

Comments on the Forest Service's

Notice of Intent to Prepare an Environmental Impact Statement on National Forest System Roadless Areas¹

The Regulatory Studies Program (RSP) of the Mercatus Center at George Mason University is dedicated to advancing knowledge of regulations and their impacts on society. As part of its mission, RSP produces careful and independent analyses of agency rulemaking proposals from the perspective of the public interest. Thus, the program's comments on the Forest Service's Notice of Intent to Prepare an Environmental Impact Statement (EIS) do not represent the views of any particular affected party or special interest group, but are designed to protect the interests of American citizens.

The Forest Service is initiating a public rulemaking process to propose the protection of remaining roadless areas within the National Forest System. The purpose of the proposed rulemaking is to protect water quality, biological diversity, wildlife habitat, forest health, dispersed recreation opportunities, and other public benefits, as well as to save money on road construction. The first step in the proposed rulemaking is to ask the public for comments on the scope of analysis that should be conducted for an environmental impact statement on the proposed rules.

These comments respond to that request, and address two questions:

1. Can a blanket rule sensibly apply to roadless areas in some forty states representing diverse ecosystems and huge variations in management needs? Proscriptions on roads and commercial timber cutting could make ecological restoration extremely costly and in some cases may make it impossible.
2. Does a blanket rule on roadless areas do anything to address the real cause of costly roads and other forest management activities? The real problem with national forest management is the perverse incentives that have encouraged the Forest Service to overbuild roads, sell timber at a loss, and give lower priority to resources that are often more valuable than timber.

Blanket prescriptions, including fire suppression, clearcutting, and grazing prescriptions, have been responsible for most of the environmental problems on the national forests. The idea that another blanket prescription can solve those problems is naive. The Forest Service should instead explore incentive-based alternatives that will lead local forest managers to find the proper prescription for every area, roaded and roadless.

I. Background

In the 1930s, led by Arthur Carhart, Aldo Leopold, and especially Robert Marshall, the Forest Service began setting aside large expanses of undeveloped land as "wilderness" or

1. Prepared by Randal O'Toole, Senior Economist, the Thoreau Institute.

“primitive areas.” But as the demand for national forest timber increased in the late 1940s and 1950s, the Forest Service declassified many of these areas, opening them to roads and timber cutting.

At the behest of wilderness advocates, Congress passed the Wilderness Act in 1964, legislatively protecting many areas from roads, timber cutting, or other developments. The act also required the Forest Service to evaluate other roadless lands for possible addition to the National Wilderness System. This led to several planning processes, most of which failed.

- First, the Forest Service conducted a “roadless area review and evaluation” (RARE), which was published in 1972.² But in *Sierra Club v. Butz*, a federal judge ruled that this analysis failed to adequately assess the environmental impacts of developing roadless areas that were not recommended for wilderness.³
- Second came the unit planning process, which wrote a land-use plan for all lands within a “planning unit,” which was approximately the size of a ranger district but whose boundaries were often based on watersheds rather than political lines. Unit plans evaluated many roadless areas for wilderness, but wilderness advocates continued to challenge the adequacy of these analyses.
- Frustrated by the unit planning process, the Carter administration directed the Forest Service to begin a second Roadless Area Review and Evaluation process, naturally called RARE II.⁴ Separate volumes were produced for roadless areas in each state. But in *California v. Bergland* the courts again ruled this inadequate.⁵
- The Forest Service then decided to analyze roadless areas in the forest plans written under the National Forest Management Act.⁶ But by 1984, Congress passed new wilderness bills for most states which included “sufficiency” language for many of the roadless areas not designated as wilderness.⁷ This potentially allowed development of those roadless areas without further wilderness evaluations. Forest plans still placed about 45 percent of the currently inventoried roadless acres in designations that do not allow road construction.⁸ Environmentalists continued to contest plans to develop other roadless areas.

The Forest Service has long set a goal of practicing “multiple-use management” — that is, of managing for a variety of resources instead of emphasizing just one. Yet during the 1950s through the 1980s, timber received the most attention from the agency. Roughly

2. Forest Service, *Roadless Area Review and Evaluation II* (Washington, DC: Forest Service, 1979).

3. 3 Env'tl. L. Rep. (Env'tl. L. Inst.) 20,071 (N.D. Cal. 1972).

4. Forest Service, *Roadless Area Review and Evaluation* (Washington, DC: Forest Service, 1972).

5. 483 F. Supp. 465 (E.D. Cal. 1980), *aff'd sub nom.* *California v. Block*, 690 F.2d 753 (9th Cir. 1982).

6. Memorandum from Chief R. Max Peterson to Regional Foresters, March 9, 1983.

7. Sierra Club, *National News Report* (October 17, 1984), p. 1.

8. Forest Service, “What Exactly Is Proposed?” http://roadless.fs.fed.us/what_proposed.shtml.

half the funds spent on national forests were either appropriations earmarked by Congress to timber or were timber receipts that Congress allowed the Forest Service to spend, mostly on reforestation or other timber-related activities.

For example, in 1985 the Forest Service spent \$1.6 billion on national forests. Of this, \$625 million of appropriated funds were spent on timber sales, timber-related road construction, and reforestation (including timber stand improvements and nurseries). Another \$275 million was spent out of timber receipts, mostly on reforestation, salvage sales, timber-road maintenance, and brush disposal after timber cutting. Thus, 56 percent of the national forest budget was dedicated to or came from timber. Not included in these numbers is another \$192 million worth of roads built by timber purchasers in exchange for reduced payments for their timber.⁹

The emphasis on timber ended around 1990, when timber sales began to fall from 11 billion board feet per year to under 4 billion board feet per year after 1993.¹⁰ Part of the decline was due to environmental lawsuits, such as those over the spotted owl. But part of it was a recognition by many Forest Service officials that the agency had been cutting more timber than was compatible with the environmental quality that Americans expected of the national forests.

The decline in timber sales stressed the Forest Service in many ways. One problem it created was what to do with the 380,000 miles of roads that had been mostly built for timber sales. Because the Forest Service could “pay” for these roads with timber — that is, it could require timber purchasers to build them and deduct the costs from timber payments — it had little incentive to save money. Thus, it tended to build high-standard roads that would require regular road maintenance. Since much of the road maintenance was also paid out of timber receipts, a reduction in timber sales left the agency with heavy maintenance obligations and little funding. The agency claims it now has an \$8.4 billion backlog in road reconstruction and maintenance needs.¹¹

After President Clinton took office in 1993, many environmentalists began to press to entirely end commercial timber cutting on the national forests. In March 1999, the Forest Service responded by declaring an eighteen-month moratorium on any further road-building in most roadless areas.¹²

In October 1999, President Clinton directed the Forest Service “to provide strong and lasting protection” for the remaining roadless areas by preparing regulations that would “provide appropriate long-term protection for most or all of these currently inventoried

9. Forest Service, 1987 Budget Explanatory Notes for Committee on Appropriations (Washington, DC: Forest Service, 1986).

10. Forest Service, *Budget Explanatory Notes for Committee on Appropriations* (Washington, DC: Forest Service, various years from 1990 through 1995).

11. Forest Service, “Why Are We Doing This?” http://roadless.fs.fed.us/why_now.shtml.

12. *Ibid.*

‘roadless’ areas.”¹³ He also directed the agency “to determine whether such protection is needed for any smaller ‘roadless’ areas not yet inventoried.” Generally, inventoried roadless areas are 5,000 acres or greater in size; the smaller roadless areas are 1,000 to 5,000 acres.

As of this writing, the Forest Service estimates that the inventoried roadless areas cover more than 50 million acres of land, an area about the size of Kansas. This is more than one-quarter of the 192-million acre National Forest System. The smaller roadless areas may cover another 15 million acres or more, an area about the size of West Virginia. Together, the proposed rule may affect 65 million acres, an area about the size of Colorado.

II. The Current Notice

The Forest Service’s October 19, 1999 notice of intent to prepare an environmental impact statement is the first step in implementing the President’s directives. After gathering public comment on the appropriate scope of analysis, the Forest Service plans to prepare a draft environmental impact statement by next spring. After getting more public comment, a final environmental impact statement and final rule is expected in late 2000.¹⁴

In preparing an environmental impact statement for the proposed rule, the Forest Service says that is considering the following alternatives for the inventoried roadless areas:

- Prohibiting new roads;
- Prohibiting new roads and commercial timber cutting;
- Prohibiting all activities (subject to valid existing rights) that do not maintain or enhance the ecological values of the roadless areas; and
- No change in current policy.¹⁵

For the smaller roadless areas, the Forest Service is considering the following alternatives:

- Protecting smaller roadless areas based on their ecological characteristics;
- Protecting smaller roadless areas only if they are contiguous to roadless areas of 5,000 acres or more on federal lands;
- Protecting all roadless areas of at least 1,000 acres.

13. William J. Clinton, “Protection of Forest ‘Roadless’ Areas,” memorandum to the Secretary of Agriculture, October 13, 1999, http://roadless.fs.fed.us/documents/chief_memorandum.htm.

14. Chief Mike Dombeck, “Letter to Employees,” October, 1999. http://roadless.fs.fed.us/documents/letter_to_emp.htm.

15. Forest Service, “Notice of intent to prepare an environmental impact statement,” *Federal Register*, October 19, 1999 (v. 64, number 201, pp. 56306–56307), <http://roadless.fs.fed.us/documents/noi.htm>.

The Forest Service also asks the public to comment on whether the roadless area rules should apply to Tongass National Forest, which was exempted from the March, 1999, road-building moratorium.

III. Roadless Area Diversity Raises Questions about Blanket Prescriptions

The first thing anyone who visits numerous roadless areas will note is their extremely wide ecological diversity. From the cactus deserts of Arizona to the rainforests of the Olympic Peninsula, from the mixed hardwood forests of Georgia to the nearly pure Douglas-fir forests of western Oregon, roadless areas vary tremendously across the nation.¹⁶

Wide variations can exist within just a short distance. Many people crossing the Cascade Mountain crest will note an abrupt change from the Douglas-fir-western hemlock forests on the west side to the ponderosa pine-true fir forests on the east side. Cove hardwoods of the south differ from the upland hardwoods. Scrawny lodgepole pine forests in the interior West may grow just a few miles away from awe-inspiring giant ponderosas.

To date, the Forest Service has inventoried roadless areas in at least thirty-eight states plus Puerto Rico.¹⁷ One could drive coast to coast along a variety of routes and not pass through a single state that did not have roadless areas in it. Clearly, the roadless areas contain a wide range of ecological types.

Something less obvious to recent roadless area visitors is how much they have changed under 94 years of Forest Service management. Many if not most have never had any roads, commercial timber cutting or mining. Yet they are ecologically very different from the way they were one hundred years ago. People who walked through them a century ago would not recognize them today.

The main factor responsible for this change has been the Forest Service's fire suppression policy. Fire exclusion has completely altered plant communities and wildlife habitat. Many people born before 1920 can recall driving through the ponderosa pine forests of eastern Oregon and Washington or the mixed conifer forests of the Sierra Nevada. Now, the vegetation is so thick that one would have a hard time walking through them.

To describe these forests as "natural," in the sense that they are uninfluenced by modern civilization, is scientifically absurd. It is not too much to say that the ecological changes in many of the roadless areas are just as profound as in the areas that the Forest Service has clearcut. Roadless areas do continue to produce higher quality water than most roaded areas, but from a vegetation or wildlife viewpoint, they are no more natural than a grass lawn.

16. In the past two decades, the author has visited scores of roadless areas, including roadless areas in every Forest Service region. He has camped in roadless areas from Alaska to Arizona and hiked through roadless areas from California to North Carolina.

17. Forest Service, "Where are the Roadless Areas located?" http://roadless.fs.fed.us/where_located.shtml.

Natural and aboriginal fires played different roles and occurred with different frequencies in different forest types. In general, however, fires kept forest stocking levels down, favored some species of plants and animals over others, and minimized the highly flammable fine materials. Some trees, ranging from lodgepole pine to giant sequoia, are fire dependent across much of their ranges, meaning that they rely on fire to germinate their seeds and suppress competition.

Fire suppression led to increased stocking of trees and vegetation. Trees that previously would have been killed by fire remained alive but lacked vigor due to competition from other vegetation. As a result, the weakened trees were susceptible to insect and disease problems. This sometimes led to insect epidemics spreading to other lands, both public and private. A typical example is the mountain pine beetle (*Dendroctonus ponderosae* Hopkins), which attacks overstocked stands of lodgepole and other pines in the intermountain West.¹⁸

Fire exclusion also led to major changes in species composition in many ecosystems. Species that were favored by fire lost out to other species that were previously less profuse. This sometimes created conditions for more insect problems as well as altered wildlife habitat.

Finally, fire suppression allowed a build up of flammable, fine materials. Increased stocking and increased numbers of insect-killed trees created a “ladder of fire” allowing fires on the forest floor quickly to become crown fires. Fires that previously might have been minor turned into catastrophic stand-killing fires.

The Forest Service’s fire suppression policy was partly a result of its budgetary incentives. As early as 1908, Congress created an emergency fire suppression fund, which allowed the Forest Service to spend unlimited amounts of money to put out fires. The agency soon adopted an “out by 10 o’clock” policy, meaning that all fires would be put out by 10 o’clock of the morning after they were detected.¹⁹

Fire suppression crews would parachute or hike into wilderness and roadless areas to put out fires no matter what the costs or benefits. When foresters outside the agency noted that fires were sometimes good for forests, the Forest Service directed its researchers to come up with alternative evidence.²⁰ When economists pointed out that some forests were worth less than the cost of suppression, a Forest Service official responded that “As long as money is plentiful, it is not necessary to worry about values.” As historian Stephen Pine says, “Fire control . . . helped to bring political power to the Forest Service.

18. Thomas Lawson, “The Mountain Pine Beetle: Forest Pest or Forest Regulator?” *Forest Watch*, September, 1986, pp. 19–23.

19. Anonymous, “Fire Prevention and Suppression,” in *The Citizens’ Guide to the Forest Service Budget*, *Forest Watch*, April 1992, p. 23.

20. Ashley Schiff, *Fire and Water: Scientific Heresy in the Forest Service* (Cambridge, MA: Harvard University Press, 1962).

. . . As that power grew, the Service found itself subtly corrupted in spirit and imagination.”²¹

Not all of the ecological problems associated with fire suppression are found in all roadless areas. But most roadless areas probably exhibit one or more of them to some degree. These problems create several challenges to forest managers.

First, unplanned fires are more likely to become uncontrollable. This is especially a problem today with the increasing number of homes built on private land near national forests. This is compounded by the added expense and difficulty of suppressing fires in roadless areas.

Second, many roadless areas are as much in need of ecological restoration as areas that have been managed for timber. One goal of restoration in many areas would be to reduce stocking levels and remove fuels that can lead to uncontrollable fires. Another would be to restore vegetation composition to something more closely resembling pre-Forest Service forests.

Ecological restoration may require a variety of tools, including thinnings, prescribed burnings, creation of openings, and plantings to restore natural diversity. In Texas, the Forest Service once clearcut timber in wilderness areas in order to prevent insect epidemics from spreading. While this may be extreme, it is impossible to say for certain that commercial timber sales will never be the most efficient forest restoration tool on any roadless area.

These complexities raise a number of questions that the Forest Service must address in its EIS and in other analyses of any new roadless area policy. First, will a prohibition on roads:

1. Prevent ecological restoration of any of the roadless lands?
2. Make ecological restoration of any roadless lands more expensive?
3. Deter or raise the cost of other management practices on any of the roadless areas?
4. Increase the cost of fire suppression on any of the roadless areas or the risk that catastrophic fire in the roadless areas may harm public or private resources outside of the roadless areas?

Second, will a prohibition on commercial timber cutting prevent or increase the cost of restoring and managing any of the roadless areas? Similarly, will a prohibition on other activities prevent or increase the cost of restoring and managing any of the roadless areas?

21. Stephen Pyne, *Fire in America: A Cultural History of Wildland and Rural Fire* (Princeton, NJ: Princeton University Press, 1982).

Even if the Forest Service concludes that a policy prohibiting roads or other activities in roadless areas might save money overall, a blanket policy would still be inappropriate if it increased costs or prevented ecological restoration and management in some areas. The EIS should examine whether a proposed roadless area policy would raise costs or make management more difficult on any roadless areas.

IV. Roadless Area Policies Raise Questions about Agency Incentives

The notice of intent to publish an environmental impact statement on roadless areas frequently refers to the cost of roads. But the notice fails to mention that the Forest Service has long had an incentive to build high-cost, permanent roads that impose major maintenance costs.

This incentive arose partly from the purchaser credit system in the National Forest Roads and Trails Act of 1964 and partly from Congress' willingness to provide funding for timber sales. Road engineering and design was traditionally done by Forest Service engineers funded out of Congressional appropriations. Much of the actual road construction work was done by timber purchasers who were able to credit the road costs against the price they bid for timber.

The Forest Service was thus able to stretch appropriated dollars with purchaser credits. Forest managers responded by overengineering roads: The agency sometimes spent nearly as much money on the engineering and design as on the road construction itself. For example, in 1985 the agency spent \$105 million on engineering for \$117 million worth of purchaser-built roads.²² Managers also responded to this system by requiring purchasers to build high-cost permanent roads when temporary roads that could be built for far less money would have a far lower environmental impact.

Timber purchasers and environmentalists have long agreed that the Forest Service should emphasize low-impact, temporary roads and then put them to bed when no longer needed. Forest Service officials ignored such suggestions. Such low-cost, low-impact, temporary roads would have prevented many of the problems with road maintenance now identified in the notice of intent, and may still be helpful to carry out certain management techniques in some roadless areas such as prescribed burning, thinning of overstocked stands, and watershed restoration work.

Congress recently changed the purchaser credits program.²³ But the change was an accounting change only; purchasers may still build roads, they just won't credit the cost against the price they bid for timber. This simply means they will bid less for timber.

Prohibiting roads in roadless areas does not change the incentive to build high-cost, high-impact roads. It can be expected that the agency will continue to build such roads outside

22. Forest Service, *1987 Budget Explanatory Notes for Committee on Appropriations* (Washington, DC: Forest Service, 1986), p. 236.

23. Forest Service, *2000 Budget Explanatory Notes for Committee on Appropriations* (Washington, DC: Forest Service, 1999).

of roadless areas. The environmental impact statement should consider an alternative that changes the incentives to build high-standard roads and promotes temporary roads instead.

The notice of intent also fails to mention that many of the controversies over roadless areas are due to other perverse incentives in the Forest Service budgeting process. For example, the Knutson-Vandenberg Act allows managers to keep an unlimited share of timber receipts for reforestation and other post-sale activities. Any timber-sale receipts that managers don't keep are returned to the U.S. Treasury.

This leads managers to think of returns to the Treasury as "losses" because they lose control over them. They "lose" the most money when they sell the most profitable timber. To avoid such "losses," they often use profitable timber to cross-subsidize worthless timber in the same sale. As a result, in many sales the actual returns to the Treasury are far less than the Treasury must spend on sale preparation, harvest administration, and road engineering.

To create a slightly simplified example to illustrate these incentives, suppose that a forest contains stands of lodgepole pine and other stands of ponderosa pine, as many western forests do. Ponderosa is one of the most valuable timber species in the West and may sell for \$100 per thousand board feet. The Forest Service might estimate that reforestation would cost \$20 per thousand, which it can keep, returning the rest to the Treasury.

On the other hand, lodgepole pine is one of the least valuable species in the West, and Forest Service appraisers may find that a stand is worth minus \$60 per thousand board feet—meaning that the cost of removing and milling it is less than the value of the lumber. If the Forest Service could sell it, it would get to keep another \$20 per thousand. This would mean two things: First, it would be able to manage more acres of land and second it would have more overhead money as the agency keeps a third of Knutson-Vandenberg funds for administrative overhead.

To sell a stand of lodgepole, forest managers will combine it in the same sale as a stand of ponderosa. If there are a million board feet of timber in each of the two stands, the Forest Service will adjust the appraised price of the lodgepole up to \$20. In compensation, it will also reduce the appraised price of the ponderosa to \$20. The result is that a timber sale that would have made \$80,000 for the U.S. Treasury if it had included only the ponderosa (\$80 per thousand times 1,000 thousand board feet) ends up returning nothing to the Treasury. But the Forest Service ends up with \$40,000 for reforestation (and overhead) where it would have received only \$20,000 if it had just sold the ponderosa.

An actual timber sale is somewhat more complicated, as most sales must return a minimum of 50 cents per thousand board feet to the Treasury. This is a rule written in 1930 when the cost to taxpayers of preparing timber sales averaged 50 cents per thousand. Though costs today exceed \$50 per thousand, the rule has never been revised. Also, sales are sold at auction and so sale prices are sometimes much higher than appraised prices.

In 1984, the Thoreau Institute analyzed every single timber sale sold by national forest supervisors in fiscal year 1983. After accounting for high bid prices, the Institute concluded that 40 percent of the timber sold by the Forest Service in that year was cross-subsidized. This timber represented lost revenues of as much as \$146 million. The Institute also found that such cross-subsidies violated Forest Service rules—which the Forest Service fixed by changing the rules.²⁴

Another fund, the salvage sale fund, encourages managers to lose money on salvage sales.²⁵ The Forest Service can keep an unlimited share of salvage sale receipts to spend on further salvage sales. While Forest Service rules require managers to return at least 50 cents per thousand board feet to the Treasury from regular sales, salvage sales are exempt from this rule and often return zero dollars to the U.S. Treasury. Two other funds, the brush disposal fund and the cooperative road maintenance fund, work in similar ways.

Together, these four funds encourage managers to sell unprofitable timber and make managers dependent on continuing timber sales. Sometimes managers not only keep all of the receipts from timber sales, but they take back revenues that they had previously turned over to the Treasury when costs turn out to be higher than expected.

For example, in 1992 the Tongass National Forest reported that it paid the Treasury minus \$14 million — meaning that it took back this amount to spend on reforestation and other activities.²⁶ Since taxpayers pay hundreds of millions of dollars per year to prepare timber sales and design roads, sales that return negative revenues are hardly cost efficient.

National forests responded to the decline in timber sales of the early 1990s by increasing the percentage of sale receipts that they keep. Thus, in 1999 timber sales were only 31 percent of 1990 levels, but the Forest Service's share of timber receipts remained around 80 percent of 1990's receipts.²⁷

The incentives created by the Knutson-Vandenberg Act and similar laws led the Forest Service to overemphasize timber and to manage many forests for commercial timber sales when other objectives would have been more efficient. The law also promoted clearcutting because clearcutting generally imposed the highest reforestation costs. These costs were funded out of timber receipts and higher costs augmented Forest Service budgets and overhead.²⁸ In 1950, most national forests relied exclusively on selection

24. Randal O'Toole, "Cross-subsidization: The Hidden Subsidy," *Forest Planning*, May, 1984, pp. 15–17.

25. Anonymous, "The Timber Salvage Sale Fund," in *The Citizens' Guide to the Forest Service Budget*, *Forest Watch*, April 1992, p. 17.

26. Randal O'Toole, "The \$64 Million Question: How Taxpayers Subsidize Clearcutting on the Tongass National Forest," (Bandon, OR: Thoreau Institute, 1992).

27. Forest Service, 1992 Budget Explanatory Notes for Committee on Appropriations and 2000 Budget Explanatory Notes for Committee on Appropriations (Washington, DC: Forest Service, 1991 and 1999).

28. Randal O'Toole, *Reforming the Forest Service* (Covelo, CA: Island Press, 1988), pp. 157–160.

cutting or other non-clearcutting harvest methods. By 1970, most national forests switched to clearcutting despite the damage it does to scenic beauty.

Timber cutting in general and clearcutting in particular led to widespread discontent among recreationists, wildlife lovers, water users, and others who relied upon resources that conflicted with roads and timber management. These people came to see roads and timber sales as the problem, when the real, underlying problem was budgetary incentives.

Many people see the effort to protect roadless areas from roads and timber cutting as an attempt to redress the previous imbalance towards too much timber cutting. But with the incentives left unchanged, many national forests will continue to overemphasize timber outside of the roadless areas. The national forests will become a dual land class system: On one class of land, managers will have incentives to build roads and sell timber even when roads and timber sales make no sense. On the other class of land, managers will be forbidden to use timber sales even when timber sales might be the most effective forest restoration tool.

Fixing the incentives that influence forest managers would have far more beneficial environmental effects than banning roads or other activities in roadless areas. While a ban on roads or commercial timber cutting may make sense in many roadless areas, in others it will not. Nor will a ban do anything to improve management outside of the roadless areas.

The environmental impact statement on roadless areas should therefore consider alternatives that focus on incentives rather than prescriptions. Such incentives include:

- Letting managers charge fair market value for a wider variety of renewable resources instead of just timber;
- Funding forest management out of a fixed share of receipts instead of out of appropriations plus receipts. The EIS should examine how various ways of calculating this share would influence forest incentives.
- Dedicating some receipts to a special fund that can only be spent on truly non-market values such as biological diversity or to assist in ecosystem restoration.
- Managing the forests as a trust, similar to state trust lands, with the dual objective of producing revenues for a beneficiary and preserving the corpus of the trust.

These and other ideas were considered by the Forest Options Group, a consensus group consisting of more than twenty interest group leaders, Forest Service officials, and policy analysts. The group concluded that Forest Service governance and budgeting processes needed reform and it proposed that alternative reforms be tested on various national forests. The complete report of the group with a detailed description of several incentive-based alternatives can be found at <http://www.ti.org/2c.html>.

Incentive-based alternatives have two advantages over a prescriptive rule. First, they can improve management of all 192 million acres national forest acres, not just the 50 to 65 million roadless acres. Second, incentive-based alternatives will not lead to blanket rules

that can prove ecologically harmful in the long run. Alternatives such as those proposed by the Forest Options Group — in particular the group's pilots 1 and 4 — should be considered in the roadless area environmental impact statement. If an incentive-based alternative is adopted, it should apply to the Tongass Forest as well as to all other forests.

V. Conclusions

Historically, much of the debate over national forest management has been caused by blanket policies that may have made sense in some places, but not in all forests. The Forest Service's fire suppression policy was one such blanket policy. The agency's massive switch from selection cutting in the 1940s and 1950s to clearcutting in the 1960s and 1970s was another such policy.

A blanket roadless area policy is liable to create as much ecological havoc as the fire suppression and clearcutting policies. Moreover, such a blanket policy may be the wrong direction to go if the real problem is a set of incentives that reward forest managers for overbuilding roads and losing money on timber sales.

The Forest Service's environmental impact statement on roadless areas must consider the following questions:

- Will a prohibition on roads increase the cost of or prevent ecological restoration, fire prevention, fire suppression, or any other important task on of any of the roadless lands?
- Will a prohibition on commercial timber cutting prevent or increase the cost of restoring and managing any of the roadless areas?
- Will a prohibition on other activities prevent or increase the cost of restoring and managing any of the roadless areas?
- Can the environmental objectives of a roadless area policy be equaled or exceeded at a lower cost by changing the incentives that influence road construction, timber sale design, and other forest practices?

The environmental impact statement should also include alternatives that focus on changing the incentives that influence forest managers rather than on prescriptive rules. New incentives would include funding timber sales and other activities out of a fixed percentage of receipts instead of appropriations; dedicating a specific share of receipts to non-market stewardship activities such as ecological restoration; and managing national forests as trusts with trust obligations to produce revenue for beneficiaries and preserve the corpus of the trust. Incentive-based alternatives could improve management on all national forests including the Tongass.

Appendix I

RSP Checklist

Forest Service’s Roadless Area EIS Notice

Element	Agency Approach	RSP Comments
<p>1. Has the agency identified a significant market failure?</p>	<p>The Forest Service has not framed its decision in terms of markets.</p> <p>Unsatisfactory</p>	<p>The debate over roadless areas is a result of significant government failure. Incentives built into the Forest Service budget rewarded national forest managers for building high-cost, high-impact roads and selling timber at an economic loss to taxpayers. The incentives also promoted clearcutting over other, more aesthetically appealing cutting methods.</p> <p>Without those incentives, far fewer roads would have been built on the national forests and clearcutting would never have become so controversial.</p>
<p>2. Has the agency identified an appropriate federal role?</p>	<p>National forests are, by statute, under federal control.</p> <p>Fair</p>	<p>The proposal to issue a blanket rule against road construction and possibly commercial timber cutting in roadless areas denies discretionary authority to local managers. The ecology of national forests varies dramatically across the nation. Given the right incentives, local managers would be in a far better position to make decisions that are in the best interests of the public.</p>
<p>3. Has the agency examined alternative approaches?</p>	<p>The Forest Service plans to examine several approaches in the EIS, but none of those noted in the notice of intent address the fundamental issue of incentives.</p> <p>Unsatisfactory</p>	<p>The environmental impact statement on roadless areas should consider alternatives that focus on incentives rather than prescriptions.</p>

Element	Agency Approach	RSP Comments
4. Does the agency attempt to maximize net benefits?	<p>The notice does not address the social costs and benefits of proposed roadless areas.</p> <p>Unsatisfactory</p>	<p>The proposed roadless area rule would make it impossible for managers to produce higher net benefits when such benefits can only be produced with the aid of road construction.</p>
5. Does the proposal have a strong scientific or technical basis?	<p>The notice of intent states that the proposal is based mainly on public opinion, not ecological needs.</p> <p>Unsatisfactory</p>	<p>There is no scientific basis for issuing a blanket proscription against timber cutting or road construction on millions of acres of land just because they happen to be roadless at the moment.</p>
6. Are distributional effects clearly understood?	<p>The notice of intent does not indicate any awareness of the distributional effects of the proposed rule.</p> <p>Unsatisfactory</p>	<p>The EIS, and any future proposals on roadless areas should consider the impact of blanket proscriptions on road building on the accessibility of these natural areas. It should also examine who will bear the costs (i.e., taxpayers, forest workers) and who will receive the benefits of restricting road building in these areas..</p>
7. Are individual choices and property impacts understood?	<p>The notice does not appreciate the effect incentives have on individual decisions.</p> <p>Unsatisfactory</p>	<p>Forest Service controversies largely result because national forest managers have no incentives to act as owners. Instead, they try to shift the costs of managing the forests to taxpayers. The proposed rule would not change this in any way.</p>