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LET ENVIRONMENTALISTS MANAGE WILDERNESS LANDS

INTRODUCTION

The nation's wilderness areas long have been a controversial subject of public policy. There are deep divisions between lawmakers, and the debate is often acrimonious and emotional. It is increasingly clear that a policy consensus never will be crafted unless a fresh approach is developed for the management of wilderness lands.

From an economic point of view, most designated wilderness land should be left untouched. Only a small portion of this land contains precious resources, and thus little is lost by leaving such land in its wilderness state. In some isolated cases, however, the cost in unused resources may be extremely high. It is the process of deciding which lands have great economic value to the nation in natural resources, and which do not, that lies at the heart of the current controversy.

Unfortunately, the existing management structure of such lands fuels the dispute. Land-use decisions for public land are the product of actions by three groups: government officials, who are often accused of bending to developer pressure; conservationists, who have no incentive to consider economic factors and routinely denounce any decision to "exploit" a sensitive public asset; and Congress, which swings back and forth between the competing pressures.

As an alternative to the existing policy, Congress should consider creating a "Wilderness Endowment Board." This independent body would be established with the goal of preserving and enhancing wilderness values without precluding development in areas with high mineral potential. The Board would not be a "consensus" commission designed to balance all viewpoints; instead, members would be selected by Congress for their known dedication to wilderness values, and the entire Board would consist of representatives of environmental

organizations. Congress would retain oversight and could veto decisions of the Board that violated its mandate. But as long as it fulfilled its mandate of fostering wilderness values, the Board could manage its wilderness endowment as it saw fit.

Such a Board would act quite differently from today's wilderness advocates, even though many of its members might well be the same people. Supporters of wilderness currently are not in charge of the land they want to preserve--so they are simply advocates in a political process. But members of the Wilderness Endowment Board would actually be in charge of the land with authority to expand the wilderness but also to allow development. In this way, economic efficiency would be enhanced as Board members would confront the costs and benefits of different decisions and have incentives to enact the decision yielding the highest benefit to the nation.

CHANGING ATTITUDES TO WILDERNESS LANDS

In order to understand the modern American concept of wilderness, it is important to identify the cultural, economic, and political forces that influenced national attitudes toward the land. In the early days of the Republic, wilderness symbolized shadowy unknowns and untamed danger to early American settlers, representing threats to their survival. An aggressive attitude thus developed, reinforced by the struggle for survival.

By the end of the nineteenth century, however, the U.S. wilderness had been mostly subdued, and land disposed through the Preemption Act, the Homestead Act, the Desert Land Act, and other pieces of legislation provided the impetus for extensive private land ownership and rapid settlement. Between 1785 and 1934, well over one billion acres of public land had been distributed to states and railroads, script purchase, preemption, and homesteading. The Taylor Grazing Act of 1934, however, closed the remaining 170 million acres of public domain to private settlement and established grazing districts under the auspices of the Department of the Interior.¹

Until the mid-1930s, the seeming abundance of wilderness land meant that it was exploited essentially as a free good. But considerable development and economic expansion meant the cost balance between land and labor began to change. The full impact of this was postponed each time the country secured additional land endowments, such as the Louisiana Purchase and the Oregon Territory. Because land was abundant while labor was relatively scarce, and because property

1. Roy M. Robbins, Our Landed Heritage: The Public Domain (Princeton, New Jersey: Princeton University Press, 1942), p. 91.

rights in wild areas were not clearly defined and defended, land still was not utilized intensively or efficiently according to modern standards.

By the post-World War II era, however, pressures for conservation increased significantly. The supply of wilderness was declining dramatically due to development, while the demand for wilderness areas was increasing as the U.S. population grew in size and wealth.

THE WILDERNESS ACT

It was this pressure on available wilderness land that eventually triggered an environmental revolution in the 1960s. According to environmentalist Rice Odell, "Population was growing inexorably; pollution was increasing dangerously; land was being desecrated relentlessly. At some point, these excesses were bound to reach the limits of political endurance."² After more than a decade of deliberation, these pressures led to the Wilderness Act of 1964, creating the National Wilderness Preservation System. The Wilderness Act established the framework for today's Wilderness classification and management.

Under the act, "Wilderness Areas" were established with only certain restricted uses permitted. These included recreational, scenic, scientific, educational, conservation, and historical uses. Accordingly, the Act stipulated that "...subject to existing property rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by the chapter and...there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installations within such area."³

Most of the Wilderness Areas initially designated under the new National Wilderness Preservation System were located in the western United States. Only four areas were established in the Midwest and the East: the Boundary Waters Canoe Area in Minnesota, the Great Gulf in New Hampshire, and Linville Gorge and Shining Rock in North Carolina. The Act initially designated a total of 54 Wilderness Areas in the

2. Rice Odell, Environmental Awakening: The New Revolution to Protect the Earth (Cambridge, Massachusetts: Ballinger Publishing Company, 1980), p. 2.

3. Roger W. Findley and Daniel A. Farber, Environmental Law: Cases and Materials (St. Paul, Minnesota: West Publishing Company, 1982), pp. 683-684.

country, totaling more than nine million acres, all of which were on National Forest Service land.⁴

By 1975, 2.7 million additional acres were incorporated into the Wilderness System, administered by the U.S. Fish and Wildlife Service, the National Forest Service, and the National Park Service. In 1980, the country's protected wilderness endowment increased under the Alaska National Interest Lands Conservation Act. This Act established 5.4 million acres of National Forest Wilderness and 32 million acres for National Park Service administration. With this vast endowment of Alaskan wilderness, the National Park Service became responsible for more Wilderness than any other government agency.⁵

Even more significant for wilderness preservation were the RARE (Roadless Area Review and Evaluation) I and II studies. These studies were initiated by the Forest Service in order to inventory and evaluate National Forest roadless areas as suitable or unsuitable for designation as Wilderness. This classification sparked the designation of 10.2 million acres for wilderness preservation between 1979 and 1983.⁶

THE ECONOMICS OF WILDERNESS AREAS

Freely operating markets improve efficiency. But for them to do so there must be decentralized decision making that can promote flexibility and freedom of decision as well as provide the information needed for the rational management of resources. Yet this process occurs only when property rights to each resource are privately held and easily transferable. This gives decision makers the incentive to identify the highest value obtainable from these resources. In the absence of such clearly defined and enforceable private property rights--for instance, with public ownership and control--resources in effect are controlled by those who can exercise political power. They need not compensate or outbid others for their use, so they do not have to consider the most productive use of the resources. Substantial waste or underutilization results.

Yet private ownership of property rights alone is insufficient to secure efficient resource use. Unless these rights are also easily

4. "20th Anniversary of the Wilderness Act," Recreation, Wilderness & Lands, U.S. Department of Agriculture, Washington, D.C., August 31, 1984, pp. 2-4.

5. Ibid., p. 2.

6. Ibid., p. 3.

transferable, owners may have little incentive to conserve resources so that potential buyers might place a high value on them.

Another important feature of private and transferable property rights is that they force consideration of the interests of other users. Failure to do so means economic loss for the owner. On the other hand, nonprivate and nontransferable property rights often result in inefficiency, waste, and usually a potential indifference to the interests of others. When rights are private and transferable, in other words, a decentralized market provides diversity, individual freedom, flexibility, information, and equity, because the interests of nonowners are expressed through prices. These prices provide condensed information and strong incentives to act on that information.⁷

Opportunity Cost

The concept of "opportunity cost" is crucial to understanding wilderness policy reform. The opportunity cost is the highest valued use of a resource sacrificed or foregone because another use has been chosen--in other words, the potential income given up. For instance, the opportunity cost of a farmer choosing to preserve fifty acres of virgin ponderosa pine might include foregone revenues from harvesting the trees and foregone future income from raising livestock, wheat, or alfalfa in place of the pine.

The potential use of oil and gas lying below Wilderness areas also constitutes an opportunity cost associated with giving the area permanent Wilderness classification. Such costs are subjective and impossible to measure precisely in advance of exploration, of course, since it cannot be known in advance what exploration will discover.

Data suggest the opportunity cost of maintaining most Wilderness in its pristine state is actually zero, since it is so rugged and inhospitable that unsubsidized development would be uneconomic. However, valuable minerals and other raw materials do exist in large amounts in certain Wilderness areas. How to deal with the often high opportunity costs associated with such resource deposits needs to be addressed in any proposal to manage lands more rationally.

Externalities

The term "externalities" soon crops up in any discussion of resource management. Stated simply, an externality exists when the

7. Excerpted from: Richard L. Stroup and John A. Baden, Natural Resources: Bureaucratic Myths and Environmental Management (Cambridge, Massachusetts: Ballinger Publishing Company, 1983), pp. 17-18.

costs and benefits of a decision do not primarily affect the decision maker himself.

In these cases, the decision maker cannot prevent others from gaining the benefits generated from his resource, even when they pay nothing for that benefit. So he has little economic incentive to provide those benefits to others, even though they might be considerable. If a landowner continues to produce wheat or livestock on his land, for instance, rather than strip-mine the coal below, his neighbors might enjoy the benefit of a delightful view--without having to pay for it. But that landowner will not consider the value of this view to his neighbors when negotiating with coal buyers and deciding how to use his land.

Such externalities are clearly an essential element in the debate over Wilderness areas. Finding a balance between opportunity costs and the external benefits to the public of keeping land in its natural state is a constant headache for land managers.

IMPROVING WILDERNESS MANAGEMENT

Resource managers face a difficult dilemma. Attempts to solve the externality issue have centered on government involvement, mainly through the Wilderness Act. But once the land was in public hands, tourists and bureaucrats had the incentive to use it as extensively and rapidly as possible--often with the result that the wilderness value of the land itself was substantially reduced. So the U.S. taxpayer has ended up subsidizing the destructive use of his environment. Meanwhile, the valuable resources on Wilderness lands have been left undeveloped. Both environmentalists and taxpayers would benefit from an alternative form of resource control.

Yet the wilderness controversy does not need to result always in unproductive stalemates or one-sided victories. There would be advantages to everyone in developing methods that led to outcomes in which all sides benefited from a mutually agreeable solution. Of course, some radical environmentalists question the need for policy reform because they believe that land designated as Wilderness should remain sacred and untouchable, irrespective of its commercial value or lack of scenic beauty. What is needed is a system to make those judgments in a rational way, which resolves the competing interests. The answer lies in a restructuring of property rights. There is already one example of how such interests can be accommodated, and this might form the basis of a national policy.

A Case Example

Energy Fuels Nuclear, Incorporated (EFN) is a privately owned mining company headquartered in Denver, Colorado. In the mid-1970s, it

expanded its focus and shifted capital into uranium exploration and extraction.

A controversy surrounding EFN erupted in 1976, when the company's exploration geologists discovered high-grade uranium ore in the northwest corner of Arizona, ranging in richness from five to ten times the average uranium ore concentration found in the United States. EFN claimed that the region, called the Arizona Strip, appeared to be the only area in the U.S. with the potential to produce uranium that could be sold worldwide under today's depressed market conditions. But there was a problem: most of EFN's high-grade uranium discoveries and exploration targets were located within 45 Wilderness Study Areas, designated to be under Bureau of Land Management administration until Congress elected to release them.

EFN tackled the problem of environmental opposition with a unique and innovative strategy. Representatives from EFN held numerous meetings with the Sierra Club, Wilderness Society, Arizona Wildlife Federation, and other environmental groups to negotiate strip areas either for inclusion in the National Wilderness Preservation System areas or for release to multiple use. Although EFN's proposition initially was greeted with skepticism, these environmental representatives communicated a sincere willingness to reach a compromise. And after consulting with local and state cattlemen's organizations, local businesses, civic groups, local, state, and federal government agencies, and other mining companies, enough support was garnered to introduce the proposal as the Arizona Strip Wilderness Act of 1983.

The Act passed Congress in August 1984. It called for nearly 400,000 acres of BLM and Forest Service lands to be added to the National Wilderness Preservation System. It provided further for the release of approximately 540,000 acres of BLM and Forest Service land for multiple-use purposes.

Implications of the EFN Case

The Arizona Strip provides at least two lessons for those interested in better wilderness land management. First, it demonstrates that there can be agreement among a broad base of constituents, including mining, environmental, political, and livestock interests. The fact that such a diverse coalition exists indicates the need and potential for policy reform. But, second, policy makers should note that, even with a broad willingness to reach an agreement, the process was complicated and time consuming. In this case, EFN had the incentive--high-grade uranium ore--to pursue an outcome that produced benefits for all. It is clear, however, that the firm had to wade through an expensive process in order to accomplish its purpose. A more streamlined approach would be in order to solve most of the disputes between environmentalists and business.

NEEDED: A WILDERNESS ENDOWMENT BOARD

Wilderness lands present an interesting opportunity to design an institutional structure that will capture the benefits of both private and public sector organizations while avoiding the inordinately high costs of public ownership and political control that were evident in the EFN case.

Though wilderness lands have a high cumulative value, the per acre value as wilderness of many tracts is often very small. So those who place a high value on wilderness are likely to be willing to sacrifice some amount of a specific Wilderness tract to obtain the classification of other, more attractive land as Wilderness. The Arizona Strip case demonstrates this process of trading off wilderness for other values. Thus, while wilderness may be highly valued, it often makes sense to trade a specific portion of it for additional wilderness and revenue from petroleum, strategic minerals, or other valuable resources.⁸ This is especially attractive to advocates of wilderness when the quid pro quo is additional Wilderness acres.

In most cases, the opportunity cost of enforcing the Wilderness Act is extremely small--it does not prove necessary to forego easily extracted, highly valued resources to preserve most wilderness areas. In these cases, the mineral, timber, energy, residential, or commercial uses of land are of little or no value. Thus the land is best used for the wilderness values it produces. That is the easy case. Regulatory and other problems arise, however, when highly valued alternative uses are discovered for a segment of Wilderness lands.

The solution may lie in the creation of a Wilderness Endowment Board. The Board's goal would be to foster wilderness values, and it would have the right to make decisions concerning the purchase, sale, and management of Wilderness lands. The best structure would be for the leadership of established environmental groups to nominate members of the Board, to be approved by a joint committee of Congress. The Board would consist of five members appointed to staggered seven-year terms. "Wilderness radicals" accepting appointment would be bound by the common law doctrine of "trust" and be responsible for preserving and enhancing wilderness values and for managing specific Wilderness areas. This is analogous to the board of trustees of a museum, hospital, or school.

8. Condensed from: Richard L. Stroup and John A. Baden, "Endowment Areas: A Clearing in the Policy Wilderness?," Cato Journal, Winter 1982, p. 704.

Although Board members would tend to pursue their narrow wilderness goals, to do so they would be forced to take into account the preferences of others. This is in marked contrast to the behavior of the bureaucrats currently charged with managerial responsibilities. The reason for this is that the Board would have the incentive to dispose of land with low wilderness value, but high commercial potential, in exchange for low commercial potential but high wilderness value. If the Board discovered, for instance, that a certain Wilderness area contained highly valued, exploitable resources, it could sell the rights to that resource to the highest bidder. The Board could deposit the revenues collected from the bid and royalties from valuable resources in an account managed solely by the Endowment Board. It could then use this money for such purposes as purchasing land contiguous with its current Wilderness holdings or buying sensitive lands from federal agencies. It also could buy easements on private land containing crucial habitats for wild species. Thus, by recognizing the commercial value of some of its holdings--the opportunity cost--the Board could enhance its total stock of wilderness values by making rational, businesslike trading decisions.

The public would gain economically by obtaining the minerals and other resources supplied by the lands. And by allowing limited, environmentally sensitive, yet lucrative resource development on certain Wilderness lands, vast reaches of other lands could be purchased for wilderness purposes and protected from environmentally damaging and economically irrational practices.

A Wilderness Endowment Board might be particularly effective in ending the misuse of timber lands. Throughout the national forests of the Rocky Mountain region, timber has been harvested by private contractors. These timberlands, unlike those in the Northwest and Southeast, are relatively unproductive. Much of the timber that the Forest Service markets in the Rockies grows on lands that have never been logged and are de facto wilderness, unpenetrated by roads and accessible only by foot or horse. These virgin timberlands are eligible for inclusion in the National Wilderness Preservation System.

Most of the Forest Service timber sales in the Rockies are considerable money losers, even when measured by the creative accounting schemes devised by bureaucrats. On much timber land, it generally costs the Forest Service far more to plan and administer timber sales and to build logging roads than is returned to the Treasury by the auction of the timber. Moreover, such logging programs usually incur high environmental costs in addition to large monetary losses.

If a manager bore direct responsibility for the economic inefficiencies of Forest Service timber sales, rather than being able to exploit the general taxpayers' fund for subsidies, he would

discontinue most timber sales in the Rockies. Given the political realities of the Forest Service bureaucracy, however, there would be strong resistance to such accounting. However, if oil and gas lease revenues could be collected from small developments in Wilderness areas, timber rights sold by the Forest Service could be purchased by the Endowment Board to preserve uncut forest and to prevent the construction of logging roads. Initially, the timber still would be bought by the Wilderness Endowment Board, and the Forest Service still would receive payment. The Board would simply not harvest the timber it purchased, choosing instead to preserve the land as Wilderness.

A plan to resolve the endless dispute between environmentalists and commercial concerns has significant advantages. First, it would be politically attractive. It would deal effectively with the political issues that currently generate conflict and ill will. Second, this institutional arrangement also would deal with the question of reversibility and rehabilitation. With funds from selling a titanium mine or an oilfield in a western wilderness, the Board could renovate lands that have been despoiled by insensitive mining, forestry, or agriculture. The healing process and reversion to Wilderness could be shortened dramatically.

CONCLUSION

Most wilderness land is best retained as Wilderness simply because the aesthetic and conservation values exceed the likely benefits from development. Certain tracts, on the other hand, contain resources that probably exceed in value the wilderness values of the land. A Wilderness Endowment Board would have the incentive to use the resources of less valuable Wilderness lands to purchase additional sensitive tracts. Environmentalists in effect would be given control over Wilderness areas, but, as managers, they would be forced to make rational economic choices, instead of pressuring for pro-environment political action without concern for opportunity cost. As a result, the public would have more raw materials and more aesthetic Wilderness would be saved, since the total value of all would be increased by the exchange. Everyone would win.

Prepared for The Heritage Foundation
by John A. Baden
Executive Director
Political Economy Research Center
Bozeman, Montana