A Question of Balance: The National Forest Management Act and Draft Forest Plans in the Northern Region

Jack Tuholske
jack.tuholske@umontana.edu

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A QUESTION OF BALANCE: THE NATIONAL FOREST MANAGEMENT ACT AND DRAFT FOREST PLANS IN THE NORTHERN REGION

Jack Tuholske*

I. INTRODUCTION

The National Forest Management Act (NFMA) was designed to get the Forest Service out of the courts and back to the woods. It also imposed management constraints and a detailed planning process on the Forest Service. The development of a Forest plan for each of the National Forests, incorporating the NFMA's guiding provisions, is the cornerstone of the Act. The Forest plans will guide the management of timber, fish and wildlife, recreation and all other resources for the next generation. These plans, and the statutory law upon which they are based, will constitute the legal yardstick by which future Forest Service actions will be measured. The thrust of this comment is that the Forest Service will likely end up back in court.

Final Forest plans are being completed in many parts of the country. These plans, as will be shown below, present a conflict between timber and recreation interests: decisions concerning timber harvests, road construction and grazing allotments directly influence wilderness, big game and fish populations and other recreation-oriented resources. The Forest plans allocate every acre of each forest to a management prescription that favors either commodity or non-commodity resources. The statutory language of the NFMA and corresponding regulations provide relatively clear standards by which to judge these allocations. Well established case law under the National Environmental Policy Act (NEPA) is also applicable, because the Forest plans have been prepared under the auspices of that Act.

This comment will focus on several provisions of the NFMA and the role they will play in litigation over the Forest plans. As background, Part II will examine why NEPA is ultimately a less than adequate tool for influencing Forest Service policy. Part III will briefly delve into the history of the NFMA. Part IV will examine data in five Forest plans from Western Montana, and compare this information to NFMA provisions. As a

* The author wishes to express his appreciation to the National Wildlife Federation, under whose auspices much of the initial research was conducted. In particular, I would like to thank Tom France, Director of the Federal Northern Rockies Resource Center for his incisive comments and persistent encouragement.

concluding note, the paper will examine recent judicial construction (or non-construction) of the NFMA.

II. A Brief Digression: NEPA and the Forest Service

To understand why NFMA is a potentially useful tool in influencing forest management on public lands, it is helpful to understand the serious limitations of NEPA.

The passage of the National Environmental Policy Act heralded a recognition by Congress that environmental values should be accorded great importance in governmental decision-making. Bolstered by judicial determination epitomized by early decisions like *Calvert Cliffs* and *Environmental Defense Fund v. Froelke,* NEPA was quickly developed into a potent weapon by environmental litigators. Judge Skelly Wright's admonition that "[C]ongress did not intend NEPA to be a paper tiger" was well heeded by the courts, the public, and ultimately (though reluctantly) by many government agencies. NEPA has engendered a crush of litigation, and not infrequently, substantive results.

The Forest Service has had its share of NEPA cases, many of which were decided against the agency. In fact, since its passage, NEPA has been the mainstay of litigation involving the Forest Service. This is somewhat surprising, given that the Forest Service has been under its own legal mandate since 1897. For various reasons, environmentalists have used NEPA to force agencies to consider environmental values in their decision-making.


4. *Envt'l Defense Fund v. Froelke,* 473 F.2d 346 (8th Cir. 1973). This case concerned the adequacy of an EIS prepared by the Army Corps of Engineers. The court found that an EIS must do more than catalogue facts; it must present a full well-reasoned discussion of environmental impacts and alternatives to the proposed action.

5. *Calvert Cliffs,* 449 F.2d at 1114.

6. *See, e.g., MinnPIRG v. Butz,* 498 F.2d 1314 (8th Cir. 1974) (requiring an EIS for logging within Boundary Waters Canoe Area and enjoining activities until EIS completed); *Found. for N. Am. Sheep v. Dep't of Agriculture,* 681 F.2d 1172 (9th Cir. 1981) (holding an Environmental Assessment [EA] inadequate and requiring an EIS for the reopening of a road in big game habitat).

7. A computer search revealed 40 Federal cases decided since 1956 dealing with the term "multiple use, sustained yield" and the "Forest Service". By contrast the terms "NEPA" and "Forest Service" produced 92 decided cases.


9. The chief mandate of the Forest Service, the Multiple Use/Sustained Yield Act, is codified at 16 U.S.C. §§ 528-531 (1982). For reasons discussed below, these statutes have not been a useful tool for conservationists seeking to influence public policy.
Litigation under NEPA is necessarily constrained by the nature of the statute. For whatever laudable goals are expressed in its policy sections, NEPA ultimately is a procedural statute. The key provisions of NEPA involve the preparation of an Environmental Impact Statement (EIS) for all major federal actions significantly affecting the environment. Congress set forth explicit components of an EIS for which compliance is mandatory and therefore not “left to administrative discretion.” It is relatively easy to enforce such compliance in the courts, or to use the threat of enforced compliance to influence agency decision-making.

NEPA lawsuits, because they usually focus on a single action, are often narrow in scope. Plaintiffs may be able to force an EIS on a road project, or enjoin a timber sale, but for every project brought to judicial scrutiny, dozens of others continue unchecked. Significant litigation involving entire Forest Service programs or policy directives, prior to the NFMA, has generally not occurred. Also, like many agencies, the Forest Service is becoming increasingly adept at playing the EIS game. Once an EIS has been prepared, the scope of judicial review narrows and the environmental plaintiff must prove the EIS insufficient.

In all cases, the ultimate victory is pyrrhic; once NEPA procedures are satisfied the agency can adopt any decision it wants within the far-flung bounds of its statutory discretion.

The U.S. Supreme Court has consistently noted that the only procedural requirements imposed by NEPA are those stated in the plain language of the Act. NEPA does not require “agencies to elevate environmental concerns over other considerations,” or “to adopt particular internal decision-making.” Thus NEPA has serious substantive limitations for those attempting to impose environmental considerations upon government actions. Stated differently, NEPA requires only a “hard look” at environmental values; such values can then be rejected in favor

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10. See 42 U.S.C. at § 4321 (1982) which states, inter alia, “The purposes of this chapter are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and...”
12. Id. at § 4332(c)(i)-(v).
18. Id. at 2254.
of other considerations.

In addition to NEPA, the Forest Service must comply with the NFMA, passed by Congress in 1976. Combined with the usual flowery policy verbiage and various NEPA-style planning mandates are clearly delineated provisions designed to integrate ecological and aesthetic values along with more well defined forest management practices.

These provisions will give environmentalists a valuable tool to use in pressing their concerns with the Forest Service. Unlike NEPA, NFMA provides an opportunity to impose substantive guidelines on Forest Service decision-making. When read in conjunction with the underlying multiple use/sustained yield mandate, the provisions will require the Forest Service to give more than a “hard look” at environmental considerations and resources other than timber.

III. BACKGROUND TO THE NFMA

The watershed Monongahela decision 20 is widely cited as being the catalyst for passage of the NFMA. 21 Indeed, Monongahela created a sense of urgency for remedial legislation. By giving a plain language interpretation to the Organic Act of 1897, the Fourth Circuit put an end to clearcutting and admittedly “frustrated the modern source of silviculture and forest management as practiced by the Forest Service to meet the nation’s current timber demand.” 22 Monongahela precipitated a series of lawsuits that put timber harvests in the National Forest on hold until Congress altered the Organic Act. Most of the Forest Service’s timber program in western states required clear-cutting. With Monongahela as precedent, environmental groups moved quickly to enjoin other sales. Congressional action was necessary to allow the Forest Service to resume clearcutting. 23 The NFMA was enacted eighteen months later. As a compromise, the Forest Service was permitted to continue clearcutting. However, the Forest Service had to accept many new constraints on forest management. Clearcuts were limited in size. 24 For the first time, protections for soil and water quality were clearly defined. 25 Moreover, a detailed planning process was imposed. This process was designed to involve the public in laying the framework for resource allocations that would guide

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25. Id. at § 1604(g)(3)(E).
the agency for the next fifty years.

Even without the Monongahela decision, it is likely that some sort of control would have been placed on Forest Service management practices. The 1960's and 70's represented a period of growing concern over our natural heritage. Increasing use of national forests by hunters, fishermen, backpackers and others, coupled with growing concern over the adverse impacts of clearcutting and roadbuilding, brought pressure on the Forest Service to alter its practices. This concern surfaced in two major reports that discussed Forest Service practices.

In 1970, the Public Land Law Commission published a detailed study of the nation’s public land and associated resources.26 The report’s section on timber, while strongly encouraging an increase in commercial timber harvesting, at least recognized the harm associated with poor forestry practices. After recommending increasing timber production and building more roads in national forest lands, the Commission noted:

The results of most logging are aesthetically unattractive to many people. The fact that future stands of timber will be attractive is not an acceptable rationale to them to tolerate unnecessary environmental effects now. The United States has an affirmative obligation to minimize the impact in public lands, even though this is a complex task. Such efforts should be directed not only to scenic efforts but on soil and water quality as well. (Emphasis in original)27

At approximately the same time, Senator Metcalf of Montana commissioned the School of Forestry at the University of Montana to study forest practices on the nearby Bitterroot National Forest. The resulting document, known as the Bolle Report, was published in the Congressional Record and distributed nationwide.28

The Bolle Report was very specific in its criticisms of Forest Service practices, particularly clearcutting. It synthesized a growing public outrage over timber dominant management practices, particularly in scenic mountain forests. The report was very pointed in its criticism of forest practices, and suggested remedial legislation to remove the wide latitude accorded under traditional multiple use notions.

Thus, the historic Monongahela decision can be viewed as a culmination of public concern over clearcutting in the national forests. Congress responded to this concern by including specific provisions in the NFMA that represented an unprecedented intrusion into Forest Service management practices. These provisions provide very specific guidelines against

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27. Id. at 102.
which forest activities can be measured by the public and the courts.

IV. NFMA AND FOREST PLANS

A. The Planning Process

The NFMA requires the development of an integrated plan for each unit of the National Forest System. These plans, scheduled for incorporation into Forest management no later than September 30, 1985, will provide the basis for all management activities within that forest. "All resource plans, contracts, and other instruments for the use and occupancy of forest lands . . . shall be consistent with the land management plans." The plans are to be developed in accordance with NEPA. The planning process has followed the familiar NEPA procedure of developing alternative management scenarios, analyzing the various impacts of each of them, and incorporating them into a draft environmental impact statement (DEIS). Initially, each Forest nationwide must prepare a DEIS. A preferred alternative is then selected from several management schemes and this becomes the basis for a proposed forest land management plan. After a period of review and public comment, a final EIS and Forest plan are issued, and after further public review, this becomes the law of that Forest. The Northern Region of the National Forest System comprises thirteen national forests in Montana, Idaho and North Dakota. The Northern Region Draft plans for the five forests discussed in this comment, the Beaverhead, Flathead, Kootenai, Lolo, and Lewis & Clark, were released prior to 1984. The remaining eight forests of the Northern Region will have DEIS's by January 1985. Final EIS's and final Forest plans are scheduled to be released in August 1985.

B. The NFMA and Multiple Use/Sustained Yield

The NFMA mandates the development of Forest plans in accordance

29. The data in this paper was derived from the draft plans and accompanying Draft EIS's (DEIS). Immediately prior to finishing this paper, the Forest Service released supplemental plans for the Flathead and Lewis & Clark Forests that in some cases altered the data relied upon. Even though some of the facts in the plans have changed, this author believes the underlying conclusions have not.

31. Id. at § 1604(c).
32. Id. at § 1604(i).
33. Id.
34. Id. at § 1604(g)(1).
35. The draft plans discussed here were issued between 1979 and 1983. Supplemental draft plans were issued in late 1984 and mainly cover the wilderness issue. The supplemental plans were the direct result of California v. Block, 690 F.2d 753 (9th Cir. 1982), which held draft plans in California inadequate under NEPA for their inadequate treatment of roadless areas.
with the Multiple Use/Sustained Yield Act (MUSY) of 1960.\textsuperscript{36} MUSY is a broad mandate from Congress that gives the Forest Service wide discretion in managing forest lands. However, the statutes contain language that define the broad parameters of multiple use management. Thus, in accordance with MUSY, Forest plans must first measure to that nebulous pronouncement that forests are established for "outdoor recreation, range, timber, watershed, wildlife and fish purposes."\textsuperscript{37} These multiple resources must be managed to assure their sustained yield without impairing the long-term productivity of the land. Moreover, the management of these resources must best meet the needs of the American people.\textsuperscript{38}

Courts have nearly uniformly rejected MUSY as a serious constraint on Forest Service actions, concluding as the Ninth Circuit did, that MUSY "breathes discretion at every pore."\textsuperscript{39} As George Coggins noted: "The decided cases (and their paucity) thus seem to confirm the common impression that multiple use, sustained yield management is too esoteric for effective judicial oversight."\textsuperscript{40}

However general MUSY's dictates may be, the plain language of the statute indicates there is "law to apply." Assuming a court's willingness to buck precedent and infringe on administrative discretion, (recall Monongahela and the impact of the Fourth Circuit's plain language interpretation of the Organic Act) the Forest plans could provide a new opportunity for more substantive interpretation of MUSY.

The specific provisions of MUSY can be applied to the proposed Forest management plans developed under the NFMA. Draft plans issued in the Northern Region illustrate how the Forest has disregarded the basic multiple use planning concepts. Consider a comparison of fish and timber, both of which are delineated as "multiple use resources" under MUSY.\textsuperscript{41} Significantly, Congress listed these resources in alphabetical order, presumably to eschew emphasizing one resource over another. The Forest Service is further directed to give "due consideration" to each of these resources.\textsuperscript{42} While due consideration is likely not equal consideration,\textsuperscript{43} it

\begin{thebibliography}{43}
\bibitem{36} 16 U.S.C. at §§ 528-531 (1982).
\bibitem{37} \textit{Id.} at § 528.
\bibitem{38} \textit{Id.} at § 531(c).
\bibitem{39} Perkins v. Bergland, 608 F.2d 803, 806 (9th Cir. 1979), \textit{citing} Strickland v. Martin, 519 F.2d 467, 469 (9th Cir. 1975).
\bibitem{40} Coggins, \textit{Of Succotash Syndromes and Vacuous Platitudes: The Meaning of "Multiple Use Sustained Yield" for Public Land Management}, 53 Col. L. Rev. 229, 249 (1982). This author is in general agreement with and draws freely on the above article for this section of the paper.
\bibitem{41} 16 U.S.C. at § 528 (1982).
\bibitem{42} \textit{Id.} at § 529.
\bibitem{43} Sierra Club v. Hardin, 325 F. Supp. 99, 113 (D. Alaska 1971). The Ninth Circuit accepted this interpretation but added a cautionary note: it "requires that the values in question be informedly and rationally taken into balance." This requirement can hardly be satisfied by a showing of knowledge
\end{thebibliography}
implies a certain balancing of the multiple use resources. MUSY's language does not direct the Forest Service to emphasize any particular resource; rather the statute speaks of all the various resources, or the renewable surface resources. The NFMA explicitly reinforces these definitions.

Yet the draft Forest plans for the Beaverhead, Lewis & Clark, Kootenai, Flathead and to a lesser extent, the Lolo National Forests, show an overwhelming increase in timber harvests over the 50 year projected life of the plans. (See Figure 1.) Fish populations, usually expressed in catchable trout, show a declining trend in all but the Lolo National Forest. (See Figure 2.) There is no balance; all of these Forests have set their timber goals at the expense of other resources, in this case fish. Such a significant increase in timber harvest, while maintaining or instituting a decline in fish populations, does not represent the balanced approach to management evidenced by the plain language of MUSY.

Under MUSY, the Forest Service is required to manage Forest resources in a combination that will best meet the needs of the American people. Again, comparing fish and timber, one finds a disparity between the plans and reality. Recreational fishing is growing at unprecedented rates. Between 1965 and 1983, Montana experienced over a 100% increase in the number of fishermen user days. Much of the fishing in Montana takes place in national forests or on streams that depend on forest waters for fish habitat and water quality. In fact, some of the plans recognize increased demand for fishing yet fail to provide for it. Providing for increased fishing opportunities is consistent with MUSY's mandate of meeting the needs of the American people. Decreasing fish populations in the face of growing recreational demands is not.

On the other hand, the Forest Service's own predictions show a soft market for timber in the near future. How can the Forest Service justify their plans in light of such information? Their solution is simple: have the state restrict fishing seasons to maintain populations. Even with the broad discretion given to forest managers, it is hard to square such decision-making with the plain language of MUSY.

of the consequences and a decision to ignore them. Sierra Club v. Butz, 3 E.L.R. 2029-2093 (9th Cir. 1973).

44. 16 U.S.C. at §§ 529, 531 (1982).
45. Id. at § 1604(e).
46. Id. at § 531(a).
47. According to statistics from the Montana Department of Fish, Wildlife and Parks, in 1965 there were an estimated 1,329,498 fisherman recreation days in Montana. By 1983 the figure had grown to 2,723,228.
48. See, e.g., BEAVERHEAD NATIONAL FOREST PROPOSED PLAN, 175 (BEAVERHEAD FOREST PLAN); KOOTENAI NATIONAL FOREST PROPOSED PLAN, v-10 (KOOTENAI FOREST PLAN).
49. Coggins makes an excellent point in this regard. MUSY, however broad, is couched in
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C. The NFMA Water Quality, Soils and Fish Habitat: "Thou Shall Not Impair"

The NFMA contains a provision that sets a high and clearly discernable standard for forest management under the plans. The Secretary must develop guidelines that insure the harvesting of timber from National Forest System lands only when:

- protection 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 and fish habitat.

The Forest Service responded to the statute with a set of regulations establishing a riparian zone for 100 feet on both sides of perennial streams. Assuming the regulations represent a valid codification of the NFMA, and concentrating solely on the plain language of the NFMA, serious questions are raised by the draft Forest plans.

Before considering these questions, it is necessary first to digress into the interrelationship between timber harvest, road construction, fish habitat and water quality. Timber harvesting, and attendant road construction, result in vastly increased erosion. Clearcutting, by removing the vegetative cover, exposes slopes to increased runoff from snow melt. These two factors wash tremendous amounts of sediment into streams. This can be disastrous for fish. Sediment falls in between gravel and rock intertices, altering the habitat of many aquatic vertebrates trout use for food. Increased sediment accelerates mechanical scouring of stream channels. Moreover, as the Flathead Forest plan admits: "Sediment fills the spaces between gravel smothering fish eggs, fry and fish food organism, and making the gravels unsuitable for spawning. Sediment can also fill in pools, making them unusable for fish as resting places." Clearcutting also increases the rate at which the snowpack melts. More concentrated run-off periods further damage habitat by increasing erosion and scouring streams.

Road construction is the single greatest contributor to sedimentation. To facilitate increased timber harvests, the plans foretell enormous increases in road construction. (See Figure 3.) For example, the Beaverhead National Forest calls for a tripling of road mileage from 1563 absolute terms, a series of "shall and shall nots." MUSY demands a certain balance in resource allocations and does not permit economic systemization of one resource. Coggins, supra note 40, at 279.

52. REVISED BEAVERHEAD NATIONAL FOREST DRAFT EIS, IV-57.
53. FLATHEAD NATIONAL FOREST DRAFT EIS, IV-57 (FLATHEAD NATIONAL FOREST DEIS).
54. Id.
miles to over 4800 miles by the year 2030. The Lolo Forest will more than double its road system, to encompass over 12,000 miles of roads in its 2 million acres.

This increase in road construction, and the consequent sedimentation, is well documented in all of the Forest plans examined in this report. For example, the Kootenai proposes adding between 200 and 300 million pounds of sediment per year to mountain waters of Northwest Montana. The other plans also indicate substantial increases in stream sediment as a result of management activities.

The plans recognize that the proposed use of resources will impair fish habitat and water quality. In the Flathead National Forest, at least seventeen streams will likely exceed watershed management guidelines as a result of increased timber harvest, yet four of these streams are recognized as critical spawning areas for migratory trout. The Forest Service is certainly aware of the adverse impacts of sediment on these critical streams. The Kootenai plan states simply that the increased sedimentation of fisheries habitat and resulting population decline is “inevitable.” Such decision-making appears outside even the widest bounds of discretion envisioned under the NFMA. Moreover, while legislative history concerning this section of the statute is sparse, the few pronouncements fall squarely on the side of those seeking to protect the fish resource.

The Senate Committee Report recognized the importance of the water and fishery resource, and designed provisions to “preclude timber harvest from areas where an interdisciplinary review indicates harvesting cannot be accomplished without serious and adverse damage to water condition and fish habitat.” Moreover, the Committee expressed concern that despite previous assurances of adequate protection from the Forest Service, significant damage was presently occurring, especially in Alaska.

However, the NFMA does not define what constitutes serious and adverse damage for fish habitat and water quality. Ultimately the courts will impose a threshold and conservationists will need hard data to show a

55. Current mileage found in BEAVERHEAD NATIONAL FOREST DRAFT EIS, p. 87 (or BEAVERHEAD NATIONAL FOREST DEIS). Future mileage in DEIS Table II at 34.
56. KOOTENAI NATIONAL FOREST DRAFT EIS, IV-17 30 (KOOTENAI NATIONAL FOREST DEIS).
57. FLATHEAD NATIONAL FOREST PROPOSED PLAN, II-15 (FLATHEAD NATIONAL FOREST DEIS).
58. KOOTENAI NATIONAL FOREST DEIS at IV-51.
60. SENATE AGRICULTURE AND FORESTRY COMMITTEE REPORT TO ACCOMPANY S. 3091, S. REP. NO. 94-883, AT P. 39, 94TH CONG., 2D SESS. [HEREINAFTER SENATE REPORT], REPRINTED IN 1976 U.S. CODE CONG. AND AD. NEWS 6698.
61. Id.
violation. Apparently the Forest Service, through its plans, intends to institutionalize adverse impacts in fisheries by reducing populations. The Kootenai plan appears to show the greatest decline: a 20% drop in migrating fish populations. Such a drop seems both serious and adverse.

Putting the issue of defining "serious and adverse effects" aside, the NFMA indicates that protection must be provided against such impacts. This raises a more practical area of concern. The plans rely heavily on mitigating the impacts of logging by improving fish habitat, as well as road construction and timber harvesting techniques.\(^{62}\) Admittedly, state of the art techniques can protect against damage to fish and water quality. Unfortunately, effectively implementing these measures is costly and the required funding is probably not forthcoming.

The table in Figure 4 illustrates the problem with relying on expensive measures to protect fish and water quality. The budget levels for 1985 for fish and wildlife management and soil and water protection are down from 1981 levels by 11% and 22% respectively. Conversely, funds for timber sales and road construction have increased. These national figures are largely mirrored in a comparison of expenditures in the Northern Region for 1981-1983. (See Figure 5.) Road construction expenditures increase dramatically for all but the Flathead Forest. On the other hand, expenditures for soil and water protection and for fish and wildlife lag behind, and in many cases expenditures are being reduced.

These figures ultimately translate into less money for projects to stabilize or improve fish populations. In addition, as illustrated by Figure 6, the number of fish habitat improvement projects actually constructed in 1984 is far short of those envisioned in the plans. The Beaverhead, Kootenai, Lewis & Clark and Lolo Forests all constructed substantially fewer projects than levels called for in decade one of the plans. In view of the budget cuts anticipated by the current administration, it is difficult to believe that upon final adoption of the Forest plans, funds will be available to implement the number of projects called for. This means populations will decline at greater levels than those stated in the plans. Adverse effects of sediment on fish habitat will be worse than currently envisioned.

When drafting the NFMA, Congress insisted that activities which may affect fish be planned and monitored so that habitat values are

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\(^{62}\) Mitigating road construction effects can be accomplished to some extent by revegetating cut and fill scars, utilizing proper road design and avoiding steep and sensitive areas. Habitat improvement can increase fish populations by restoring natural vegetation, building sediment traps, and re-creating pool habitats. The plans all assume mitigation and habitat improvement will take place, though they do not always clarify to what extent. Nor do they require those measures to be implemented for specific timber sales. See, e.g., BEAVERHEAD PROPOSED PLAN, at 6, 30; BEAVERHEAD NATIONAL FOREST DEIS at 105, 130.
properly protected. The NFMA expressly forbids timber harvest where such protection cannot be provided. Even assuming the plans do not seriously and adversely affect soil and fish, the proposed high timber harvest coupled with a lack of funded habitat protection measures will make it difficult to justify the resulting damage. Declining budgets for habitat improvement and mitigation measures will translate into fewer fish. The result could be that the damage to fish habitat and water quality will be considerably worse than anticipated by the plans. The “adequate assurances” demanded by NFMA are predicated on tenuous assumptions.

D. Other NFMA Provisions

The NFMA is a detailed statute and many of its provisions provide appropriate standards for judicial scrutiny. While a complete review is beyond the scope of this paper, several sections are noteworthy.

The Forest Service must insure that timber will be harvested “where soil, slope, or other watershed conditions will not be irreversibly damaged.” Much of the timber harvest in the Northern Region will occur on steep hillsides. The results of clearcutting steep mountain terrain are well documented; soil, slope and watersheds are damaged. Is this damage irreversible? If it is, then the plain language of the NFMA holds that practices causing such damage are illegal. Courts will have to develop a standard for irreversible damage.

The soils in many parts of the Northern Region are highly unstable. In particular, the granitic soils of the Idaho Batholith in the Lolo and Clearwater National Forests are especially prone to erosion. Furthermore, removing trees lessens the amount of organic matter available for soil regeneration. These factors can reduce soil productivity. Once washed away, the soil takes a long time to regenerate. Of course, within the confines of geologic time, the soils will regenerate; in this sense the damage is never irreversible. But it is doubtful that Congress intended such an absurd result. Under such an interpretation no damage could ever be “irreversible.” Building a case against the Forest Service on this provision requires creating a reasonable definition for irreversible damage. The dramatic increase in road building and continued use of clearcutting under the Forest plans will certainly accelerate erosion in many areas. Individual watersheds where management activities are particularly intense and soil damage evident will likely provide test cases for courts to interpret this provision.

65. Id. at § 1604(g)(3)(E)(i).
66. See Lolo National Forest Revised DEIS 78.
The Forest Service is also required to harvest timber only where there is assurance that such lands can be adequately restocked within five years of harvest.\footnote{16 U.S.C. § 1604(g)(3)(E)(i) (1982).} Congress gave the Forest Service authority to define what adequate assurance of restocking the land means. Unfortunately, the implementing regulations are of little guidance:

When trees are cut to achieve timber production objectives, the cutting shall be made in such a way as to assure that technology and knowledge exist to adequately restock the lands within five years after final harvest. Research experience shall be the basis for determining whether the harvest and regeneration practices planned can be expected to result in adequate restocking.\footnote{36 C.F.R. § 219.17(c)(3) (1984).}

Does this mean the Forest Service must simply determine if restocking is possible, or that restocking must actually be carried out?

Even assuming the possibility of restocking is adequate, the dryland forests of the Northern Region such as the Lewis & Clark and Beaverhead are not susceptible to regeneration compared to the forests of the Pacific Northwest. The Lewis & Clark proposes a doubling of the timber harvest by the year 2030.\footnote{LEWIS AND CLARK NATIONAL FOREST PROPOSED PLAN, Table 4.1.} Much of this increase will have to come from more remote lands less suited for timber production and more difficult to regenerate. The Forest Service will have the burden of demonstrating that experience indicates these lands can be adequately restocked.

The foregoing is merely a sampling of NFMA provisions that can be used to measure the Forest Service's compliance with the Act.\footnote{See, e.g., Stoel, supra note 59 at 567.} Judicial interpretations can have a substantive impact on Forest Service practices. Unlike NEPA, where conservationists' legal victory often merely requires another EIS, a decision on NFMA provisions can alter on the ground practices. For example, serious and adverse damage to a particular fishery would bring a halt to those activities that are causing such damage. When the Forest plans are finally approved, these NFMA provisions will give conservationists and the Forest Service a new yardstick by which to measure Forest practices.

E. NFMA and NEPA Compliance: More Problems on the Horizon

In addition to compliance with NFMA, Forest plans and accompanying EIS's must still be executed within the legal constraints imposed by NEPA. In the most significant case to date concerning NFMA plans,
California v. Block, the Ninth Circuit did not even reach the NFMA claim, holding the plans inadequate on NEPA grounds alone. Thus traditional NEPA litigation will continue to play an important role in evaluating the Forest plans. The draft plans released thus far in the Northern Region present two areas of possible NEPA violations.

1. Inadequate Data and Worst Case Analysis

The President's Council on Environmental Quality (CEQ) has issued detailed regulations concerning the content of an EIS. Such regulations are entitled to "substantial deference" by reviewing courts. Regulations promulgated by the CEQ require a worst case analysis when an agency is faced with incomplete or unavailable information. Gaps in knowledge must be noted, and if information is too costly or unobtainable, the agency shall weigh the need for action against the risks of proceeding in the face of uncertainty.

Recent court decisions, particularly in the Ninth Circuit, have strictly construed worst case regulations against the Forest Service and other land management agencies. As a federal district court explained, in holding that Forest Service information about erosion and fish habitat was inadequate and therefore in violation of these regulations:

The Agency must consider the vast range of possible effects and the likelihood of their occurrence. It must also consider the cost of proceeding without the information. Landslides damage fish habitat, but it is uncertain whether leave areas used by the Forest Service will effectively prevent landslides. Without accurate evidence of the effectiveness of leave areas as mitigation techniques the Forest Service must prepare a worst case analysis.

The above decision, National Wildlife Federation v. United States Forest Service, is instructive because the worst case analysis was required due to the uncertainty of the adverse effects of timber harvesting. The plaintiffs argued that the seven year timber plan for the Mapleton District of the Siuslaw National Forest in Oregon would cause severe damage to fish habitat. The Forest Service countered that damage could be mitigated

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71. 690 F.2d 753 (9th Cir. 1982).
even though past practices had caused serious damage. The court found that because the effectiveness of the mitigation measures was speculative, a worst case analysis was required in the DEIS.

There are similarities between the above case and the situation presented by the Forest plans and DEIS’s in the Northern Region. The scale of the DEIS’s for the Northern Region, which encompasses 26 million acres, is far greater than the Mapleton District, which covered 200,000 acres. The Northern Region forest plans propose adding many thousands of miles of roads, and thousands of acres of clearcuts. Yet, as will be demonstrated below, the same uncertainty over the impacts of these activities on fish habitat and water quality exists. Moreover, the forest plans have an added element of uncertainty, beyond that which existed in the Mapleton case; the underlying data upon which the plans are based is merely educated guesswork.

As discussed earlier, sedimentation affects water quality and fish habitat. In light of these increases in sedimentation resulting from stepped up road construction in the Northern Region, accurate sediment figures are essential in order to assess the impact of the plans on fish and water quality. Yet no such figures are available.

All of the DEIS’s show sediment yields as one figure for each alternative for the entire national forest. While one figure is convenient for comparison purposes, it can also be misleading. The reader assumes these figures reflect hard data, when in fact they are crude estimates.

Essentially, sediment figures in the Forest plans were calculated by making broad generalizations about soil types, run-off and other factors, and applying them to a model. This model, while helpful, lacks site specificity. The problem with using such generalized figures is obvious: A slight error in any of the factors utilized by the model is multiplied many times, and the final figure may have little bearing on reality. Yet these sediment figures were used as hard data to predict impacts on fisheries and water quality in the plans. If the data is uncertain, then the predictions on adverse impacts are similarly uncertain.

While using broad estimates is expedient, it can lead to gross inaccuracies that make it difficult to truly assess the plans. For sediment predictions to be accurate, they must be based on individual watersheds or a model that can make accurate and refined estimates. The Forest Service’s own guidelines recognize the importance of this: “Any sediment yield

77. Id.
78. Id.
analysis must be done on a watershed basis to be meaningful." Water-
shed-specific, fish production goals are needed that will translate to
allowable sediment increases per decade.

A more accurate sediment model has been developed by the Northern
Region. While its application would increase planning costs, no effort was
made to incorporate this model into the planning process.

Data on fish populations is equally suspect. None of the DEIS's
explain how fish populations were derived. The Lolo Forest estimates
current populations at 87,000 catchable (six inch or greater) trout
contained in 3500 miles of streams and a few mountain
lakes. The Lewis and Clark estimates population at 202,000 catchable trout for only 535
miles of streams. Granted differences in stream size, habitat, productivity and other factors will cause populations to vary, but these differences in
the population figures belie their accuracy.

In sum, the Mapleton case, CEQ regulations and other recent cases
provide compelling precedent for including a worst case analysis on fish
and sediment in the Forest plans. Yet no such analysis can be found in the
plans. No mention is made of the uncertainty inherent in Forest plan data.
The worst case analysis requires that better data be obtained, or a worst
case scenario be examined. The wisdom behind these regulations is
apparent. If sediment yields are 50% higher than projected, fish population
is 50% lower, and mitigation and habitat improvement measures are
unsuccessful, the consequences of the plans will be far more disastrous than
indicated. That is precisely why the law requires a worst case analysis.

2. Failure to Analyze Off-Forest Impacts

It is well established that an EIS need not discuss remote or highly
speculative consequences. However, the document must discuss all the
environmental ramifications that flow from the proposed actions. In
keeping with the extraordinarily broad sweep of NEPA, the Supreme
Court has likened this to proximate cause in tort law; an EIS must discuss
environmental impacts where there is a reasonably close causal relation-
ship between a change in the physical environment and the environmental

80. USDA Northern Region, Guide: Predicting Sediment Yield for Forested Watersheds, Oct.
81. This model, developed by Paul Brouha, head of the fisheries program for the Department of
Agriculture, makes more accurate sediment predictions on an individual watershed basis.
82. LOLO NATIONAL FOREST PROPOSED PLAN, 163.
83. LEWIS AND CLARK NATIONAL FOREST DEIS, 2-58, p. 3-9.
84. See, e.g., Warm Springs Dam Task Force v. Gribble, 621 F.2d 1017, 1076 (9th Cir. 1980); Sierra Club v. Morton, 510 F.2d 813, 819 (5th Cir. 1975), citing Save Our Ten Acres v. Kreger, 472
F.2d 463, 467 (5th Cir. 1973).
85. Calvert Cliffs, 449 F.2d at 1122.
effect at issue. The Forest plans uniformly fail to discuss off-forest impacts on fisheries, even though these impacts are a direct result of logging and road building.

All of the great rivers of the West derive their waters initially from National Forest lands. This is especially true in Western Montana, where the headwaters of the Missouri, Clark Fork, Yellowstone and a dozen other rivers are located. These rivers contain some of the finest trout waters in North America. The upper Yellowstone, Madison, Beaverhead, Rock Creek and stretches of the Kootenai have all been designated "blue ribbon" streams by the Montana Department of Fish, Wildlife and Parks. They are priceless national treasures. They also generate millions of dollars in license fees and recreation revenue.

The sedimentation and runoff problems noted earlier will adversely affect these rivers. Moreover, as the Beaverhead Forest EIS properly notes, "small tributaries provide spawning and rearing habitat to the downstream fisheries." Because sediment adversely affects spawning and rearing as well as water quality, it will adversely affect downstream fisheries. The only question is how serious these impacts will be. This questions remains unanswered, for the plans contain no off-forest impacts.

This failure is most glaring in the Beaverhead and Flathead plans, both of which acknowledge the off-forest impacts on fisheries, but fail to fully discuss them. The Beaverhead Plan recognizes that tributaries within the Forest influence "both the quantity and quality of water in the [downstream] fisheries", but refuses to give adequate consideration to downstream effects of management activities. The Flathead DEIS similarly recognizes off-forest effects of timber harvest on the Flathead Lake and River system. Timber harvests within the Flathead Forest will have downstream impacts:

[Eight] of these streams [within the Flathead National Forest] will provide critical spawning and rearing habitat for bull and cutthroat trout and are essential to maintenance of these sport

87. The designation of streams as "blue ribbon" reflects a policy of the Montana Department of Fish, Wildlife and Parks to denote the quality of streams in Montana. Blue ribbon designation means the stream has exceptionally high water quality and angling opportunity.
88. BEAVERHEAD NATIONAL FOREST DEIS, supra note 55 at 84.
89. A revised version of the Beaverhead Forest Plan does contain a limited discussion of the role the forest streams play in providing fish off forest. However, this discussion fails to recognize the crucial role that forest produced sediment has on downstream fisheries.
90. BEAVERHEAD NATIONAL FOREST DEIS, supra note 55 at 84.
91. Flathead Lake, the largest freshwater lake west of the Mississippi River, is a prime tourist and recreational area. It is fed primarily by the Flathead River, parts of which have been designated National Wild and Scenic Rivers. Most of their water is derived from mountain streams within Flathead National Forest.
fisheries in Flathead Lake [which is off-forest] . . .
Flathead Forest streams support about 53% of the Flathead River System's migratory fishery (Kokanee salmon, Bull Trout and Cutthroat) and are essential to maintaining sport fisheries throughout the Flathead River System. 92

The position that these off-forest impacts are beyond the purview of NEPA is untenable. Management activities under the plans are clearly the "proximate cause" of the impacts. A failure to address them renders the DEIS's inadequate. The same problem is apparent in the lack of a worst case analysis for fish population, sediment, and loss of fish habitat. The spectre of more NEPA litigation over forest plans is clearly present under the NFMA in the Northern Region.

F. Judicial Pronouncements of NFMA: "Slim Pickins"

As with earlier statutes governing the Forest Service courts have been reluctant to add much judicial gloss to NFMA provisions. This reluctance is because of NFMA's relatively short lifespan, and because the vast majority of Forest plans are not yet operative. However, one senses in the few decisions to date a reluctance to give meaning to key provisions.

For example, plaintiffs in California v. Block 93 argued NFMA violations in addition to NEPA inadequacies in a suit over the RARE II EIS 94 in California. Both the lower court and the Ninth Circuit based their holdings on NEPA and declined to rule on the NFMA claim. 95 The Ninth Circuit underscored the symbiotic relationship between NEPA and NFMA, 96 but alleged violations of NFMA were not even addressed by the District Court. 97 Ultimately this decision provides little guidance on the substantive provisions of the NFMA. The primary effect of California v. Block in the Northern Region was to suspend the planning process in the draft stage pending more specific consideration of roadless areas in the Forest plans. Supplements to the DEIS for all thirteen of the Region's forests addressing this issue are due by January 1985, a delay of over three years in some cases.

In Mapleton, the court also did not reach the heart of plaintiff's NFMA allegations. The plaintiffs sought to enjoin timber harvests in the Suisilaw National Forest due to violations of NEPA, MUSY and the

93. 690 F.2d 753 (1982).
94. The RARE II (Roadless Area Road Evaluation) process was undertaken by the Forest Service to evaluate the suitability of roadless areas for inclusion into the National Wilderness Preservation System.
95. 690 F.2d at 775-6.
96. Id.
NFMA. Because no final Forest plan had been adopted, the court found the NFMA provisions relating to soil protection and fish habitat inapplicable. However, the Church Committee guidelines, which are similar to the NFMA provisions, were judicially enforceable. In this case the evidence was insufficient to allow the court to conclude that damages from timber harvest constituted a "major injury" to fish habitat and soils, and thus the Church Guidelines alone were not grounds to enjoin the Forest Service.

The court did find that the seven year plan violated NEPA's requirement for a worst case analysis because the effects of the harvest were uncertain. Similarly, the court found NEPA compliance inadequate because there was no program wide EIS and no discussion of cumulative impacts. However, the court held that the Forest Service's plans were safely within the confines of multiple use concepts even with the overriding emphasis on timber production. This case is currently on appeal, and could provide an opportunity for substantive interpretation of key NFMA provisions.

The most recent pronouncement by the Ninth Circuit Court on the NFMA concerned a previously unlitigated section. In *Thomas v. Peterson*, the court rejected the plaintiff's claim that the NFMA's requirement of building roads in an economically sound manner precluded a road to a deficit timber sale. The court noted that this provision is a "declaration rather than a specific prescription." The general NFMA legislative history concerning the need for economically efficient forest management cited by plaintiffs "merely cancel economic precedence" rather than create "a statutory requirement that timber roads be built only when the proceeds of the timber sales will defray construction costs." The court ultimately enjoined the Forest Service from constructing the road on NEPA grounds. The decision is important in that it is the first major construction of substantive NFMA provisions. The litigated provision, however, was not typical of the more definitive sections discussed in this comment. *Thomas v. Peterson* is not likely to be viewed as a setback.

98. 592 F. Supp. at 937.
99. *Id.* at 938. The Church guidelines prohibit timber harvest where "major injury" would occur to fish, soils and streams. Correspondingly NFMA provisions prohibit harvest where it "seriously and adversely" affects those resources. It is hard to say if the two provisions present the same standard. Plaintiffs presented evidence that 50% of the habitat had been destroyed, but the Forest Service countered that new harvest techniques would mitigate future damage. Thus it was not certain as a question of fact that timber harvest would cause major injury in the future. *Id.* at 942.
100. *Id.* at 938.
103. *Thomas*, 753 F.2d at 761.
104. *Id.* at 762.
105. *Id.* at 755.
to conservationists, though it does provide the Forest Service with a favorable ruling on a general NFMA Provision.

V. CONCLUSION

The NFMA was designed to resolve the controversy over Forest Service practices and resulting litigation. It imposes detailed planning requirements and heralds an unprecedented intrusion into Forest Service discretion regarding resource management. Based on an examination of draft Forest plans prepared under the NFMA for the Northern Region of the National Forest System, this author feels the Forest Service will have a difficult time staying out of the courts.

Courts have traditionally granted the agency broad discretion to manage under multiple use statutes. Litigation under NEPA has, and will continue to be, successful for conservationists. But ultimately, such gains can be entirely procedural; additional mounds of paper can eventually rectify a NEPA challenge, without altering management direction. However, the NFMA read in conjunction with NEPA, poses an opportunity to require Forest Service management practices that protect soil, water, wildlife and other resources far beyond the old multiple use adage. Time will tell whether the courts will construct such a view of the NFMA.
Road Construction Proposed Under the Forest Plans

FIGURE 1

Includes arterial and collector roads. First column is current road mileage, second column is total mileage at the end of Decade 5 under the Preferred Alternative.

The author had difficulty in discerning the current road mileage in the Kootenai and based information on Summary Figure 1, Pages 2-9.
Proposed Timber Harvest Over the Next 50 Years

First column is current harvest. Second column is proposed harvest in Decade 5.

FIGURE 2
Fish Populations

Columns on the left represent current figures, or Decade 1. Columns on the right represent Decade 5 projections.

 FixedUpdate

1. Figures reflect total trout, lakes and streams. If only stream-dwelling fish were included, the percent of decline would be significantly higher. Figures reflect current population and projection at the end of Decade 1.
2. Projections are for Decade 1 and Decade 5.

Fixed Position

3. Migratory fish only.
4. Projections are for Decade 1 and Decade 5.
5. Projections are for current population and Decade 5, lake and stream trout.
Figure 4
Proposed FY1985 budget levels as compared with FY 1981 expenditures and RPA Program goals for FY 1985

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Subtotal: road construction

| 572.7                   | 404.0                | 492.9                         | +42                             | +16                              | —                      |

1. Includes recreation use, area construction, trial maintenance and construction, cooperative law enforcement, transfer funds from other agencies and a portion of forest road maintenance.

2. Includes appropriations for reforestation & TSI, the reforestation trust fund, expenditures from Knudson-Vandenburg (KV) funds and the reforestation portion of the Tongass Timber Supply Fund (TTSF)

3. Includes timber sale administration, timber support and the timber sales portion of the TTSF

4. Includes forest road construction and engineering portion of TTSF
### SUMMARY OF BUDGETS, FISCAL YEARS 1980-83
(Thousands of dollars)

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1. Includes trail construction, which is a miniscule part of the budget and for practical purposes, immaterial.
2. Includes fisheries.

Figure 5