ENDOWMENT AREAS: A CLEARING IN THE POLICY WILDERNESS?

Richard L. Stroup and John Baden

Introduction

Nearly everyone agrees that in terms of general welfare, title to some land should be held by the federal government. While some might believe that the federal government should control only the White House grounds and Arlington Cemetery, most would include military bases, national parks and monuments. Some would go much further. In general, however, most resource economists and policy analysts who are knowledgeable about federal land management agree that all too frequently, current practices are inequitable, environmentally destructive, and economically inefficient.[1]

These policy outcomes may surprise some people; however, they are the predictable consequences of the lack of private ownership.[2] The problem is not one of incompetent or evil-minded bureaucrats, but rather a faulty incentive structure within government. It is much

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Cato Journal, Vol. 2, No. 3 (Winter 1982).

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[1]There is a vast body of literature dealing with these problems. See, for example, John Baden and Richard Stroup, eds., *Bureaucracy vs. Environment* (Ann Arbor: University of Michigan Press, 1981); William Hyde, *Timber Supply, Land Allocation, and Economic Efficiency* (Baltimore: Johns Hopkins University Press, 1980); Gary Libecap, *Locking Up the Range* (Cambridge, Mass.: Ballinger Press, 1981); Richard Stroup and John Baden, "Property Rights and Natural Resource Management," *Literature of Liberty* 2 (September–December 1979): 5–44; and idem, *Natural Resources: Myths and Management* (Cambridge, Mass.: Ballinger Press, 1982).

[2]For a thorough treatment of the problems that arise from common ownership of a resource, see Garrett Hardin and John Baden, eds., *Managing the Commons* (San Francisco: W.H. Freeman, 1977).

easier to blame government officials for "mismanagement" than to search for institutions that protect and efficiently utilize our lands and natural resources. Indeed, the search for "better bureaucrats" misses the point: decisions about land and resource usage are made on the basis of information and incentives, and current institutions too often generate poor information and perverse incentives.

The importance of the linkage between private ownership, individual freedom, and economic efficiency was clearly recognized by the framers and supporters of our Constitution. They saw the dangers and difficulties inherent in government land ownership, and were opposed to any significant holding of land by the federal government.[3] Consequently, during the first 100 years of our nation's history, there were systematic and largely successful efforts to privatize the federal lands. Although there were cases of fraud and abuse, the transfer of public land to private, profit-seeking entrepreneurs enhanced economic efficiency and freedom.[4]

During our nation's first century, land and natural resources were relatively abundant and cheap compared with capital and labor. In such an environment, property rights in land were often not worth establishing or enforcing. It also made economic sense to harvest natural resources at a rapid rate. Over time, as the value of land and natural resources increased because of population growth, industrialization, and technical progress, property rights emerged and encouraged conservation. As a result, resources were used more efficiently in ranching, mining, and water projects.[5]

In the last quarter of the 19th century, eastern patricians reacted to the privatization drive, and called for a counter-revolution. This

[3]See Alexander Hamilton, John Jay, and James Madison, *The Federalist*, Henry Cabot Lodge, ed. (New York: G.P. Putnam, 1895). See also James Thruslow Adams, ed., *Jeffersonian Principles* and *Hamiltonian Principles* (Boston: Little, Brown & Co., 1932); and Adam Smith, *The Wealth of Nations*, vol. 2 (London: George Bell, 1892), pp. 243, 250, 350.

[4]For an examination of how government land policy actually encouraged fraud and waste with respect to timber resources, see Gary D. Libecap and Ronald N. Johnson, "Property Rights, Nineteenth-Century Federal Timber Policy, and the Conservation Movement," *Journal of Economic History* (March 1979), pp. 129–42.

[5]The evolution of property rights to common property resources was first articulated in Harold Demsetz, "Toward a Theory of Property Rights," *American Economic Review* (May 1967), pp. 347–59. See also Terry L. Anderson and Peter J. Hill, "The Evolution of the American West," *Journal of Law and Economics* (April 1975), pp. 163–79; idem, *The Birth of a Transfer Society* (Stanford, Calif.: Hoover Institution Press, 1980); idem, "Property Rights as a Common Pool Resource," in *Bureaucracy vs. Environment*, pp. 22–45; and John Baden, Richard Stroup, and Walter Thurman, "Myths, Admonitions, and Rationality: The American Indian as a Resource Manager," *Economic Inquiry* (January 1981), pp. 132–43.

led to the establishment of the National Park System, the Forest Service, the Bureau of Reclamation, the Bureau of Land Management, and in 1964, the Wilderness System. The federal government's consistent failure to efficiently utilize public lands—to find the optimal mix between recreational and other uses—suggests that it could be time for another revolution. Of course, the recent "Sagebrush Rebellion" strengthens that notion.

We have yet to encounter a thoroughly convincing argument that federal government ownership and control of vast amounts of land is superior to private ownership. Under the current system of public ownership and management by politically-directed bureaucrats who frequently seek to expand their agencies, taxpayers all too often find themselves subsidizing the destruction of environmental quality and forced to use resources in an extraordinarily costly manner.[6] Nevertheless, market failure, although sometimes exaggerated in importance, does exist. Common pool resources, public goods, free-rider possibilities, and externalities at times generate significant problems that are difficult to deal with in accord with the rule of willing consent.[7] Under such conditions, there does appear to be a case for a governmental role in resource management. (Whether market failure or governmental failure is more significant is an empirical question that deserves further research on a case-by-case or resource-by-resource basis.)

It is precisely in those areas where some justification for government involvement may exist that the difficulties are most severe. Important policy issues in natural resource management share two characteristics. First, they are typically complex. Whether one is dealing with nutrient cycling in lodgepole ecosystems, the population dynamics of feral horses and burros, or with predator control, interdependence among variables predominates. Thus, the resultant relationships are often counter-intuitive, indirect, and amenable only to rigorous scientific investigation. Second, natural resource issues are often emotional. Clear-cutting, mineral exploration in wilderness

[6]See *Bureaucracy vs. Environment*, especially papers by Barney Dowdle, "An Institutional Dinosaur with an Ace: Or How to Piddle Away Public Timber Wealth and Foul the Environment in the Process," pp. 170–85; William F. Hyde, "Compounding Clearcuts: The Social Failure of Public Timber Management in the Rockies," pp. 186–202; and Ronald M. Lanner, "Chained to the Bottom," pp. 154–69.

[7]Francis Bator, "Anatomy of Market Failure," *Quarterly Journal of Economics* (August 1958), pp. 351–79; and James Gwartney and Richard Stroup, *Economics: Private and Public Choice*, 2d ed. (New York: Academic Press, 1980), chap. 30.

lands, or controlling wildlife that prey on domestic livestock generate heated reactions.[8]

Unfortunately, the public (taxpayers) have little incentive to understand what has been called "the new resource economics."[9] Special interest groups like the Sierra Club, therefore, have been able to dominate the policy debate. Slowly, however, things are beginning to change. Members of the Reagan Administration, recognizing the problems associated with public ownership, developed an Asset Management Program that addresses some of the more irrational patterns of federal land ownership and management.[10] Although the Administration has rejected wholesale privatization, its effort to improve the efficiency of land and resource usage via transfer to the private sector of a limited amount of federal land, if successful, will be a change from previous administrations. Several others have prepared such initiatives, but none succeeded. The remainder of this paper deals with the Reagan Administration's Asset Management Program and proposes a further method of improving land-use and resource efficiency: the establishment of wilderness endowment areas.

The Land Sales Component of the Asset Management Program[11]

A third of the nation's lands, over 700 million acres, is owned by the federal government. Of this perhaps two to five percent will be placed on the market for sale. The proceeds from the sale of these lands are expected to be several billion dollars, and are intended to be earmarked to reduce the federal debt. In addition to raising revenue for the Treasury, the partial privatization of federal lands will increase the efficiency of these lands, and stimulate economic growth. If the Reagan program succeeds in reducing the national debt (hence, future taxes) and achieves faster economic growth, there will be equity as well as efficiency gains.

Privatization and divestiture are terms commonly used to describe (and deride) the Asset Management Program. Despite persistent and

[8]Gwartney and Stroup, *Economics*, chap. 32; and Stroup and Baden, "Property Rights and Natural Resource Management," pp. 14–17.

[9]See Terry L. Anderson, "The New Resource Economics: Old Ideas and New Applications," *American Journal of Agricultural Economics* 64, no. 5 (1982); also, Richard Stroup and John Baden, *Natural Resources: Myths and Management*, Ballinger Press, forthcoming.

[10]Assistant Secretary Garrey Carruthers' Testimony Before the House Subcommittee on Public Lands, September 28, 1982, on the Asset Management Program.

[11]A version of this section was presented by Richard Stroup to the Senate Subcommittee on Public Lands, Energy and Natural Resources Committee, June 14, 1982.

growing evidence that our nation's experiment in land and resource socialism has failed, many commentators still support public ownership and have strongly objected to the proposed federal land sales. The most prominent critics have based their objections on caricatures of the program and of the results of private ownership.

The Rationale for the Asset Management Program

There are two key requirements for a successful organization: (1) good information and a constant feedback on results, and (2) decision-maker accountability. When these requirements are met, decision-makers have the incentive and ability to seek out and heed the appropriate information about relative values, as demonstrated by willingness to pay. When rights to a resource, such as land, are held privately, asset valuation and the profit-loss test of the market provide the incentive for efficient use. For example, if the owner of a ranch overgrazes his land, causing erosion and undesirable changes in species composition, the market value of the land will fall. Only if short-run benefits outweigh the long-run costs represented by the decline in land value will "overgrazing" make economic sense. A private owner, therefore, will be able to enlarge his wealth only if he allocates resources to their higher-valued uses, and optimally over time, as determined by the dollar votes of consumers. If he is blind to consumer preferences, he will lose control of his resources to more alert or better disciplined entrepreneurs.[12]

The value of a piece of land is the highest price any person or group will pay for the amenities and commodities that may be produced by the land. People are increasingly demonstrating a willingness to pay for amenity and recreational land uses in the same way they pay for nonrecreational uses, such as timber-cutting rights.[13] Several examples of the increased value consumers are placing on the amenities that land offers and the market response to changes in

[12]Economists of the Austrian school stress the role of the entrepreneur who moves resources to more highly-valued uses in his search for profit. Two classical works in this mold are Ludwig von Mises, *Human Action* (New Haven, Conn.: Yale University Press, 1949), and Israel Kirzner, *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

[13]On the idea that recreational and access enhancement can be profitable for large landowners, see William C. Dennis, "The Public and Private Interest in Wilderness Protection," *Cato Journal* 1 (Fall 1981): 373–90; idem, "Private Lands and Public Amenities," unpublished, 1982; Frank Graham Jr., "A New Hand in the Wildlife Business," *Audubon*, May 1979, pp. 94–113; "Landowners Charging Fee for Hunting Rights," *Bozeman Daily Chronicle*, September 12, 1982, p. 6; William L. MacDougall, "Private Money Pours In to Save Green Space," *U.S. News & World Report*, October 26, 1981, p. 64; and Robert J. Smith, "Resolving the Tragedy of the Commons by Creating Private Property Rights in Wildlife," *Cato Journal* 1 (Fall 1981): 439–68.

relative land-use values come to mind. Timber firms are finding that managing their lands for hunting, camping, and other recreational uses can be very profitable. Some timber companies have also found it profitable to sell attractive parcels with restrictive covenants as second homesites.

In a particularly interesting case, ranchers in western Texas, where there is very little public land, have found that managing some of their land primarily for game animals provides more revenue than they get from traditional crops and livestock. Some ranchers have even imported exotic game animals from Africa and used elaborate fencing to contain and manage their herds. Other operators cater to hunters with smaller budgets. In each case, there is a strong incentive to find the optimal land-use mix and adjust that mix over time. By responding to market signals, both the private owners and the consuming public gain. Moreover, breeding populations of exotic animals have their gene pools preserved under private ownership, while their kin are exterminated on the open-access commons of their original habitat.

We should not be surprised that private land management is adaptive, for owners are rewarded both for successful innovation and for providing services to a broad spectrum of consumers. The Astrodome in Houston welcomes an extraordinarily complex array of users, as does the Empire State Building. In both cases, masses of people are accommodated, but so are those people who seek special attention. Bleacher seats and private boxes are provided as are plush office space and lunch counter seats. Of course, those who want the plusher surroundings, shared with fewer people, must pay more under private ownership. In such situations, not only does the market provide information and incentives to the supplier, but the user is also given information and incentives in the form of market prices he must pay.

Natural resources are not free. This is as true of amenity services as it is of material goods and services. Scarcity has always been with us—we simply cannot have all of what we would like. When rights to resources are privately held and exchangeable, prices bid and asked are the signals that draw the resources into the most highly-valued uses, giving producers and consumers the information and the incentives to supplement and reinforce the goodwill and charitable urges managers may have. In a market setting with privately held, transferable property rights, he who benefits others, benefits himself.[14]

[14]Terry L. Anderson and P.J. Hill, *Birth of a Transfer Society;* Stroup and Baden, "Property Rights and Natural Resource Management"; and Eirik Furubotn and Sve-

Problems with the Private Sector

In a world of human fallibility and imperfect information, all systems of organization have flaws. The market system is no exception. A market system breaks down when private rights are not well defined, not easily enforced, or are not transferable under terms desired by the owners and potential buyers. This situation is commonly referred to as "market failure" and occurs most frequently with natural resources when certain costs or benefits of the resource do not accrue to the owner.[15] For example, one cost of overgrazing a piece of land might be that erosion pollutes a creek running through the land. If the pollution harms unowned fish downstream or if the owner is unable to benefit from preserving fish in the creek, he will have an incentive to overlook these "external" costs, and continue to overgraze. Similarly, if the deer that use his ranch for forage and cover are unowned and if he cannot benefit from their existence or taking, he may be unwilling to incur even small costs to aid the deer population. Providing deer habitat is an example of an external benefit. An extreme case of external benefit is the public good.[16] A person who owns Mt. Rainier would have trouble benefiting from preserving its pristine appearance for the benefit of Seattle residents. Since the owner could not exclude those not paying for the view of the mountain, too little weight might be given to preserving that view.

Whenever there is market failure, there is reason to ask whether government control, either through regulations or ownership, might not improve the situation. In the case of water pollution, for example, the Environmental Protection Agency was created to help regulate the problem. But market failure by no means guarantees that government will do any better. To understand why some lands may be handled better privately, even with imperfect markets, we must apply the same critical reasoning to the governmental process as we do to the private market process. When we do so, government is also shown to be fallible.

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tozar Pejovich, eds. *The Economics of Property Rights* (Cambridge, Mass.: Ballinger Press, 1974).

[15]Bator, "The Anatomy of Market Failure," is the typical neoclassical viewpoint. For a property rights perspective, see Ronald Coase, "The Problem of Social Cost," *Journal of Law and Economics* (October 1960), pp. 1–44; Steven Cheung, "The Structure of a Contract and the Theory of a Non-Exclusive Resource," *Journal of Law and Economics* (April 1970), pp. 49–70; J.H. Dales, *Pollution, Property and Prices* (Toronto: University of Toronto Press, 1968); and Gwartney and Stroup, *Economics*, chap. 30.

[16]Paul Samuelson, "The Pure Theory of Public Expenditure," *Review of Economics and Statistics* (May 1954), pp. 387–89. See also Gwartney and Stroup, *Economics*, chap. 30.

Analysis of Governmental Failure[17]

Under private ownership there is a close association between the authority to act and full responsibility for the action. Producers and consumers are constantly nudged by changing prices in the direction which others in the society want them to go. Anyone is free to ignore these signals from society, but only at his own expense. This linkage is almost totally missing in the public sector. In its place are formalized bureaucratic controls (red tape) and political mechanisms, such as elections. Unfortunately, neither political nor bureaucratic control provides enough information or adequate incentives to producers and consumers to make choices which are efficient for society. Five fundamental problems with public sector management and ownership can be summarized:[18]

1. In a democracy, intelligent voters have an incentive to be rationally ignorant about candidates and policy issues. Each recognizes that one vote is unlikely to be decisive, and that it is costly to obtain information. Moreover, they recognize that they cannot fully capture the benefits of an informed vote, nor will they bear the full costs of their ignorance. Hence, a great many intelligent voters will be largely uninformed on election day, simply because they are rational.[19] Dozens of polls, including one multimillion-dollar study done for Congress, confirms that the average American eligible to vote cannot even name his congressman. In contrast, when buying an automobile, the individual's dollar votes are decisive. The right decision means that the individual gets what is best for him, and symmetrically, he suffers most of the consequences of a wrong decision.[20]

2. Since most voters are rationally ignorant about most issues, special interest groups can have tremendous influence. In the case of a national forest, we can expect local timber buyers and processors to be keenly interested, informed, and influential regarding the man-

[17]Analyses of governmental failure can be found in James Buchanan and Gordon Tullock, *The Calculus of Consent* (Ann Arbor: University of Michigan Press, 1962); Gwartney and Stroup, *Economics*, chap. 32; William Mitchell, *The Anatomy of Government Failure* (Los Angeles: International Institute for Economic Research, 1979); William A. Niskanen Jr., *Bureaucracy and Representative Government* (Chicago: Aldine-Atherton, 1971); Mancur Olson Jr., *The Logic of Collective Action* (New York: Schocken Books, 1965); and Stroup and Baden, "Property Rights and Natural Resource Management." See also Thomas Sowell, *Knowledge and Decisions* (New York: Basic Books, 1980), pp. 140–49, 360, 378.

[18]Stroup and Baden, "Property Rights and Natural Resource Management," pp. 14–17.

[19]For an elaboration of this argument, see Gordon Tullock, "Public Decisions as Public Goods," *Journal of Political Economy* 79 (July/August 1971): 913–918.

[20]In principle, an exception would be the failure to consider the safety of his car for normally distant parties.

agement of that forest. Similarly, if certain recreational users are well-organized, their special interest will also be represented. The interests of the majority of citizens, however, will be poorly represented. Most citizens will never know how their congressman voted on national forest policies. To be successful, any politician or political appointee *must accommodate the interests of organized special interest groups.* This is an unfortunate consequence of our present democracy (the best form of government, in our view), and stifles taxpayers' true preferences.

3. Government officials tend to act in a shortsighted manner because, unlike private owners of a resource, they cannot capture the expected future benefits from their efficient use of the resource. The lack of private property rights means that capitalization possibilities are absent for decision makers in the public sector.[21] Helping future generations at the expense of present voters, by wise husbanding of resources, is not likely to help the politician get elected or reelected today. Private owners, on the other hand, will carefully weigh the expected costs and benefits of their current decisions affecting resource efficiency, because their decisions affecting future resource values will be reflected in current market prices. Thus, the private owner of resources will have a much stronger incentive to heed the wants of future consumers than the politician will have to heed the wants of future taxpayers, who cannot register their votes for or against today's decision makers.

Under private ownership, the invisible hand of competition, spurred by the profit motive, will benefit present and future consumers; the inefficient allocation of resources over time will be penalized, while efficient decisions will be rewarded. Only to the extent that today's citizens are willing to sacrifice for the nation's future and reject short-run solutions to long-run problems will politicians have any incentive to expand their time horizons. However, the much weaker link between efficient choices and capturable rewards in the public versus the private sector means that we should not expect public officials to pay much attention to the future consequences of their current decisions.[22] Upon reelection, they can always blame someone else for

[21]When a private owner gives up current benefits to increase the future value of his resource, the present capitalized value of the added future productivity, as judged by the potential high bidders for the resource, is added *immediately* to the current market value of the resource, immediately adding to the owner's wealth. Actions which reduce the resource values in the future are similarly reflected immediately in a reduced resource valuation.

[22]For a comparison of market and collective allocation of resources over time, see Stroup and Baden, "Property Rights and Natural Resource Management," pp. 19–26; and idem, "Transgenerational Equity and Natural Resources: Or, Too Bad We Don't Have Coal Rangers," in *Bureaucracy vs. Environment,* pp. 203–16.

the adverse effects of their past decisions. The private owner cannot: He alone will suffer the losses of inefficient decisions or benefit from wise ones.

4. Within government, there is little incentive for efficient policies *or* for efficient operating behavior.[23] The public decision maker is seldom in a position to personally gain from increasing efficiency (i.e., from cutting the cost of a given output), nor does he lose from decreasing efficiency. Indeed, it will often be politically advantageous for a politician to support a particular program with constituent beneficiaries even if the costs far exceed the benefits. The benefits will be concentrated on a special interest group, while the costs per taxpayer will be small and unnoticed. The perverse results under public ownership are well reflected by the huge deficits in federal grazing and other commodity programs.[24]

5. A voter must choose one candidate to represent him on hundreds of issues. Even a well-informed voter has a problem expressing his preferences on different aspects of public policy. Suppose that a voter likes his congressman's stand on forest management, but not his position on grazing land; He still has to vote on one or another of the "bundles" of stands on issues which each candidate represents. Moreover, he cannot even be sure how his congressman will vote after winning an election. In the private sector, consumers have a wide variety of choice and can change their dollar votes at any time. In the political marketplace, however, voters must decide on an incredibly large and complex package of issues offered by competing politicians. And unlike consumers, voters can only cast their votes during election years. This lack of flexibility in the political sphere makes it very difficult to reverse inefficiency within government.[25]

All five of these problems with government ownership and control suggest that even though markets are imperfect, they will often perform better than government in allocating resources. To the extent that effective private property rights exist, individuals will be held responsible for their actions. And, although private owners will frequently err, they will have a stronger incentive than government decision makers to rapidly recognize and correct their mistakes. Profit-

[23]John Baden and Richard L. Stroup, "Introduction" in *Bureaucracy vs. Environment*, ed. Baden and Stroup, pp. 1–8; and idem, "The Environmental Costs of Government Action," *Policy Review* (Spring 1978), pp. 23–36.

[24]See, for example, William F. Hyde, *Timber Supply, Land Allocation, and Economic Efficiency;* idem, "Timber Economics in the Rockies: Efficiency and Management Options," *Land Economics* (November 1981), pp. 630–36; and Gary D. Libecap, *Locking Up the Range.*

[25]Gordon Tullock, *Private Wants and Public Means* (New York: Basic Books, 1970).

seeking entrepreneurs will quickly utilize new information, because they can increase their wealth by directing resources to uses where consumers want them. The absence of this incentive within government is an important reason for "government failure."[26]

Mistaken Criticisms of Private Ownership and the Asset Management Program

Both private markets and governmental control are imperfect. It is realistic to criticize each, and there are circumstances under which each will fail. In addition to the valid criticisms that can be made of each system, current critics of the land sales component of the Reagan Administration's Asset Management Program voice a number of mistaken criticisms of the private sector.

1. Private ownership is often criticized as being environmentally insensitive. According to the critics, private owners are concerned with profit, not environmental quality. However, what these critics fail to recognize is that when individuals are willing to pay (make sacrifices) for environmental quality, they will also pay to enjoy environmental amenities. For instance, environmentally sensitive and controlled resort developments can be (and have frequently been) assembled by gaining control of entire mountain valleys. The land can then be resold in small parcels with carefully drawn protective convenants. Every parcel rises in value because each buyer knows that every nearby property owner must act to maintain a high-quality environment.[27]

People willing to vote for environmental quality should also be willing to buy it for themselves to use and hold as an investment. Just as shopping centers developed to provide attractive ambience, free parking and other "public good" amenities for shoppers, privately planned communities and recreational developments have responded to the increased demand for environmental and amenity

[26]On the relationship between private property and the efficient utilization of knowledge via the competitive market process, see Friedrich A. Hayek, *Individualism and Economic Order* (Chicago: University of Chicago Press, 1948). Two essays of particular importance in this volume are: "Economics and Knowledge," reprinted from *Economica* 4 (1937): 33–54; and "The Use of Knowledge in Society," reprinted from *American Economic Review* 35 (September 1945): 519–30. Also, see Friedrich A. Hayek, ed., "Competition as a Discovery Procedure," in *New Studies in Philosophy, Politics, Economics and the History of Ideas* (Chicago: University of Chicago Press, 1978).

For a discussion of the economic role of profits and losses, see Alchian and Allen, *University Economics*, pp. 287–98, and Gwartney and Stroup, *Economics*, pp. 580–84.

[27]A good example of such a development is the Big Sky resort area in south central Montana. Developers purchased an area of land large enough to maintain the integrity of the natural environment and at the same time established protective covenants to maintain that integrity.

values. Of course, some big landowners have failed to follow these market signals. Some forest industry firms, for example, have been careless in preserving aesthetic values as they logged their own lands; but this practice has substantially lowered the value of their lands and adversely affected their profits. More farsighted firms, on the other hand, have profited from careful management and, in time, will tend to increase their share of forest lands and natural resources.

Direct liability is another way in which private property rights hold decision makers accountable. Consider, for example, the case of Love Canal. When Hooker Chemical was forced (by threat of eminent domain) to sell its carefully constructed Love Canal dumpsite to the local government, it took great pains to inform the public of the hazardous chemical waste. However, the school board members, who acquired the property, unlike the owners of Hooker Chemical, could not be held liable for damages. Consequently, their actions were understandably, but also tragically, inept. Nevertheless, the media chose to emphasize Hooker's initial dumping of the waste, rather than the care Hooker had taken in storing it and their unwillingness to sell the land. Hence, it was assumed by most people that Hooker had been negligent. Private-sector liability probably would have prevented the Love Canal problem. The physical containment of chemicals did not break down until the school board allowed excavation that breached the containment area. The claim here is *not* that those in the private sector have better intentions, but that the profit incentive forces them to pay attention to the consequences of their decisions. Even if Hooker officials were unconcerned about the future of the land, they faced strong incentives to care about their legal liabilities.[28]

2. Critics of privatization claim that "only the wealthy will enjoy private lands." One has only to look at such a valuable asset as the Empire State Building to realize that rich and poor alike can benefit from private ownership. The same is true of Manhattan's elegant restaurants, fast food chains, and Broadway theaters. All tastes and income levels are catered to. Rich people tend to get more, but in the private sector they must pay for it. The wealthy tend to be far better represented in government, but there they can pass their costs on to the less wealthy. From tax breaks to the provision of art, national parks, and the humanities, the rich tend to be subsidized in the political setting. (National park visitors, for example, pay a tiny portion of park costs, even though they generally have incomes far above

[28]The story behind Love Canal is elaborated in detail in Eric Zuesse, "Love Canal: The Truth Seeps Out," *Reason*, February 1981, pp. 16–33.

average.) There has never been a major political system in which wealth and political power were not strongly correlated.

3. A final objection to privatization is that it disregards the preferences of future generations. The proponents of this view fail to understand the nature of private property. Transferable property rights cause current owners to take account of the future consequences of their present decisions. For the reasons already elaborated, private owners will immediately bear the consequences of their decisions affecting future resource values, in the form of increased or decreased property values and thus wealth. If their management decisions are efficient, the value of their assets will be bid up in the marketplace, and conversely. Meanwhile, recent news articles have detailed how city governments, pressed for funds, seek to maintain current services while neglecting to maintain capital assets for future utilization. In order to save a few tax dollars today, politicians are allowing subways, bridges, sewers, and roads to deteriorate, posing serious problems for the future. In the private sector, this would be costly *even in the short run.* To save $1,000 of maintenance expenditure at the cost of a $2,000 reduction in asset value would be foolish in the private sector. However, in the public sector, raising $1,000 by taxation is painful to incumbents, while the *future* expenditure of $2,000 is likely to be thrust onto another politician. In the private sector, a shortsighted individual will lose control of his assets to a person with superior foresight. But in the public sector this need not, and probably will not, be the case.

Summary

In brief, the land sales component of the Asset Management Program can be defended as a logical, efficient, and forward-looking part of the federal government's responsibility to the nation. Private ownership is a useful tool to ensure that current and future resource users, desiring both material and environmental services, can be served efficiently. Private owners are held much more accountable, both for positive and negative results, than are government officials, who are instructed to represent the "public interest." Both logic and evidence suggest that privatization, selectively and carefully applied, will be socially beneficial.

The Case for Wilderness Endowment Areas

Are Wilderness Endowments an Alternative to Privatization?

There is little theoretical or empirical justification for holding lands primarily devoted to commodity production in the public sector. The

implications of the public goods argument and the free-rider problem suggest that a respectable case can be made for something other than fee-simple private ownership for amenity lands.[29] Wilderness lands present an interesting opportunity to design an institutional structure that will capture the benefits of both private and public sector organization while avoiding the inordinately high costs of public ownership and political control.

Given current resource prices, the overwhelming preponderance of wilderness lands established under the 1964 Wilderness Act serve their best use when managed as wilderness. Many of the wilderness lands are those that were not claimed under the various homestead, timber, stone, desert, or livestock provisions for 19th-century privatization. While there are exceptions, these lands tend to be remote, are at high elevations, have short growing seasons, are arid, or have a set of characteristics negatively associated with land value. It follows, then, that if held privately, most of these lands would continue to be used as wilderness.[30]

There are complications, however. While wilderness lands have a high value in the aggregate, at the *margin* their per-acre value as wilderness may be exceedingly small. Consider an analogy: Assume for a moment that wilderness is as critical to human survival as water. Are we willing to give up water, which is required for life itself, in order to get, say, minerals? Of course we are, to some extent and in most circumstances. Similarly, even one who values the existence of wilderness very highly will typically be willing to sacrifice *some* amount of wilderness to get sufficient quantities of other goods and services. Thus, wilderness may be highly valued as a requisite to the salvation of civilization, but it often makes sense to trade a portion of it for petroleum, strategic minerals, or other resources for which there are few substitutes in the short run. In most cases, the opportunity cost of enforcing the Wilderness Act is extremely small: We don't have to forgo easily extracted, highly-valued resources to preserve most wilderness areas. In these cases, the mineral, timber, energy, residential, or commercial uses of the land are of little, or even negative value: Thus, the land is best used for the wilderness values it produces. This, of course, is the easy case. Problems arise when high-valued, alternative uses are found for the wilderness lands.

We can never specify in advance what factors will change the

[29]For the classic argument, see John V. Krutilla, "Conservation Reconsidered," *American Economic Review* (May 1967), pp. 777–86.

[30]William F. Hyde, *Timber Supply, Land Allocation and Economic Efficiency*, and idem, "Timber Economics in the Rockies."

evaluation of wilderness, or any other land, but we know they can take many forms. When crude petroleum sold for $3 a barrel, the oil in the Bridger-Teton Wilderness Area on the overthrust belt would not have been profitable to extract. The OPEC embargo, however, increased the value of oil and made it economically worthwhile to consider the Bridger-Teton for oil production. Yet this was prohibited by law. Other exogeneous forces, such as increments in knowledge, can also change the opportunity cost of preserving wilderness areas. Satellite photography, for instance, may make it possible to locate with some precision the deposits of strategic minerals or oil patches located on wilderness lands. Such knowledge would dramatically reduce the search costs associated with mineral development and increase the value of a developed deposit. While only half of one percent of any wilderness area may have value for mineral development, we do not presently know where that deposit is. It is possible that we will never have such information, but it would not be prudent to assert that such ignorance will always prevail. The important point is that an increase in knowledge can lead to an increase in the opportunity costs of preserving certain wilderness lands.

Evidence strongly suggests that most citizens believe that wilderness should be preserved, but public opinion is notoriously fickle. Smart money might bet that a major oil shock or strategic mineral embargo, coupled with publicity that these resources exist in quantities in wilderness areas, would yield a quick modification of the Wilderness Act. Should this occur, would the wilderness enthusiast prefer the lands to be managed by a naturalist like Aldo Leopold or by the Department of the Interior? We propose to give him that choice.

The Wilderness Endowment Board

Congress has officially designated 80 million acres as wilderness. In addition, there are another 149 million acres in various categories under study for recommendation as wilderness. The Wilderness Act of 1964 precludes all but passive management and protects wilderness areas from the costly and environmentally destructive activities of bureaucratic entrepreneurs in the public sector. Thus, deficit timber sales are not allowed, nor can wilderness areas be chained, terraced, or otherwise have their ecological integrity violated. Economically inefficient development is precluded. Unfortunately, environmental groups have failed to advertise these benefits of wilderness areas.[31] Given that Americans want to preserve wilderness lands, the

[31]John Baden, "Property Rights, Cowboys, and Bureaucrats: A Modest Proposal," in *Earth Day Reconsidered*, John Baden, ed. (Washington, D.C.: The Heritage Foundation, 1980), pp. 71–83.

question becomes which lands and at what costs. We propose for discussion the creation of a Wilderness Endowment Board composed of private naturalists rather than public bureaucrats.

The board would not be established to promote the "public interest." Its singular goal would be to foster wilderness values. The leadership of established environmental groups would nominate members of the board to a joint committee of Congress. The board would consist of five members appointed to staggered seven-year terms. Members would be bound by the common law doctrine of "trust" and be responsible for preserving and enhancing wilderness values and for managing wilderness areas.[32] There are good reasons to argue for several such boards, each representing regions of the country, such as the Northwest and the Southwest. The board would have control, subject only to congressional veto, over the management of each wilderness area under its jurisdiction. The structure of the organization we propose would arrange information and incentives in such a way that *decision makers would further their narrow goals by acting as if they cared about the preferences of others*. This is in marked contrast to the behavior of the bureaucrats currently charged with managerial responsibilities. Although board members would not have residual claims on the resources, we can predict with confidence their behavior. If the board discovered that some small percent of a specific wilderness area contained highly-valued, exploitable resources, it could sell rights to that resource to the highest bidder. While wilderness land may have a market value of $100 per acre, a small tract of valuable mineral lands may yield millions of dollars per year. The board could then use these revenues to purchase land for inclusion in this national wilderness endowment area, or to buffer parts of it.

This scheme has significant advantages over any of the alternatives currently being considered in the policy arena. First, it is politically attractive: It would deal constructively with problems that currently generate conflict and ill will. It would be difficult to imagine, for example, that actions by the proposed endowment board would cause the president of the Wilderness Society to label a board member (as he recently did the Secretary of the Department of the Interior) "the worst thing that ever happened to America." Since the board would consist of individuals active in and responsive to environmental groups, we would expect such groups to support limited development when it would *advance* wilderness values. In such cases, envi-

[32]Joseph Sax, "The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention," *Michigan Law Review* (March 1970), pp. 471–546.

ronmental magazines would advise their members and urge them to lobby Congress in support of development. Trading one acre of sagebrush and cactus for a thousand acres of alpine meadows and trout streams is likely to be perceived as a good deal.

This institutional arrangement would also effectively deal with the issues of reversibility and rehabilitation. With funds from a titanium mine or an oil patch in a western wilderness, the board can renovate lands that have been despoiled by insensitive mining, forestry, or agriculture. While some purists may argue that this task is impossible, that portion of the Great Smokies National Park that has been logged or farmed goes unnoticed by visitors. With funding, intelligence, and sensitivity, the healing process and reversion to wilderness may be shortened dramatically.[33]

The increased budgets generated by the wilderness endowment areas would both foster rehabilitation and make rehabilitation easier to implement by encouraging resource extraction in anticipation of reversibility. The Ayrshire Collaries in the Midwest and the abandoned Northern Pacific Coal Mines at Colstrip, Montana, provide examples of how environmental amenities can be increased by introducing ecological and topographical variation into a landscape. The Collaries were developed by Pierre Goodrich, with the explicit goal of improving the productivity and environmental quality of the land after the coal had been extracted. Because this goal was incorporated into the operation, increased land values resulted with relatively minor costs. The mines in Colstrip were merely abandoned, but after many years the area became a choice wildlife habitat and provided environmental amenities to residents of the area. Montana folklore holds that Colstrip residents were distraught when they learned that the Surface Mining Reclamation Act would cause the abandoned mines to be "reclaimed to original contours and vegetation," depriving them of valued environmental amenities.

In each of these cases, the amenity values of the land were apparently improved by mining. While amenity values are not the same as wilderness values, these examples suggest that mineral or petroleum extraction in a wilderness endowment area could be organized to preserve and foster wilderness values.

We begin with the realization, then, that timber sheds and oil patches can also be amenity sheds. Under current institutional arrangements, if a valuable strategic mineral deposit or oil reserve were discovered on wilderness lands, wilderness advocates gain

[33]The examples mentioned here are contrary to Krutilla's, in "Conservation Reconsidered," and to contemporary wilderness attitudes.

nothing and could lose much if the area is subsequently developed. Under the proposed system, we assume that Congress has identified appropriate areas for wilderness and that most of them have their highest value as wilderness, and then we design a mechanism to deal with those situations where wilderness values compete with commodity values. The plan would deal with the problems of allocating competing values on existing wilderness lands as well as ameliorating the conflicts that result when the lands are nominated for inclusion in the wilderness system.

Decision makers in mining and energy companies recognize that development in these areas, even if possible, would be expensive in terms of time and other resources. Wilderness advocates, however, are likely to be quite reasonable if they have the opportunity to advance their interests by cooperating with development companies.[34] Under these circumstances the firms would probably find it easier to deal with a wilderness endowment board than with a federal agency. Thus, we would expect developer opposition to wilderness classification to be reduced. From the developers' perspective, the opportunity costs of holding lands in wilderness would become trivial. While we might want to require congressional approval for major developments in the wilderness endowment areas, even this seems unlikely to cause problems. At minimum, we would confront the prospect of watching environmental groups lobby *for* development on small portions of wilderness land.

Conclusion

Decisions are made on the basis of information and incentives. Under current institutional arrangements, wilderness advocates have little if any incentive to consider the preferences of others. By changing the incentives we can predict what behavior will follow. The institutional reform suggested in this paper promises substantial advantages in terms of economic efficiency, environmental quality, and equity. Few will deny that if there is a serious natural resource crunch in energy or strategic minerals, wilderness lands will be developed. If there is development, how can it best be managed? The administration's Asset Management Program is an important first step—but only that. It is time to move toward increased American productivity and decreased conflict over resource development. If these goals are to be realized, it is necessary to build a coalition of fiscal conservatives and conservationists. Perhaps the establishment of Wilderness Endowment Areas would move us in that direction.

[34]John Baden an Richard Stroup, "Saving the Wilderness: A Radical Proposal," *Reason*, July 1981, pp. 28–36.