS 16-20 (1990) (copy on file with author).

340. An example of this is the recent settlement of the Clearwater Forest Plan appeal. After the Forest Service failed to act on the administrative appeal for four years, a coalition of groups filed suit. *Wilderness Society v. Robertson*, Civ. No. 93-0043-S-HLR (D. Idaho 1993). This litigation settled immediately, resulting in a reduction of the ASQ and increased protection for fish and wildlife. See Letter from James L. Caswell, Forest Supervisor, Clearwater National Forest, U.S. Dep't of Agric., to "interested citizens" (Oct. 8, 1993) (on file with author).

341. The Lolo Forest Plan was appealed by a number of groups, including the National Wildlife Federation and the Montana Wilderness Association. Many of the issues raised by plaintiffs grew from a perception that the forest plan authorized unrealistically high timber harvest levels. After the appeal was filed, Forest Supervisor Orville Daniels announced that the forest could not meet the forest plan's ASQ of 107 mmbf per year, and stated that the forest would offer an average of 51 million board feet per year from 1993-96. Reasons given for the reduction included accelerated logging on intermingled corporate lands, threats to wildlife and water quality standards, difficulty in harvesting from roadless lands, improper assumptions used by FORPLAN in designating the ASQ. Supervisor Daniels concluded by stating that the Lolo would amend the forest plan to reflect these changes. See Letter from Orville Daniels, Forest Supervisor, Lolo National Forest, to "concerned citizens" (Sept. 11, 1991) (on file with author).

The forest plan appeal was eventually denied, but plaintiffs decided not to pursue judicial review in part because the reduction in ASQ achieved many of the goals sought in the forest plan appeal.

2. *Litigation over Forest Plan Environmental Impact Statements*

In addition to challenging resource and land use allocation decisions contained in forest plans, plaintiffs suing over forest plans usually challenge the accompanying Environmental Impact Statements. Courts have repeatedly upheld the adequacy of the statements.³⁴²

Plaintiffs often demand that forest plan EISs contain more specific information about the plan's environmental consequences.³⁴³ Courts have agreed with the Forest Service, however, that a forest plan EIS, like its accompanying forest plan, is a broad programmatic document, and that more detailed evaluation of environmental consequences will occur in EAs or EISs designed for specific projects.³⁴⁴ While the agency may properly defer detailed analysis of impacts to the project level, an adequate forest-wide EIS must still fully comply with NEPA.³⁴⁵

The Forest Service appears to have solved, at least in part, one of its most persistent NEPA problems through the preparation of forest plan EISs. One of the most difficult and controversial issues for the Forest Service in the past two decades has been whether to develop or protect roadless lands within the National Forest System. The Wilderness Act of 1964³⁴⁶ designated 9.1 million acres as wilderness under the terms of the Act, and required the Forest Service to study an additional 5.4 million acres for potential inclusion in the National Wilderness Preservation System.³⁴⁷ The Forest Service voluntarily undertook a nationwide review of the suitability of other lands for wilderness in 1967. This process, the Roadless Area Review and Evaluation (RARE I), became embroiled in litigation. RARE I legal decisions had a significant impact on the NFMA forest planning process two decades later.

The Forest Service released its RARE I study in 1972, and the Sierra Club and others promptly sued, alleging the Forest Service failed to comply with NEPA.³⁴⁸ In 1973, the Forest Service responded with a nationwide EIS, which selected less than 20% of the roadless lands for

342. See, e.g., *Resources Ltd.*, 8 F.3d 1394; *Idaho Conservation League v. Mumma*, 956 F.2d 1508 (9th Cir. 1991); *Robertson III*, 810 F.Supp. 1021 (W.D. Ark. 1992).

343. See, e.g., *Resources Ltd.*, 8 F.3d at 1400-02.

344. See generally *Robertson III*, 810 F. Supp. 1021; *Robertson II*, 784 F. Supp. at 602-03.

345. *Resources Ltd.*, 8 F.3d at 1401.

346. 16 U.S.C. §§ 1131-1136.

347. 16 U.S. C. §§ 1132 (a), (b). The Forest Service was an early leader among federal agencies. In 1924, Aldo Leopold convinced his agency to set aside 700,000 acres of the Gila National Forest in New Mexico. Bob Marshall, chief of the agency's Division of Recreation in the 1930s, also championed the protection of undeveloped portions of the National Forests.

348. *Sierra Club v. Butz*, 3 Env't. L. Rep. (Env't. L. Inst.) 20,071 (N.D. Cal. Aug 29, 1972) (enjoining future timber sales in roadless areas); *Wyoming Outdoor Coordinating Council v. Butz*, 484 F.2d 1244 (10th Cir. 1973) (enjoining existing timber sale contracts in roadless areas).

further study.³⁴⁹ The Carter Administration essentially abandoned RARE I and began a more comprehensive analysis, dubbed RARE II, which was undertaken shortly after NFMA's passage.³⁵⁰ The RARE II Final EIS was released in 1979. It inventoried 62 million acres of roadless lands and allocated 15 million acres to wilderness, 10.8 million acres to further planning, and designated 36 million acres as nonwilderness. Litigation again ensued, resulting in the landmark decision, *California v. Block*.³⁵¹ In *Block*, the Forest Service argued that the RARE II EIS complied with NEPA, and alternatively, that NFMA exempted the EIS from having to comply with NEPA in the first place.³⁵² The Ninth Circuit did not give either argument much credence. It remanded the RARE II Final EIS for further discussion of site-specific impacts to the inventoried roadless lands and consideration of a more reasonable range of alternatives.³⁵³

Block had profound implications for the Forest Service. Though the Ninth Circuit's injunction prevented timber harvest and road construction only on roadless lands in California,³⁵⁴ the NEPA rationale was easily applicable to all roadless lands within the National Forest System. Thus, timber harvesting was essentially prevented on roadless lands where a site-specific EIS was not in place, and even when an EIS was prepared, injunctions were still issued.³⁵⁵ The Forest Service responded by undertaking a new round of NEPA analysis, RARE III, to remedy the deficiencies in its RARE II analysis. The RARE III analysis was incorporated into each forest plan EIS, and contained much more site-specific information about each roadless area. For example, forest plans EISs for Idaho and Montana contained descriptions of each roadless area, including its

349. RARE I inventoried 56 million acres of roadless lands within the National Forest System, and recommended 12.3 million acres for further study. COGGINS ET AL., *supra* note 6, at 1041.

350. *Id.*

351. 690 F.2d 753 (9th Cir. 1982), *aff'g in part, rev'g in part*, *California v. Bergland*, 483 F. Supp. 465 (E.D. Cal. 1980).

352. *Block*, 690 F.2d at 774-75.

353. *Id.* at 760-69. The court listed several areas in which the EIS was inadequate, including its failure to comprehensively describe individual roadless areas, failure to disclose the impacts of nonwilderness designation, failure to assess the wilderness value of each area in terms of tourism and recreation, and failure to balance the economic benefits of wilderness designation versus development.

The RARE II EIS also lacked an adequate range of alternative scenarios for preservation rather than development. All of the alternatives considered by the Forest Service considered developing at least 37% of the lands. *Id.* at 765. The Forest Service "uncritically assumes that a substantial portion of the RARE II lands should be developed and considers on those alternatives with that end result." *Id.* at 767. The court held this violates NEPA's mandate to consider a reasonable range of alternative scenarios. *Id.*

354. 690 F.2d at 753.

355. *See, e.g.*, *Friends of the Bitterroot v. U.S. Forest Service*, CV 90-76-BU (D. Mont. July 30, 1991) (granting a preliminary injunction against timber sales in RARE II areas for failure to consider an alternative to the proposed sale that preserved RARE II lands but allowed cutting on other lands within the sale area).

wilderness suitability, resource trade-offs from development versus preservation, and the consequences of implementing the forest plan's management prescription for the area.³⁵⁶

Congress intervened in the roadless issue during the forest planning process by passing wilderness legislation for many of the western states directly affected by *Block*.³⁵⁷ In states where legislation was passed, the issue of NEPA compliance for roadless areas was addressed through "release language" which, in various forms, absolved the Forest Service from its obligation to do an EIS on the question of wilderness suitability prior to developing roadless lands. While release language does not always preclude judicial review of NEPA claims for development of roadless lands,³⁵⁸ it has remedied the *Block* deficiencies in the RARE II analysis. However, in states where no wilderness legislation was passed, notably Idaho and Montana, the issue was left to be resolved through the forest planning process and the RARE III analysis contained in the forest plans.

Not surprisingly, the RARE III analysis contained in the forest plans was the subject of many forest-plan administrative appeals.³⁵⁹ A case was brought in federal district court in Montana to test the sufficiency of the Idaho Panhandle EIS's RARE III analysis.³⁶⁰ The district court affirmed the sufficiency of the forest plan's analysis of the roadless lands, and further held that the forest plan presented a reasonable range of alternatives as to the designation of some lands for wilderness and the release of other roadless lands for other purposes.³⁶¹ The Ninth Circuit affirmed the lower court.³⁶² This holding, in effect, determined that the Forest Service had finally complied with NEPA on the issue of wilderness suitability for roadless lands, and ended a twenty-year legal battle over this still-

356. See, e.g., U.S. FOREST SERVICE, FINAL ENVTL. IMPACT STATEMENT, APPENDIX C, LOLO NAT'L FOREST PLAN (1986). Thirty-six roadless areas are identified, mapped, described, and analyzed for their wilderness suitability. The description and analysis is 456 pages long. The roadless-lands analysis is presented in a manner to meet the deficiencies enumerated in *California v. Block*. The various alternatives recommend 2% to 100% of roadless lands as wilderness. *Id.*

357. See COGGINS ET AL., *supra* note 6, at 1053.

358. See *National Audubon Soc'y v. U.S. Forest Service*, 4 F.3d 832, 836 (9th Cir. 1993). In *National Audubon Soc'y*, the Forest Service asserted that release language in the Oregon Wilderness Act precluded the need for an EIS on timber sales in roadless lands. The court held that while Congress may have precluded further review of wilderness suitability, it had not precluded the need for full compliance with NEPA on other impacts of the proposed projects. *Id.* at 837. An EIS may be required if those impacts are deemed significant. See *id.*

359. The author is personally familiar with the appeals of all forest plans in Montana; the roadless issue was a major point in every one. Environmental groups argued that the RARE III analysis was prepared in "cookbook" fashion simply to meet the dictates of *California v. Block*, and that the final wilderness recommendations were too low.

360. *Idaho Conservation League v. Mumma*, 21 Env't. L. Rep. (Env't. L. Inst.) 20,666 (D. Mont. Aug. 8, 1990).

361. *Id.* at 20,668-69.

362. *Idaho Conservation League v. Mumma*, 956 F.2d 1508 (9th Cir. 1992).

contentious issue.

In the absence of a forest plan or accompanying EIS, a project-level Environmental Assessment cannot be “tiered” to anything.³⁶³ Thus, the Forest Service may be challenged successfully under NEPA for failing to prepare an EIS in the face of significant environmental consequences from timber sales.³⁶⁴ But once a forest plan has been adopted, the Forest Service has successfully argued that timber-sale EAs are “tiered” to the programmatic forest plan EIS, obviating the need for a site-specific EIS.³⁶⁵

Forest Plan EIS challenges are often tied to NFMA claims. Overall, the Forest Service has been even more successful in defending its NEPA compliance on the forest plan level than with defending substantive NFMA claims.³⁶⁶ This contrasts with the agency’s NEPA compliance at the project level, where plaintiffs have successfully challenged EAs and EISs.³⁶⁷

3. *Litigation over Forest Plan Standards and Guidelines*

Forest plans contain management standards and guidelines that regulate the entire spectrum of forest uses, from timber harvest, to wildlife protection, to recreation. The NFMA establishes a mandatory duty to insure that all forest activities are consistent with forest plans,³⁶⁸ including compliance with forest plan standards.³⁶⁹ Reviewing courts have upheld

363. The concept of tiering an EA to an EIS is set forth in 40 C.F.R. §§ 1500.4(i), 1502.4(d), 1502.20, 1508.28 (1993). The Forest Service may rely on the earlier EIS, thereby eliminating the need to re-examine environmental issues already discussed there.

364. *Sierra Club v. U.S. Forest Service*, 843 F.2d 1190, 1191 (9th Cir. 1988).

365. *See, e.g., Sierra Club v. U.S. Forest Service*, No. 92-5101 (D.S.D. Oct. 28, 1993), *appeal docketed*, No. 94-1005 (8th Cir. Dec. 19, 1993). On appeal, plaintiffs assert that a forest plan EIS which does not specifically address a particular impact cannot provide a basis for tiering, and a new EIS may therefore be required. The impact which the EIS failed to address in this case was habitat fragmentation.

366. *See, e.g., Resources Ltd., Inc. v. Robertson*, 8 F.3d 1394 (9th Cir. 1993); *Idaho Conservation League v. Mumma*, 956 F.2d 1508 (9th Cir. 1992); *Sierra Club v. Marita*, 843 F. Supp. 1526 (E.D. Wis. 1994) (upholding forest plan EISs).

367. For a representative sample of NEPA project-level cases that the Forest Service has lost, see *National Audubon Soc’y v. U.S. Forest Service*, 4 F.3d 832 (9th Cir. 1993) (holding that Oregon Wilderness Act does not preclude possible need for EIS on timber sales in roadless areas); *Sierra Club v. U.S. Forest Service*, 843 F.2d 1190 (9th Cir. 1988) (holding that because timber sales may cause significant impacts on old growth sequoias, EIS rather than EA is required before logging proceeds); *Save the Yaak v. Block*, 840 F.2d 714 (9th Cir. 1988) (holding that EA on road paving project inadequate when project facilitates substantial timber harvest program); *Thomas v. Peterson*, 753 F.2d 754 (9th Cir. 1985) (holding that cumulative impacts of logging road and related timber sale must be addressed).

368. NFMA provides that “[r]esource plans and permits, contracts, and other instruments for the use and occupancy of National Forest System lands *shall* be consistent with the land management plans.” 16 U.S.C. § 1604(i) (emphasis added); *see also* 36 C.F.R. § 219.10(e).

369. For example, the Black Hills National Forest Plan states, “The management requirements in this Section [delineating standards and guidelines] set the baseline conditions that must be