An Agricultural Law Research Article

Four Failed Forest Standards: What We Can Learn from the History of the National Forest Management Act's Substantive Timber Management Provisions

by

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Originally published in OREGON LAW REVIEW
77 OR. L. REV. 601 (1998)

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As we make our way through the last half-decade of the twentieth century, we encounter two significant anniversaries in the history of the relationship between the United States Congress and the United States Forest Service. On October 22, 1996, we pondered the twentieth anniversary of the passage of NFMA.[1] On June 4, 1997, we pondered the one hundredth anniversary of the passage of the Forest Service Organic Act of 1897.[2] These two laws represent the only two significant attempts by Congress to shape management of the national forests by prescribing or proscribing specific timber management practices or "forest practices."[3] Both attempts have been resounding failures.

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[1] National Forest Management Act of 1976, Pub. L. No. 94-588, 90 Stat. 2949 (codified as amended at 16 U.S.C. §§ 1600-14 (1994) and scattered sections of 16 U.S.C.).

[2] Forest Service Organic Act of 1897, ch. 2, 30 Stat. 11, 34-35 (codified as amended at 16 U.S.C. §§ 475, 476, 551 (1994)) (Section 476 *repealed by* the National Forest Management Act of 1976, § 13, 90 Stat. at 2958) [hereinafter Organic Act of 1897].

[3] *See infra* Section I.B (discussing state forest practice laws).

In 1897, Congress gave a federal agency—first the Department of the Interior[4] and, after 1905, the United States Forest Service (Forest Service)[5]—the power to sell "designated" and "marked," "dead," "mature," or "large" trees on National Forest land.[6] From the earliest years of Forest Service management, the Forest Service ignored this provision.[7] Only after almost seventy years of management and the advent of widespread clearcutting did a court order the Forest Service to comply with the language of the law.[8] The inertia of decades of illegal management coupled with the logic of industrial forestry led to the prompt repeal of the limiting provision.[9]

In 1976, in NFMA, Congress passed a more self-conscious and detailed series of substantive limitations—the subject of this Article. The standards provided, in section 6(g)(3)(E), that the Forest Service:

> 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;

and, in subsection 6(g)(3)(F), that the Forest Service:

> insure that clearcutting, seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method on National Forest System lands only where—
> (i) for clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate, to meet the objectives and requirements of the relevant land management plan . . .[10]

For reasons of clarity and consistency, I will refer to the four standards included in the quoted text as (1) the Soil and Water-

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[4] Organic Act of 1897, 30 Stat. at 35 (Relevant language *repealed by* Forest Transfer Act of 1905, ch. 288, 33 Stat. 628 (1905)).

[5] Forest Transfer Act of 1905, ch. 288, § 1, 33 Stat. 628.

[6] Organic Act of 1897, 30 Stat. at 35.

[7] Charles Wilkinson & Michael H. Anderson, *Land and Resource Planning in the National Forests*, 64 OR. L. REV. 1, 54 (1985), *citing* FOREST SERVICE, U.S. DEP'T OF AGRIC., THE USE BOOK, 61, 79-84 (1907).

[8] West Va. Div. of Izaak Walton League v. Butz, 522 F.2d 945 (4th Cir. 1975).

[9] *See infra* Section II.

[10] 16 U.S.C. § 1604(g)(3)(E),(F) (1994).

shed Standard;[11] (2) the Restocking Standard;[12] (3) the Clearcutting Standard;[13] and (4) the Even-Aged Standard.[14] I hasten to add that these are not the only substantive standards in NFMA.[15] However, they are the standards that speak most directly to the actual practice of logging and the standards that have been subject to the most judicial analysis.

As with the 1897 limitations, the 1976 limitations have not provided a legal basis for significantly altering Forest Service timber management practices through judicial intervention. In case after case, environmental groups have endeavored to use these apparently clear and forceful standards to modify Forest Service management and, in almost every case, they have failed.

This is not to say that environmental litigation since 1976 has not affected Forest Service practices. It has in dramatic ways.[16] But the laws that have changed Forest Service timber practices forever—the Endangered Species Act[17] and the Forest Service's own regulation, 36 C.F.R. § 219.19,[18] most obviously—are not

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[11] Insurance of timber harvest "only where . . . soil, slope, or other watershed conditions will not be irreversibly damaged." *Id.* § 1604(g)(3)(E)(i).

[12] Insurance of timber harvest "only where . . . there is assurance that such lands can be adequately restocked within five years after harvest." *Id.* § 1604(g)(3)(E)(ii).

[13] Insurance that "clearcutting . . . will be used . . . only where . . . it is determined to be the optimum method . . . to meet the objectives and requirements of the relevant land management plan." *Id.* § 1604(g)(3)(F)(i).

[14] Insurance that "seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method . . . only where . . . it is determined to be . . . appropriate, to meet the objectives and requirements of the relevant land management plan." *Id.*

[15] *See, e.g., id.* § 1604(g)(3)(E)(iii) (requiring regulations to protect streams and other bodies of water); *Id.* § 1604(k) (economic suitability); *Id.* § 1611(a) (non-declining even flow); *Id.* § 1604(m) (culmination of mean annual increment).

[16] Timber harvest from National Forests has declined dramatically in recent years. From the mid-1970s into the mid-1980s, the timber harvest varied between a low of approximately nine billion board feet and a high of greater than 12 billion board feet. In 1994, the timber harvest fell to less than five billion board feet. Forest Service, U.S. Dep't of Agric., *Trends and Purposes of National Forest Timber Harvest, Timber Sale Program Annual Report, FY 1994* (last modified Sept. 16, 1996) <http://www.fs.fed.us/land/fm/tspirs/tspirs.html#TrendsandPurpose> [hereinafter *Trends and Purposes*].

[17] 16 U.S.C. §§ 1531-42 (1998).

[18] The CODE OF FEDERAL REGULATIONS provides:

> Fish and wildlife habitat *shall be managed* to maintain viable populations of existing native and desired non-native vertebrate species in the planning area. For planning purposes, a viable population shall be regarded as one which has the estimated numbers and distribution of reproductive individuals to insure its continued existence is well distributed in the planning area. In order to insure that viable populations will be maintained, habitat must

directly concerned with Forest Service timber management practices. This makes the failure of substantive legal standards plainly intended to modify those practices all the more interesting.

What is failure? I define failure in this context to mean more than simply the absence of dramatic change in Forest Service practice or the inability of environmental plaintiffs to get their way. Failure here is more generally a "failure to communicate."[19] If we convened a congress of Forest Service officials, environmentalists, judges, and other parties concerned and informed about the four standards in question, they would all agree that the quoted language means something. It has to mean something. Congress enacted it. At the same time, there would be little agreement about what it means.

As its title suggests, these substantive standards figure prominently in *The National Forest Management Act: Judicial Interpretation of a Substantive Environmental Statute*,[20] Jack Tuholske and Beth Brennan's analysis of judicial interpretation of NFMA. However, even Mr. Tuholske, who represents environmental groups in litigation against the Forest Service,[21] has trouble

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be provided to support, at least, a minimum number of reproductive individuals and that habitat must be well distributed so that those individuals can interact with others in the planning area.

36 C.F.R. § 219.19 (1998) (emphasis added).

This astoundingly powerful regulation grows out of the much more modest NFMA language favoring species diversity requiring the Forest Service 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.

16 U.S.C. § 1604(g)(3)(B) (emphasis added).

Section 219.19 has provided a powerful tool for the protection of biological diversity. *See* Seattle Audubon Soc'y v. Evans, 771 F. Supp. 1081 (W.D. Wash. 1991). However, as an almost purely regulatory mandate, § 219.19 has followed a different path than our Four Failed Forest Standards and apparently may suffer a different fate. The Forest Service's 1995 proposed revision of its Part 219 planning regulations contain a suggested revision which would remove the diversity requirement. *See* National Forest System Land and Resource Management Planning, 60 Fed. Reg. 18,889, 18,931-32 (1995) (to be codified at 36 C.F.R. pts. 215, 217, 219).

19 *See* COOL HAND LUKE (Warner Bros. 1967).

20 Jack Tuholske & Beth Brennan, *The National Forest Management Act: Judicial Interpretation of a Substantive Environmental Statute*, 15 PUB. LAND L. REV. 53 (1994).

21 *Id.* at 53 n.a1.

articulating their significance.[22] *The National Forest Management Act: The Twenty Years Behind and Twenty Years Ahead*, Charles Wilkinson's recent defense of NFMA, fails to discuss these four standards.[23] One can read *The Nature of Land and Resource Management Planning Under the National Forest Management Act*,[24] Michael Gippert and Vincent DeWitte's overview of NFMA forest planning process, without getting the impression that there are *any* substantive standards in NFMA. Mr. Gippert and Mr. DeWitte represent the Forest Service.[25]

This "failure to communicate" generally intelligible content burdens all interested parties: the environmentalists who lose the cases, the Forest Service officials and lawyers who must defend them, and the interested public who would rather the money they pay in taxes and the money they contribute to environmental organizations were spent in endeavors more directly productive than struggles over the meaning of legislative mandates.

Certainly, part of my goal is to post a "DANGER" sign over these otherwise enticing, apparently enforceable substantive standards, to warn other environmentalists and environmental lawyers not to go unprepared where I and others have gone. I also wish to provide some caution and advice for those, like the editors of the Washington Post,[26] who support imposing new legislative mandates on the Forest Service. Of more general interest, I wish to provide one illuminating example of the relationship between Congress, expert agencies like the United States Forest Service, and the federal courts. There are lessons to be learned from the failure of NFMA's substantive timber management requirements—lessons which should be applied to any future attempt to modify Forest Service timber management practices on the national forest lands and lessons which can be applied to any situation in which we endeavor to use Congress to

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[22] *Id.* at 130-32.

[23] Wilkinson does mention clearcutting and watershed protection in passing. Charles F. Wilkinson, *The National Forest Management Act: The Twenty Years Behind and Twenty Years Ahead*, 68 U. COLO. L. REV. 659, 667-68 (1997).

[24] Michael J. Gippert & Vincent L. DeWitte, *The Nature of Land and Resource Management Planning Under the National Forest Management Act*, 3 ENVTL. LAW. 149 (1996).

[25] *Id.* at 149 nn.a1 & aa1.

[26] Editorial, *Cut the Cutting*, WASH. POST, Aug. 19, 1997 at A2. ("the burden of proof in the statute ought to be changed so that continued cutting in the federal forests becomes the clear exception, not the rule.").

modify the conduct of a federal agency with its own institutional identity and agenda.

There is no question that adequate treatment of complex environmental and land use issues like those the Forest Service faces requires a high level of specialized knowledge and a motivating spirit. The future is likely to bring us more agencies like the Forest Service. But questions arise: under what terms should agencies operate?; is it wise to impose substantive standards on such agencies?; and, if so, how should we do it? Part 1 of this Article sets out some of the factors that led to the formation of the ideas incorporated into the substantive standards in question—a frame of reference to judge what Congress might have meant. Part II traces the process through which those standards were translated into law—tracing that potential meaning into statutory text. Part III will discuss how the promulgation of Forest Service regulations shaped that law—tracing meaning through another level of translation. Part IV examines the litigation in which environmental groups and concerned citizens have endeavored to use the law to alter actual on-the-ground activities—testing their perception of Congress's meaning in court. Part V will ponder some of the lessons I draw from the failure documented in Part IV. Part VI sketches out some alternative legislative approaches which may afford a greater chance of success.

This Article's final conclusion is that the Four Failed Forest Standards failed primarily as a result of Congress's commitment to Forest Service discretion in the legislative process that gave us NFMA. The "institutional conversation" between Congress and the Forest Service which gave us the substantive standards so undercut their apparent meaning and potential power to constrain agency conduct that the confusion and litigation failures that followed were quite predictable—although generally unpredicted.

While this Article tells a sobering story for those who believe NFMA's mandates should constrain Forest Service action, it does provide a ray of hope. Because the roots of failure can be traced back to the formulation of the legislative mandate, their history does not suggest that Congress *cannot* impose meaningful substantive timber management standards on the Forest Service. Rather, it suggests that Congress *did not*.

The study of forests and forest management is a most appropriate study for anyone interested in any environmental problem. The forest brings into sharp relief many of the often elusive

elements that make environmental problems different. For this reason, our image of the forest has changed dramatically over the last half century as our concept of the environment has begun to develop.[27] The time frames for forest management are inconveniently long, like the time frames for most environmental systems. Trees do not and cannot exist in isolation. Whether we consider them as our brothers and sisters on the planet or as an economic resource (future plywood), their connections to a larger biological scheme are incontrovertible.[28]

I

THE CALL FOR LEGISLATIVE ACTION: IDEAS FORM

A. Voices Before the Church Committee

Although the substantive timber management standards imposed by NFMA became law in October 1976, the path to understanding them starts much earlier. A convenient, although artificial,[29] place to begin are the hearings held before the subcommittee on Public Lands of the Committee on Interior and Insular Affairs of the United States Senate and its chairman, Frank Church of Idaho, in the spring of 1971 ("Church Committee" Hearings). Here, before the Church Committee, for the first time in the environmental era, a chorus of voices called Congress's attention to Forest Service timber management practices and urged Congress to do something to mitigate the environmental harm those practices caused.[30]

Before delving into the testimony before the Church Committee, we must note the extraordinary relationship between Congress and the Forest Service which existed in 1971 and had

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[27] *See, e.g.*, CHRIS MASER, SUSTAINABLE FORESTRY: PHILOSOPHY, SCIENCE, AND ECONOMICS 3-36 (1994).

[28] *Id.* at 26-58 (for want of a squirrel, a forest is lost).

[29] To understand the Forest Service one should really begin with the conditions that brought the National Forests into being, see STEWART L. UDALL, THE QUIET CRISIS 54-68, 97-108 (1963); CHARLES F. WILKINSON, CROSSING THE NEXT MERIDIAN 5-9, 114-35 (1992); THE ORIGINS OF THE NATIONAL FORESTS (1992 Harold K. Steen ed.); MICHAEL FROME, THE FOREST SERVICE 12-31 (2d ed. 1984); and the man who brought the Forest Service into being, *see* GIFFORD PINCHOT, BREAKING NEW GROUND (1947).

[30] The Church Committee hearings were the result of a groundswell of concern about Forest Service timber management practices, particularly on the Monongahela National Forest in West Virginia and the Bitterroot National Forest in Montana and Idaho. *See* Wilkinson & Anderson, *supra* note 7, at 139-40 (to a lesser degree, concern focused on national forests in Wyoming).

existed, with minor modifications, for sixty-five years. The Forest Service managed roughly 191 million acres of federal land on behalf of all the American people. This land produced timber in significant quantities[31] but also provided water supply[32] and recreational opportunities for ever larger numbers of Americans.[33] Congress funded Forest Service activities on the national forests, but, within that funding structure, the Forest Service managed those forests—in large part—as it saw fit. Various federal laws regulated oil, gas, and mining exploration and operations.[34] The recently enacted National Environmental Policy Act (NEPA)[35] would soon require environmental documentation of Forest Service practices. Yet the laws that provided substantive, congressionally imposed limits on Forest Service management of the national forests, such as the Organic Act of 1897[36] and 1960 Multiple Use-Sustained Yield Act,[37] were brief in the extreme[38] and contained little in the way of substantive prescriptions or proscriptions and less that anyone enforced.[39] It was in this state of relative freedom from congressional mandate that the Forest Service had developed its culture and methods.

Now, back to our story—on April 6, 1971, Dr. Robert R.

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31 *See Trends and Purposes*, *supra* note 16.

32 In the eleven western states, more than 60% of the average annual water yield comes from the public lands. Of that, 88% is produced from national forest lands. 2 CHARLES F. WHEATLEY, JR., ET AL., STUDY OF THE DEVELOPMENT, MANAGEMENT, AND USE OF WATER RESOURCES ON THE PUBLIC LANDS 403 (1969).

33 By 1970, the general public was spending 172.5 million visitor days a year in recreation on the national forests, a figure double the use of the national parks system. Oliver A. Houck, *The Water, the Trees, and the Land: Three Nearly Forgotten Cases That Changed the American Landscape*, 70 TUL. L. REV. 2279, 2295-96 (1996), *cited in* DANIEL R. BARNEY, THE LAST STAND: RALPH NADER'S STUDY GROUP REPORT ON THE NATIONAL FORESTS 11 (1974).

34 General Mining Law of 1872, ch. 152, 17 Stat. 91 (codified as amended at 30 U.S.C. §§ 22-24, 26-30, 33-35, 37, 39-42, 47 (1994)); Mineral Leasing Act of 1920, ch. 85, 41 Stat. 437 (codified as amended at 30 U.S.C. §§ 181-214, 223-26, 228-29, 233a, 236a-37, 241-87 (1994)).

35 National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321-47 (1998)).

36 Organic Act of 1897, 30 Stat. at 35 (codified as amended at 16 U.S.C. § 551 (1994)).

37 Multiple-Use Sustained-Yield Act of 1960, Pub. L. No. 86-517, 74 Stat. 215 (codified at 16 U.S.C. §§ 528-31 (1998)).

38 The relevant language of the Organic Act of 1897 consisted of only two paragraphs. *See* Organic Act of 1897, 30 Stat. at 35. The Multiple-Use Sustained-Yield Act of 1960 was only one page long. *See* Multiple-Use Sustained-Yield Act of 1960, 74 Stat. 215.

39 *See infra* notes 113-34 and accompanying text.

Curry, Professor of Environmental Geology at the University of Montana, testified before the Church Committee. What he said impressed members of the committee and contributed to a growing movement to use legislation to modify Forest Service timber management practices on the national forests. The issue Curry raised—the "long range adverse effects of clear-cutting on soil nutrients"[40]—was one of the few issues discussed during the hearings subsequently referenced in the committee's 1972 report.[41] During the hearings, Chairman Church called the "question of loss of nutrient and adequate management of the soil" a "most critical question that has been uncovered in the course of these hearings."[42] Curry testified:

> As a geologist I view forest soils as nutrient reservoirs which take tens of thousands of years to form and which are now being lost through faulty logging practices at rates hundreds to thousands of times faster than their formation.
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> Specifically, my studies indicate that, on national forest lands in all areas of the United States except some of those in the Gulf Coast States, parts of western Washington, and possibly parts of Arizona and New Mexico, . . . yield is not and cannot be sustained beyond 1-4 cuttings, after which the soils of our national forest will be unable to support merchantable sawtimber until replenished by slow geologic weathering in 5,000 or more years.
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> . . . .
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> Present operations are not only absurdly expensive, ugly and destructive; but threaten to turn areas of the States of Wyoming, California, Oregon, Washington, Idaho, Utah, Colorado, New Mexico, Arizona, the Virginias, and the Northeastern States, into permanently deforested scrub and shrub covered arid hills, just as was done in Greece, Yugoslavia, Italy, Spain and the Middle East by early residents of those areas.[43]

The testimony of Dr. Curry and others like him challenged Congress's long-standing assumptions about Forest Service management of national forest land, assumptions that had been in place

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[40] SUBCOMMITTEE ON PUBLIC LANDS, SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, 92D CONG., CLEARCUTTING ON FEDERAL TIMBERLANDS 1 (Comm. Print 1972) [hereinafter CHURCH COMMITTEE REPORT].

[41] *Id.* at 1, 7-8.

[42] *"Clear-cutting" Practices on National Timberlands: Hearings Before the Subcomm. on Public Lands of the Comm. on Interior and Insular Affairs*, 92d Cong., 829 (1971) [hereinafter *Church Committee Hearings*] (statement of Senator Frank Church).

[43] *Id.* at 158 (statement of Dr. Robert R. Curry, Professor of Environmental Geology, University of Montana).

since Gifford Pinchot's tenure as first Chief of the Forest Service between 1905 and 1910.[44]

During Pinchot's brief stay in Europe studying forestry,[45] he had seen forests that had been subject to human management and logging for centuries and were apparently still healthy and productive.[46] From the time of the first legislation authorizing the Department of the Interior to manage "forest reserves," Pinchot and those who followed him told Congress, and anyone else who would listen, that the application of scientific forestry to America's forests—public and private—could provide a "sustained yield" of timber. Since at least the 1930s, this view had become orthodoxy both in the Forest Service and in Congress. In 1971, one year after the first Earth Day, a new breed of environmentalists and environmental scientists were telling Congress that this was not necessarily so and that aggressive management of the national forests for timber production might lead to environmental degradation on a grand scale.

Curry and others like him did not present themselves as preservationists, challenging the idea of forestry as such, but rather took issue with the type and quantity of logging on national forest land. Indeed, Curry explicitly distinguished what he believed to be happening on the national forests from traditional practices Pinchot had seen in Europe.[47] Curry advocated "a

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[44] MICHAEL WILLIAMS, AMERICANS AND THEIR FORESTS: A HISTORICAL GEOGRAPHY 412-21 (1989).

[45] In fact, Pinchot spent only thirteen months in Europe, studying first at the French Forestry School at Nancy and then with the renowned German forester Detrich Brandis. M. NELSON MCGEARY, GIFFORD PINCHOT, FORESTER-POLITICIAN 19-23 (1960).

[46] As Pinchot wrote in his autobiography:

> The Forests of Haye and Vandoeuvres are . . . hardwood forests, managed on a system of coppice (sprouts cut once every thirty years) under standards (seedling trees cut once in 150 years). They gave me my first concrete understanding of the forest as a crop, and I became deeply interested not only in how the crop was grown, but also in how it was harvested and reproduced.
>
> Work in these woods was assured for every year, and would be, barring accidents, world without end. The forest supported a permanent population of trained men . . . . and not only a permanent population but also permanent forest industries, supported and guaranteed by a fixed annual supply of trees ready for the ax.

PINCHOT, *supra* note 29, at 13.

[47] This exchange with Senator Mark Hatfield of Oregon illustrates:

> SENATOR HATFIELD. How would you respond to the longevity of the Black Forest and the practices that are used there? I believe it was

selective system of cutting"[48] and suggested that such a system might be maintained "without depleting nutrient budget."[49]

Curry's position was, by his own admission, a minority opinion in his profession.[50] However, the Forest Service response to his testimony, presented on May 7, 1971—with a month's time to prepare—was less than emphatic,[51] and additional testimony on

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quoted to me as being a 600-year-old forest as far as reforestation is concerned.

MR. CURRY. Yes; I have been studying the southern European forests for some years as part of this study. And the Black Forest area has up until recently not been clear-cut. There are clear-cuts in the Black Forest area now. But for the 400 to 600 years that that forest has been largely productive, it has not been clear cut. It has been strip cut where the soil is shaded and the roots go completely across the area that has actually been cut out, so that there are still living plant roots within the entire soil mats. And that is the critical thing.

Church Committee Hearings, *supra* note 42, at 163.

[48] *Id.* at 163-64.

[49] *Id.* at 161. The debate about the effect of clearcutting on soil nutrients and the possible benefits of more selective cutting continues 25 years after Dr. Curry's testimony. *See* RAY RAPHAEL, MORE TREE TALK 53-54, 108-09 (1994).

[50] Note this exchange between Senator Church and Dr. Curry:

SENATOR CHURCH. Are you by yourself in your opinion, or are you supported by a large body of professional opinion?

DR. CURRY. I am not supported by a large body of professional opinion . . . .

Church Committee hearings, *supra* note 42, at 161.

[51] *See, e.g.*, Statement of Robert F. Tarrant, Principal Soil Scientist, Pacific Northwest Forest and Range Experiment Station, Forest Service U.S. Department of Agriculture:

I understand that the Committee is concerned in part over recent charges that current forest harvesting practices in the United States are leading to grave and irreparable forest soil depletion . . . .

[I]t appears that at least for a short period removal of vegetation from a forest soil by any means results in greater nutrient losses from the ecosystem than if the forest had been left undisturbed. The loss is generally small in comparison to the total nutrient supply available from all sources at the site. The rate of loss declines 1 or 2 years after treatment . . . .

I believe we need to assign highest priority to research leading to a better understanding of how forest ecosystems function . . . .

Id. at 932-34. *See also id.* at 826-29.

Appendix: Effect of Forest-Management Practices on Nutrient Losses

. . . .

On the basis of currently available information, we find no drastic or irreversible depletion of forest soil nutrient reserve caused by timber removal. Nutrient outflows are small compared to the total nutrient reserve in the soil. . . .

Id. at 1057, 1064.

forestry practices[52] and stream sedimentation[53] buttressed Curry's observations. Perhaps most significantly, the mere possibility that he was right, a possibility that could not be discounted in light of the Forest Service's admitted ignorance concerning the subject, was enough to contribute to the growing pressure for congressional action.

Other witnesses before the Church Committee raised broader questions distinct from, but not unrelated to, Curry's soil depletion. In 1969, Senator Lee Metcalf of Montana had requested that Arnold Bolle, Dean of the School of Forestry at the University of Montana, prepare a report for the committee on "Forest Service management practices within the Bitterroot National Forest and elsewhere" including "the long-range effects of clear-cutting, and the dominant role of timber production in Forest Service policy, to the detriment of other uses of these national resources."[54] The report of Bolle's group, entitled "A University View of the Forest Service" and generally known as the "Bolle Report," came off the presses at the Government Printing Office on December 1, 1970, and Dean Bolle testified about the report and its contents during the Church Committee hearings the following spring.

The Bolle Report supported Curry's general orientation by drawing a distinction between sustainable "timber management" and unsustainable "timber mining," asserting that much current timbering on the national forests was timber mining.[55] The Bolle report covered more territory than Curry's testimony and

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[52] *See* Statement of Gordon Robinson, Professional Forester, Representing the Sierra Club:

> If we practice selection systems of management . . . we have the luxury of . . . keep[ing] the forest . . . stocked and producing . . . without seriously disturbing other values. . . .
>
> Clear-cutting causes rapid runoff . . . upsetting watershed values . . . It causes accelerated soil erosion, and the leeching of important soil nutrients thus reducing productivity.

Id. at 99-100.

[53] *See* Statement of Hurlon C. Ray, Director, State and Federal Assistance Programs, Water Quality Office, Environmental Protection Agency, Northwest Region, Portland Oregon: "We have studied clear-cutting operations on watersheds . . . . Generally speaking . . . sedimentation goes up 7,000 times. . . ." *Id.* at 309.

[54] ARNOLD W. BOLLE, A UNIVERSITY VIEW OF THE FOREST SERVICE v, S. Doc. No. 115 (1970) (Letter from Hon. Lee Metcalf, Senator, Montana, to Dr. Arnold Bolle, Dean, School of Forestry, University of Montana (Dec. 2, 1969)) [hereinafter BOLLE REPORT].

[55] *Id.* at 13.

focused particularly on the Forest Service culture that seemed to lead inexorably toward unwise timber harvesting practices and Congress's role in altering that culture:

> There is an implicit attitude among many people on the staff of the Bitterroot National Forest that resource production goals come first and that land management considerations take second place. We believe that this is not merely with respect to the Bitterroot National Forest. It is widespread through the Forest Service, especially with respect to timber production in a sense that getting the logs out comes first. . . . The pressures upon the Forest Service to get the logs out cannot be surmounted without the express assistance of Congress.[56]

The report went further, placing part of the blame with the "dogma" of professional forestry and its European heritage:

> The core of forest professionalism, the central tenet of professional dogma, is sustained yield timber management. This concept was introduced into American forestry by early Chief Foresters Bernhard Fernow and Gifford Pinchot in the late 1800s, but it was developed and rationalized in the mercantile economies of Germany and France a century before that. These economies were characterized by stability, certainty, and via the prohibition of imports, a self-imposed scarcity.
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> . . . .
>
> With its implicit assumptions of scarcity, this dogma became the central dictum of professional forestry. As dogma it remains virtually unchallenged in American forestry education. The graduates of that education staff the Forest Service.[57]

The Bolle Report described how professional "dogma" affected every timber management decision made on the national forests.

> "Productivity," we learned time and again, means maximum physical production of sawlogs. Much timberland has been harvested ostensibly to "get it into production." The idea that a scraggy stand of overmature timber could and does provide other values was alien and absent from the thinking of most of the professional foresters we encountered . . . .[58]

To this image of the single-minded pursuit of timber production and its ancient roots, the Bolle group, Curry, and others added the irony that pursuit of production had undermined the dogma from which it grew—"sustained yield timber management"—by encouraging non-sustainable cutting—timber mining—raising

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[56] *Id.* at 17-18.
[57] *Id.* at 18-19.
[58] *Id.*

the specter of Curry's "deforested scrub and shrub covered arid hills."

Bolle's group had originally been asked to study the "effects of clear cutting." However, Bolle and his colleagues cautioned that the issue was not a single management practice, but instead, the Forest Service's single-minded emphasis on timber production in whatever form.[59]

Curry and Bolle represent the most articulate sorts of criticism directed at the Forest Service in the spring of 1971. Others factors evident in the hearings before the Church Committee militated in favor of congressional action. First, the timber harvest from national forest lands had more than tripled—from 3.5 billion board feet to 11.53 billion board feet[60]—in the twenty years between 1950 and 1970. Further, in the face of admitted ignorance of many of the ecological effects of such high levels of cutting, the Forest Service was apparently contemplating increasing the 1970 cut by another sixty percent.[61] Members of the committee appeared to understand that the Forest Service's position was not a defense of the status-quo, but instead the defense of an aggressive, partly realized campaign of commodity production escalation.

Second, the members of Congress themselves, although not experts in matters of timber production, expressed frustration and anger at Forest Service practices. Senator Gale McGee of Wyoming referred to clearcutting as "a shocking desecration that has to be seen to be believed."[62] Senator Jennings Randolph of West Virginia gave an account of seeing clearcuts that he was positive "will cause significant erosion problems" and expressed his "genuine anxiety and great concern over the substantive aspect of this type of timber management."[63] Senator Henry Bellmon of Oklahoma asserted that "the Multiple Use and Sustained Yield

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[59] During his testimony before the Church Committee, Arnold Bolle asserted his belief that many of the problems plaguing the National Forests resulted directly from the Forest Service's "overriding concern . . . [for] timber production" and its "general lack of concern for esthetic and nontimber values." *Church Committee Hearings*, *supra* note 42, pt. 1 at 174. Bolle stated that the Forest Service had become an agency whose management objectives had "come to be stated in terms of maximum timber volume." *Id.* at 175.

[60] *Id.* at 831 (statement of Edward P. Cliff, Chief, Forest Service, et al.).

[61] *Id.* at 830 (statement of Hon. Gale McGee, U.S. Senator, Wyoming); CHURCH COMMITTEE REPORT, *supra* note 40, at 3.

[62] *Church Committee Hearings*, *supra* note 42, at 3.

[63] *Id.* at 13 (statement of Hon. Jennings Randolph, U.S. Senator, West Virginia).

Act of 1960 is being violated daily."[64] Representative John F. Turner expressed his concern about the effect of clearcutting on the scenery around Jackson, Wyoming.[65] Twenty-five years after the fact, the drab green volumes of the Church Committee proceedings still communicate the tension in exchanges between then Forest Service Chief Edward Cliff and many of the committee members.

It is plain from many of the statements of angry legislators that many of them had linked the post-1950 aggressiveness of the Forest Service timber program with the cutting method used to effectuate most of it—clearcutting.

What is clearcutting anyway? Clearcutting is a term used to describe a number of silvicultural practices in which all the trees in the designated area are removed or killed thereby creating the opportunity for the artificial or natural seeding of a new stand of trees all of the same age.[66] At the end of the "rotation period" that new stand of trees may all be cut down and a new stand planted.[67] Clearcutting is not an exact term. It may involve removing every growing thing from the designated stand, burning the slash and reseeding by machine or, alternatively, removing all the saleable timber and "girdling" or otherwise killing any remaining trees and allowing nearby trees to reseed the logged stand.[68] Clearcuts may vary in size from five to hundreds of acres.[69] The hallmarks of clearcutting are the removal of all commercially saleable timber at one time and the subsequent establishment of an even-age stand of timber on the cut-over site.

Clearcutting is not the only "even-aged" harvest method. Other forms of even-aged management include "seed tree cutting" and "shelterwood cutting." These are even-aged systems which involve removing the original stand of trees in more than one cut. In a seed tree cut, loggers remove almost everything in

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[64] *Id.* at 19 (statement of Hon. Henry Bellmon, U.S. Senator, Oklahoma).

[65] *Id.* at 567 (specifically, Rep. Turner was concerned that practicing clearcutting in areas which were visited yearly by millions might place tourism revenue in jeopardy).

[66] *Id.* at 62 (statement of Leon S. Minckler, Adjunct Professor of Silviculture, Syracuse University; *Management in a Quality Environment: Timber Productivity* (submitted by U.S.D.A. Forest Service)).

[67] RAY RAPHAEL, TREE TALK: THE PEOPLE AND POLITICS OF TIMBER 29-32, 157-60 (1981).

[68] *See* Organic Act of 1897, ch. 2, 30 Stat. 11, 34-35 (1897).

[69] West Va. Div. of the Izaak Walton League v. Butz, 522 F.2d 945, 946 (4th Cir. 1975) (discussing five acre "clearcuts" on the Monongahela National Forest).

the first cut. Only enough mature trees are left to reseed the cut-over stand. Once seedlings establish themselves, the loggers remove the last mature trees. A shelterwood cut differs only in that more trees are left behind—both to provide seed and to shelter the seedlings once established. Once the new stand is well established, the loggers remove the last mature trees, at least in theory.[70] Environmentalists are inclined to refer to seed tree and shelterwood cutting as two-stage or three-stage clearcuts, to emphasize that foresters designed these cutting methods to produce the same uniform stand of trees clearcutting produces.

Clearcutting was used, to a greater or lesser degree, for most of this century with shade intolerant Douglas fir in the Pacific Northwest.[71] However, clearcutting first became a major harvesting technique in southern and eastern forests in 1964.[72] Clearcutting and the environmental concerns associated with the rapid growth of the Forest Service timber program had come to Congress's attention together and would remain linked in the minds of many legislators.

Here, at the beginning of our story, the message is relatively clear. Curry, Bolle, and a host of other witnesses had shattered the impression that the Forest Service could be left to manage the national forests without supervision. While some witnesses questioned whether current forest timber yields could be sustained, others raised much more difficult issues about balancing timber production with other values. The national forests belonged to the nation and what the nation valued about them had changed. The nation's representatives, Congress, seemed poised to use legislation to alter the timber management status quo to protect non-timber values and limit clearcutting. But what should Congress do, and how?

B. The Church Committee Report

Despite the concern and frustration of the Church Committee members and the explicit Forest Service fear that the hearings

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[70] *See* Section IV.B.5.

[71] *See* MICHAEL WILLIAMS, *supra* note 44, at 328-29 (1989); *Church Committee Hearings*, *supra* note 42, pt. 3, at 809 (statement of Edward P. Cliff, Chief, Forest Service: "[C]learcutting has been used since the early days of the Forest Service . . . in the Douglas-fir region.").

[72] CHURCH COMMITTEE REPORT, *supra* note 40, at 3-4 ("The present concern with clear-cutting . . . has developed largely since 1964. It was . . . brought about by . . . application . . . to Eastern hardwoods starting in that year.").

might result in a moratorium on clearcutting on the national forests,[73] the Church Committee hearings did not result in any immediate legislation. Senator Metcalf of Montana introduced a bill[74] that would have required the Forest Service to prepare "timber harvesting and land management plans"[75] and, when employing clearcutting, to consider "the effect of clear cutting on all other resources values and the environment," "the compatibility of clear cutting with the maintenance and enhancement of the long-term productivity of the forests lands and the integrity of the environment," and "all feasible and prudent alternatives to clearcutting."[76] The language in the Metcalf bill provides an early attempt at a legislative response to the coupled concerns of injury to long-term productivity and injury to environmental quality—concerns evident in the Church Committee hearings.

The impression that the Forest Service was working to reform its own operations blunted the immediate drive for legislation. On March 10, 1972, Associate Chief John F. McGuire told the Church Committee that the restrictions on timbering in the Metcalf bill were "unnecessary and undesirable" because the Forest Service was taking action "to improve the overall quality of national forest timber management activities."[77] Just before the Church Committee hearings, the Forest Service issued a report, *National Forest Management in a Quality Environment: Timber Productivity*.[78] The report focused almost entirely on Forest Service authorized timber harvesting practices, describing in some detail the primary cutting methods in use.[79] The core of the report, entitled "Problem Situations and Responses," listed a series of Forest Service identified "problems" and Forest Service recommended responses. The identified problems anticipated some of the ground covered in the Church Committee hearings and the subsequent Metcalf Bill. Problem headings included "[t]o recognize those areas where timber will not be harvested because there is no suitable alternative to clear-cutting and

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[73] *Church Committee Hearings*, *supra* note 42, at 913 (statement of Edward P. Cliff, Chief, Forest Service); CHURCH COMMITTEE REPORT, *supra* note 40, at 1.

[74] S. 1734, 92d Cong. (1971).

[75] *Id.* § 202(a).

[76] *Id.* § 202(c)(2).

[77] HEARINGS BEFORE THE SUBCOMM. ON PUBLIC LANDS, SENATE COMM. ON INTERIOR AND INSULAR AFFAIRS, 92D CONG., MANAGEMENT PRACTICES ON PUBLIC LANDS 59 (Comm. Print 1972).

[78] *Church Committee Hearings*, *supra* note 42, at 421-87.

[79] *Id.* at 421-54.

environmental impacts make clear-cutting unacceptable."[80] Here, the Forest Service observed that in some situations clearcutting is "clearly unacceptable" and that in these cases "alternative silvicultural systems may be feasible."[81] Another heading exhorts the Forest Service "[t]o recognize those areas where the final harvest cut must be discontinued or deferred because there is not assurance that the area can be suitably restocked within five years after logging."[82] Under this heading, the authors suggested "regeneration cuts should be deferred . . . until regeneration problems are solved."[83] A final noteworthy heading states "[t]o recognize those areas in the fir-spruce type where more widespread use should be made of selection and shelterwood systems. . . ."[84] Here the authors suggested that some stands which had already developed many-aged structures might not be appropriate for clearcutting or other aggressive even-aged management systems.[85]

Here, in embryonic form, as provided by the Forest Service, we see the Clearcutting Standard, the Restocking Standard and the Even-Aged Standard. Here too is an essential element in our story: The Four (not yet failed) Forest Standards which would shortly appear in the Church Committee Report and would subsequently be imposed on the Forest Service through NFMA were not the brainchildren of an ignorant Congress imposed arbitrarily on an expert agency. Instead, they were, in large part, the product of the agency culture itself, or, viewed another way, the product of an institutional "conversation" between the Forest Service and Congress.

In March 1972, the Church Committee issued its report. The report expressed ambivalence about congressional prescription of standards for Forest Service timber management.

> The Subcommittee does not question that under appropriate conditions clear-cutting is a necessary, scientific and professional forestry tool, *nor does it believe Congress should legislate professional forestry practices in public land management any more than it does engineering practices for the Bureau of Reclamation or medical practices for the Veterans*

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80 *Id.* at 457 (it is worth noting that this heading was included under "Problems of Esthetics"). *Id.* at 455.

81 *Id.*

82 *Id.* at 460.

83 *Id.*

84 *Id.* at 462.

85 *Id.*

> *Administration*. However, if these practices lead to basic questions of acceptable environmental impacts, national policy objectives, and conformance with existing statutes, Congress should take a look.[86]

The Church Committee Report repeatedly illustrates the perceived linkage between environmentally damaging timber management and the practice of clearcutting. The Church Committee Report effectively adopted the Bolle Report position on Forest Service orientation, "[i]t is obvious from the extensive testimony . . . that timber production has become a priority activity in Federal forest land management."[87]

The Church Committee Report recognized the conflict between the Forest Service and the new environmentalism:

> some of its critics believe the Forest Service has been relatively slow and somewhat unresponsive to the awakening national concern about the impact of timber harvesting on other environmental values. . . . Recent Forest Service changes in policy (and they have been numerous) were perhaps somewhat defensive responses to pressures of environmental groups . . .[88]

Finally, the Church Committee Report focused on timber management practices. The report identified "two major problem areas": (1) areas selected for cutting which as the result of "special scenic values, fragile soils or other limiting physiographic conditions" or the absence of assured regeneration should not be cut at all and (2) the "manner in which harvesting operations" were carried out.[89]

In response to these identified "problem areas," the committee "suggested guidelines for the conduct of timber harvesting activity on Federal lands." These guidelines included the following fateful language:

> Clear-cutting should not be used as a cutting method on Federal land areas where:
>
> a. Soil, slope or watershed conditions are fragile and subject to major injury.
>
> b. *There is no assurance that the area can be adequately restocked within five years after harvest.*
>
> c. Aesthetic values outweigh other considerations.

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[86] CHURCH COMMITTEE REPORT, *supra* note 40, at 2 (emphasis added).

[87] *Id.* at 5.

[88] *Id.* at 5-6.

[89] *Id.* at 8.

> d. The method is preferred only because it will give the greatest dollar return or the greatest unit output.
>
> . . . .
>
> 3. *Clearcutting should be used only where:*
>
> *a. It is determined to be silviculturally essential to accomplish the relevant forest management objectives.*
>
> . . . .
>
> Federal timber sale contracts should contain requirements to assure that all possible measures are taken to minimize or avoid adverse environmental impacts of timber harvesting, even if such measures result in lower net returns to the treasury.[90]

The famous "Church Guidelines" contained echoes of the 1971 Forest Service report, and present the Clearcutting Standard, the Restocking Standard, and the Even-Aged Standard in embryo. The Church Guidelines also draw from both the Bolle Report and the proposed Metcalf legislation. Three of our Four Forest Standards—the Soil and Watershed Standard, the Restocking Standard, and the Clearcutting Standard—appear in mature form. As the language of the Church Committee Report suggests, they were intended to alter the way the Forest Service chose land for logging and the way it logged the land it chose.

Scholars traditionally (and correctly) identify the Church Guidelines as a seminal text from which arose the substantive timber management standards included in NFMA four and one-half years later.[91] According to James Giltmier, a Hubert Humphrey staff member privy to congressional activity at the time, the Church Guidelines were the work of Leon Cambre, a Forest Service employee working as a congressional fellow for Senator Church at the time.[92] Again, the standards are a product of the continuing institutional conversation between the Forest Service and Congress.

It appears likely that in drafting the Church Guidelines, Cambre and the committee staff drew on state forest practice legislation in California, Oregon, and Washington. At the time of the Church Committee Report, these states had enacted or were considering enacting laws containing elements similar to those

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[90] *Id.* at 9 (emphasis added).

[91] *See, e.g.*, Arnold W. Bolle, *The Bitterroot Revisited: A University ReView of the Forest Service*, 10 PUB. LAND L. REV. 1, 15 (1989).

[92] James W. Giltmier, Address at a Conference entitled "The National Forest Management Act in a Changing Society" (Sept. 16, 1996) (transcript on file with author).

included in the Church Guidelines. Washington's 1946 Forest Practices Act required some reforestation.[93] The 1971 Oregon Forest Practices Act also required reforestation.[94] A revision to the California Forest Practices Law, enacted in 1973, but under consideration at the time the Church Guidelines appeared, required regeneration within five years, prevention of soil erosion, and protection of streams.[95]

Within the tradition of forest practice laws, the Church Guidelines seem a logical development from the concerns presented before the Church Committee and both Forest Service and congressional attempts to articulate those concerns. However, taken from another point of view, the Church Guidelines represent a singular and perhaps wrong-headed approach to the problems raised before the Church Committee.

Testimony before the committee and the reports supporting it identified a three-part constellation of problems: First, the Forest Service possessed a culture which, as documented in the Bolle Report, militated in favor of maximum sustainable (or unsustainable) timber production. Second, Forest Service timber management practices translated that culture into the unsightly clearcuts documented in so many photographs presented to the committee and witnessed by so many disgruntled members of Congress. Third, the combination of culture and practice degraded the natural environment, most obviously Dr. Curry's forest soils but also forest-dependent wildlife. The Church Guidelines and the statutory language that flowed from them addressed only the second component in this problem constellation leaving Forest Service culture unaffected and forest resources unprotected.

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[93] 1945 Wash. Laws 556-58 (codified at WASH. REV. CODE § 76.08.040 (1962)) (requiring anyone conducting logging operations to provide adequate restocking of the stand to insure future forest production. Adequate restocking was defined as "a stand of not less than three hundred (300) established live seedlings per acre of which at least one hundred (100) shall be well distributed, or not less than three hundred (300) surviving trees per acre which were established by artificial means." *Id.* at 557.

[94] Although similar to the Church guidelines, the 1971 Oregon law did not impose a strict five-year requirement. Oregon Forest Practices Act of 1971, 1971 Or. Laws 955, (codified as amended at OR. REV. STAT. §§ 527.610-990), *see* PAUL V. ELLEFSON, ET AL., REGULATION OF PRIVATE FORESTRY PRACTICES BY STATE GOVERNMENTS 176 (1995).

[95] Z'Berg-Nejedly Forest Practice Act of 1973, CAL. PUB. RES. CODE § 8-8-4511 to -4618 (West 1973); *see* Peter F. Green, GOVERNMENT REGULATION IN THE FORESTS: IMPACTS OF THE 1973 CALIFORNIA FOREST PRACTICE ACT (Environmental Quality Series No. 36, 1982).

In 1972, other strategies with which to compare the Church Guidelines approach were unavailable. The subsequent twenty-five years have provided some. The Endangered Species Act of 1973 (ESA),[96] which has had a significant impact on Forest Service timber practices. Neither the Forest Service nor Forest Service timber practices appear anywhere in the ESA. However, the ESA does protect a forest resource—threatened and endangered wildlife. Like Dr. Curry's forests soils, wildlife suffers from aggressive timber management programs. Accordingly, the duty imposed on the Forest Service as a federal agency to limit the harm it does to protected species has modified Forest Service timber practices and, perhaps, Forest Service culture across the nation.[97]

In his groundbreaking 1988 book, *Reforming the Forest Service*,[98] Randal O'Toole provided an example of an approach to environmental problems associated with Forest Service timber practices which focused on neither timber practices nor a protected resource. O'Toole focused on modifying Forest Service culture. O'Toole put an economist's gloss on the sort of observations made in the Bolle Report. O'Toole believed that many problems associated with Forest Service culture were the result of economic incentives Congress had built into various laws affecting the Forest Service budget.[99] O'Toole believed the

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[96] 16 U.S.C. §§ 1531-44 (1994).

[97] A number of forest creatures have been the subject of successful litigation under the Endangered Species Act. The most obvious example is the Northern Spotted Owl. *See* Portland Audubon Soc'y v. Babbitt, 998 F.2d 705 (9th Cir. 1993) (affirming standing, possibility of injunction and order of supplementary environmental impact statements for environmental groups suing to protect northern spotted owl habitat). A second example is the red-cockaded woodpecker. *See* Sierra Club v. Glickman, 67 F.3d 90 (5th Cir. 1995); Sierra Club v. Espy, 38 F.3d 792 (5th Cir. 1994); Region 8 Forest Serv. Timber Purchasers Council v. Alcock, 993 F.2d 800 (11th Cir. 1993); Sierra Club v. Lyng, 694 F. Supp. 1260, *aff'd in part, vacated in part sub nom.* Sierra Club v. Yeutter, 926 F.2d 429 (5th Cir. 1991). Additional examples include the Mexican Spotted Owl and the marbled Murrelet. *See* Silver v. Thomas, 924 F. Supp. 976 (D. Ariz. 1995); Mexican Spotted Owl v. Pacific Lumber Co., 880 F. Supp. 1343 (N.D. Cal. 1995), *aff'd* 111 F.3d 1447 (9th Cir. 1997).

[98] RANDAL O'TOOLE, REFORMING THE FOREST SERVICE (1988).

[99] Primarily the Knutson-Vandenberg Act of 1930, ch. 416, 46 Stat. 527 (codified as amended at 16 U.S.C. §§ 576-576(b) (1994)), the Brush Disposal Act of 1916, ch. 313, 39 Stat. 462 (codified as amended at 16 U.S.C. § 490, and the provisions of NFMA relating to salvage sales, 16 U.S.C. §§ 1604(m)(1), 1611(b) (1994)). O'TOOLE, *supra* note 98, at 213.

Arnold Bolle's testimony before the Church Committee also identified "congressional budget signals" as a strong motive for the push for increased timber harvest. *Church Committee Hearings*, *supra* note 42, at 174.

appropriations system fostered an agency culture designed to maximize the agency's budget.[100] O'Toole asserted that reform of Forest Service practices could best be accomplished by running the Forest Service more like a business. Specifically, he proposed funding all Forest Service activities out of a percent share of the net returns from user fees, eliminating congressional appropriations to the Forest Service, allowing Forest Service managers to charge market rates for all resources, and decentralizing the Forest Service.[101]

The concrete example offered by the ESA and the theoretical one offered by O'Toole illustrate that prescribing specific timber management practices was not the only route the Church Committee and the Forest Service might have taken in addressing the committee's concerns. The relative effectiveness of the Endangered Species Act when compared to NFMA's substantive standards suggests that the path the committee did take might not have been the most fruitful one available.

Back to our story—in their report, Church Committee members observed that Congress should not "legislate professional forestry practices in public land management any more than it does engineering practices for the Bureau of Reclamation. . . ." Seven pages later, the committee ignored its own advice and did what it suggested should not be done. The committee's expressed reluctance to impose prescriptive standards and its decision to do exactly that shaped and, arguably, sealed the fate of our Four Forest Standards.

C. *From Church Committee to NFMA: RPA and Monongahela*

The Forest Service did make some administrative moves to ad-

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[100] Considering these problems [associated with clearcutting], the Forest Service's heavy reliance on clearcutting might be puzzling. But it is easily explained if the Forest Service is a budget maximizer: By using clearcutting, the budget-maximizing manager has two opportunities to augment the budget. First, clearcutting allows the manager to stretch sale preparation and administration funds. . . .

Second, each additional acre that is sold makes the largest possible contribution to the [Knutson-Vandenberg Act] fund, since reforestation is so costly. . . .

. . . .

Forest managers who propose clearcuttings may not consciously do so to maximize their budgets. Over the years, however, those managers who use clearcutting may tend to be more successful within the agency. . . .

O'TOOLE, *supra* note 98, at 160.

[101] *Id.* at 198.

dress the problems identified in its 1971 report. However, problems continued. A report on the Rocky Mountain timber situation released in 1974 documented tremendous regeneration failures and, in the intermittent candor characteristic of the Forest Service, termed them "galloping desolation."[102]

In the Senate, a powerful moderating influence appeared in relations between Congress and the Forest Service—former vice-president and former presidential hopeful Hubert Humphrey. Between 1973 and 1976, Humphrey was the central figure influencing the shape of forest management legislation. Humphrey's interest in forestry legislation had begun in the 1950s, before passage of the Multiple Use-Sustained Yield Act of 1960 and the Wilderness Act of 1964.[103] Despite the fact that he was not a westerner, Humphrey represented Minnesota, "which has 20 million acres of forest land, including 2 of our oldest national forests" and "made it [his] business to learn something about forestry, wildlife, water and soil conservation."[104] Although a friend of wilderness, Humphrey expressed a deep, early concern with timber supply:

> We are the posterity which Pinchot, Teddy Roosevelt, Franklin Roosevelt and other foresighted leaders prepared for when they set aside the National Forests. . . .
>
> . . . .
>
> Now, upon our shoulders, rests the task of providing for the posterity of the year 2000. And, gentlemen, we have no vast forests of virgin timber to bequeath our grandchildren. We must grow timber—lots more of it than we are today—if they are to continue to enjoy the fruits of our high American standard of living. . . .
>
> . . . .
>
> I realize that the style lately has been a scoff at Pinchot's prediction of a timber famine.
>
> But if we look at timber production figures, which have stayed nearly constant for 50 years . . . I think we will find Pinchot closer to being right than his critics.[105]

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[102] Alan W. Green & Theodore S. Setzer, THE ROCKY MOUNTAIN TIMBER SITUATION, 1970, at 26 (U.S.D.A. Forest Service Resource Bulletin INT-10 1974) ("If the current trend continues, the 2.7 million acres [restocking backlog] will blossom into more than 4 million acres of nonstocked land in 1980.").

[103] 1958 CONG. REC. 11555 (June 18, 1958)(statement in support of wilderness legislation); 1957 CONG. REC. 2487-88 (February 22, 1957) (statement concerning National Forests and the timber industry).

[104] 1957 CONG. REC. 2487 (Feb. 22, 1957).

[105] *Id.*

In July 1973, Humphrey introduced the first version of the law that was to become the Forest and Rangeland Renewable Resources Planning Act of 1974 or the Resources Planning Act (RPA).[106] The bill was intended to improve funding to achieve long- and short-term goals in National Forest use.[107] The Senate passed a revised version of Humphrey's bill in 1974. The RPA became law on August 17, 1974. It was one of the first laws signed by President Gerald Ford after the resignation of Richard Nixon.[108] Despite expectations, it did not fundamentally alter the Forest Service budgetary process.[109] Perhaps the most important result of the RPA congressional process was to position Humphrey to influence additional forest management legislation.

While Congress passed the RPA, developments outside Washington were moving toward a crisis that would require a legislative response directly addressing Forest Service timber practices. The roots of that crisis were already evident before the Church Committee in the form of six angry witnesses from West Virginia.[110] Clearcutting had come to West Virginia's Monongahela National Forest in 1964 and upset the expectations of concerned citizens in the region. David H. McGinnis, citizen member of the

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106 S. 2296, 93d Cong. (1973).

107 Wilkinson & Anderson, *supra* note 7, at 37.

108 The law had three main elements. The Forest Service would prepare an assessment of the nation's public and private resources every ten years. The Forest Service would prepare a long-term program proposal every five years. Congress would adopt a non-binding "Statement of Policy" to guide executive budget requests.

Some forest service officials saw little need for the legislation. The Forest Service had, after all, been doing long-term planning for years. However, Forest Service chief John McGuire believed that Congressional recognition and participation would give Forest Service budget requests added clout outside the agency. Drafters of the bill hoped that this exchange of information would mitigate Forest Service budgetary problems which the agency had blamed for its timber bias during the Church committee hearings.

Id.

109 *Id.* at 40. Until recently, the RPA program operated as a "one-way street" transmitting Washington-based commodity production expectations to the various regions of the Forest Service. This structure created pressure to meet output goals which could be unrealistic. OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, FOREST SERVICE PLANNING: ACCOMMODATING USES, PRODUCING OUTPUTS, AND SUSTAINING ECOSYSTEMS 180 (Pub. No. OTA-F-505) (1992) ("In past RPA Programs, resource production goals, especially for timber, have been a reflection of projected national demand more than a reflection of the resource capabilities to actually meet that demand.").

110 *Church Committee Hearings*, *supra* note 42, at 21-54.

West Virginia Forest Management Practices Commission, put it most dramatically:

> It looked like other areas of forest I had seen that had been logged. Stumps sticking up through the snow here and there—tree tops and limbs thrown around. . . . Then I noticed something unique about this cut. Something that hit me with disbelief.
>
> Every one of the hundreds of trees not harvested by the timber men had been killed. An axe had been used to cut a ring completely around the trunks. "Girdled" it is called by lumbermen . . . .
>
> "Well, I'll be damned!" I muttered as I moved to my left and looked at one of the best Beech den trees a hunter would ever want to find—30 inches in diameter, the grey majestic giant rose toward the heavens—an ax ring around its trunk.
>
> . . . .
>
> Yes, this is the attitude that went into its creation, the West Virginia controversy on clear-cutting—the wasted timber, the devastated beauty of our forests.
>
> . . . .
>
> I did not always feel as I do today about the National Forest Service. . . . As a matter of fact I will quote to you from a booklet I used many times as a Boy Scout leader:
>
> > As we go through the national forests we may see men cutting trees. Trees are cut here, but only those that are marked by the forest rangers. The rangers mark certain trees for cutting. When a tree stops growing or crowds other trees, it is cut down. . . . If trees are cut only when they are through growing and others are left to grow large, we shall always have trees. . . .[111]

Within two years of Mr. McGinnis's testimony, other West Virginians had discovered that Lillian McKee, author of *Trees*, the book quoted by McGinnis, was not the only one who had committed the traditional principles of selection timber management to writing. The concerned citizens and scientists who testified before the Church Committee, stymied by the legislative process, turned to another strategy in pursuit of their goals, a strategy that would become more and more significant for the developing environmental movement: litigation.

Comprehending this litigation requires a little more background. On June 4, 1897, as part of a general appropriations bill, Congress passed what subsequently came to be known as the Forest Service Organic Act. The Act provided in pertinent part:

> No public forest reservation shall be established, except to im-

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[111] *Id.* at 21-22.

> prove and protect the forest within the reservation, or for the purpose of securing favorable waterflows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States . . . [the Secretary of the Interior] may make such rules and regulations and establish such service as will insure of objects of such reservation . . . .
>
> *For the purpose of preserving the living and growing timber and promoting the younger growth on forest reservations, the Secretary of the Interior, under such rules and regulations as he shall prescribe, may cause to be designated and appraised so much of the dead, matured, or large growth of trees found upon such forest reservations* as may be compatible with the utilization of the forests thereon, and may sell the same for not less than the appraised value. . . . *Such timber, before being sold, shall be marked and designated*, and shall be cut and removed under the supervision of some person appointed for that purpose . . . .[112]

In his autobiography, Gifford Pinchot called the 1897 legislation "the milk in the coconut" and "another door wide open to the forester."[113] However, by 1907 Pinchot decided that the door was not open sufficiently wide. In the 1907 *Use Book*, he instructed his foresters that "[a]ll timber within the National Forests which can be cut safely and for which there is actual need is for sale" and that "green timber may be sold except where its removal would make a second crop doubtful, reduce the timber supply below the point of safety or injure the streams."[114] From 1907 through 1973, the Forest Service operated in apparent violation of the provisions of the Organic Act authorizing only sale of "dead, matured, or large growth of trees."[115] The advent of clearcutting put the Forest Service in violation of the provision authorizing sale of "designated and appraised . . . trees."[116]

On April 18th and 20th, 1973, the Forest Service advertised three timber sales from the Monongahela National Forest.[117] Conservation groups—The West Virginia Division of the Izaak

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112 Organic Act of 1897, ch. 2, 30 Stat. 11, 34-35 (1897) (emphasis added).

113 PINCHOT, *supra* note 29 at 117.

114 U.S. DEPT. OF AGRICULTURE, THE USE BOOK 61 (1907).

115 West Va. Div. of the Izaak Walton League v. Butz, 367 F. Supp. 422, 426 (N.D.W.V. 1973), *aff'd*, 522 F.2d 945 (4th Cir. 1975).

116 *Id.*

117 *Id.* *See also* West Va. Div. of the Izaak Walton League v. Butz, 522 F.2d 945, 946 (4th Cir. 1975):

> The timber sales authorized removal of the timber from a total of 1077 acres. Under the sales contracts 649 acres were designated for selective cutting while the remaining 428 acres were to be clearcut in units ranging in size from five to twenty-five acres.

Walton League of America, The Sierra Club, The Natural Resources Defense Council, and The West Virginia Highlands Conservancy and an individual, Forrest Armentrout, sued to stop the sales.[118] On May 14, 1973, the court granted a preliminary injunction preventing the Forest Service from entering into contracts to remove the timber.[119] In August 1973, the district court heard dispositive arguments on cross-motions for summary judgment.[120] On November 6, 1973, the district court held that the clearcut sales—and, apparently, any sales involving clearcutting, seed tree cutting, or shelterwood cutting, the three generally recognized forms of "even-age" timber management[121]—violated

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[118] *Izaak Walton League*, 367 F. Supp. 422.

[119] *Id.* at 428.

[120] Pursuant to the request of the court at the oral argument on August 17, 1973, plaintiffs and defendants submit this statement of agreed facts: . . .

2. The three contracts which are attached to plaintiffs' complaint and which the Forest Service proposes to enter into under the authority of the Organic Act, 16 U.S.C. § 476, involve the sale and cutting of trees, some of which trees are and some of which trees are not dead, physiologically matured or large. These contracts are representative of other contracts for the sale of timber on the Monongahela National Forest.

3. In the sale of timber on the Monongahela National Forest, under the authority of the Organic Act, 16 U.S.C. § 476, defendants offer for sale and do sell timber, pursuant to procedures under which each tree is not individually marked prior to cutting, but the boundaries of cutting areas are marked.

4. In the sale of timber on the Monongahela National Forest, under the authority of the Organic Act, 16 U.S.C. § 476, defendants offer for sale and do sell timber without requiring that each tree cut be removed from the forest.

Id. at 425 n.2.

[121] The four principal methods of timber and harvest which the plaintiffs allege are being employed in a manner so as to be violative of the mandate of Congress are: 1. Clearcutting is alleged to be the method of designating the outer boundary of an area of trees. The merchantable timber therein is sold without any marking of individual trees to be cut. It is said by plaintiffs that all trees in the group, whether in a patch, strip or stand, are cut at one time regardless of age or condition. The merchantable trees, plaintiffs claim, are removed but many smaller trees are uprooted or cut and left on the ground after logging. Plaintiffs say that under the clearcutting theory if any trees remain standing they are usually killed by cutting a ring around the trunk of the tree with an axe or by poisoning. . . .

2. Seed-tree cutting is said by plaintiffs to be a phase of clearcutting. The outer boundary of a group of trees is designated and then several trees per acre are marked as an indication that they are to remain uncut. All other trees are then logged and cut regardless of their age and condition. Plaintiffs allege that after natural regeneration has occurred then the seed trees are removed. . . .

3. Shelterwood cutting is said by plaintiffs to be a three-phased form of clearcutting. In the first stage, plaintiffs allege that the most mature and

the provisions of the Organic Act of 1897:

> It is this Court's view that the portion of the language of [the Organic Act] . . . constitutes a clear directive from Congress . . . that trees can be sold and cut only if they are "dead, matured or large growth" and then may be sold only when the sale serves the purpose of preserving and promoting the younger growth of timber on the national forests.
>
> If we are to apply the principle that statutes are to be interpreted according to the usual and ordinary meaning of the words employed in the writing of the statute, then the word "dead" means "deprived of life; -opposed to alive and living" . . . "mature" means "brought by natural process to completeness of growth and development . . . full grown; ripe" . . . and "large" means "exceeding most other things of like kind in bulk, capacity, quantity, superficial dimensions, or number of constituent units; of considerable magnitude; big; great . . . ." (Webster's New International Dictionary (2d ed. 1960)).[122]

The district court's analysis was simple and powerful. What seemed extraordinary was that no one had felt obligated to conform to the language of the statute for the previous 65 years.

The lawyers for the Forest Service were not silent at this stage of the proceedings. Their defense reveals their clients' attitude toward statutory language:

> [T]he defendants contend that the Organic Act expressly provides that the establishment of any national forest is to "improve and protect the forest within the boundaries, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the uses and necessities of the citizens of the United States. . . ."
>
> Defendants argue that in light of the statutory language . . . "When read in context, this language emphasizes utilization of the forests and development of the forest for future growth." The plain language of the statute does not require that the law be applied on a tree-by-tree basis, as plaintiffs advocate.[123]

Although it favors the general over the specific, the Forest Ser-

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defective trees in an area are selectively marked and cut. Many of the trees are never removed, plaintiffs allege. During the second stage seed-tree cutting is practiced. The final stage is when seed trees are removed. . . .

4. Intermediate cutting and improvement cutting are methods whereby a stand of timber is thinned by removing individually marked trees. Plaintiffs allege that under this system a tree marked for removal may be of any age including saplings as well as mature trees.

Id. at 426-27.

[122] *Id.* at 429.

[123] *Id.* at 427.

vice interpretation is not implausible.[124] The language of the Organic Act never actually says that the duties need to be carried out on a "tree-by-tree" basis. However, the argument is a stretch. The district court was less than charitable, noting that the "policies and practices complained of . . . do violence to the legislative language of the Organic Act of 1897."[125]

Why would the Forest Service endeavor to stretch the language of the statute? Because in terms of the timber production mentality documented in the Bolle report three years before, clearcutting and other forms of even-age management would, in their estimation, do a better, more efficient job of furthering the "cultural" goal of maximum timber production.

The court, correctly, saw no need to determine the wisdom of the Forest Service's chosen timbering method, only its legality.[126] As the court noted:

> The attempt to lessen legislative control over the sale of tim-

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[124] There is, however, evidence that the Forest Service's own lawyers had informed it that its timber operations violated the 1897 law: "When I asked 'Mac' [Former Forest Service Chief Richard E. McArdle] about the West Virginia suit he told me that in the 50's his counsel told him that 1897 Act was being violated. He decided to 'let sleeping dogs lie.'" Robert Wolf, Stories From the Front Lines: How NFMA Developed and Key Players 4 (Address at a Conference Entitled the National Forest Management Act in a Changing Society (Sept. 16, 1996)).

[125] West Va. Div. of the Izaak Walton League v. Butz, 367 F. Supp. 422, 432 (N.D.W.V. 1973), *aff'd*, 522 F.2d 945 (4th Cir. 1975).

[126] Congress has consistently refused to abdicate its legislative control over the harvesting of timber from the public domain. . . . It has never retreated . . . from its commitment to the ultimate preservation of the forests by controlling the woodsman's axe, now seen in the form of the remarkable power saw, the awesome tree-log skidders and log loaders of a highly sophisticated logging industry.

> From a reflection upon the course of events since 1897-a period of 76 years-it becomes increasingly clear that as new theories in forest management were proclaimed, as new methods of harvesting practices became available from the fertile, inventive mind of man, and as new demands for wood products were pressed upon industry, there developed, in the management of the nation's forests a gradual accommodation to the outside pressures of industrial progress in productivity.
>
> . . . .
>
> It became more "economically" suitable, in the commercial vein, to market, not only "dead, matured and large growth of trees" but also those smaller, still growing trees that would serve to increase the lumber volume per offered tract of land-or on a per acre basis-thus offering the possibility of attracting larger dollar bids from the more affluent and substantial timber interests. The increased offerings of public timber also very naturally accommodated the hunger for the many acres of annual timber land harvest needed by the industry's massive logging capability.

Id. at 431-32.

> ber from public lands by policies and practices of the Forest Service, although understandable and perhaps proper in a business, industrial and even in a scientific sense, cannot be sanctioned under the law as this Court finds the same to exist.[127]

As with any other legal regime, Congress—not the Forest Service—had the power to make laws and the court endeavored to determine whether those laws were being violated. In the face of suggestions that the Forest Service positions were more business-like, scientific, or practical, the district court expressed its deference to congressional authority, no matter how ancient.

For almost two years the clearcutting controversy hung fire. The Forest Service appealed the district court decision to the United States Court of Appeals for the Fourth Circuit. Oral argument took place in December 1974. A full ten months later, on August 21, 1975, the circuit court affirmed the district court decision.[128]

Again the court rejected the Forest Service's argument that the provisions of the Organic Act were not meant to be applied on a tree-by-tree basis, noting that:

> [t]he interpretation urged by the defendants would lead to the absurd result that while in small areas of the forest the authority of the Secretary would be restricted, he would nevertheless be free to cut any trees he might desire from a sizeable stand or group of trees . . . regardless of whether the individual trees in such group or stand were small or large, young or old, immature or mature.[129]

The Forest Service argued that "mature" within the meaning of the Organic Act meant "silviculturally" mature as opposed to "physiologically" mature. Again, the court rejected the argument, relying on the plain meaning of the statute.[130]

Finally, the Forest Service appealed to the court to rise above the words and meaning of the statute in favor of the logic of the science of silviculture:

> The appellants urge that this change of policy was in the public interest and that the courts should not permit a literal reading of the 1897 Act to frustrate the modern science of silviculture and forest management presently practiced by the Forest Ser-

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127 *Id.* at 432.

128 West Va. Div. of the Izaak Walton League v. Butz, 522 F.2d 945 (4th Cir. 1975).

129 *Id.* at 948.

130 *Id.*

> vice to meet the nation's current timber demands. Economic exigencies, however, do not grant the courts a license to rewrite a statute no matter how desirable the purpose or result might be.[131]

The court engaged in a lengthy analysis of the legislative history of the Organic Act to establish that Congress had indeed intended to significantly limit the ability of federal forest managers to sell timber from the national forests. As a result of the decision, the Forest Service reduced the amount of timber it had planned to sell within the jurisdiction of the Fourth Circuit to ten percent of that planned for Fiscal Year 1976.[132] Even more troubling, it quickly became apparent that other courts would follow the Fourth Circuit's lead.[133]

Izaak Walton League v. Butz is justly famous—or infamous—as an example of the power of litigation to alter federal land management policy. It should, perhaps, be more famous as an illustration of the ability of federal land management agencies to spontaneously develop goals and values separate from those communicated through the statutory provisions which give the agencies life and to unapologetically defend those goals and orientations in the face of contrary congressional directives.

The *Izaak Walton* case is the dramatic high point in our first story of failure, the failure of the forest practice standards imposed by the Organic Act of 1897. It is a relatively simple story: Congress imposed standards. For its own reasons, the Forest Service ignored them. Finally, when they were brought to the attention of the courts, the courts enforced the standards and forced the Forest Service to change its ways. Then, as we shall see, the Forest Service went to Congress and got the constraining standards removed through enactment of NFMA. For sixty-five years—from 1907 to 1973—the Forest Service ignored the standards. For a little more than three years—from May 1973, when the district court issued its preliminary injunction, to October 1976, when NFMA repealed them—the standards were the law of the land.

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131 *Id.* at 955.

132 DENNIS C. LE MASTER, DECADE OF CHANGE: THE REMAKING OF FOREST SERVICE STATUTORY AUTHORITY DURING THE 1970S 57 (1984).

133 In 1971, an Alaska court had upheld Forest Service clearcutting practices against a failure to mark claim. Sierra Club v. Hardin, 325 F. Supp. 99, 121-22 (D. Alaska 1971). However, after *Izaak Walton League*, another Alaska court fell into line. Zieske v. Butz, 406 F. Supp. 258 (D. Alaska 1975) (enjoining clearcutting under Forest Service contract).

The story of the 1897 standards, their resurrection in court and destruction in Congress, provides a frame of reference for many of the parties who influenced the fate of NFMA's standards. It demonstrated what the Bolle Report had discovered—that the Forest Service had its own "dogma" and would defend that dogma in the face of congressional directives. They demonstrated the power of litigation to shatter the status quo of forest management. They validated the image of a political dynamic, a bull-like Forest Service forever tormented by the legal barbs of citizen picadores, barbs provided by an unsympathetic Congress.

Although the image persists, from its inception, the story of our Four Forest Standards is more complicated and more ambiguous. As we have already seen, the Forest Service had a hand in formulating the substantive standards with which it would subsequently be tormented. The failure of the 1897 standards also directly affected the history of the Four Forest Standards in NFMA. The *Izaak Walton* litigation provided the catalyst for translation of the Church Committee's ideas into legislation.

II

The National Forest Management Act of 1976: First Translation

The word "trainwreck," although too often used to describe policy catastrophes in the management of the public lands,[134] fits the circumstances surrounding the passage of NFMA.

Conservationists informed and energized by the revelations before the Church Committee and flush from their victory in the *Izaak Walton* case rushed into Congress to get a "reform" law constraining environmentally damaging management practices on the national forests. Their locomotive became Senate Bill 2926 and their engineer was the bill's sponsor, Senator Jennings Randolph of West Virginia.[135]

On another track, the timber industry and the Forest Service,[136] propelled by their defeat in the *Izaak Walton* case and

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[134] *See, e.g.*, Bruce Babbitt, *The Endangered Species and Takings*, 24 Envtl. L. 355, 364 (1994); Richard Haeuber, *Setting the Environmental Policy Agenda: The Case of Ecosystem Management*, 36 Nat. Resources J. 1, 15 (1996).

[135] S. 2926, 94th Cong. (1976).

[136] The Forest Service did not actually provide a draft bill. However, there are many indications that Forest Service thinking and drafting affected what became the Humphrey bill. Le Master, *supra* note 132, at 60-63.

unwilling to live in a world without clearcutting, roared into Congress from the other end to amend the offending provisions of the Organic Act of 1897 at almost any cost. "It was the timber industry en masse, the Forest Service, and virtually every western Congressman crowding the hallways and calling for a new law, *now*, indeed yesterday."[137] Their locomotive became Senate Bill 3091 and their engineer, its sponsor, Hubert Humphrey, sponsor of the RPA.[138]

By virtue of political clout, agency support, wisdom gained from passage of the RPA, or righteousness, Humphrey's locomotive proved larger and faster, but a wreck is a wreck and the final legislation contained bits from both. If you begin reading in the *United States Code* at the top of Title 16, § 1604, you encounter first the provisions of a planning statute full of hortatory phrases, requiring development of "land and resource management plans" or forest plans for each unit of the National Forest system,[139] each plan to be prepared with "public participation,"[140] each plan to embrace principles of "multiple use" and "sustained yield,"[141] and to be fashioned in consultation with "interdisciplinary teams."[142]

The final version of Senator Randolph's bill was strikingly similar to the Church Guidelines. The "trainwreck" of politics surrounding the passage of the bill transformed the legislation like an intrusion of igneous rock, fusing the remains of some other creation into an entirely new creation—mandatory provisions, including the Four Forest Standards which are the subject of this Article.[143]

Most of NFMA describes the procedural process through which the Forest Service must prepare long-range plans which divide the forest into management areas emphasizing different management prescriptions, a process through which the Forest Service manages to predict, in very general terms, the resource output of the forest and the effect of projected activities on the forest environment.[144] This process has proven to have little abil-

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137 Houck, *supra* note 33, at 2298.

138 S. 3091, 94th Cong. (1976).

139 16 U.S.C. § 1604(a) (1994).

140 *Id.* § 1604(d).

141 *Id.* § 1604(e)(2).

142 *Id.* § 1604(f)(3).

143 *Id.* § 1604(g)(3)(E) and (F).

144 For an excellent overview of the process, *see* Michael J. Gippert & Vincent L.

ity to constrain specific on-the-ground activities. However, the intrusion—contained in section 6(g)—is plainly designed to constrain on-the-ground activities, specifically environmentally damaging activities associated with timber harvesting. Indeed, *the language of the Four Forest Standards can have no other purpose*. However, the process of legislative fusion through which these standards became part of NFMA does not provide any rational relationship between the standards and the rest of the statute.

A. The Bills

On February 4, 1976, Senator Randolph introduced his bill "The National Forest Timber Management Reform Act of 1976."[145] As its name suggests, Randolph intended the law to reform Forest Service timber management practices. As the Senator observed when introducing the bill: "Bureaucrats and technocrats already rule and regulate too much . . . It is our duty to set standards . . . to put curbs on [the Secretary of Agriculture's] discretion, to make goals clear and make prohibitions certain."[146]

Randolph's bill had been drafted, in large part, by a citizen's committee including many names familiar from the Church Committee proceedings and the *Izaak Walton* case: Arnold Bolle, Leon Minckler, Maitland Sharpe of the Izaak Walton League, and James Moorman and Ralph Smoot, the attorneys for the plaintiffs in the *Izaak Walton* case.[147]

Randolph's bill began with a clear condemnation of Forest Service management: "[W]hereas the Secretary of Agriculture has utilized on the national forests of the United States management practices—such as excessive clearcutting—which are unduly harmful to the environment and to uses of the national forest other than timber production."[148] Accordingly, the bill went on, stating that it was time for Congress to step in:

> [W]hereas the purpose of this Act is to assure that the Secretary hereafter manages the national forest by employing practices which are silviculturally sound, which preserve and maintain environmental quality, ...
> [W]hereas, in order to maintain a national supply of high qual-

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DeWitte, *The Nature of Land and Resource Management Planning Under the National Forest Management Act*, 3 ENVTL. LAW. 149 (1996).

145 S. 2926 94th Cong., 2d Sess. (1976).

146 *Id.*

147 LE MASTER, *supra* note 132, at 63.

148 S. 2926, 94th. Cong. § 2(a)(2) (1976).

> ity saw timber on a sustained yield basis from the national forests . . . *the Congress must specify certain timber management standards* . . .[149]

There followed a thicket of specific prescriptions: Timber cutting would only be allowed on "lands which are stable and do not exceed the maximum degree of slope appropriate for each soil type on which roads may be constructed or timber cut"[150] and "lands which, within five years after being timbered, will regenerate the growth of trees naturally or will do so with a modest reforestation investment."[151] Clearcutting and even-aged management would only be employed after "an interdisciplinary review of the potential environmental, biological, esthetic, engineering and economic impact of the proposed cut."[152] The bill does not contain a citizen suit provision. However, since some of the bill's authors had been involved in the *Izaak Walton* case, it seems certain that they intended that its provisions be enforceable in court.

On March 5, 1976, Hubert Humphrey introduced his bill.[153] The Forest Service had some influence in formulating the Humphrey bill. Those who were present dispute how much. In February 1976, the legislative affairs staff at the Forest Service had transmitted a draft bill to Robert Wolf of the Congressional Research Service. According to Dennis Le Master, author of *Decade of Change: The Remaking of Forest Service Statutory Authority in the 1970s*, Wolf took the draft bill and modified it.[154] Le Master asserts that "in the mind of [Forest Service Chief] John McGuire, the differences between the draft administration bill prepared by the Forest Service and the Humphrey . . . bill were small."[155] However, according to Robert Wolf, the Forest Service did not draft the original Humphrey bill, but Chief McGuire did consult with the Senator and his staff at various stages in its development.[156] Everyone agrees the bill's authors in-

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[149] *Id.* § 2(a)(3), (4) (emphasis added).
[150] *Id.* § 4(b)(1).
[151] *Id.* § 4(B)(3).
[152] *Id.* § 7(b)(1).
[153] S. 3091, 94th Cong. (1976).
[154] LE MASTER, *supra* note 132, at 60-62.
[155] *Id.* at 61.
[156] Wolf remembers:

> I know Dennis LeMaster . . . thinks that the [Forest Service] supplied drafts that were used. I don't recall it that way. We started with a very small bill that I drafted with Mike McLeod, [Committee] Counsel. I then drafted a

tended to be "conceptual," not prescriptive.[157]

The first section of SB 3091—amending section 1 of the RPA with new congressional "findings"—is an elegy to the Forest Service and its "professional" and "scientific" approach to resource issues. Starting with the observation that the management of the nation's renewable resources is "highly complex"[158] and that "new knowledge derived from . . . research programs will promote a sound technical and ecologic base for effective management, use and protection of"[159] those resources, the bill goes on to proclaim that the Forest Service by virtue of "its statutory authority for management of the National Forest System . . . has both a responsibility and opportunity to be a leader in assuring that the Nation maintains a natural resource conservation posture that will meet the requirements of our people in perpetuity."[160]

The third section of SB 3091 required the promulgation of regulations for the development of "land management plans" and provides that those regulations must specify "procedures and steps in the process where public participation will be sought,"[161] guidelines to "identify the suitability of lands for resource man-

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> series of amendments that were discussed with [Committee] Chairman Talmadge, and sometimes Humphrey. Talmadge would instruct me to give then [sic] to [Senators] X, Y or Z, if he liked the general idea. I'd do that then a Senator would propose it and the Committee members would debate it. . . . Talmadge would always ask the Chief about it as it got close to a decision. [Chief] John [McGuire] was generally amenable. He made very few substantive change proposals.

Electronic Mail from Robert Wolf to Federico Cheever, Assistant Professor of Law, University of Denver College of Law 1 (Feb. 7, 1998) (on file with author).

157 Robert Wolf remembers:

> In earlier discussions of the basic bill framework, I outlined two routes: (1) A bill with prescriptions, but different than Randolph's, or (2) A bill that set forth concepts that the secretary would flesh out with regulations. Senators Humphrey and Talmadge had selected the "concept" approach. Fixing a piercing eye on me [Senator Talmadge] said, "I want a bill that passes the Senate unanimously, and you're going to help me get it." *My role was to screen all proposals to assure that they were not prescriptive* . . . as well as develop amendments that gave members ownership in the final bill.

Robert Wolf, Stories From The Front Lines: How NFMA Developed and Key Players, Address at a Conference Entitled "The National Forest Management Act in a Changing Society" (Sept. 16, 1996) (emphasis added).

158 S. 3091, 94th Cong. § 7(b)(1) (1976).

159 *Id.* § 1(b)(4).

160 *Id.* § 1(b)(6).

161 *Id.* § 3(d)(3).

agement including the harvesting of trees,"[162] and "prescribe the system or the systems of silviculture . . . protection of forest resources, and methods and systems to provide for water, soil, fish and wildlife, range and esthetic and recreational resources including wilderness . . . ."[163]

While the language of the bill seems to require the creation of substantive management standards through the adoption of regulations and resource plans, the provisions of the statute itself are almost purely procedural. Its sponsors intended SB 3091 to make the Forest Service be more explicit about the rules under which it operates—by promulgating them as regulations or including them in management plans—and to require the Forest Service to allow the public an opportunity to comment on those rules.

The fundamental distinction between the Randolph bill and the Humphrey bill was that the Randolph bill provided substantive limits to constrain Forest Service management practices and the Humphrey bill did not. Although it contained no citizen suit provision, the Randolph bill's limits were intended to be enforceable in court. The Humphrey bill, on the other hand, provided no substantive standards that could be enforced in court. This distinction, glossed over during the subsequent merging of Randolphesque provisions into the Humphrey structure, has deviled those who have endeavored to enforce the enacted remains of the Randolph standards.

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[162] *Id.* § 3(d)(5)(A).

[163] *Id.* § 3(d)(5)(B). Later this section was amended to require the Forest Service to:

> insure consideration of systems of renewable resources management, including the related systems of silviculture and protection of forest resources, methods to insure for outdoor recreation (including wilderness), range, timber, watershed, wildlife and fish, provide evaluation of the effects of each management system . . . and provide for the modification or discontinuation of a management system or methods when research or evaluation establishes that [it] is producing substantial impairment to the productivity of the land . . .
>
> (iv) recognize the need for special provisions to protect soil, water, esthetic, and wildlife resources where conditions are critical for tree regeneration. . . .

LE MASTER, *supra* note 132, app. B.

B. The Hearings

Within a month after the introduction of the Humphrey bill, the Senate Subcommittee on Environment, Soil Conservation, and Forestry, of the Committee on Agriculture and Forestry, held three days of hearings on the Humphrey bill, the Randolph bill and Senate Bill 2851, temporary "quick fix" legislation designed to make the *Izaak Walton* decision go away, at least for a while. The battle lines where clearly drawn: The Izaak Walton League, National Audubon Society, Sierra Club, testified on behalf of Randolph's bill and against Humphrey's bill and the American Forestry Association, Wildlife Management Institute, American Pulpwood Association, National Forest Products Association, North West Timber Association, Southern Forest Products Association, Society of American Foresters, and National Association of State Foresters testified for the Humphrey bill and against the Randolph bill.[164]

The Forest Service attacked the Randolph bill, proclaiming that it would "reduce the commercial forest land base in the national forest system by an estimated one-third"[165] by prohibiting logging "on lands involving more than a modest reinvestment, wetlands or lands where important non-timber resources exist even though impacts could be mitigated"[166] and

> would have substantial adverse effects on certain wildlife habitats and related recreational activities, restrict opportunities to provide forage for livestock, limit our ability to protect the forest from wildfire, insect attacks and disease, and would reduce annual yields of wood products by an estimated 50 percent.[167]

Daniel Poole of the Wildlife Management Institute argued that the standards in the Randolph bill would injure wildlife on national forests:

> The responses of wildlife to vegetative change are so varied that it is impossible to set rigid guidelines for actual on-the-ground practices . . . . The need for flexibility gives rise to the

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[164] *Id.* at 64-65.

[165] *Forest and Rangeland Management: Joint Hearings on S. 2851, S. 2926, and S. 3091 Before the Subcomm. on Env't, Soil Conservation, and Forestry of the Senate Comm. on Agric. and Forestry and the Subcomm. on the Env't and Land Resources of the Senate Comm. on Interior and Insular Affairs*, 94th Cong., 19 (1976) [hereinafter *NFMA hearings*] (U.S. Dep't of Agric. Supp. Statement—Summary Analysis of the Impacts of S. 2926).

[166] *Id.*

[167] S. REP. NO. 94-893, at 46-47 (1976), *reprinted in* 1976 U.S.C.C.A.N. 6662, 6705 (statement of the Department of Agriculture).

> institute's concern about S. 2926. In effect, 2926 would put each member of Congress in the position of predetermining what is best for every national forest acre . . .[168]

He termed Senate Bill 2926 "a lawyer's happy hunting ground."[169] Mr. Poole's testimony also makes general but prophetic reference to the "critical" habitat needs of "red-cockaded woodpecker, wolf, grizzly bear . . . and spotted owl."[170]

On behalf of the Randolph bill, Maitland Sharpe of the Izaak Walton League stated:

> It is time to call a halt to these practices that have diminished both the productive capacity and the nontimber values of the national forests If the economic, esthetic and environmental costs of overcutting, foreshortened rotations, eroding soils, regeneration failures, shrunken habitats and visual and spiritual blight are to be avoided in the future, standards must be established in the present. . . . It seems reasonable and proper that Congress take a hand in defining the limits of acceptable practice . . .[171]

In favor of the "non-prescriptive approach" embodied in the Humphrey bill, John Veach of the Appalachian Hardwood Manufacturers quoted Hubert Humphrey himself:

> With regard to the specific legislation, Senator Humphrey said it very well in his speech to the Society of American Foresters . . .
>
> "I have had enough experience at Humphrey's Pharmacy to know that the pharmacist does not tell the doctor how to practice medicine. And I am not going to tell you how to practice forestry."
>
> We just do not believe that any bill should be prescriptive. We, therefore, strongly endorse the concepts contained in the Humphrey bill, S 3091.[172]

Perhaps it is the number of timber industry witnesses, or the respect members of Congress paid to Hubert Humphrey, or the inability of supporters of Senate Bill 2926 to articulate convincingly why prescriptive standards were necessary to prevent the environmental damage so much of their testimony dwelt upon, but the sense one gets from reading NFMA hearing transcripts is that the Humphrey bill would prevail.

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168 *NFMA hearings*, *supra* note 165, at 58.

169 *Id.* at 59.

170 *Id.* at 57.

171 *Id.* at 76.

172 *Id.* at 169.

Perhaps, the final word came from Kenneth Hampton of the National Wildlife Federation, an organization that supported a compromise between Senate Bill 2926 and Senate Bill 3091:

> As we see it, the best solution to the problem lies in the enactment of a compromise bill which embraces the best of both bills . . . a bill like S 3091 say . . . revised to include *a few well chosen standards* instead of just broad guidelines . . .[173]

And so it would be.

C. Final Rounds

Senate Bill 3091 emerged from subcommittee after the hearings of March 1976. Senator Talmadge then proposed a joint committee mark-up of the bill to which Senator Randolph, not a member of the committee, would be invited.[174] The mark-up sessions took place in April and early May of 1976. During those sessions, some standards similar to those included in the Randolph bill were added into the Humphrey bill.[175] While the purpose of these provisions may have been to reconcile some supporters of the Randolph bill to passage of Humphrey's alternative, the language was drawn primarily from the Church Guidelines of March 1972. The post-mark-up bill required the Forest Service to insure that logging would only be allowed on lands "which do not possess fragile soil, slope, or other watershed conditions or wildlife habitat which would be subject to significant injury . . ." and "which, within five years after timber harvest, will regenerate the growth of trees naturally or with a modest reforestation investment" and assure "that clearcutting of timber shall be permitted . . . only where it is determined to be silviculturally essential to meet the objectives and requirements of the relevant land management plan."[176]

By May 14th and 19th, when the relevant Senate committees—Agriculture and Forestry and Interior and Insular Affairs—issued their reports, the requirement that clearcutting only be allowed when "silviculturally essential," drawn directly from the Church Guidelines, had been modified to allow clearcutting when it was the "optimum silvicultural method to meet the

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[173] *Id.* at 184 (emphasis added).

[174] LE MASTER, *supra* note 132, at 68.

[175] *Id.*

[176] LE MASTER, *supra* note 132, app. B.

objectives of the land management plan."[177] According to the report of the Agriculture and Forestry Committee, "optimum method" meant that clearcutting "must be the most favorable or conducive to reaching the specified goals of the management plan" and was a "broader" concept than "silviculturally essential."[178]

In a letter accompanying the May 19th report from the Committee on Interior and Insular Affairs, Senator Dale Bumpers noted with satisfaction the inclusion of much of the Church Guidelines into Senate Bill 3091, but expressed concern about the removal of the silviculturally essential language applied to clearcutting.[179]

As amended, the bill was voted out of the two committees and onto the floor of the Senate. On August 25, 1976, Senator Humphrey introduced the bill on the floor of the Senate stating:

> [This legislation] deals with the question of who should manage the national forests. And the answer to that question is that they should be managed by professionals with public involvement.
>
> While Congress should set policy guidelines and evaluate the stewardship of the professionals, forest management decisions cannot be made from the House or Senate chamber.[180]

Senator Randolph offered amendments which were defeated. What would become NFMA passed the Senate by a vote of 90 to 0. Even Senator Randolph voted for it.[181]

On September 17, the House of Representatives voted out a similar bill. The Senate-House Committee adopted the Senate

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177 S. REP. NO. 94-905, at 2 (1976), *reprinted in* 1976 U.S.C.C.A.N. 6662, 6719.

178 S. REP. NO. 94-893, at 39 (1976), *reprinted in* 1976 U.S.C.C.A.N. 6662, 6698.

179 Certainly one of the most important provisions of this bill is the inclusion of general guidelines for the Forest Service to follow in its timber harvesting practices, particularly clearcutting. These guidelines are basically drawn from recommendations put forth by the Subcommittee on Public Lands, chaired by Senator Church in 1972. . . . It is time they were put on a firm statutory basis. . . .

I am concerned, however, that the guidelines may have been weakened during their translation into legislative language. In particular, the language of the bill calls for the use of clearcutting only where it is determined to be the "optimum method" for meeting land management plans. By way of contrast, the Church guidelines provide that clearcutting shall be utilized only where it is "silviculturally essential." This change sacrifices much of the clarity and, I believe, some of the original intent of the guidelines.

S. REP. NO. 94-905, *supra* note 177, at 15.

180 CONG. REC. 94th Cong., 2d Sess. 122 pt. 22:27605.

181 LE MASTER, *supra* note 132, at 73.

version with amendments.[182] Both the Senate and the House adopted the compromise version of September 30, 1976. On October 22, President Gerald Ford signed the bill into law as "the National Forest Management Act of 1976."[183]

Viewed as a whole, the passage of NFMA was a resounding victory for Forest Service discretion. But still, there were those substantive standards limiting Forest Service timber management practices cobbled into the law. What did they mean? Could they be enforced and, if so, how?

In an article written more than ten years after the fact, Arnold Bolle declared "when the NFMA was enacted in 1976, I had a great feeling of accomplishment. I felt that the law stated what

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[182] The Joint Explanatory Statement of the Committee of Conference explained:

> The Senate bill requires that the regulations promulgated . . . include guidelines which insure timber will be harvested from National Forest System lands only where soil, slope, or other watershed conditions will not be irreversibly damaged, such lands can be restocked within five years after harvest, and protection is provided for streams and other bodies of water. . . . Further guidelines would be required to insure that clearcutting will be used only where it is the optimum method. . . .
>
> . . . .
>
> The House amendment would include a new subsection . . . that plans developed in accordance with that section permit the application of silvicultural systems only if tree regeneration can occur within five years, such systems are carried out in a manner consistent with the protection of soil, watershed, continuously flowing waterways and bodies of water, fish, wildlife, recreation, and esthetic resources and regeneration of timber, that such systems are appropriate to accomplish multiple use sustained yield management objectives . . . and that the silvicultural system selected is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber.
>
> The conference substitute adopts, with some modifications, the provisions of the Senate bill.
>
> The provision requiring protection for streams and other bodies of water . . . is modified to clarify that protection is required only from detrimental changes, and only where harvests are likely to seriously and adversely affect water conditions or fish habitat. The Conferees incorporated in the general harvesting guidelines a provision from the House amendment which insures that a particular timber harvesting system is not selected primarily because it will give the greatest dollar return or the greatest unit output of timber. *The Conferees also incorporated in the clearcutting guidelines a provision from the House amendment which requires that cutting methods (other than clearcutting) which are designed to produce an even-aged stand will be used only where they are determined to be appropriate. . . .*

H.R. CONF. REP. NO. 94-1735, at 29-30 (1976) (emphasis added).

[183] PUB. L. NO. 94-588, 90 Stat. 2949 (1976) (codified as amended at 16 U.S.C. 1600-1614 and other scattered sections of 16 U.S.C. (1994)).

must and what must not be done."[184] More recently, Charles Wilkinson opined that "at bottom [NFMA] was a reform law, one designed to create change, to bring timber domination in the Forest Service to an end."[185] Did these two excellent and honorable scholars believe the product of the victory for agency discretion documented in NFMA legislative history could effectively eradicate the strong cultural bias Bolle and his committee had identified in the Forest Service? Quite possibly Dean Bolle and Professor Wilkinson were characterizing the legislative process in a manner favorable to the enforcement of substantive standards. Any lawyer knows that the legislative process is sufficiently ambiguous to make this sort of reappraisal common, and indeed, necessary. But, in the aftermath of the 1976 legislative process, what practical effect would the assertions of Bolle, Wilkinson, and others like them have?

III

REGULATION: SECOND TRANSLATION

A. The Statutory Mandate

The authors of NFMA allowed the substantive standards to remain while, at the same time, not violating their "conceptual" design. They did this by placing the standards in the statute exclusively for the purpose of shaping required Forest Service regulations. The relevant provision of the statute, section 6(g), is entitled "promulgation of regulations for development and revision of plans . . ." and requires:

> As soon as practicable, but not later than two years after October 22, 1976, the Secretary shall . . . promulgate regulations . . . that set out the process for the development and revision of the land management plans, and the guidelines and standards prescribed by this subsection. *The regulations shall include*, but not be limited to—
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> . . .
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> (2) *specifying guidelines* which—
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> . . .
>
> (E) 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;

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184 Bolle, *supra* note 91, at 5-9.

185 Charles Wilkinson, *The National Forest Management Act: The Twenty Years Behind, The Twenty Years Ahead*, 68 U. COLO. L. REV. 659, 669 (1997).

> (ii) there is assurance that such lands can be adequately restocked within five years after harvest;
>
> . . .
>
> (F) insure that clearcutting, seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method on National Forest System lands only where—
> (i) for clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate, to meet the objectives and requirements of the relevant land management plan. . . .

The authors of NFMA swaddled the prescriptive language drawn from the Church Guidelines in the deferential administrative rule-making process. The Four Forest Standards are all present in mature form, but appear to be enforceable only through Forest Service regulations.

Here the institutional "conversation" between Congress and the Forest Service continued. Congress took standards originally conceived in the 1971 Forest Service Report, *National Forest Management in a Quality Environment: Timber Productivity*,[186] modified by a Forest Service employee and incorporated into the Church Guidelines, modified again in the process of adopting NFMA, and cobbled into Humphrey's bill (drafted in large part by the Forest Service), and handed them back to the Forest Service for final interpretation.

Here Congress also drew a third party into its conversation with the Forest Service: The law altered the regulatory process by appointing "a committee of scientists" specifically "not officers or employees of the Forest Service" to "provide scientific and technical advice and counsel on proposed guidelines and procedures to assure that an effective interdisciplinary approach is proposed and adopted."[187] In April 1977, Secretary of Agriculture Robert Bergland announced the appointment of seven committee members.[188] The "magnificent seven" or "wise man commit-

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[186] *Church Committee Hearings*, *supra* note 42, at 421-87.

[187] 16 U.S.C. § 1604(h).

[188] The committee members were:

Arthur W. Cooper (Chairman), Professor of Forestry, North Carolina State University; Thadis Box, Dean, College of Natural Resources, Utah State University; R. Rodney Foil, Dean, Mississippi State University; Ronald W. Stark, Graduate Dean and Coordinator of Research, University of Idaho; Earl L. Stone, Jr., Professor, Department of Agronomy, Cornell University; Dennis E. Teeguarden, Professor of Forestry Economics, University of California, Berkeley; William Webb, Professor Emeritus, New York State

tee"[189] played a central but ill-defined role in the rule-making process.

The committee of scientists began its work in May 1977[190] and held eighteen meetings open to the public.[191] On February 22, 1979, the committee of scientists produced a "final" report on the draft Forest Service regulations. The Forest Service published the report in the Federal Register with the Forest Service's revised proposed regulations on May 4, 1979. This report significantly influenced the regulations finally promulgated. Many praised the scientists' work. Dennis Le Master noted "[t]he committee of Scientists played an important role in determining the technical quality of the regulations."[192] Michael Frome commented "[t]his committee . . . gave the Forest Service a set of management guidelines based on biosystems rather than dollar systems or political pressures."[193] However—to state the obvious—the scientists were not lawyers and the enforceability of the regulations they considered was not their primary concern.

Taking their direction from the intent of NFMA's drafters, the committee of scientists focused their attention on the planning procedures the regulations required.[194] The committee observed: "[t]he regulations have been criticized as being too process oriented. We believe the legislative history of NFMA supports the fact that they should be process oriented."[195] Illuminating this point, the committee declared:

> After considerable study we have concluded that the regula-

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College of Environmental Science and Forestry; and Lucille F. Stickel, Director of the Patuxent Wildlife Research Center, U.S. Fish and Wildlife Service, Laurel, Maryland.

Steven E. Daniels & Karren Merrill, *The Committee of Scientists: A Forgotten Link in National Forest Planning History*, 36 FOREST & CONSERVATION HIST. 108, 109 (1992).

189 Luke Popovich, *The "Wise Man" Committee—An Education for the Educators*, July 1978 J. OF FORESTRY 424 (1978).

190 LE MASTER, *supra* note 132, at 156.

191 FROME, *supra* note 29, at 93. One commentator notes, "In this case, 'public' largely means a dozen or so industry and environmental spokesmen who became virtually camp followers, dogging the committee across the country from one meeting to the next, offering their comments, helpful if unsolicited, to the harried specialists." Popovich, *supra* note 189, at 424.

192 LE MASTER, *supra* note 132, at 157.

193 FROME, *supra* note 29, at 93.

194 One commentator suggests that this "process" bias did not originate with the committee but instead with the Forest Service staff. Popovich, *supra* note 189, at 425.

195 Final Report of the Committee of Scientists, 44 FED. REG. 26,599 (1979).

> tions must be quite specific in one respect and quite non-specific in another. We believe that the regulations must be specific in establishing the principles of land management planning and in establishing the process to be used by the Forest Service in applying those principles. We are equally strong in our belief that the regulations should not be specific in regard to the prescriptions for the solution of on-the-ground land management problems such as choice of silvicultural system. . . .[196]

The committee's conviction conformed with NFMA's legislative history. However, their conviction and a similar conviction demonstrated by the drafters of the regulations insured that the substantive standards remaining in NFMA would not fare well in the rulemaking process.

The regulations promulgated by the Forest Service were regulations to govern the process of producing the Land and Resource Management Plans or "Forest Plans" required by NFMA. Accordingly, to the degree that the regulations dealt at all with when the substantive standards at issue should be applied, they dealt with it in the context of the planning process. Specifically, the regulations required that two of the Four Forest Standards—the Soil and Watershed Standard and the Restocking Standard—should be applied in the process of determining the suitable timber base designated in the Forest Plan. As part of the forest planning process, the Forest Service regulations require designation of those lands in the forest "available, capable and suitable for timber production."[197] The number of acres included in the suitable timber base is one significant factor in determining how much timber may be taken from the forest on a "sustainable yield" basis.

The process of designating a suitable timber base involves three steps. The first of these steps requires eliminating land physically unsuitable for timber production. The second and third steps require economic analysis.[198] Lands physically unsuit-

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[196] *Id.* at 26,604.

[197] 44 FED. REG. 26,593 (1979) (codified at 36 C.F.R. § 219.12(b)).

[198] The Tenth Circuit, in *Sierra Club v. Cargill*, 11 F.3d 1545 (10th Cir. 1993), outlines the three-stage timber suitability process as set forth in the 1982 Forest Service regulations:

> The regulations outline a three-stage analysis for evaluating the suitability of land for timber harvesting. Stage one involves a land suitability analysis under which land is unsuitable for harvest if: 1) it currently and historically has less than ten percent tree cover; 2) technology is not available to ensure that timber production will not cause irreversible damage to soil or

able for timber production include lands on which timber production would result in irreversible damage to soil or watershed and lands which could not be adequately restocked within five years.[199]

The Clearcutting and Even-Aged Standards, to the degree that they survived the regulatory translation at all, were relegated to a grab-bag section of the planning regulations entitled "management requirements" allegedly containing "minimum specific management requirements to be met in accomplishing goals and objectives for the National Forest System,"[200] but providing no indication how or when those requirements should be satisfied.

The planning process governed by the Forest Service regulations and the Forests Plans generated pursuant to those regulations do not specify exactly what actions will be taken in the forest. As the Forest Service often says: "The Forest Plan is similar to a county zoning ordinance. The ordinance does not require specific types of development to occur, but delineates the areas wherein various types of development may occur."[201] Because the planning process has a limited effect on project specific activities, application of substantive timber management standards at the "plan level" raises questions about what effect, if any, those standards have at the timber "sale level." Gippert and DeWitte note "The NFMA's two-tiered decisionmaking system allows broad forest management goals to be set and at the same time ensures that individual projects comply with all *applicable* envi-

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watersheds; 3) it cannot be restocked within five years; and 4) it has been administratively withdrawn from timber production. 36 C.F.R. § 219.14(a).

Land that is suitable under stage one is then evaluated under stages two and three. Stage two requires an economic analysis to determine what the management costs and returns are for the different areas remaining after Stage one analysis and what timber production management intensity results in the greatest financial return for each area. 36 C.F.R. § 219.14(b). Stage three then requires a more broad based economic analysis focusing on the value of timber harvest in an area in relation to the value of other "multiple-use" objectives for that area (including a broad range of uses such as recreation, wildlife habitat, watershed, and range land). 36 C.F.R. § 219.14(c).

Id. at 1546-47.

199 Regulation 219.12(b)(1), 44 Fed. Reg. 53,986 (1979).

200 36 C.F.R. § 219.27 (1976).

201 FOREST SERVICE, U.S. DEP'T OF AGRIC., ENVIRONMENTAL ASSESSMENT, AMENDMENT TO RESTOCKING STANDARDS BIGHORN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN (1991); Gippert & DeWitte, *supra* note 24, at 157-59.

ronmental laws."[202] The "zinger" with NFMA's substantive timber management standards is which standards, if any, are "applicable" at the project level.

B. The Clearcutting and Even-Age Standards: From "Optimum" and "Appropriate" to "Best Suited"

At the time of the Church Committee hearings, the central focus of the forest controversy had been a single "silvicultural" practice—clearcutting. Witnesses before that committee, scientists, politicians, and citizens had reviled clearcutting as "a shocking desecration that has to be seen to be believed."[203] In response to that concern, the Church Guidelines had singled out "clearcutting" for special limitations, allowing it to be employed only when "silviculturally essential" to meet the goals of the Forest Plan.[204] The National Forest Management Act incorporated that element of the Church Guidelines but modified the language of the standard to require that clearcutting only be employed when determined to be "the optimum method . . . to meet the objectives and requirements of the relevant land management plan."[205] The House of Representatives added the Even-Aged Standard to NFMA to regulate shelterwood and seed tree cutting—silvicultural practices with similar effects to clearcutting.[206]

The first proposed regulations the Forest Service published on August 31, 1978[207] contained the clearcutting "optimality" language drawn from NFMA.[208] However, the next set of proposed regulations, published on May 4, 1979,[209] contained no such substantive standard. The standard had been removed on the advice of the committee of scientists:

> The criteria in the present draft regulations [of August 1978] follow NFMA in requiring that clearcutting be used only

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[202] Gippert & DeWitte, *supra* note 24, at 166 (emphasis added).

[203] *Church Committee Hearings*, *supra* note 42, at 3.

[204] *Id.* at 9.

[205] 16 U.S.C. § 1604(g)(3)(F)(i) (1998).

[206] The Joint Explanatory Statement of the Committee of Conference noted:

> The Conferees also incorporated in the clearcutting guidelines a provision from the House amendment which requires that cutting methods (other than clearcutting) which are designed to produce an even-aged stand will be used only where they are determined to be appropriate . . . .

H.R. CONF. REP. NO. 94-1735 at 30 (1976).

[207] 43 Fed. Reg. 39,046 (1978).

[208] 43 Fed. Reg. 39,054 (1978) (codified at 36 C.F.R. § 219(d)(3)(iv)).

[209] 44 Fed. Reg. 26,554 (1979) (codified at 36 C.F.R. § 219.10(d)(3)(iv)).

> where it is the optimum method . . . other [even-age silviculture] systems, generally, need only be appropriate. . . . This material has been revised [in the May 1979 draft regulations] to require that *all* silvicultural systems and cutting methods should be the ones best suited for the multiple-use objectives of the area, taking into account all resources involved, together with ecological factors and soil fertility.
>
> In addition, we feel this section should be written so that it applies to all vegetation manipulation practices regardless of the form of the vegetation (grass, brush, trees, etc.) and regardless of whether the operations are for production of forage for livestock, trees for timber, habitat for wildlife, etc.[210]

The committee of scientists proposed a regulation including the "best suited" language for all "vegetation manipulation," juxtaposing the selection process and the "best suited" standard.[211] The Forest Service declined the invitation to apply the "best suited" standard to forms of vegetation manipulation not involving trees. Otherwise, the final 1979 regulations adopted the suggested language with minor changes, but placed the "best suited" language in a separate regulation.[212] The 1982 proposed and fi-

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[210] Committee of Scientists Report, 44 Fed. Reg. 26,624 (1979).

[211] Our proposed wording for § 219.10(a)(2) is intended to provide such guidance . . .

> (2) Vegetation management practices. When vegetation is altered by management, the method, timing and intensity of the practices determine the level of benefits that can be obtained. . . . The vegetation management practices chosen for each vegetation type and circumstance will be defined in the forest plan with a display of the alternatives examined and the reasons for the final choices. . . . The choices will be based upon thorough reviews of technical and scientific literature and practical experience, with appropriate evaluation of this knowledge for relevance to the specific vegetation and site conditions. On national forest land, the chosen alternative will
>
> (i) Be the one best suited to achieve the multiple-use goals established for the area, including consideration of all potential environmental, biological, esthetic, engineering and economic impacts, as stated in the regional and forest plans. . . .

44 Fed. Reg. 26,624 (1979).

[212] Final 1979 Regulation 219.12(c) states:

> When vegetation is altered by management, the method, timing and intensity of the practices determine the level of benefits that can be obtained . . . The vegetation management practices chosen for each vegetation type and circumstance will be defined in the forest plan . . . Where more than one vegetation management practice will be used . . . the conditions under which each will be used will be based upon thorough reviews of technical and scientific literature and practical experience, with appropriate evaluation of this knowledge for relevance to the specific vegetation and site conditions. On national forest land, the vegetation management practice

nal planning regulations contained almost identical language.[213]

Each logical step in the process in the translation of the Clearcutting Standard from the "silviculturally essential" formulation in the Church Guidelines to the "best suited" requirement for "vegetation management" in the final Forest Service regulations can be justified. Arguably, the Forest Service required a "broader," more flexible standard than "silviculturally essential." Clearly, management techniques other than clearcutting should be well suited to their purpose. Yet, the distance between the anti-clearcutting rage vented before the Church Committee in 1971 and the amorphous timber management guideline finally imposed on the Forest Service in 1979 is great. The merging of the Clearcutting Standard with the Even-Age Standard further masked the concern about clearcutting *per se* which had been so apparent in 1971.

C. "Spinning" The Restocking Standard

Restocking generally refers to the process of reestablishing a stand of young trees on the ground denuded by the clearcut or other even age cut. A stand is restocked when a certain number of young trees of a certain size have established themselves in the

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chosen will comply with the management standards and guidelines specified in § 219.13(c) . . .

44 Fed. Reg. 53,987 (1979). Section 219.13(c) provides:

(c) Management prescriptions that involve vegetation manipulation of tree cover for any purpose will:

(1) Be best suited to the multiple-use goals established for the area . . .

Id. at 53,990.

213 In § 219.15 of the 1982 regulations:

Vegetation management practices. When vegetation is altered by management, the methods, timing, and intensity of the practices determine the level of benefits that can be obtained from the affected resources. The vegetation management practices chosen for each vegetation type and circumstance shall be defined in the forest plan with applicable standards and guidelines and the reasons for the choices. Where more than one vegetation management practice will be used in a vegetation type, the conditions under which each will be used shall be based upon thorough reviews of technical and scientific literature and practical experience, with appropriate evaluation of this knowledge for relevance to the specific vegetation and site conditions. On National Forest System land, the vegetation management practice chosen shall comply with the management requirements in § 219.27(b).

47 Fed. Reg. 43,047 (1982).

Regulation 219.27(b)(1) provides: "Management prescriptions that involve the manipulation of tree cover for any purpose shall—(1) Be best suited to the multiple-use goals established for the area . . ." *Id.* at 43,050.

logged area.[214] The Church Guidelines provided that "Clear-cutting should not be used as a cutting method on Federal land areas where . . . there is no assurance that the area can be adequately restocked within five years after harvest." The Restocking Standard had survived translation into NFMA undiluted and was extended to all timber harvesting. However, the process of adopting implementing regulations altered the language of the Restocking Standard significantly.

As noted above, the 1979 regulations apparently fixed the point of compliance for the restocking requirement. The regulations incorporated the Restocking Standard into the process of identifying the suitable timber base in the Forest Plan,[215] translating it into a standard applied to the forest as a whole every ten or fifteen years, as opposed to a standard that had to be satisfied every time the Forest Service decided to allow someone to log a stand of trees. In addition, the 1979 regulations "spun" the language of the restocking requirement, preserving flexibility by transforming the simple "assurance" that an "area can be adequately restocked within five years after harvest" into something more complex and ambiguous:

> Those lands that fail to meet any of these requirements will be designated as not suited for timber production
>
> . . . .
>
> (iv) There is no *reasonable assurance* that such lands can be adequately restocked as provided in § 219.13(h)(3).[216]

Regulation § 219.13(h)(3) provided:

> When trees are cut to achieve timber production objectives,

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214 Under the 1982 regulations "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). Although never the subject of litigation, the Forest Service's power to define restocking levels gives it another opportunity to frustrate the intent of the Restocking Standard. At the time of the litigation in *Sierra Club v. Cargill*, the Bighorn Forest Plan restocking levels called for densities of Lodgepole Pine in the range of 240-360 seedlings per acre. FOREST SERVICE, U.S. DEP'T OF AGRIC., LAND AND RESOURCE MANAGEMENT PLAN FOR BIGHORN NATIONAL FOREST, at III-53 to III-54 (1985) [hereinafter BIGHORN MANAGEMENT PLAN]. The Rocky Mountain Regional Guide, prepared after the injunction in *Cargill 1990*, requires only a restocking level of 150 seedlings per acre for Lodgepole pine. FOREST SERVICE, U.S. DEP'T OF AGRIC., ROCKY MOUNTAIN REGIONAL GUIDE, 3-4 (1992).

215 Final Rules and Regulations, 44 Fed. Reg. 53,986 (1979) (codified at 36 C.F.R. § 219.12(b)).

216 Final Rules and Regulations, 44 Fed. Reg. 53,986, 53,990 (1979) (codified at 36 C.F.R. § 219.12(b)).

> the cutting will be made in such a way as to assure that lands can be adequately restocked within five years after final harvest. Research and experience will indicate that 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. . . . Five years after final harvest means 5 years after clearcutting, 5 years after final overstory removal in shelterwood cutting, five years after the seed tree removal cut in seed tree cutting, or 5 years after selection cutting.[217]

"Assurance" became "reasonable assurance" within the scope of "research and experience." "Harvest" became "final harvest" which, in turn, was defined as the last commercial cut. "Adequate restocking" was defined in the regional silvicultural guidelines. "Five years," alone, remained unchanged.

The language of 1979 regulations softened the restocking requirement. The language of the 1982 regulations attempted to remove the requirement completely. The 1982 regulations altered the first sentence of the restocking regulation to provide: "When trees are cut to achieve timber production objectives, the cutting shall be made in such a way *as to assure that the technology and knowledge exist* to adequately restock lands within five years after final harvest."[218] The requirement that the Forest Service assure regeneration within five years had now become a requirement that the Forest Service assure that the technology existed *somewhere* to assure such restocking. The five-year restocking requirement, originally suggested by the Forest Service in its 1971 report to the Church Committee, seemed to have become a purely academic exercise.

Those commenting on the proposed 1982 regulations noticed this change. In the preamble to the final regulations, the Forest Service responded obliquely:

> The proposed revision requiring that "technology and knowledge exist" to adequately restock within 5 years after final harvest . . . was viewed by some reviewers as a violation of the original intent of Congress. . . .
>
> Others strongly recommended that additional time be al-

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[217] Final Rules and Regulations, 44 Fed. Reg. 53,990, 53,991 (1979) (codified at 36 C.F.R. § 219.13(h)(3)).

[218] Proposed Rules and Regulations, 47 Fed. Reg. 7,692, 7,693 (1982) (codified at 36 C.F.R. § 219.14(h)(4)) (proposed Feb. 22, 1982); Final Rules and Regulations, 47 Fed. Reg. 43,050-51 (1982) (to be codified at 36 C.F.R. § 219.27(c)(3)).

> lowed for restocking under natural methods which reflect true time requirements on the ground.[219]

The "technology and knowledge" language remained in the final regulations. This comment illuminates one aspect of Forest Service culture. Given the choice between purportedly sound silvicultural practice in the form of longer natural restocking periods and complying with the letter of the law, the agency chose the sound silvicultural practice and ignored the intent of Congress.

There is some irony in the fact that the idea of a categorical five-year restocking requirement, rejected by the Forest Service in 1982, seemed to have originated with the Forest Service's 1971 report to the Church Committee.[220] In the context of the institutional conversation between Congress and the Forest Service, the Forest Service had become one of those maddening conversationalists who presents a proposition and then disowns it sometime later without ever quite admitting he or she is wrong.

D. The Soil and Watershed Standard

The Church Guidelines provided that "[c]lear-cutting should not be used as a cutting method on Federal land areas where . . . [s]oil, slope or watershed conditions are fragile and subject to major injury."[221] The National Forest Management Act broadened and confused this standard, requiring the Forest Service to "insure that timber will be harvested from National Forest System lands only where . . . soil, slope, or other watershed conditions will not be irreversibly damaged."[222] The Act also broadened the Church Guidelines standard by applying it to all logging and confused it by keying it to "irreversible" damage to soil and watershed. So long as water runs downhill, all damage to soil and watershed is irreversible. Or, viewed another way, so long as water flows, mountains erode and organisms propagate, all damage to soil and watershed is eventually reversible.[223]

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219 Analysis of Public Comments, 47 Fed. Reg. 43,026, 43,035 (1982).

220 *Church Committee Hearings*, *supra* note 42, at 421-87 (*National Forest Management in a Quality Environment: Timber Productivity*).

221 CHURCH COMMITTEE REPORT, *supra* note 40, at 9.

222 16 U.S.C. § 1604(g)(3)(E)(i) (1998).

223 For an example of a more specific standard consider a proposal submitted by environmental groups:

> There are several . . . factors to be used in the determination [of lands not suitable for timber production] including. . . .
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> Lands [which] have soil types for which erosion rates during the first 10 years would cause loss of soil greater than the amount that would be gener-

The standard remained the primary expression of the concern about soil resources sparked by Dr. Curry's testimony in 1971. As the committee of scientists noted:

> [a] significant interest during the debate on NFMA was assuring protection of soil and water resources on National Forest lands. Consequently, the Act expresses strong concern about protecting streams and lakes, assuring the soil productivity will not be impaired, and preventing irreversible damage to soil in the course of management and use.[224]

The 1979 regulations incorporated this standard in two provisions. May 4, 1979, draft regulation 219.12(b) required that the Forest Plan-level suitable timber base include only land for which "[t]echnology is available that will ensure timber production from the land without irreversible resource damage to soils, productivity and watershed conditions. . . ."[225] As with the Restocking Standard, the Soil and Watershed Standard had been translated into a plan-level standard and weakened by the addition of "technology is available" language. This language appears in both the final 1979 and final 1982 regulations.[226]

The May 4, 1979, draft regulation 219.13 required that "[A]ll management practices . . . conserve soil and water resources and not allow significant or permanent impairment of the productivity of the land,"[227] and that "vegetation manipulation of tree cover . . . avoid permanent impairment of site productivity and assure conservation of soil and water resources."[228] Both of these provisions survived in the final September 17, 1979 and the revised 1982 regulations.[229] Unfortunately, these provisions provided little indication of what constituted unacceptable damage to soil or watershed.

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ated naturally through periodic weathering during one period of rotations . . .

Alternatives Considered, 44 Fed. Reg. 26,568, 26,571 (1979) (submitted May 4, 1979).

[224] Final Report of the Committee of Scientists, 44 Fed. Reg. 26,599, 26,626 (1979).

[225] Proposed Rules and Regulations, 44 Fed. Reg. 26,593 (1979) (codified at 36 C.F.R. § 219.12(b)(1)(iii)) (proposed May, 4 1979).

[226] Final Rules and Regulations, 47 Fed. Reg. 43,046 (1982) (codified at 36 C.F.R. § 219.14).

[227] Proposed Rules and Regulations, 44 Fed. Reg. 26,596 (codified at 36 C.F.R. § 219.13) (proposed May 4, 1979).

[228] 44 Fed. Reg. 26,597 (1979).

[229] Final Rules and Regulations, 44 Fed. Reg 53,990 (1979) (codified at 36 C.F.R. § 219.13).

The committee of scientists responded to this lack of specificity:

> [W]e believe that the cited regulations, viewed in their entirety form a comprehensive requirement that more than meets Congressional intent [to protect soil and water resources]. These regulations are indeed open to the familiar charge of lack of specificity. On the other hand, nothing would be more futile than attempting specific direction for a myriad of physical situations by regulation; and nothing would be more destructive to responsible multiple use planning than imposing a few simple textbook generalizations or rules of thumb as operational requirements.[230]

This observation explains not only the positions of both the committee of scientists and the Forest Service concerning the Soil and Watershed Standard, but also all the regulations implementing specific timber management standards imposed by NFMA. For fear of burdening land managers with "destructive" general management prescriptions, the regulatory process injected discretion into the application of every standard, shielded managers from unreasonable burdens and, in doing so, undercut the force of the standards.

The Forest Service and the committee of scientists had completed the development of the Four Forest Standards. However, as will become apparent, the institutional conversation between the Forest Service and Congress had not reached an intelligible conclusion. The spirit of agency discretion dominated the process, but the substantive timber management standards remained. Although only enforceable through agency regulations, the standards used strong words like "assure" and "insure." NFMA created a complex planning process, in part, to help insure that non-timber values would be taken into account but, in most cases, it did not specify how the substantive timber management standards fit into that process.

IV

Law Suits: Testing Meaning in the Courts

A. "Strong Medicine," Short Memories, and High Hopes

The National Forest Management Act became law in 1976. Its initial implementing regulations were adopted in 1979. Thereaf-

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[230] Final Report of the Committee of Scientists, 44 Fed. Reg. 26,599, 26,626 (1979).

ter, there was a hiatus of almost ten years between the completion of the legal structure and the first significant wave of substantive NFMA lawsuits. As Charles Wilkinson and Michael Anderson put it in 1985, "the courts have been conspicuously silent" in the nine years since the passage of the Act.[231] There were three good reasons for this decade of silence.

First, NFMA shielded existing land management plans from its requirements, providing that "[u]ntil such time as a unit of the National Forest System is managed under plans developed in accordance with this Act, the management of such unit may continue under existing land and resource management plans."[232] In other words, no one could use any provision of NFMA to challenge any activity on any national forest until the Forest Service issued a clearly denominated NFMA "Land and Resource Management Plan" for the area in which that activity would take place.

Second, although NFMA required incorporation of its "standards and guidelines" into plans for the National Forest System "as soon as practicable" and no later than September 30, 1985,[233] the Forest Service did not complete the process until the early 1990s.[234] Even issuance of plans subject to NFMA did not result in immediate court challenges because any challenges to plans once approved had to be submitted initially through an administrative appeals process that could take, in the late 1980s, two years or more.[235]

Third, the judicial doctrines of standing and ripeness require

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231 Wilkinson & Anderson, *supra* note 7, at 7.

232 16 U.S.C. § 1604(c) (1994).

233 *Id.*

234 The last of the 123 forest plans covering all 155 forests in the National Forest System was approved in 1995. The forest plans generally took from 3 to 10 years to complete. U.S. GENERAL ACCOUNTING OFFICE, FOREST SERVICE DECISION-MAKING: A FRAMEWORK FOR IMPROVING PERFORMANCE, GAO/RCED-97-71, at 28 (1997).

235 By early 1988, the average forest service appeal took 363 days to process. On average, it took 424 days to process Forest Plan appeals and 294 days to process timber sale appeals. In region 1, of the 177 Forest Plan appeals made between October 1, 1985 and June 30, 1988, 145 remained unresolved with an average processing length of 537 days. Of these, 73 were still in step two of the appeal process and had been ongoing an average of 286 days. The other 72 were stuck in step four of the appeals process and had been in processing for an average of 793 days. Of these 72, 14 included oral presentations which increased the length to 831 days. GENERAL ACCOUNTING OFFICE, U.S. CONG., FOREST SERVICE: INFORMATION ON THE FOREST SERVICE APPEALS SYSTEM 13-20, GAO/RCED-89-16BR (1989).

that plaintiffs may only bring their claim before a federal judge if they have been injured or are likely to be injured by the action they challenged and application of the law can remedy or prevent the injury. Standing has provided significant difficulties for plaintiffs challenging approved NFMA Forest Plans. It will be an even more prominent obstacle after the United States Supreme Court opinion in *Ohio Forestry Ass'n, Inc. v. Sierra Club*.[236] Standing would have proved an insurmountable burden for plaintiffs challenging unapproved and unimplemented plans.

One case, *Texas Committee on Natural Resources v. Bergland*,[237] provided a preview of attempts to enforce NFMA timber management standards. In May 1977, in a fiery opinion, Judge William Wayne Justice of the Eastern District of Texas enjoined clearcutting on the four national forests in east Texas, including Angelina, Sabine, Davy Crockett, and Sam Houston, on the ground that the Forest Service had failed to comply with NEPA. Judge Justice's factual findings presented a categorical condemnation of clearcutting practices on the Texas national forests:

> 25. Clearcutting results in increased fire hazard . . .
> 26. Clearcutting probably results in increased hazard from insects and diseases, because it creates stands of trees of the same age and frequently of the same species, and because most insects and diseases attack trees of a particular age or species. . . .
> 27. Clearcutting impairs the productivity of the land, because it causes accelerated erosion and loss of the all-important top soil. . . .
> 28. Clearcutting impairs the productivity of the land, because it causes leaching of nutrients essential to tree growth.
> 29. Clearcutting impairs and reduces the amount of habitat essential to various species of wildlife. Some species require relatively mature trees for nesting and for food. Other species require dead or hollow trees for nesting. . . .
> 30. Clearcutting impairs the productivity of the land by reducing the number of species and, therefore, eliminating the wide range of benefits resulting from the subtle interdependencies characteristic of the natural forest.
> 31. Except for birdwatching, photography, and some forms of hunting, even-age management largely destroys the recreational values of the clearcut area for about thirty years. . . .[238]

Based on the existence of these impacts and others, the court

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[236] 118 S. Ct. 1665 (1998).

[237] 573 F.2d 201 (5th Cir. 1978).

[238] Texas Comm. on Natural Resources v. Bergland, 433 F. Supp. 1235, 1240 (E.D. Tex. 1977).

found that the Forest Service's failure to prepare a programmatic NEPA Environmental Impact Statement (EIS) for its clearcutting practices on the Texas national forests is a violation of that Act.

In May 1978, the Fifth Circuit reversed Justice's anti-clearcutting decision.[239] The Fifth Circuit held that the district court had "impermissibly substituted its judgment for that of Congress"[240] because, according to the court, "the Senate-House conference agreed that the Forest Service should be permitted to continue clearcutting under the Church guidelines pending development of management plans required by NFMA."[241] The court continued, "[w]e hold today that the Congressional decision to permit clearcutting in national forests under the Church guidelines is not subject to judicial review during the period in which permanent guidelines are being established."[242] The Fifth Circuit's holding established, once and for all, that NFMA was not an anti-clearcutting law. What the decision left unresolved was what, exactly, the Fifth Circuit thought NFMA was.

In the final full paragraph of the majority opinion, in an apparent attempt to provide some limits on its own holding, the Fifth Circuit made statements both damaging and prophetic.

> We would emphasize that our decision today is not a wholesale license to clearcut in Texas forests. Both the Church guidelines and the NFMA express serious reservations about the practice that may not be disregarded by the Forest Service. . . . [C]learcutting must be used only where it is essential to accomplish the relevant forest management objectives. *The development of those management policies remains the province of the Forest Service*, subject to restrictions placed on it by Congress. A decision to pursue even-aged management as the overall management plan . . . is subject to the narrow arbitrary and capricious standard of review.[243]

In this passage, the Fifth Circuit described what would be the central themes in litigation to enforce NFMA substantive standards. Forest Service actions were subject to review for compliance with substantive standards. Plaintiffs had a right to play the game. But the rules of the game—management policies—would be defined by the Forest Service and both the agency's forest

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[239] 573 F.2d 201, 212 (5th Cir. 1978).
[240] *Id.* at 209.
[241] *Id.* at 209-10.
[242] *Id.* at 210.
[243] *Id.* at 212 (emphasis added).

management activities and systemic policies would be reviewed under the narrow Administrative Procedure Act (APA) "arbitrary and capricious" standard of review.

The Fifth Circuit decided *Bergland* in 1978; by the late 1980s, when the possibility of court challenges to Forest Plans became a real possibility, it was almost as dim a memory as the defeats that Jennings Randolph had suffered in 1976. The influential scholarly work of Charles Wilkinson and Michael Anderson provided one factor that appeared to appreciably brighten the prospects for finding meaning in the substantive standards. In their excellent and massive 1985 article *Land and Resource Planning on the National Forests*,[244] they termed the "physical suitability standards" in NFMA, including the Restocking Standard and the Soil and Watershed Standard, "some of the strongest medicine Congress prescribed in the NFMA."[245] Further, they argued that the appropriate legislative history with which to divine the meaning of those standards was not the unfortunate proceeding leading to passage of NFMA, but rather the outpouring of concern and anger before the Church Committee in 1971.[246]

> Based on this record, it seems clear that Congress intended to incorporate the legislative history of the Church guidelines in order to provide a basis for statutory interpretation of NFMA provisions, especially in regard to suitability and harvest practices.[247]

If this were so, then NFMA's timber management standards borrowed from the Church Guidelines should be available as tools to remedy the ills identified by the Church Committee. On the other hand, if this were not so, the victory for agency discretion embodied in the 1976 legislative history, would hobble any attempts to use the Four Forest Standards to constrain Forest Service action. By the late 1980s, environmental groups were ready to test Wilkinson and Anderson's proposition.

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244 Wilkinson & Anderson, *supra* note 7, at 159.
245 *Id.*
246 *Id.* at 155-59.
247 *Id.* at 158.

B. The Restocking Standard and Soil and Watershed Standard in the Courts: The Forest Service Has Discretion, But This Is Not About the Hypothetical Availability of Technology

1. Big Hole Ranchers Ass'n v. United States Forest Service,[248] *Beaverhead National Forest, Montana*

The first case to set the pattern for litigation under the timber management standards in NFMA appeared in April 1988. In *Big Hole Ranchers Ass'n v. U.S. Forest Service*, the United States District Court in Montana interpreted the Restocking Standard in NFMA in accord with the Forest Service regulations and in the spirit of agency discretion. *Big Hole Ranchers Ass'n* involved legal challenges to three timber sales on the Beaverhead National Forest in southern Montana.[249] Plaintiffs, environmentally concerned ranchers and residents of the Big Hole Valley, brought claims under the Montana Wilderness Study Act, NEPA, the Multiple-Use Sustained-Yield Act, and NFMA. The sales at issue had originally been approved under a 1978 Beaverhead National Forest Land Management Plan. That plan subsequently had been superseded by a 1986 Land and Resource Management Plan prepared under the 1982 planning regulations.

The sixth count of plaintiffs' six count complaint alleged that the timber sales violated NFMA because "defendants have not assured that regeneration of the sale areas will occur within the five year period required by NFMA."[250] The court granted the Forest Service motion for summary judgment on this claim. Neither plaintiffs nor the court clearly explained the relationship between the claims asserted and the forest planning process to which the prescriptive regulations applied. While Forest Service regulations apply the Restocking Standard as part of the timber suitability analysis at the "plan level," the court applied it here to specific timber sales.

Almost two years before,[251] at a preliminary injunction hearing, the court had taken evidence about restocking problems with the timber sales in question. In its 1988 opinion, the court made a point of noting that the evidence presented by plaintiffs' regen-

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[248] 686 F. Supp. 256 (D. Mont. 1988).

[249] *Id.* at 258.

[250] *Id.* at 264.

[251] *Id.* at 258.

eration expert "was not convincing."[252] More significant for future cases, the court articulated NFMA Restocking Standard as narrowly as the statute would allow:

> The NFMA requires that timber will be harvested only where "there is assurance that such land can be adequately restocked within five years of harvest." Forest Service regulations state:
>
> > When trees are cut to achieve timber production objectives, cuttings shall be made in such a way as to assure that the technology and knowledge exists to adequately restock the lands within 5 years after final harvest. . . .
>
> This court in its Findings of Fact and Conclusions of Law denying plaintiff's request for preliminary injunction, found the Forest Service did, in fact . . . assure that reforestation or regeneration *would* occur within five years on each of the challenged timber sales . . . . Upon review, the court concludes the determination of the Forest Service that adequate restocking *could* occur on the sale areas was not arbitrary, and was well-reasoned and based on considerable agency expertise and experience.[253]

The almost off-hand quality of the court's dismissal of the Big Hole Ranchers' restocking claim makes it difficult to assess. Whether the Forest Service needed to establish that restocking "would" happen or "could" happen, the court did not seem to know what the Restocking Standard meant and did not seem to care. The court references the "technology and knowledge exists" language in the Forest Service regulations applying the Restocking Standard but does not discuss their meaning. The use of the word "could" in characterizing the Restocking Standard in the court's summary paragraph, suggests that the court accepted that the Forest Service's obligation was simply to determine that "technology and knowledge exists" to assure adequate restocking, not that the technology and knowledge would ever be applied.

2. Citizens for Environmental Quality v. United States Forest Service,[254] *Rio Grande National Forest, Colorado*

Environmentalists and the Forest Service joined battle in earnest the following year before Judge Sherman Finesilver of the United States District Court for the District of Colorado. Plain-

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[252] *Id.* at 264.

[253] *Id.* (emphasis added).

[254] 731 F. Supp. 970 (D. Colo. 1989).

tiffs in *Citizens for Environmental Quality* challenged approval of the Land Resource Management Plan (Forest Plan) for the Rio Grande National Forest in southern Colorado.[255]

Originally conceived as an attack on the Forest Service planning computer system—FORPLAN[256]—the case grew into a broad spectrum challenge to various aspects of Forest Service interpretation and application of NFMA. The court, aware of its role as curtain raiser for the promised era of Forest Plan litigation, noted "[t]his case is among the first requesting broad judicial review of Forest Service decisions regarding forest land management plans. Additional litigation is anticipated as more of these plans reach the implementation stage."[257]

The court's final opinion, issued on August 24, 1989, resolved the case on cross-motions for summary judgment. In his introduction, Judge Finesilver recognized the planning orientation of NFMA and echoed the statute's statements about the complexity of public land planning.[258] The *Citizens for Environmental Quality* opinion analyzed claims concerning consideration of evidence outside the administrative record,[259] the appropriate standard of review,[260] analysis of unprofitable timber sales,[261] the appropriate range of alternatives in the accompanying EIS,[262] and a variety of other issues that are beyond the scope of this Article.

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255 The Forest Service began preparing the plan in 1981, five years after passage of NFMA. On January 4, 1985 the Regional Forester for the Rocky Mountain Region approved the plan. A month later, on February 19, 1985, environmental groups appealed the plan to the Chief of the Forest Service. Two years later, on May 28, 1987, Chief Dale Robertson issued his decision denying the appeal. The environmental groups went to court. *Id.* at 979.

256 FORPLAN I was a computer analysis model used by the Forest Service to compare and evaluate alternative forest plans. Through linear programming, FORPLAN I analyzes and describes how a forest may be expected to respond to anticipated management. Plaintiff's original claim, which alleged that FORPLAN I was a fundamentally flawed tool to use in the planning process and the preparation of the Rio Grande Forest Plan, was dismissed at oral hearing by stipulation of the parties. *Citizens for Envt'l Quality*, 731 F. Supp. at 980 n.12.

257 *Id.* at 976.

258 The task of satisfying the nation's need for timber and other forest products while preserving forest lands for the use of future generations is a complex one. Nonetheless, NFMA contemplates that through careful planning and management, both economic and aesthetic needs will be met. *Id.*

259 *Id.* at 982-83.

260 *Id.* at 983.

261 *Id.* at 986-88.

262 *Id.* at 989-90.

However, one of plaintiff's central claims involved application of NFMA Soil and Watershed Standard.

Plaintiffs asserted that the Forest Service had violated the Soil and Watershed standard by including lands with "unstable soils" within the "suitable timber base" designated in the planning process pursuant to Forest Service regulations.[263] Unstable soils had long been an issue in the landslide-prone mountains of the Rio Grande National Forest.[264] The Forest Service responded that its designation of a suitable timber base complied with its regulations.

As noted above, the Soil and Watershed Standard, on which plaintiffs relied, required the Forest Service to promulgate regulations which "insure that timber will be harvested from National Forest System lands only where soil, slope or other watershed conditions will not be irreversibly damaged."[265] Yet the applicable implementing regulation, on which the Forest Service's argument depended, required land to be designated "not suited for timber production" when "[t]echnology is not available to ensure timber production from the land without irreversible resource damage to soil's productivity, or watershed conditions."[266]

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[263] *Id.* at 979-80.

[264] FOREST SERVICE, U.S. DEP'T OF AGRIC., RIO GRANDE NATIONAL FOREST PLAN, FINAL ENVIRONMENTAL IMPACT STATEMENT, IV-2 (1983) ("The Rio Grande National Forest lies at a relatively high elevation in an arid climate. . . . Some soil movement, in the form of topsoil loss, small landslides and stream sediment, is a normal part of the change taking place in the Forest topography.").

[265] 16 U.S.C. § 1604(g)(3)(E)(i)(1994).

[266] 36 C.F.R. § 219.14(a)(2). Section 219.14 sets forth criteria for identifying lands suitable for timber production, together known as Stage I. Under Stage I, land is considered unsuitable for timber production if: (1) it currently and historically has less than 10% tree cover; (2) technology is not available to insure that timber production will not cause irreversible damage to soil or watersheds; (3) it cannot be restocked within five years; and (4) it has been administratively withdrawn from timber production.

Land that passes the Stage I criteria is considered tentatively suitable for timber production and may be assigned production management prescriptions. The remaining criteria for designation of suitable timber land in § 219.14 include two economic analyses. The first analysis requires an economic evaluation of management prescriptions as applied to particular analysis areas. The purpose of this "Stage II" analysis is to determine the financial costs and measurable economic benefits of each management prescription. "Stage III" of the suitability determination process provides, in part, that lands are not suitable for timber production if they are not "cost efficient" in meeting the objectives of the alternative. 36 C.F.R. § 219.14(c). The consideration of cost efficiency applies to the alternative as a whole, and not to timber production on a particular analysis area. The concept of cost efficiency combines the concepts of cost effectiveness and economic efficiency. However, many of the outputs or effects of forest management cannot be valued, and the output level

One commentator has noted the court found "middle ground" in interpreting NFMA and its regulations.[267] In fact, the court resolved the fundamental conflict[268] between the statutory standard (requiring insurance against irreversible damage to soil and watershed) and the regulatory standard (mandating a demonstrated availability of technology to avoid irreversible damage to soil and watershed) by mischaracterizing plaintiffs' argument:

> Plaintiff submits that [Forest Service Regulations] and the Forest Service's reliance thereon do not conform to Congress' intent as expressed in § 6(g). . . . Plaintiff argues that the primary intent of § 6(g) is to remove lands from timber production which are "physically unsuitable." We disagree. The intent of § 6(g)(3) is to insure against irreversible damage to soil, slope and watershed conditions. The section does not require the prevention of any and all damage to the above conditions as a result of timber harvesting.
>
> In our view, Section 6(g)(3) contemplates that timber harvesting may be carried out even though such harvesting may cause temporary or short-term damage to soil and watershed conditions. Section 6(g)(3) goes no farther than to charge the Secretary with the duty of promulgating regulations to insure that soil, slope and watershed conditions will not be irreversibly damaged as a result of timber harvesting. The Secretary's regulation provides adequate guidelines for insuring against such irreversible damage.[269]

By characterizing plaintiffs' position to require that the Forest Service insure against *all* soil and watershed damage, including "temporary or short-term damage to soil and watershed condi-

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of many nonprice and some priced outputs are specified as constraints in the formulation of alternatives. Thus, forest planners technically cannot measure the economic efficiency of an alternative. Instead, planners combine the concepts of cost effectiveness and economic efficiency and measure "cost efficiency." Specified output levels are achieved, theoretically at least, by the most cost effective method, and all priced outputs not produced at specified levels are produced at the most efficient level possible. Thus, every alternative is cost efficient. Citizens for Environmental Quality v. United States Forest Service, 731 F. Supp. 970, 978 (D. Colo. 1989).

267 Tuholske and Brennan, *supra* note 20, at 83.

268 The conflict between the statutory and regulatory standards is made more plain by the Forest Service's admission that the "technology availability" standard did not involve an economic or geographic component: "Availability of technology is judged on whether technology is currently developed and available for use. This is not an economic test, and the technology does not have to be available in the local area." *Citizens for Environmental Quality v. United States*, 731 F. Supp. 970, 984 (D. Colo. 1989). In other words, if the technology to prevent irreversible soil damage from timber harvest on a specific part of the Rio Grande National Forest existed *anywhere* in the world *at any price*, that part of the forest could be included within the suitable timber base.

269 *Id.*

tions," the court could resolve the dispute in the agency's favor. In effect, the court changed the subject, substituting to the non-issue of temporary soil and watershed damage for the conflict between the standard embodied in NFMA and the standard embodied in the Forest Service's implementing regulations.

However, the court was not done with the Forest Service's application of the Soil and Watershed Standard. After discussing another issue, the court's analysis doubled back to the Forest Service's suitability analysis and "technology exception."

> 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.
>
> In our view, the Forest Service erred by its failure to adequately identify the technology which would allow it to proceed with timber harvesting under § 219.14(a)(2). . . . Likewise, the Forest Service's conclusory statement . . . that such technology exists is arbitrary and does not comply with this section.[270]

Again, the court avoided the conflict between statute and regulations, but this time, it reinterpreted the import of the regulations in a way that subordinated them to the statutory mandate. As transformed by the court, the Forest Service regulations required not only the demonstration of the availability of technology, but also demanded provision for its implementation. This injection of "provision for implementation" makes the regulation standard a more suitable substitute for the requirement of insurance against irreversible damage articulated in NFMA. Darryl Knuffke of the Wilderness Society, a plaintiff in the suit, declared "[t]he decision ranks as a pretty big victory."[271]

The nature of the relief the court afforded determined the practical effect on the Rio Grande National Forest itself. The court held:

> [i]n favor of Defendants and against Plaintiff on Plaintiff's claim that Defendants failed to properly designate lands with

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[270] *Id.* at 985-86 (emphasis added).

[271] *Activists Hail Ruling on Logging*, COLO. SPRINGS GAZETTE TELEGRAPH, Sept. 8, 1989, at B11.

> unstable soils as unsuitable for timber production as required by . . . 6(g)(3). However, Defendants are DIRECTED to identify the technology upon which they rely for the technology exception of 36 C.F.R. § 219.14(a)(2), and outline the provisions for its implementation.[272]

To encourage compliance with its direction, the court enjoined defendants "from increasing current timber harvest levels in the Rio Grande National Forest Plan until compliance with this order and opinion is demonstrated."[273]

In its 1985 plan, the Forest Service had planned to increase annual timber harvest above the pre-plan 25 million board foot level. According to the Draft EIS for the Proposed Revised Land and Resource Management Plan for the Rio Grande National Forest, published in 1996, timber harvest levels on the Rio Grande tumbled from a high of 30 MMBF in 1988 to roughly 20 MMBF in 1989 and have not climbed significantly since.[274] At the same time, the Forest Service has never revised the Rio Grande plan to comply with the court's directions.

3. Sierra Club v. Cargill 1990,[275] *Bighorn National Forest, Wyoming*

Judge Finesilver had barely laid *Citizens for Environmental Quality* to rest before the next Forest Plan challenge showed up on his docket. On October 4, 1985, Gary Cargill, the Rocky Mountain Regional Forester, approved the Forest Plan for the Bighorn National Forest in north central Wyoming. Environmental groups, including the Sierra Club, promptly appealed. Three years later on December 21, 1988, the Chief of the Forest Service rejected the appeal and approved the plan. The Sierra Club filed suit in Denver in July 1989.[276] While *Citizen's For En-*

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[272] *Citizens for Environmental Quality*, 731 F. Supp. at 997.

[273] *Id.* at 998.

[274] FOREST SERVICE, U.S. DEP'T OF AGRIC., DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR PROPOSED REVISED LAND AND RESOURCE MANAGEMENT PLAN FOR RIO GRANDE NATIONAL FOREST, 3-149 fig. 3-32 (1995).

[275] I use dates to designate the two *Cargill* opinions. The reason for this is that numbering the opinions (*Cargill I*, *Cargill II*) creates confusion by suggesting that the second opinion resulted from an appeal of the first. In fact, as discussed below, *Sierra Club v. Cargill*, 732 F. Supp. 1095 (D. Colo. 1990) [hereinafter *Cargill 1990*] was never appealed and *Sierra Club v. Cargill*, 11 F.3d 1545 (10th Cir. 1993) [hereinafter *Cargill 1993*] is the Tenth Circuit's review of an unpublished order issued two years later.

[276] Complaint for Declaratory and Injunctive Relief, *Sierra Club v. Cargill*, 732 F. Supp. 1095 (D. Colo. 1990) (No. 89-F-1242).

vironmental Quality presented the court with a range of challenges to Forest Service practice, *Cargill 1990* presented the court with a single, deceptively simple issue.

Before I discuss *Cargill 1990*, I must confess a particular and ineradicable bias. At this point the narrator enters the story. I was a lawyer for the Sierra Club in that case, and I cannot help but see it through the lens of my experience. I assert that this gives me some insight that others might lack. Indeed, that experience is the germ of this article. However, bias remains. To shield the reader from accepting my observations without the appropriate skepticism, I shift my narrative style when discussing *Cargill 1990* and use the first person, singular and plural, to designate the fruits of my recollection.

As noted above, the Sierra Club challenge to the Bighorn Forest Plan presented a single issue. As always, NFMA required the Forest Service to ensure "timber will be harvested from National Forest System lands only where there is assurance that such lands can be adequately restocked within five years after harvest."[277] As with the Soil and Watershed Standard, the Restocking Standard had been translated into a "technology availability" standard during the process of adopting Forest Service regulations.[278] The predominant commercial tree species on the Bighorn National Forest is lodgepole pine.[279] The Bighorn Forest Plan contained an explicit *seven-year* regeneration standard for lodgepole pine.[280] The case would have been entirely absurd if it were not for two things. First, restocking had been a significant problem on the Bighorn for decades.[281] Second, the Forest Service adoption of a seven-year standard squarely presented the effect of the agency's "technology availability" limitation for judicial review.

The original Forest Service justification for the seven-year standard had been that it better conformed with the natural seeding cycles of lodgepole pine,[282] echoing the justification for the technology availability limitation offering in adopting the 1982

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277 16 U.S.C. § 1604(g)(3)(E)(ii) (1994).

278 36 C.F.R. § 219.14(a)(2).

279 FOREST SERVICE, U.S. DEP'T OF AGRIC., FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE BIGHORN NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN IV-62 (1985).

280 *Id.* at III-53.

281 Summary of Lodgepole Pine Regeneration Survey and Development of Regeneration Costs (April 1981) (showing an average 47 percent pre-acre regeneration failure rate).

282 BIGHORN MANAGEMENT PLAN, *supra* note 214, at III-53.

regulations. Preamble language accompanying the 1982 restocking regulations supported "additional time . . . for restocking under natural methods."[283] However, as the case approached summary judgment, the Forest Service determined not to defend the seven-year standard.[284] In early December 1989, the Forest Service declared the seven-year standard void but determined not to revise the timber suitability analysis of which the standards was a part.[285] The Sierra Club opposed the Forest Service motion to dismiss the case as moot. The court held that the case was not moot because, absent a determination on the merits, it could be reinstated by the Forest Service at any time.[286] (In fact, it remained unchallenged on a number of other national forests in the Rocky Mountain Region.[287]) The withdrawal of the standard and the subsequent motion to dismiss made it extremely difficult for the Forest Service to defend the seven-year standard on the merits. The Forest Service left that argument to intervenors, Wyoming Sawmills. The Forest Service's failure to defend the seven-year standard contributed to language in the court's opinion that was considerably less qualified than what had appeared in *Citizens for Environmental Quality*.

In his opinion on cross-motions for summary judgment, *Cargill 1990*, issued on February 13, 1990,[288] Judge Finesilver began his substantive analysis by identifying the potential conflict between NFMA's mandate and the requirements of its implementing regulations.[289] The Judge then resolved the conflict by interpreting

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283 Analysis of Public Comments, 47 Fed. Reg. 43,035 (1982).

284 Sierra Club v. Cargill, 732 F. Supp. 1095, 1098.

285 *Id.*

286 *Id.*

287 *See* FOREST SERVICE, U.S. DEP'T OF AGRIC., LAND AND RESOURCE MANAGEMENT PLAN FOR SHOSHONE NATIONAL FOREST III-66 (1986); FOREST SERVICE, U.S. DEP'T OF AGRIC., LAND AND RESOURCE MANAGEMENT PLAN FOR MEDICINE BOW NATIONAL FOREST AND THUNDER BASIN NATIONAL GRASSLAND III-48 (1985) (establishing seven-year regeneration period for lodgepole pine); FOREST SERVICE, U.S. DEP'T OF AGRIC., LAND AND RESOURCE MANAGEMENT PLAN FOR ROUTT NATIONAL FOREST III-41 (1983) (establishing seven-year regeneration period for lodgepole pine).

288 *Cargill 1990*, 732 F. Supp. 1095.

289 The seven-year standard violates federal law. . . .

> Section 6(g)(3)(E)(ii) of the NFMA states: (g) . . . the Secretary [of Agriculture] shall . . . promulgate regulations. . . . The regulations shall include: (3) specifying guidelines for land management plans developed to achieve the goals . . . which— (E) insure that timber will be harvested from National Forest lands only where— (ii) there is an assurance that such lands can be adequately restocked within five years after harvest.

the regulations to conform with the statute, thereby rendering the seven-year standard illegal.

> The regulation states the basis for determination of whether lands will be adequately restocked within five years shall be "research and experience. . . ."
>
> We interpret § 219.27(c)(3) to require identification and implementation of technology to assure restocking within five years. The Forest Service satisfies this mandate by creating a realistic procedure or plan to implement technology to assure adequate restocking within five years.
>
> . . . .
>
> Intervenors contend [the regulation] requires only that restocking within five years is possible. This "technological feasibility" argument is not persuasive. A technological feasibility interpretation . . . would render the five-year standard meaningless. Hypothetically, the technology exists to restock an area the size of the entire Bighorn National Forest (or the entire State of Wyoming) within five years. The Forest Service could potentially adopt a restocking standard of any length while the technology exists to restock within five years. . . .[290]

One is inclined to make much of a case in which one was involved. However, even after a number of years, I still believe that *Cargill 1990* put to rest the notion that the Restocking Standard in NFMA required no affirmative conduct at all, that it was simply planning standards and did not impact the forests. As with *Citizens for Environmental Quality*, the first *Cargill* opinion subordinated the Forest Service regulations to NFMA's substantive language. This may seem a minor victory. As we shall see, it was one of very few attempts to enforce NFMA's substantive standards.

As with *Citizens for Environmental Quality*, the nature of the relief the court afforded determined the practical effect of *Cargill 1990*. Unlike its injunction in *Citizens for Environmental Quality*, issued eight months before, in *Cargill 1990* the court enjoined the Forest Service from "offering any land located on the Bighorn National Forest for harvest unless the Forest Service has

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> . . . .
>
> The implementing regulations for suitability analysis are contained in 36 C.F.R. § 219.14. . . . That regulation states that when trees are cut down to achieve timber production objectives, the cutting shall be made in such a way as to assure that technology and knowledge exists to adequately restock the lands within five years after final harvest.
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> . . . .

Id. at 1099.

[290] *Id.* at 1100-01.

first made a determination, based on research and experience, and pursuant to the implementing regulations and three-stage analysis discussed above,[291] that the land is suitable for harvest."[292] This unqualified injunction gave the Sierra Club enormous influence over timber sales on the Bighorn National Forest, won me friends and enemies in Wyoming and, perhaps, contributed to the less-than-pleasant result we would receive three years later in *Sierra Club v. Cargill 1993*.[293]

4. Sierra Club v. Cargill 1993, *Bighorn National Forest, Wyoming*

Our injunction limiting timber cutting on the Bighorn National Forest in Wyoming remained in place for almost three years. Judge Finesilver's 1990 opinion issuing the Bighorn injunction concluded by directing the Forest Service as follows:

> The Forest Service and federal defendants are DIRECTED to carry out this court's order forthwith to revise and amend the final Bighorn Forest Plan to comply with the NFMA and its implementing regulations by replacing the seven-year regeneration standard with a five-year regeneration standard . . . .
>
> . . . .
>
> The Forest Service is hereby permanently ENJOINED from offering any land located on the Bighorn National Forest for harvest unless the Forest Service has first made a determination, based on research and experience, and pursuant to the implementing regulations and three-stage analysis [36 C.F.R. § 219.14] that the land is suitable for harvest.[294]

Defendants did not appeal this ruling.[295] On November 18, 1991, the Forest Service issued an environmental assessment purporting to comply with the court's order. Miraculously, the removal of a seven-year restocking standard and adoption of a five-year restocking standard had resulted in only a 4,377 acre change in the size of the Bighorn suitable timber base.[296] I believe, that by

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[291] *See* BIGHORN MANAGEMENT PLAN, *supra* note 214.

[292] *Cargill 1990*, 732 F. Supp. at 1102.

[293] 11 F.3d 1545 (10th Cir. 1993) [hereinafter *Cargill 1993*].

[294] *Cargill 1990*, 732 F. Supp. at 1101-02.

[295] *Cargill 1993*, 11 F.3d at 1548.

[296] Although the Stage I analysis resulted in 74,022 acres being removed from the tentatively suitable land base, use of new data in Stages II and III resulted in a difference from the original three-stage analysis of only 4,377 acres. In Stage II, "[a]ll costs and timber prices were updated based on the latest information available." Aplt.App. at 83. The Stage II analysis revealed that overestimates of planting needs in the original Plan made revision of the cost estimates for regeneration under the strict 5-year standard

shuffling plan categories, the Forest Service had provided itself with a way around the district court's 1990 order without exposing its management practices on the Bighorn to judicial scrutiny.[297]

In early 1992, the Forest Service submitted the new analysis to Judge Finesilver. In August of that year, Judge Finesilver rejected it noting, in a very brief order, that he was "not satisfied that the Forest Service has made an adequate determination, based on research and experience, and pursuant to the implementing regulations and three-stage analysis, sufficient to permit the lifting of the injunction with respect to the offering of land for commercial timber production in the Bighorn National Forest. . . ."[298] The Forest Service requested a stay pending appeal of the district court's August order. In response, the Tenth Circuit Court of Appeals ordered the district court to clarify its order.[299] In a one-page order, the district court clarified.[300] The

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unnecessary. No changes were made in the analysis for Stage III, except that use of the new database showed that only 8,832 acres subject to a primitive recreation management prescription in the Plan were actually located on lands included within the tentatively suitable timber base, in contrast to 62,100 acres excluded by this prescription in 1985.

Id. at 1551 (Seymour, J., dissenting).

297 During the period of the litigation, other factors had made it clear that the Forest Service had made significant miscalculations in preparing the Bighorn Plan. As the dissent notes:

> Independent of this litigation, "the Forest Service began monitoring harvest levels under the Bighorn Plan." . . . Based on the monitoring data, the Forest Service determined that the forest will actually fall far short of the projected allowable sale quantity. . . . "The fact that the forest has produced substantially less timber than anticipated in the Forest Plan shows that the anticipated balance between 'standards and guidelines' and timber production cannot be maintained without amending the plan." . . . In fact, the imbalance was so severe that the Forest Service referred to the ASQ and the plan objectives as "incompatible."

Id. at 1551.

By creating the impression that changing from a seven year to a five year restocking standard had a negligible impact, the Forest Service prevented the Tenth Circuit from taking a hard look at what actually was happening on the Bighorn National Forest.

298 Order Regarding Motion for Dissolution of Injunction Sierra Club v. Cargill, 732 F. Supp. 1095 (D. Colo. 1990) at 5, *quoted in Cargill 1993*, 11 F.3d at 1547.

299 *Id.*

300 [T]he Forest Service has failed to comply with 36 C.F.R. 219.14(c), [Stage III of the analysis], . . . requir[ing] that several alternative plans be developed and evaluated in accordance with the regulations and guidelines set forth. . . . [T]he Forest Service only evaluated the "preferred alternative in the plan." Furthermore, the Forest Service failed to adequately analyze and consider each of the factors outlined in 36 C.F.R. 219.14(c)(1)-(3) and

circuit court stated it was not pleased with the brevity and opacity of Judge Finesilver's orders. Neither was I. On December 4, 1993, the Tenth Circuit issued its opinion reversing Finesilver.[301]

I will resist the almost overwhelming temptation to relitigate the numerous issues in the *Cargill 1993* opinion and limit my discussion to the one issue I believe most relevant to the fate of NFMA's substantive forest practice standards. In 1990, the district ordered the Forest Service to redo its timber land suitability analysis "pursuant to the implementing regulations and three-stage analysis." By its own admission before the Tenth Circuit, the Forest Service never quite did the court-ordered three-stage analysis.[302] For this reason, apparently, the district court rejected the Forest Service's 1992 motion to lift its 1990 injunction.

Motions to grant or deny injunctions are reviewed under the discretionary "abuse of discretion" standard of review.[303] Generally, district courts have broad authority to use their injunctive powers to remedy violations of law. In this case NFMA violation had been established in 1990 and not appealed. In *Cargill 1993*, through what Judge Seymour's dissent termed "judicial bootstrapping,"[304] the Tenth Circuit managed to transform the abuse of discretion standard of review—deferential to the district

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Stage II costs and benefits are ignored. The Forest Service also fails to include a justification to log areas which can only be harvested at a loss. In addition, the Forest Service uses an unrealistic timber production goal in determining the suitable timber base.

Clarification of Order Regarding Motion for Dissolution of Injunction, Sierra Club v. Cargill, 732 F. Supp. 1095 (D. Colo. 1990) at 1-2, *quoted in Cargill 1993*, 11 F.3d at 1547.

301 *Cargill 1993*, 11 F.3d at 1545.

302 In its Environmental Assessment, the Forest Service determined that no "significant" change in the Bighorn plan was implicated in changing from the seven-year to the five-year regeneration standard. As outlined above, *where no significant change is implicated, a full § 219 reanalysis, including multiple-use considerations, is not required*. 36 C.F.R. § 219.10(f). However, in deciding on whether to dissolve the injunction, it is apparent that the district court reviewed the actions of the Forest Service by the standards of the full § 219 reanalysis framework. See Clarification of Order Regarding Motion For Dissolution of Injunction, at 2 (criticizing the Forest Service's actions primarily because it only considered the effect on the "preferred alternative in the plan" and did not do a full multiple use review). As a result, if the Forest Service's determination that no significant change occurred is valid, the framework under which the district court reviewed the matter is largely irrelevant.

Id. at 1548 (emphasis added).

303 *Id.*

304 *Id.* at 1550.

court—into the familiar arbitrary and capricious standard of review—deferential to the Forest Service. By asserting that "the district court could only order the Forest Service to do what is required under valid Forest Service regulations,"[305] the court shifted the focus of its inquiry from what the district court could do to remedy a violation of NFMA substantive standards to what the Forest Service was required to do under Forest Service regulations. While not directly addressing the meaning of NFMA substantive standards, the Tenth Circuit holding significantly curtails the discretion of district courts in fashioning relief when one of those standards has been violated.

5. Ayers v. Espy,[306] *Arapaho-Roosevelt National Forest, Colorado*

In December 1994, another Colorado Judge, Lewis Babcock,[307] built on the limitations Judge Finesilver's opinions had placed on Forest Service restocking practices. While NFMA required that the Forest Service promulgate regulations to ensure "that timber will be harvested from National Forest System lands only where . . . there is assurance that such lands can be adequately restocked within five years after harvest"[308] regardless of the type of logging involved, the Forest Service had altered the mandate in the process of promulgating regulations to require assurance that "lands can be adequately restocked within five years after final harvest" and defined final harvest to mean "5 years after clearcutting, 5 years after final overstory removal in shelterwood cutting, five years after the seed tree removal cut in seed tree cutting, or 5 years after selection cutting."[309]

It turned out that the Forest Service's application of this regulation effectively excluded shelterwood cutting from the restocking standard. The agency could circumvent the standard by never removing the last mature trees—thereby never starting the

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305 *Id.* at 1548.

306 873 F. Supp. 455 (D. Colo. 1994).

307 *Id.*

308 16 U.S.C. § 1604(g)(3)(E)(ii).

309 36 C.F.R. § 219.27(c)(3)(1996):

> 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 to adequately restock the lands within 5 years after final harvest. . . . Five years after final harvest means 5 years after clearcutting, 5 years after final overstory removal in shelterwood cutting, 5 years after the seed tree removal cut in seed tree cutting, or 5 years after selection cutting.

five-year restocking clock. In *Ayers v. Espy*,[310] a suit to block the Long Draw timber sale in the Arapaho-Roosevelt National Forest in Colorado, environmental plaintiffs challenged this practice. Two hundred and fifteen acres of the Long Draw area were to be logged using a shelterwood method. It was unclear when, if ever, the final mature trees would be removed.

Applying the language of NFMA, Judge Babcock found the Forest Service's application of its "final harvest" regulation illegal:

> Restricting my analysis to the facts in this case, I conclude that the agency's interpretation of NFMA's five-year restocking requirement is contrary to Congressional intent.
>
> My conclusion stems primarily from the government's admission that for the shelterwood cuts:
>
> [s]uch additional, later harvest may or may not ever be authorized by the Forest Service . . . . Consequently, the Forest Service can effectively defeat the five-year restocking provision altogether in this case by never making the "final" harvest cut. Hence, application of the five-year restocking regulation in this case is clearly contrary to Congress's express mandate that "timber will be harvested only where there is assurance that such lands can be adequately restocked within five years after harvest."[311]

Although the court halted the planned shelterwood cuts, Judge Babcock made it clear that his ruling did not extend beyond the facts of the specific case.[312] Judge Babcock required only that final harvest take place at some time, not that it take place within a specific time period.[313] Parties to the case finally resolved the suit in a consent decree providing, "[w]here silvicultural treatments are for timber purposes, lands can be adequately restocked within five years."[314]

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[310] 873 F. Supp. 455 (D. Colo. 1994).

[311] *Id.* at 465.

[312] *Id.*

[313] *Id.*

[314] Consent Decree, Ayers v. Glickman, Ayers v. Espy, 873 F. Supp. 455 (D. Colo. 1994) (No. 93-B-1103).

C. *The Clearcutting and Even-Age Standard in the Courts: An Unqualified Victory for Discretion—Almost*

1. Resources Ltd. v. Robertson,[315] *Flathead National Forest, Montana*

On November 7, 1991, in *Resources Ltd.*, Judge Charles Lovell of the United States District Court for the District of Montana issued his dispositive opinion on the judicial challenge to the Flathead National Forest plan.[316] Like the *Citizens for Environmental Quality* and *Cargill* cases before it, the Flathead litigation was a challenge to the provisions of the Forest Plan. Like *Citizens for Environmental Quality* and unlike *Cargill*, the Flathead litigation covered a broad spectrum of issues, including violation of section 7 of the ESA for failure to preserve Grey Wolf and Grizzly Bear Habitat,[317] failure to take adequate steps to protect water quality and aquatic habitat,[318] failure to comply with NEPA,[319] and failure to meet the timber management standard of NFMA.[320]

Count seven of plaintiffs' complaint squarely raised NFMA's Clearcutting Standard, asserting that the Flathead Forest Plan violated NFMA because it "fails to demonstrate that clearcutting is the optimum harvest method."[321] Unfortunately, unlike the Restocking Standard and Soil and Watershed Standards at issue in *Citizens for Environmental Quality* and *Cargill*, the Clearcutting Standard was not specifically applicable to the forest planning process through the timber land suitability analysis required by regulation 36 C.F.R. § 219.14.

The court began its opinion inauspiciously, finding that all of plaintiffs' claims were barred because plaintiffs lacked standing and that their claims were unripe because plaintiffs were challenging a prospective planning document, the Forest Plan.[322] Despite this dispositive ruling, the court went on to demolish each of the plaintiffs' claims on the merits.

The court's demolition of plaintiffs' seventh claim was not sur-

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315 789 F. Supp. 1529 (D. Mont. 1991).
316 *Id.*
317 *Id.* at 1534-36.
318 *Id.* at 1536.
319 *Id.* at 1537-40.
320 *Id.* at 1536-37.
321 *Id.* at 1536.
322 *Id.* at 1534.

prising; however, its analysis in support of that demolition was surprising. Rather than use the argument offered by *Bergland* in 1977 that optimality of harvest method is defined in terms of plan objects set and interpreted by the Forest Service,[323] the court instead held that absolutely no optimality determination was necessary at the planning level:

> [NFMA] does not require the Plan finally determine timber harvesting methods. Significantly, NFMA requires that when the Forest Service is about to authorize a sale, it is required to determine whether clearcutting is the optimum method to meet the objectives and requirements of the relevant land management plan. . . . It follows then, that the "optimum method" determination is a decision made with reference to the Forest Plan, and hence the decision must be a post-plan decision.[324]

The court found that the optimality determination need not be made on the planning level but must be made only when the Forest Service "is about to authorize a sale." The roots of this particular holding can be traced back to the ambiguity in the original language of NFMA. The statute charges the Forest Service with the responsibility of promulgating *planning* regulations which include guidelines designed to insure, among other things, that clearcutting only be used if it is the optimum harvest method. However, neither the statute, nor the regulations it spawned, specified whether the Clearcutting Standard needed to be applied during the planning process.

The Ninth Circuit overturned Judge Lovell's opinion on appeal.[325] The circuit court ruled specifically on plaintiffs' standing and on much of Judge Lovell's analysis on the merits. However, the Clearcutting Standard ruling went undiscussed and, in the NEPA context, the court of appeals expressed support for Forest Service timber harvest determinations.[326]

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[323] *See* Texas Comm. on Natural Resources v. Bergland, 433 F. Supp. 1235, 1253-54 (1977).

[324] Resources Ltd. v. Robertson, 789 F. Supp. 1529, 1537, *aff'd in part and rev'd in part*, 35 F.3d 1300 (1994).

[325] Resources Ltd. v. Robertson, 35 F.3d 1300 (9th Cir. 1993).

[326] *Id.* at 1307:

> The Forest Service studied thoroughly the harvest method issue and defended its decision to use primarily even-aged techniques as best for the Forest.
>
> Although Resources Limited argues that economic concerns were a factor in the decision to favor even-aged harvest methods, the Forest Service may consider such concerns if the "harvesting system to be used is not se-

2. Sierra Club v. Robertson,[327] *Ouachita National Forest, Oklahoma and Arkansas*

The lengthy legal battle over timber harvesting on Arkansas and Oklahoma's Ouachita National Forest[328] began when environmental plaintiffs filed a suit challenging both the Ouachita Forest Plan and a number of specific timber sales on the Forest.[329] On November 27, 1991, a few weeks after Judge Lovell's opinion in *Resources Ltd.*, Judge Morris Sheppard Arnold issued his first substantive opinion in *Robertson 1991*. The ruling denied environmental plaintiffs' motion seeking a preliminary injunction to block timber sales on the Oden and Choctaw ranger districts.[330] Unlike the *Citizens for Environmental Quality*, *Cargill 1990*, and *Resources Ltd.* cases, the decision addressed challenges to specific timber sales. However, the same ambiguity regarding when to apply the substantive mandate that stymied plaintiffs in Montana worked against them in Arkansas.

Following the lead of the *Resources Ltd.* court, Judge Arnold determined that all but one of plaintiffs' claims were barred by their failure to exhaust Forest Service administrative remedies[331] and went on to demolish plaintiffs' claims on the merits "for the sake of completeness and efficiency."[332]

Plaintiffs argued that the Forest Service had failed to comply with NFMA's substantive standards for selection of a timber harvest method, because it never made a separate determination

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lected primarily because it will give the greatest dollar return or the greatest unit output for timber." 16 U.S.C. § 1604(g)(3)(E)(iv).

327 Sierra Club v. Robertson, 784 F. Supp. 593 (W.D. Ark. 1991). With *Sierra Club v. Robertson*, as with the *Cargill* cases, I will not use the traditional numbering approach. In this case, I reject numbering because there are no less than five published opinions in *Sierra Club v. Robertson* (Sierra Club v. Robertson, 764 F. Supp. 546 (W.D. Ark. 1991) (rejecting defendants' initial motion to dismiss); Sierra Club v. Robertson, 960 F.2d 83 (8th Cir. 1992) (reversing district court order denying state's motion to intervene); Sierra Club v. Robertson, 784 F. Supp. 593 (denying plaintiffs' motion for preliminary injunction) [hereinafter *Robertson 1991*]; Sierra Club v. Robertson, 810 F. Supp. 1021 (W.D. Ark. 1992) (granting defendants' motion for summary judgment) [hereinafter *Robertson 1992*]; and Sierra Club v. Robertson, 28 F.3d 753 (8th Cir. 1994) (affirming *Robertson 1991* and *Robertson 1992*).

328 "The Ouachita National Forest covers approximately 1,591,849 acres located in twelve west-central Arkansas counties and two southeast Oklahoma counties," *Robertson 1991*, 784 F. Supp. at 597 n.1.

329 Sierra Club v. Robertson, 764 F. Supp. 546, 548 (W.D. Ark 1991).

330 *Robertson 1991*, 784 F. Supp. at 611.

331 *Id.* at 597-601.

332 *Id.* at 601.

that the selected even-aged seed tree and shelterwood cutting methods were appropriate as required by NFMA section 1604(g)(3)(F)(i)—the Even-Aged Standard.[333] The Forest Service environmental documentation, prepared to comply with NEPA, noted the agency's intention to use even-aged harvesting methods, but they would be employed only in the broader context of a series of alternative harvesting plans.[334] The court's order granted the Forest Service considerable latitude in how to apply the substantive "appropriateness" standard:

> Despite plaintiffs' suggestion, however, there is no specific requirement in NFMA that a *separate* analysis be made of the even-aged technique itself. . . . Plaintiffs' reading of the statute is creative, and the court understands plaintiffs' argument that the agency applies the statute unevenly, but the court concludes that the Forest Service is entitled to its interpretation.[335]

This ruling allowed the court to use any consideration of timber harvest methods in the *procedural* NEPA process as evidence of compliance with the *substantive* timber management standards imposed by NFMA. Perhaps more significantly, the court blended NEPA tiering and the APA's arbitrary and capricious standard of review to uphold the Forest Service practice of relying almost exclusively on "Forest Plan-level" documents to demonstrate compliance with NFMA substantive timber management standards for a specific timber sale:

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[333] *Id.* at 607.

[334] *Id.* at 603-04:

> In 1988 the Forest Service released an EA for Oden 1030 . . . and a Decision Notice that concluded that the harvest would be consistent with the 1986 Plan and the requirements of NFMA. . . . After the forest plan was amended, the Forest Service released an EA Supplement in 1991. The EA Supplement concluded that the harvest was consistent with the Amended Plan and NFMA requirements and, again, that no new EIS was required. . . . .
>
> [T]he Choctaw cut is in a set of compartments near Heavener, Oklahoma. The Forest Service has planned to cut 61 acres of timber and to regenerate a pine forest through the shelterwood and seedtree methods. The agency will burn off undergrowth to improve wildlife habitat, but there will be no herbicide use. In 1990 the Forest Service released a Decision Notice, EA, and FONSI, and when the new Amended Forest Plan became controlling in 1990, the Forest Service released an EA Supplement. As was the case with Oden, the EA Supplement concluded that the Forest Service's decision was consonant with the Amended Plan, NEPA, and NFMA requirements. . . .

[335] *Id.* at 607 (emphasis added).

> The shelterwood technique contemplated for Oden was anticipated in the [Forest Plan EIS]. . . . Hence, the Oden EA is consistent with the [Forest Plan EIS]. . . . The Forest Service produced a reasoned analysis of the relevant considerations in its survey of timber-cutting plans in the Ouachita National Forest.[336]

The *Robertson 1991* opinion drips with language exalting Forest Service discretion. In describing the scope of the court's review, the opinion notes:

> Regarding the technical questions now confronting this court, trained agency specialists are better equipped to select, hear, digest, and weigh the relevant evidence. For this reason, "it is imprudent for the generalist judges of the federal district courts . . . to consider testimonial and documentary evidence bearing on those questions unless the evidence has first been presented to and considered by the agency."[337]

In dismissing plaintiffs' NFMA claims, the court suggests that it must rule for the Forest Service "because the Forest Service is not clearly wrong."[338]

3. Sierra Club v. Robertson,[339] *Ouachita National Forest, Oklahoma and Arkansas*

Read separately, the *Resources Ltd.* and *Robertson 1991* opinions document significant reverses for environmental plaintiffs. Read together, they create an almost impossible puzzle for anyone endeavoring to challenge Forest Service action under NFMA's substantive limitations on harvest methods, or the Clearcutting or Even-Aged Standards. The *Resources Ltd.* opinion indicated that the clearcutting optimality determination need not be made as part of the forest planning process. The *Robertson 1992* opinion indicates that the closely related "even-aged" appropriateness determination, made at the timber sale level, will be upheld if the documents generated in the forest planning process contain consideration of timber harvest methods that is not clearly wrong. Essentially, the determination could not be challenged at the plan level because it had not technically been made and could not be challenged at the sale level because it had, in effect, already been made.

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336 *Id.* at 605-06.

337 *Id.* at 601 (quoting Cronin v. United States Department of Agriculture, 919 F.2d 439, 444 (7th Cir.1990)).

338 *Id.* at 607.

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

This shell game became painfully apparent in October 1992, when Judge Arnold, now elevated to the 8th Circuit Court of Appeals[340] and sitting by designation in the *Robertson 1992* case, dismissed plaintiffs' challenge to the Ouachita Forest Plan's failure to make the harvest determination required by NFMA's substantive standards.[341] Citing Judge Lovell's *Resources Ltd.* opinion, Judge Arnold held:

> Plaintiffs contend that the timber harvesting method must be chosen at the plan level, and that the agency's method of choosing harvesting techniques site-by-site is therefore unlawful. . . . Plaintiffs base this argument on their interpretation of 16 U.S.C. § 1604(g)(3)(F)(i), which requires the Forest Service to create regulations specifying guidelines for land management plans that insure that clearcutting, seed tree cutting, shelterwood cutting, and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method on National Forest System lands only where . . . for clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate. . . .
>
> Again, plaintiffs are wrong. First, a reasonable reading of the statute does not mandate that the agency create a regulation requiring that timber harvesting methods be in the plan. The statute merely requires that a regulation specify guidelines that insure that cuts be optimum (for clearcutting) or appropriate (for other cuts), and meet the objectives and requirements of the plan. . . . A cursory reading of the statute refutes plaintiffs' arguments, without even giving the agency's preferred reading of the statute its due weight.[342]

Judge Arnold made no attempt to reconcile this holding with his *Robertson 1991* opinion relying on plan-level documents to justify a sale-level harvest determination, nor did he provide any clue as to how a valid challenge to a Forest Service harvest determination could be made. Again, Judge Arnold's opinion made repeated references to Forest Service discretion and left the impression that agency interpretations concerning appropriate harvest methods—whenever made—were almost immune from judicial interference.[343]

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[340] President Bush appointed Judge Arnold to the Eighth Circuit Court of Appeals on April 26, 1992.

[341] *Robertson 1992*, 810 F. Supp. 1021.

[342] *Id.* at 1026.

[343] In reviewing agency actions under the [APA], the court must hew to several well-established limitations. First, the agency's actions are presumed to be lawful and correct. Second, the agency's conclusions can be overturned only if arbitrary and capricious, giving due deference to the agency's expertise and judgment. Third, the agency's legal interpretations are con-

After Judge Arnold's decision in *Robertson 1992*, plaintiffs appealed both substantive rulings to the Eighth Circuit.[344] In June 1994, the Eighth Circuit affirmed Judge Arnold's opinion,[345] holding that plaintiffs lacked standing to challenge the Ouachita Forest Plan because "A forest plan, such as the Ouachita Plan, is a general planning tool. . . . Adoption of the Plan does not effectuate any on-the-ground environmental changes. Nor does it dictate that any particular site-specific action causing environmental injury must occur."[346] The Eighth Circuit recognized that its standing ruling contradicted the Ninth Circuit's reversal of Judge Lovell's standing ruling in *Resources Ltd.*, but opined that the Ninth Circuit's position was not in accord with United States Supreme Court's pronouncements on standing.[347] Recognizing that reasonable courts could differ on the standing issue, and in the interest of the same "completeness and efficiency"[348] that led Judge Arnold to deal with plaintiffs' substantive claims after dismissing them on exhaustion grounds, the Eighth Circuit affirmed Judge Arnold on the merits, holding, among other things, that "the governing statutes and regulations do not require that the timber-cutting method be chosen at the plan level."[349]

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trolling if they are reasonable with regard to statutes, and not plainly erroneous with regard to the agency's own regulations. . . . Plaintiffs bear the burden on all issues in this case: They must show that the agency's actions are arbitrary, capricious, or contrary to law, or their claims must fail. 810 F. Supp. at 1025.

When striking down plaintiff's argument that the forest service violated NFMA's provision requiring an "integrated plan," the Court stated that the agency's decision was reasonable and it therefore would not "disturb the agency's decision". *Id.*

When striking down plaintiff's argument that the Forest Service violated NFMA by failing to choose a timber harvest method at the plan level, the court stated "[t]he agency's interpretation of NFMA is controlling unless unreasonable" and the Forest Service's reading of the statute was reasonable because it did allow for an appropriate cut determination on a site-specific basis. *Id.* at 1027.

"The court has noted before that the Forest Service, as an agency of trained specialists, has the discretion to determine what constitutes the best information." *Id.* at 1029.

344 Sierra Club v. Robertson, 28 F.3d 753, 756 (8th Cir. 1994).

345 *Id.* at 760-61.

346 *Id.* at 758.

347 *Id.* at 760.

348 *Id.*

349 *Id.*

4. Sierra Club v. Espy,[350] *Angelina, Sabine, Davy Crockett, and Sam Houston National Forests, Texas*

By the end of 1993, things looked grim for the Clearcutting and Even-Aged Standards. Courts had consistently granted the Forest Service broad discretion to interpret the terms of NFMA's substantive forest practice standards and made it almost impossible for plaintiffs to challenge those standards at either the Forest Plan or timber sale level. Nevertheless, the same United States District Court for the Eastern District of Texas that generated William Wayne Justice's anti-clearcutting opinion in 1977 produced another anti-clearcutting opinion by another judge.[351]

By 1993, Judge Robert M. Parker was no stranger to the operation of the four national forests in east Texas. Since 1987, he had overseen tortuous litigation including issues related to Forest Service timber cutting to control the Southern Pine Beetle and Forest Service violations of the ESA concerning management of habitat for the endangered Red-Cockaded Woodpecker. The underlying issue had always been Forest Service timber management on the national forests.[352]

Faced with plaintiff Texas Committee on Natural Resources' fourth-amended complaint, Judge Parker determined that he must rule on a de facto motion for preliminary injunction "prohibiting a number of imminent timber sales by Defendants in the Texas national forests, as well as all future sales authorizing even-aged timber management."[353] Rather than focus on the particulars of Forest Service regulations interpreting NFMA substantive mandates, Judge Parker looked back over the years to the concerns that originally brought the statute into being and, by doing so, challenged the entire edifice of NFMA case law.

First, the court faced the timing of review issue that was prominent in *Robertson* and *Resources Ltd.*. Plaintiffs again were attacking an environmental assessment for specific timber sales. Again, the Forest Service asserted that the relevant decisions had

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350 Sierra Club v. Espy, 822 F. Supp. 356 (E.D. Tex. 1993), *vacated*, 38 F.3d 792 (5th Cir. 1994) [hereinafter *Espy 1993*].

351 *Id.*

352 I had been involved in the litigation before Judge Parker in 1987 and 1988, representing the Sierra Club in an attempt to protect the Red-Cockaded Woodpecker. Sierra Club v. Lyng, 694 F. Supp. 1260 (E.D. Tex. 1988) *aff'd in part*, 926 F.2d 429 (5th Cir. 1991). However, by the early 1990's I was no longer involved in the litigation and took no part in the *Sierra Club v. Espy* cases.

353 *Espy 1993*, 822 F. Supp. at 358.

been made long before in the 1987 Forest Plan.[354] Magistrate Judge Judith K. Guthrie's report to the district court neatly differentiated the function of plan-and-sale level documents: "The validity of the 'goal' was established in the [Forest Plan EIS] and may not be litigated here. Rather, the question for this Court [at this time] is whether an [environmental assessment] contains facts showing that the proposed harvest is a *rational means of achieving that goal*."[355] Judge Parker interpreted this to mean that both levels of action were subject to review because they served different functions.

Judge Parker's view of the arbitrary and capricious standard of review differed from that of its more deferential predecessors in Montana, Arkansas, and even Colorado.[356] The deference other courts had shown to Forest Service determinations as to the "point of compliance" with substantive standards led the attorney for the Forest Service to make a radical but revealing statement:

> Defendants have taken the extreme, and untenable, position that there is no provision of the APA or NFMA allowing the plaintiffs to judicially challenge actual, on-the-ground practices of the Forest Service. Transcript of March 3, 1993, Motion Hearing Before the Honorable Robert M. Parker, Chief Judge for the Eastern District of Texas, p. 14 (statement of Wells D. Burgess, Esq.) . . . . Defendants have argued to the Court that the NFMA is a mere "planning statute," i.e., with *no* substantive component. . . . Hearing Transcript, p. 16 (statement of Wells Burgess, Esq.).[357]

The court unequivocally rejected this argument: "[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,

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354 *Id.* at 360.

355 *Id.* (quoting HON. JUDITH K. GUTHRIE, THE REPORT AND RECOMMENDATION OF THE UNITED STATES MAGISTRATE JUDGE 4 (1996)) (emphasis added).

356 Federal courts would be abdicating their Constitutional role were they to simply "rubber stamp" agency decisions in the face of complex issues, rather than insuring that such decisions accord with clear congressional mandates. As Judge J. Skelly Wright so aptly put it: "[T]he judicial role . . . is to see that important legislative purposes, heralded in the halls of Congress, are not lost or misdirected in the vast hallways of the federal bureaucracy."

Id. at 361 (quoting Calvert Cliffs' Coordinating Comm. v. United States Atomic Energy Comm'n, 449 F.2d 1109, 1111 (D.C. Cir. 1971)).

357 *Id.* at 363.

consistent practices."[358] Relying on its reading of the legislative history of NFMA, the court went further: "The actual discretion for which the defendants argue amounts to nothing less than a bald attempt at exorbitant agency self-aggrandizement—*i.e.*, an effort to return to 'the bad old days' decried by Senator Humphrey, among others, which were supposed to be left behind by NFMA."[359]

Having passed through the gauntlet of threshold issues and reaffirmed the right of plaintiffs to challenge Forest Service action under NFMA's substantive standards, the court applied those standards to the Forest Service's "even-aged logging agenda."[360]

> [T]he NFMA mandates that the Service "insure," by *means* of regulation promulgation, this essential *end*: that even-aged management practices be used in the national forests *only when* "consistent with the *protection of* soil, watershed, fish, wildlife, recreation, and aesthetic resources, and the regeneration of the timber resource." . . . The NFMA thus contemplates that even-aged management techniques will be used only in exceptional circumstances. Yet, the defendants appear to utilize even-aged management logging as if it comprised the statutory "rule," rather than the exception. . . . [S]till today, with respect to the nine scheduled sales at issue: of the 6,027 acres scheduled to be cut, only 587 acres, or less than ten percent (< 10%) of the total acres scheduled, would be cut by selection (uneven-aged) management methods.[361]

Rather than reviewing specific Forest Service actions and determining, under a deferential standard of review, whether they violated the law, Judge Parker considered the pattern of Forest Service conduct and the intent of NFMA and determined that the two were inconsistent. Judge Parker observed "[p]ublic outcry over the use, or abuse, of that discretion, if not the broad agency discretion itself, led Congress to intervene in the [Forest] Service's operations—first by way of oversight, and later, in 1976, through enactment of NFMA."[362] The court found that plaintiff Texas Committee on Natural Resources had demonstrated a "substantial likelihood of success [in its attempt to demonstrate] . . . that Defendants have not satisfied [NFMA's] unambiguous requirement of actual forest resource *protection*"[363] and granted

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358 *Id.* (emphasis added).
359 *Id.* at 365.
360 *Id.* at 359.
361 *Id.* at 363-64.
362 *Id.* at 364-65.
363 *Id.* at 366.

a preliminary injunction prohibiting even-aged logging on the Texas National Forests.[364]

5. Sierra Club v. Espy (1994),[365] *Angelina, Sabine, Davy Crockett, and Sam Houston National Forests, Texas*

At this point, it should come as no surprise that the Fifth Circuit Court of Appeals reversed Judge Parker's opinion on appeal.[366] But between May 1993 and November 1994, the opinion seemed to provide an alternative analysis promising to give NFMA's substantive standards considerably more meaning than had other courts.

The Fifth Circuit, aware of its own history, relied on its 1978 opinion overturning Judge Justice's decision to reject Judge Parker's anti-clearcutting ruling:

> TCONR I [*Texas Committee on Natural Resources v. Bergland*] recognized that the Forest Service may use even-aged management as an overall management strategy. That even-aged management must be the optimum or appropriate method to accomplish the objectives and requirements set forth in an LRMP does not mean that even-aged management is the exception to a rule that purportedly favors selection management. . . .[367]

The Fifth Circuit also read the legislative history of NFMA to support its position.

> The conclusion that even-aged management is not the "exception" to the "rule" of uneven-aged management is supported by NFMA's legislative history. On three separate occasions, Congress rejected amendments that would have made uneven-aged management the preferred forest management technique.
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> . . . .
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> Thus, NFMA does not bar even-aged management or require that it be undertaken only in exceptional circumstances; it requires that the Forest Service meet certain substantive restrictions before it selects even-aged management. To be sure, these restrictions reflect a congressional wariness towards even-aged management, constraining resort to its use. . . . The district court used "exceptional" as a decisional standard—and hence it upset the balance struck [by Congress]. In fairness, this distinction was far more subtle in the presentation to the

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364 *Id.* at 370.

365 Sierra Club v. Espy, 38 F.3d 792 (5th Cir. 1994) [hereinafter *Espy 1994*].

366 *Id.*

367 *Id.* at 799.

district court.[368]

In one revealing passage, the circuit judges suggested that their hearts were with the district court, but that their legal analysis could not follow:

> We may believe that protection afforded by selection management is more desirable than that afforded by even-aged management; however, in the nine sales before the court, the agency's determination as to the appropriate level of protection was not unreasonable. We therefore defer to the agency's determination.[369]

As in its opinion sixteen years before, the Fifth Circuit's attempt to be moderate created more impediments for future plaintiffs. By referring to "the balance struck," the subtlety of the congressional distinction, and deference to Forest Service decisions, the court placed the determination of management systems squarely within the discretion of the Forest Service. For plaintiffs, the Fifth Circuit's reversal transformed Judge Parker's opinion from a ray of hope into a cry of frustration: if NFMA's standards cannot be enforced in this way, how can they be enforced?

Predictably, the Fifth Circuit's 1994 decision did not end the progress of the Texas national forests through the courts. In August 1997, a second east Texas district court judge, hearing the case on remand, issued another injunction against timber harvesting.[370] The district court held that the Forest Service had failed to protect soil and the "watershed resource."[371] In its brief analysis, the court bundled five provisions of NFMA, including the Soil and Watershed Standard, to create a generalized obligation to protect soil and watershed.[372] Once again, the eastern

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368 *Id.* at 799-800.

369 *Id.* at 802.

370 Sierra Club v. Glickman, 974 F. Supp. 905 (E.D. Tex. 1997).

371 *Id.* at 928-29.

372 The Court noted:

> In harvesting timber, the Forest Service must protect and conserve the watershed resource. 16 U.S.C. § 1604(g)(2)(B), (g)(3)(C), (g)(3)(E)(i), (g)(3)(E)(iii), (g)(3)(F)(v); 36 C.F.R. § 219.27(a)(1), (a)(4), (b)(5), (c)(6), (e), (f).... "[P]rotection is provided for streams, streambanks, shorelines, lakes, wetlands, and other bodies of water from detrimental changes in water temperature, blockages of water courses, and deposits of sediment, where harvests are likely to seriously and adversely affect water conditions or fish habitat." 16 U.S.C. § 1604(g)(3)(E)(iii). "All management prescriptions shall . . . [p]rotect streams, streambanks, shorelines, lakes, wetlands, and other bodies of water as provided under paragraph[ ] . . . (e) of this section. . . ." 36 C.F.R. § 219.27(a)(4). . . . Watershed protection in-

district of Texas provided a novel theory for making the substantive timber management standards in NFMA effective. Once again, that theory harkens back to the concerns presented to the Church Committee. Once again, the ruling has also been appealed to the Fifth Circuit.[373]

6. Mahler v. United States Forest Service,[374] *Hoosier National Forest, Indiana*

In May 1996, the United States District Court for the Southern District of Indiana relied on the Fifth Circuit's reasoning in dismissing plaintiff Andy Mahler's attempt to prevent the clearcutting of forty-six acres on the Hoosier National Forest.[375] The formulation is familiar: "The NFMA does not prohibit clearcutting in national forests. The Act instead strikes a careful balance that allows clearcutting subject to certain substantive restrictions."[376]

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volves managing the forest in a manner that: (1) prevents erosion, (2) provides for a steady flow of water run-off, (3) prevents silt and sedimentation in streams and waterways, and (4) protects fish and wildlife. . . . "Taken together, the NFMA water quality provisions require strong measures to protect water resources and fish habitats from detrimental impacts of timber harvesting and road construction." *Id.* at 223.

The Forest Service is neither protecting nor conserving the key resource of watershed. Forest Service management practices, which have been primarily even-aged, are causing substantial and permanent (1) erosion within waterways, (2) deposit of soil, silt, and sedimentation in waterways, and (3) disruption of water run-off. This derogation of the watershed resource is substantially and permanently impairing the productivity of the forest land. As determined in the previous section on the soil resource, the Forest Service's timber harvesting activities are causing severe soil erosion from the forest land. This soil erosion in turn is adversely affecting the waterways that are an integral part of the watershed resource. . . .

Whatever Forest Service planning documents prescribe with respect to protection of watershed, the evidence shows that, on-the-ground, the Forest Service is not protecting or conserving the watershed resource. The Forest Service has stepped outside its discretion and acted arbitrarily and capriciously. Accordingly, the court determines that Federal Defendants have violated sections 1604(g)(3)(E)(i), (g)(3)(E)(iii), and (g)(3)(F)(v) of the NFMA and sections 219.27(a)(1), (a)(4), (b)(5), (c)(6), (e), and (f) of the regulations. This determination with respect to watershed, however, does not address the issue of adequate monitoring of the watershed resource.

Id. at 928-29 (citations omitted).

[373] Telephone Interview with Douglas L. Honnold, Attorney for Plaintiff Sierra Club (Mar. 16, 1998).

[374] Mahler v. United States Forest Service, 927 F. Supp. 1559 (S.D. Ind. 1996).

[375] *Id.* at 1561.

[376] *Id.* at 1564.

Again, the court relied on the language of discretion and balance drawn from the 1976 NFMA legislative history. Indeed, the *Mahler* court applied an interpretation of the Clearcutting Standard even more forgiving than the interpretation applied by the Fifth Circuit in *Espy 1994*.[377] The Fifth Circuit noted that "clearcutting must be used only where it is essential to accomplish relevant forest management objectives."[378] The *Mahler* court opined: "The [NFMA] statutory language does not require that clearcutting be found 'essential' to accomplish forest management objectives. The statute is deliberately worded in terms of an 'optimum' technique. 'Optimum' does not mean 'essential.'"[379]

7. Sierra Club v. Robertson[380]/Sierra Club v. Thomas[381]/Ohio Forestry Ass'n v. Sierra Club,[382] Wayne National Forest, Ohio

In an extraordinary mirror image of the east Texas litigation, the United States District Court for the Southern District of Ohio rejected environmental plaintiffs' claims that NFMA limited Forest Service discretion to employ clearcutting only to have its ruling overturned by the Sixth Circuit. Once again, it seemed as if there might be limits to Forest Service discretion. However, the Supreme Court granted certiorari and vacated the Sixth Circuit opinion on jurisdictional grounds.

The 832,147 acres of the Wayne National Forest are located in the hill country of southeastern Ohio.[383] In 1988, the Forest Service approved the Forest Plan for the Wayne forest.[384] The plan called for even-aged management on eighty percent of the forest with clearcutting being the predominant method of harvesting.[385] In 1992, plaintiffs, including the Sierra Club, filed suit challenging both the predominance of clearcutting as a harvest method and

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377 *Espy 1994*, 38 F.3d 792 (5th Cir. 1994).

378 *Id.* at 799 (quoting Texas Comm. on Natural Resources v. Bergland, 573 F.2d 201, 212 (5th Cir. 1978)).

379 *Mahler*, 927 F. Supp. at 1568.

380 Sierra Club v. Robertson, 845 F. Supp. 485 (S.D. Ohio 1994), *rev'd sub nom.* Sierra Club v. Thomas, 105 F.3d 248 (1997) [hereinafter *Robertson 1994*].

381 Sierra Club v. Thomas, 105 F.3d 248 (6th Cir. 1997), *vacated sub nom.* Ohio Forestry Ass'n, Inc. v. Sierra Club, 118 S. Ct. 1665, 140 L. Ed. 2d 921 (1998).

382 118 S. Ct. 1665 (1998).

383 Ohio Forestry Ass'n v. Sierra Club, 118 S. Ct. 1665, 140 L. Ed. 2d 921 (1998).

384 *Robertson 1994*, 845 F. Supp. at 489.

385 *Id.* at 490.

the Forest Service's failure to prepare clearcutting optimality determinations for specific timber sales.[386] After a brief paean to clearcutting,[387] the district court rejected plaintiffs' claims on classic grounds of deference to agency action.[388] The opinion is noteworthy primarily because it is the only clearcutting optimality opinion that discusses the implementing regulation.[389]

Surprisingly, the Sixth Circuit reversed the district court opinion on grounds reminiscent of Judge Parker's reasoning in *Espy 1993*. In January 1997, Judge Boyce Martin, writing for the circuit court, hearkened back to the original concerns presented to the Church Committee:

> The National Forest Management Act was enacted as a direct result of congressional concern for Forest Service clearcutting practices and the dominant role timber production has historically played in Forest Service policies. Congress was concerned that, if left to its own essentially unbridled devices, the Forest Service would manage the national forests as mere

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386 *Id.* at 490-91.

387 *Id.* at 491-93.

388 Plaintiffs have failed to show that the choices of uneven-aged management as the predominate silvicultural system and of clearcutting as the predominate harvest method were arbitrary or unreasonable. In enacting 16 U.S.C. § 1604(g), Congress considered the arguments for and against clearcutting in the National Forests and struck a delicate balance between two extremes. It chose not to prohibit clearcutting but to regulate it, leaving the technical management responsibility for the application of the NFMA guidelines on the Forest Service. "Within its parameters the management decision belongs to the agency and should not be second-guessed by a court." Texas Comm. on Natural Resources v. Bergland, 573 F.2d 201, 210 (5th Cir. 1978).

Id. at 493-94.

389 With regard to the selection of even-aged management and clearcutting as a harvest method, 16 U.S.C. § 1604(g)(3)(F)(i) requires the Secretary to promulgate regulations for the development of land management plans which must include guidelines which "insure that clearcutting, seed tree cutting, and other cuts designed to regenerate an even-aged stand of timber will be used as a cutting method on National Forest System lands only where—(i) for clearcutting, it is determined to be the optimum method, and for other such cuts it is determined to be appropriate, to meet the objectives and requirements of the relevant land management plan; . . . ." Pursuant to this statutory mandate, the Secretary has promulgated 36 C.F.R. § 219.27(b)(1), which requires that management prescriptions in a forest plan that include vegetative manipulation of tree cover for any purpose shall "(1) Be best suited to the multiple-use goals established for the area. . . ." "Best suited" is synonymous with "optimal." Thus, the rule is consistent with the statute.

Id. at 492.

monocultural "tree farms."[390]

Echoing Judge Parker, Judge Boyce concluded: "The National Forest Management Act thus contemplates that even-aged management techniques will be used only in exceptional circumstances. Yet, the defendants would utilize even-aged management logging as if it were the statutory rule, rather than the exception."[391]

Even at the time of its issuance, the effect of what Judge Batchelder, in concurrence, termed the Sixth Circuit's "largely undocumented broadside against the Forest Service"[392] was unclear. The court ignored the holdings of the district courts in *Resources Ltd.* and *Robertson 1992*, both holding that the Forest Service need not make a determination concerning compliance with the Clearcutting and Even-Aged Standards at the Forest Plan level. The Sixth Circuit opinion cites Randal O'Toole's *Reforming the Forest Service*, but it fails to discuss or even cite the Fifth Circuit opinion in *Espy 1994*, rendered only thirteen months before; an opinion with which it could not easily be reconciled.

In October 1997, the United States Supreme Court granted certiorari in *Sierra Club v. Thomas*.[393] On May 18, 1998, the Court vacated the Sixth Circuit opinion on the ground that the challenged forest plan was not ripe for review.[394] The Court did not reach the merits of the Sixth Circuit opinion. The Court's brief and broad jurisdictional ruling further complicated the question of when a citizens' group may challenge Forest Service failure to comply with NFMA substantive standards by foreclosing most, if not all, plan level challenges to standards applicable through specific timber sales.

V

The Lessons of Failure

I assert, as I have throughout, that the Four Forest Standards are failures. They have failed because they have not provided a consistent message to the interested parties: the Forest Service,

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390 Sierra Club v. Thomas, 105 F.3d 248, 249 (6th Cir. 1997), *vacated sub nom.* Ohio Forestry Ass'n, Inc. v. Sierra Club, 118 S. Ct. 1665, 140 L. Ed. 2d 921 (1998).

391 *Id.* at 251.

392 *Id.* at 252.

393 *Id.*

394 Ohio Forestry Ass'n v. Sierra Club, 118 S. Ct. 1665 (1998).

concerned citizens, or judges. While they have occasionally constrained Forest Service action, they have not constrained Forest Service action consistently or predictably. The institutional conversation between the Forest Service and Congress did not come to an intelligible conclusion.

Beth Brennan and Jack Tuholske note in their excellent article analyzing NFMA case law, that, if the purpose of NFMA was to keep lawyers and judges out of the forest, NFMA has been a failure.[395] Pointing at general reforms within the Forest Service, they further assert that the statute has been more of a success at giving us "a different concept of good forestry."[396] To the contrary, I would assert that those standards in NFMA that most clearly intended to affect forest management activities have given us no concept of forestry at all. Brennan and Tuholske admit that NFMA has received "disparate treatment by the federal bench"[397] and that "it is difficult to reconcile the contradictory judicial interpretations of NFMA."[398] When discussing the Four Failed Forest Standards, this is an understatement. The relevant language remains in the statute, but neither the legislative history nor the case law gives us any sense of what it means.

However, twenty-five years of struggle are not without their uses. There are some lessons to be drawn from the failure of the Four Forest Standards, lessons that should inform any future attempt to draft legislation to constrain national forest management by regulating logging practices.

The first important lesson is that the story of the Four Failed Forest Standards is not the story of a strong congressional mandate subverted in the courts or by agency action. The Forest Service won a resounding victory for discretion in Congress in 1976. The legislative process reduced the wave of concern about forest practices expressed before the Church Committee into little more than a statutory suggestion that Congress, although affirming the Forest Service's right to run the national forests, would rather the forests were run in a more environmentally sensitive way.

Instead, this is the story of the same battle fought in different

395 Tuholske & Brennan, *supra* note 20, at 130.

396 *Id.* (quoting Arnold Bolle, *Foreword* to CHARLES F. WILKINSON & MICHAEL H. ANDERSON, LAND AND RESOURCE PLANNING IN THE NATIONAL FORESTS 4 (1987)).

397 *Id.*

398 *Id.* at 131.

fora. In Congress and in the courts, forces championing agency discretion struggled with those endeavoring to constrain agency action. Defeated in Congress, the forces of constraint regrouped and recharacterized history.[399] Although routed in courts in Montana, Arkansas, Texas, and Indiana, they managed marginal success in Colorado and Ohio.

That the standards are unintelligible does not mean that the struggle has come to a draw. The forces of discretion have carried the day. The concern expressed in the Church Guidelines and codified in NFMA have been proved, by and large, unenforceable in court. As Charles Wilkinson observes, "Whether it is the ranger district, forest, region or nation, nothing tells you more about timber domination [in the Forest Service] than the level of the cut."[400] The aggregate national forest timber harvest level reached unprecedented highs in the late 1980s, after NFMA had been passed, after the final Forest Service planning regulations had been adopted, and after many Forest Plans had been prepared and appealed. Only with the Northern Spotted Owl injunctions in 1989 do cut levels begin their precipitous decline.[401] As for the future, unless the Forest Service is foolish enough to promulgate another seven-year restocking standard or assert that its obligations to assure restocking or protect soil and watershed have been satisfied because the technology exists somewhere on the planet to restock or protect, the standards are unlikely to have a significant influence on future litigation.

This first lesson is important because it explodes the myth that Congress did speak forcefully about timber practices in NFMA, that the physical suitability standards really were the "strong medicine" that Wilkinson and Anderson suggested they were. As it turned out, the relevant legislative history was not the explosion of anti-clearcutting sentiment witnessed by the Church Committee, but instead it was the invocation of delicate balances and prescription phobia articulated by Hubert Humphrey.[402] Once we realize this, the erratic but predominately negative response of the courts to litigation under the Four Failed Forest

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399 *See supra* notes 180-82 and accompanying text.

400 Wilkinson, *supra* note 23, at 678.

401 *See Trends and Purposes*, *supra* note 16.

402 *See Espy 1993*, 822 F. Supp. 356 (E.D. Tex. 1993); *Espy 1994*, 38 F.3d 792 (5th Cir. 1994); Texas Comm. on Natural Resources v. Bergland, 573 F.2d 201 (5th Cir. 1978).

Standards seems much more comprehensible and the possibilities for effective future legislation or litigation much brighter.

The second lesson we can draw from our story is that the Four Failed Forest Standards did not fail because they were developed in isolation from the agency on which they were imposed. In fact, the Forest Service had a say in both the general focus and specific wording of all four standards. Three of the four standards—the Even-Aged Standard, Clearcutting Standard, and Restocking Standard—emerged from the Forest Service's 1971 report presented to the Church Committee. The fourth standard, the Soil and Watershed Standard, and much of the statutory wording for the other three standards, was drafted by Leon Cambre, a Forest Service employee on loan to Congress. Former Forest Service Chief John McGuire remembers a phrase used by senators during NFMA legislative process—"Can you live with that, Chief?"[403] A careful review of the legislative history suggests that the Chief could live with the Four Failed Forest Standards because people who worked for his organization had supplied most of the ideas they embodied and drafted much of their language.[404] In addition, NFMA gave the Forest Service broad discretion to interpret the standards through the regulatory process. One could argue that substantive standards in question *were* the Forest Service response to the frustration with Forest Service practices expressed before the Church Committee.

I am not inclined to surmise duplicity in the absence of clear evidence, but someone with a greater affinity for the double gambit might argue that the Forest Service set up the four substantive standards to fail in court. Each of the standards enacted in 1976 contains more ambiguity than the standards contained in the Organic Act of 1897, standards that the Forest Service had argued were almost meaningless in 1974 and 1975.[405] Therefore, each offers a greater opportunity to argue a defense based on agency discretion. One could argue that the standards were offered in

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[403] John R. McGuire, Can You Live With That, Chief? (Sept. 16, 1996) (unpublished comments prepared for "The National Forest Management Act in a Changing Society: 1976-1996," the 1996 Conference of the Natural Resources Law Center) (on file with the Natural Resources Law Center, University of Colorado School of Law).

[404] *See supra* text accompanying notes 155-57.

[405] *See infra* Section 1.C; West Va. Div. of Izaak Walton League of America v. Butz, 367 F. Supp. 422, 427 (N.D. W. Va. 1973), *aff'd*, 522 F.2d 945, 955 (4th Cir. 1975).

1972 and 1976 to appease critics while imposing the least possible actual limitations on Forest Service activities.

The third lesson is, in this context, that the interpretive function of Forest Service regulations mattered surprisingly little. In case after case, courts applied the language of NFMA itself to the challenged forest practice, completely ignoring or quickly circumventing the interpretations of NFMA standards in Forest Service regulations. The anti-clearcutting standard remained an "optimality" standard in the minds of both of the parties and the courts, despite the committee of scientists' consideration and Forest Service promulgation of a "best suited" standard.[406]

Indeed, aggressive regulatory interpretations proved a liability to the Forest Service. With the exception of *Sierra Club v. Thomas*, every significant plaintiffs' victory was a de facto challenge to a Forest Service interpretation supported by a Forest Service regulation. In *Citizens for Environmental Quality*, Judge Finesilver significantly limited the effect of the Forest Service regulation applying "technological feasibility" to the agency's obligation to protect soil and watershed. In *Cargill 1990*, he rejected technological feasibility in the restocking context. In *Ayers v. Espy*, Judge Babcock undercut the Forest Service's regulatory interpretation of "final harvest."

Wrapping the substantive standards from the Church Guidelines in NFMA section 6(g)'s regulatory mandate, arguably, should have subordinated them once and for all to agency discretion and exalted the agency's power of interpretation at the least. But that is not how it resulted. In court, the statutory standards took on a life of their own quite separate from the regulations promulgated to implement them.

Again, this lesson inspires optimism about future effective legislation. The fact that Congress had suggested substantive standards, no matter how equivocally, mattered to every court. In most cases, it mattered more than did the pronouncements of the committee of scientists or the interpretations of the "expert" agency. Despite copious references to agency discretion, the fact that the members of Congress were the elected representatives of

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[406] *See Texas Comm. on Natural Resources*, 573 F.2d 201; Ayers v. Espy, 973 F. Supp. 455 (D. Colo. 1994); Resource Ltd. v. Robertson, 789 F. Supp. 1529 (D. Mont. 1991); Sierra Club. v. Robertson, 810 F. Supp. 1021 (W.D. Ark. 1992); Sierra Club v. Espy, 38 F.3d 792 (5th Cir. 1994); Mahler v. U.S. Forest Service, 927 F. Supp. 1559 (S.D. Ind. 1996); *But see* Sierra Club v. Robertson, 845 F. Supp. 485 (S.D. Ohio 1994).

the people was more weighty to most courts than all the years of experience the Forest Service could muster.

A fourth lesson deals with what I will call "points of compliance." NFMA mandated a forest planning process and contemplated that, under the umbrella of that process, specific actions—like timber sales—would take place. But, with the exception of the application of the Restocking Standard and Soil and Watershed Standard in the timber-suitability analysis, it did not specify whether the timber management standards applied to the planning process, the site-specific processes, or both. Neither did it specify exactly what sort of agency action constituted compliance. These omissions have generated extensive confusion.

The Forest Service has asserted that the standards applied to the planning process except, in cases like *Resources Ltd.*, when it served their purpose to assert that they could be satisfied at the site-specific level.[407] Like Judge Parker in *Espy 1993*, plaintiffs have generally asserted that the standards had to be satisfied at both levels.

The Forest Service has generally asserted that any consideration of factors associated with the concerns raised by the substantive standards is sufficient to constitute compliance, as in *Robertson 1993*. Furthermore, the Forest Service maintains that even clear evidence of non-compliance does not provide a basis to enjoin the group Forest Service activities. Plaintiffs generally have asserted that compliance required a specific administrative determination explicitly addressing the standard based on current information. They have argued that absent such a determination, injunction was appropriate at any point in the planning and implementation process.

Arguably, plaintiffs suffered more significant reverses in this area than in any other because Congress had not spoken to this issue. The Forest Service had a more or less free hand, through regulations and arguments in court, to define points of compliance. Courts had little or no basis on which to second-guess the agency's choices.

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[407] Gippert and DeWitte assert: "Several groups have argued that the Forest Service must select the harvest system in the Forest Plan, but courts have rejected this interpretation. . . Instead, final selection of harvest methods is to be made at the project level. The requirement that the Forest Service must consider timber harvest alternatives is a procedural requirement only, and not a substantive requirement." Gippert & DeWitte, *supra* note 24, at 207-08.

VI

Applying the Lessons in New Legislation

In recent years, environmentally oriented groups and scholars have expressed some interest in revisiting and strengthening the substantive standards in NFMA.[408] At the same time, less environmentally oriented members of Congress have expressed an interest in "reforming" public land law.[409] What can we learn from legislation and litigation concerning the current standards?

First, there is a good chance that more powerful substantive standards can be enacted. When Congress imposes substantive standards, courts are inclined to respect them. The problem with NFMA's substantive standards is that Congress did much to undercut their enforceability.

Second, we know that the more unequivocal the congressional mandate, the more effective it is. Therefore, any attempt to constrain Forest Service timber management through legislation needs to be clearer and stronger than either the 1976 forest standards or the 1897 standards that preceeded them.

Third, Congress must specify "points of compliance" for any mandates it wishes to be effective. Because judicial review under the Administrative Procedure Act will always involve review of a final agency action made at a specific point in an administrative process, Congress must signal what must be achieved or determined at that point in the process.

A. Unequivocal Congressional Mandate

The language of the forest practice standards in NFMA do not send a clear message because the proponents of a clear message lost in the legislative process. But had they won, what might they have done differently?

Obviously, the place to start in considering what proponents of

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[408] *Cut the Cutting*, *supra* note 26 at A2 ("The twenty-one year-old law governing logging in the national forests is too weak. . . . The need . . . is to tighten the statute—strengthen it"); Stephanie M. Parent, *The National Forest Management Act: Out of the Woods and Back to the Courts?*, 22 Envtl. L. 698, 729 (1992) ("Stronger and more prescriptive statutes from Congress are greatly needed"); *but see* Wilkinson, *supra* note 23, at 680 ("Undoubtedly, there are technical amendments that should be made to the NFMA, but it is not clear to me that this is the time for any major changes.").

[409] Gippert & DeWitte, *supra* note 24, at 154-55 (Congress has initiated oversight hearings regarding federal forest management and will assess potential legislative reforms during the coming year).

a clear message would have done is the text of Senate Bill 2926 introduced by Jennings Randolph in February 1976.[410] One notes immediately that its authors structured Senate Bill 2926 around a series of prohibitions. Addressing standards for timber production, the bill states "The Secretary shall promulgate and publish . . . standards for determining those areas of the National Forests from which timber may be sold. *No timber may be sold from any national forest after the publication of such standards except in accordance with such standards*."[411] Concerning immature timber, the bill states "except as otherwise provided by this section, the Secretary *shall not cut or permit to be cut any trees in any national forest that are not dead, mature or large*."[412] Concerning markings and designation of trees, the bill states "*[n]o tree shall be cut or removed from any national forest . . . unless such tree has been properly marked and designated prior to sale* except as provided herein."[413] In each case the statute qualifies or allows the Forest Service to qualify the prohibition, yet the prohibition is the baseline.

By the use of a prohibitive structure, as with the Clean Water Act,[414] the ESA[415] sends a clear message of the primacy of the congressional mandate and provides a stronger base for enforcement or compliance than NFMA's current requirement that regulations "insure" protection while logging goes forward.

B. Points of Compliance

One of the fundamental errors in Congress's drafting of NFMA was its failure to indicate at what point substantive standards must be satisfied. The case law generated under the Four Failed Forest Standards illustrates how the absence of a clear indication of *when* the Forest Service must satisfy a substantive standard creates a significant risk that the standard will not be satisfied or, more charitably, that whatever allegedly constitutes compliance will not be subject to judicial review.

But before we, or Congress, determine when substantive standards should be satisfied, we must consider what constitutes com-

410 LE MASTER, *supra* note 132, at 58.

411 S. 2926, 94th Cong., § 4(a) (1976).

412 *Id.* at § 8(a).

413 *Id.* at § 9(a).

414 33 U.S.C. § 1311(a) ("Except as in compliance with this section . . . the discharge of any pollutant by any person shall be unlawful.").

415 16 U.S.C. §§ 1536, 1538.

pliance with a substantive standard. There are at least three elements of compliance: (1) having the information to make a reasoned decision; (2) making that decision; and (3) acting as though the decision or its absence matters. Accordingly, there are three potentially relevant "points of compliance": the point at which evidence necessary to make a determination as to compliance is present and reviewable; the point at which an administrative determination as to compliance is made, and the point beyond which agency action cannot proceed without that determination.

In enforcement of the Four Failed Forest Standards, all three of these points have been in doubt. In *Robertson 1991*, a challenge to specific timber sales, the Forest Service took advantage of the ambiguity concerning when relevant evidence must be presented by asserting that evidence supporting compliance with the Even-Aged Standard as to specific timber sales had already been provided in the EIS accompanying the Ouachita Forest Plan.[416] In *Resources Ltd.*, a challenge to the Flathead Forest Plan, and *Robertson 1992*, a challenge to the Ouachita Forest Plan, the Forest Service took advantage of the ambiguity regarding the timing of the administrative determination on compliance with the Clearcutting Standard by arguing that no determination was necessary at the Forest Plan level.[417] Justice Department attorney Wells Burgess asserted before the district court in *Espy 1993* that substantive standards mattered only for the planning process and not for on-the-ground activities. This statement took advantage of NFMA's ambiguity about how far an action in violation of a substantive standard could go before it constituted a violation of law.[418]

In the case of the Restocking Standard and Soil and Watershed Standard, specifically applied through Forest Service regulations in the timber suitability process, only one of these three points of compliance has been identified—when a determination must be made. The Tenth Circuit's holding in *Cargill 1993* illustrates the limited effect of identifying only one point of compliance; the *Cargill 1990* opinion enjoined the Forest Service to redo the suitability analysis. The Forest Service, arguably, failed to do so. The Tenth Circuit found that failure provided no basis to con-

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[416] *See supra* pp. 79-82.

[417] *See supra* pp. 77-79.

[418] *See supra* pp. 84-87.

tinue the injunction of on-the-ground activities on the Bighorn National Forest.[419] The third point of compliance—when continuing action in the face of a failure to comply with a substantive standard constitutes a violation of law and provides a basis for injunction—had been specified in neither NFMA nor the implementing regulations.

Legislation endeavoring to impose substantive standards on Forest Service timber management practices should unambiguously indicate at what point the Forest Service needs to demonstrate each of these three elements of compliance. For example, a more carefully articulated Restocking Standard applicable at the Forest Plan level might specify:

> At the time of publication of the final draft Land and Resource Management Plan, the Forest Service must possess the best available information concerning the status of forest soils, temperature fluctuation, precipitation, groundwater flow and other factors relevant for determining whether forest lands can be expected to regenerate a health stand of trees within five years.
>
> In the final Land and Resource Management Plan, the Forest Service shall determine, based on the best available information, what lands on the forest it can assure can be restocked within five years after harvest.
>
> The Forest Service shall authorize timber harvest only when it can assure that land subject to cutting will regenerate a healthy stand of trees within five years. Should the Forest Service fail to obtain the best available information for determining whether forest lands can be expected to regenerate a healthy stand of trees within five years OR fail to make a determination identifying what lands on the forest it can assure can be restocked within five years after harvest, then the Forest Service shall not authorize removal or cutting of any timber on the National Forest.

A more carefully articulated Clearcutting Standard applicable at the timber sale level might read:

> At the time of the decision to offer any land on the National Forest for commercial timber harvest, the Deciding Officer must possess the best available information concerning the status of forest soils, temperature fluctuation, precipitation, groundwater flow and other factors relevant for determining what method of timber harvest will best preserve the health of the Forest Ecosystem.
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> In the decision document offering any land on the National Forest for commercial timber harvest, the Forest Service shall

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419 *See supra* pp. 72-75.

> determine the method of timber harvest best-suited to preserve the health of the forest ecosystem.
>
> The Forest Service shall authorize timber harvest only when the authorized method of harvest is the method best-suited to preserving the health of the forest ecosystem. Should the Forest Service fail to obtain the best available information for determining what method of timber harvest will best preserve the health of the forest ecosystem or fail to make a determination as to what harvest method will best preserve the health of the forest ecosystem, then the Forest Service shall not authorize removal or cutting on the lands under consideration until both failings have been remedied.

I would not offer the language above as potential legislation. However, it does illustrate the tripartite aspect of compliance (adequate information, a real decision, action in compliance with that decision) at both the planning level and sale level.

C. A Good Idea?

What this analysis does not resolve, what no analysis of legislation and case law can resolve, is whether Congress *should* impose enforceable substantive standards on timber management practices on the national forests. Plainly, the Forest Service has never been fond of the idea. The committee of scientists also expressed a desire to avoid imposing "specific direction for a myriad of physical situations" or imposing "textbook generalizations" as "operation requirements."[420] The proponents of meaningful substantive timber management standards always have been environmentalists and citizens groups who wish to use substantive standards to protect the biological integrity and natural beauty of the national forests. Accepting, as I do, that we citizens have every right to a say in the management of the national forests owned by all of the people, the question becomes whether substantive timber management standards are the best way to provide the protection their champions seek.

Earlier, during my discussion of the Church Committee Report,[421] I offered a simplistic but useful analysis of the issues presented to the Church Committee—a three-part constellation of problems: (1) Forest Service culture as documented in the Bolle Report and analyzed in Randal O'Toole's *Reforming the Forest Service*, biased in favor of maximum timber harvest; (2)

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[420] Final Report of the Committee of Scientists, 44 Fed. Reg. 26,599, 26,626 (1979).

[421] *See supra* Section I.B.

damaging Forest Service practices like clearcutting; and (3) damage to forest resources like wildlife or the forest soils discussed in Dr. Curry's testimony before the Church Committee. I suggested that, given our experience with the Endangered Species Act, directly protecting resources, and O'Toole's proposed prescriptions for changing Forest Service culture, regulating timber management practices might not be the most effective method of protecting what we care about on the national forests.

I call this analysis simplistic because the three categories so readily bleed into one another. Clearly, the purpose of the substantive management standards is resource protection. In the case of standards like the Soil and Watershed Standard, the resource is even named. Equally illustrative, limitations on management practices affect agency culture. Despite these failings, the striking difference between the ESA's effectiveness in altering Forest Service practices and our Four Failed Forest Standards suggests some meaningful distinction.

But does this distinction reflect not the *type* of legislative mandate, but rather, the *specific* legislative mandates at issue? The ESA's prohibitions were not undercut in the legislative process as were NFMA's substantive standards. This point is debatable. The mandates in the ESA are subject to a variety of exceptions and limitations added by amendment in 1978 and 1982.[422] But even accepting that the ESA provides more enforceable standards, that fact may be the result of the *type* of standard provided.

The formulation of generic resource protection standards does not require Congress to engage in the sort of institutional conversation we have seen in the story of the Four Failed Forest Standards. While agencies subject to generic standards will play a role in their formulation and adoption, they are unlikely to play the central role that the Forest Service played in the formulation of the four standards. When Congress considers generic standards like the ones in the ESA, the affected agencies become members of a gang of interest groups demanding to be heard. When Congress considers standards to limit the activities of one agency, that agency becomes the primary interest group, and is always consulted. The story of the Four Failed Forest Standards suggests that the one-on-one agency-Congress institutional con-

[422] Cheever, *supra* note 422, at 21-23.

versation may limit the possibility of Congress enacting strong standards.

Considering other methods of changing Forest Service culture, the picture is even more ambiguous. Much has changed in the twenty-five years since the Bolle report. Exercise of the discretion guarded in NFMA's legislative process has gotten the Forest Service a legal and political battering that no one could have predicted. Into the 1960s, even Lassie spent some time in the Forest Service.[423] In a quarter century, strong popular reaction to Forest Service practices and increased concern for the species, ecosystems, and scenery harmed by those practices brought dramatic change.[424] Changes in traditional Forest Service practices, in turn, provoked strong, if localized, popular reaction to change.[425] Smokey Bear receives death threats.[426] The Forest Service is attacked from both ends of the political spectrum and pleases almost no one. The fabric of Forest Service agency culture is in

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[423] Federico Cheever, *The Road to Recovery: A New Way of Thinking About the Endangered Species Act*, 23 ECOLOGY L.Q. 1, 21-23 (1996).

> The 1950s and '60s were kind to the Forest Service. The image of the ranger in the green uniform, there to protect the woods and rescue stray kids, dominated the national psyche. The Forest Service was trusted as the paternal land manager, its rangers as true as Smokey Bear; on TV, one of them was cast as fitting companion to no less a hero than Lassie.
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> But that image devolved with the social revolution that swept America in the late 1960s and early 1970s. The Forest Service drew a more critical stare from a public awakening to warnings of environmental catastrophe.
>
> Then came the first Earth Day, the Endangered Species Act and the National Forest Management Act. Charges surfaced of illicit ties between the agency and the CIA; news accounts revealed below-cost timber sales and logging thefts.
>
> By the late 1980s, the Forest Service was driving on its rims, battered and lackluster. Trust in the agency's stewardship had all but dissolved.

Peter D. Sleeth, *Even in Washington, D.C., Thomas Keeps Forest Close*, OREGONIAN, July 14, 1996, at A1.

[424] *See* Alyson C. Flourney, *Beyond the Spotted Owl Problem: Learning from the Old Growth Controversy*, 17 HARV. ENVTL. L. REV. 261 (1993).

[425] *See, e.g.*, Gail Kinsey Hill, *Shortfall in Timber Sales Doubles; The Forest Service Revises Previous Estimates of Timber That Won't Be Cut, and Mill Owners Say Thousands of Workers Will Lose Their Jobs*, OREGONIAN, Aug. 8, 1990, at B1 (Timber workers in the communities where the Forest Service proposed large reductions in the timber harvest were upset, some of them feeling a "sense of doom)."

[426] In the spring of 1989, court injunctions had effectively shut down Pacific Northwest timber sales on national forests. Angry members of the affected communities sent death threats to Forest Service mascots "Smokey Bear" and "Woodsy the Owl." STEVEN LEWIS YAFFEE, THE WISDOM OF THE SPOTTED OWL XV (1994). The book provides an exhaustive analysis of the Northern Spotted Owl controversy in the years 1989 to 1993.

jeopardy.[427]

Within the walls of the beleaguered citadel of discretion, we can identify seedlings of cultural change. Forest Service Employees for Environmental Ethics, a non-profit organization "made up of thousands of concerned citizens, present, former and retired Forest Service employees, other government resource managers and activists" is openly working to "change the Forest Service's basic land management philosophy."[428]

On a more personal level, on July 12, 1997, I paid a six dollar user fee to take my family up the road over Forest Service land to the top of Mount Evans on the Colorado front range. The modest pilot project provides money for maintenance of the road and related facilities. Nonetheless, it is the first time I have ever paid the Forest Service to enjoy national forest land and constitutes a small step in the direction suggested by Randall O'Toole.[429] I cannot dismiss the possibility that my six dollar payment, multiplied by the hundreds of visitors who joined us on Mount Evans, may do more to change the Forest Service than *Sierra Club v. Cargill* and all other NFMA litigation past, present, or future.

Deep Throat told us to "follow the money."[430] When it comes to the Forest Service we should certainly follow that advice. Budgetary incentives play an enormous role in determining what the Forest Service, or any other federal agency, decides to do. Changing budgetary incentives can change agency conduct. However, there is still value in the passage and enforcement of laws that announce Congress's intent to protect or prohibit certain things. When budgetary incentives fail to inspire federal agents to do what Congress desires, it is these laws that can communicate a clear message to the federal judges who, for the foreseeable future, will be the final arbiters of federal agency action.

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[427] Forest Service Chief Jack Ward Thomas commented on the deterioration of agency morale. He stated, "This demonization [of the Forest Service] is on the verge of bringing down this agency." *Forest Service "No Demon," Chief: Agency in Middle*, DENV. POST, Sept. 18, 1996, at B1.

[428] Forest Service Employees for Environmental Ethics, *About FSEEE* (visited July 14, 1997) <http://www.afseee.org/nmission.html>.

[429] The Mount Evans Road is one of a number of Forest Service fee demonstration areas recognized by the Recreation Fee Demonstration Program authorized by Congress in April 1996. 16 U.S.C. § 460l (West Supp. 1997). Under the Recreation Fee Demonstration Program, 80% of monies collected in excess of 104% of funds collected in 1995 go directly back to the fee demonstration area. The Forest Service, Bureau of Land Management, National Park Service, and United States Fish and Wildlife Service are authorized to select between 10 and 50 fee demonstration areas.

[430] ALL THE PRESIDENT'S MEN (Warner Bros. 1976).

Conclusion

On July 16, 1997, I called Roger Flynn, lead council in the *Ayers v. Espy* litigation, to see if I could talk him into reading a draft of this Article. I told Roger I was writing about the substantive standards in NFMA. "What substantive standards?" Roger asked. "Exactly," I responded. Although no more than unconsidered banter, the exchange made an impression on me. Roger and I were responsible, in large part, for two of the four unreversed injunctions ever entered under the Four Failed Forest Standards. Both of us would do it again to protect what we care about on the national forests. Yet we both accept without a second thought that the standards are inadequate. We both understand that the standards fail to communicate an intelligible message. Despite indications to the contrary, lawyers, at least some public interest lawyers, require more from the law than an instrument with which we can bludgeon our opponents. We require a story we can understand.

The Four Failed Forest Standards discussed in this Article have failed to provide a significant judicial check on Forest Service timber management practices. They have failed to provide an effective check because they have failed to communicate an intelligible message to the lawyers, Forest Service officials and federal judges who initiate, defend, and resolve claims asserted under them. However, the failure of Four Forest Standards does not establish that Congress lacks the power to impose meaningful substantive standards on Forest Service timber management practices. Indeed, the willingness of courts to interpret and apply the language of NFMA's substantive standards, sometimes ignoring Forest Service interpretive regulations, suggests that more definitively worded standards applied at clearly specified points of compliance might provide effective judicial supervision of Forest Service timber management practices.