

**FUTURE OF THE NATIONAL FORESTS
IN AN EXPANDING SERVICE ECONOMY
IN AN AGE OF HIGH FEDERAL DEBT:
THE STATES COULD DO IT BETTER**

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INTRODUCTION

The United States currently faces a crisis on its federal forest lands --- a lamentable lack of forest management that has contributed to failing health of forest stands in many parts of the country. There has been a growing entanglement of federal forest management that has led to this deplorable situation. Forest management has been widely withheld largely in the name of preserving ecosystems and species in their natural state. On federally managed timberlands, some management practices have been made unavailable and those applied are at high cost. By pursuing this course, we continue to waste our natural endowment and rely increasingly on other countries to meet our high demands for forest products. It appears we could provide more intensive forest management and have both more outputs from our natural endowment, as well as at least the same degree of environmental protection. However, moving to this more desirable state probably will require some serious changes in federal forest policy and institutional arrangements.

MAJOR RESOURCE ISSUES

Federal lands are managed by the Forest Service (USDA), National Park Service (USDI), Fish and Wildlife Service (USDI), Bureau of Land Management (USDI), Corps of Army Engineers (USDD), Bureau of Reclamation (USDI) and the Tennessee Valley Authority. In addition, native American tribal lands are managed with the assistance of the Bureau of Indian Affairs (USDI), but technically these are Indian lands managed in trust. National Park Service (NPS) and Fish and Wildlife Service (FWS) lands were allocated to satisfy goals related to recreational, aesthetic and spiritual values. In addition, Wilderness System lands managed by a number of the above federal agencies have been allocated to satisfy similar goals. In 1989, the percentages of federal lands allocated to the NPS are 11.5 percent and for the Wilderness System it is about 9 percent. (these percentages cannot be added because wilderness is designated on national forest, national park, and other federal lands.) The

percentage of federal land in wildlife refuges and waterfowl production areas managed by the FWS is about 13.6 percent. Undoubtedly current percentages of reserved land are even higher. There is question whether or not the aggregate of national park, wilderness, and wildlife refuge lands is adequate to satisfy those recreation, aesthetic and spiritual goals. Many environmental groups maintain that the reserved area is not adequate, with the more radical contending that virtually all federal lands should be so allocated, as well as pushing for heavy regulation of private lands surrounding federal land.

It seems apparent that management trends on federally-managed public forests are away from commodity outputs and toward recreation and natural conditions. The extent of parts of this trend is illustrated at the national level by a drop in national forest timber sales from 11.9 billion board feet in 1989 to 7.3 billion board feet in 1992. At the same time, net revenues fell from approximately \$796 million to approximately \$255 million (Public Land Review, March 18, 1993). (These specific figures at national level heavily reflect very large reductions in the Pacific Northwest. As compared with other regions, they exaggerate downward trends. But the basic direction is the same -- although degree is considerably different from one region to another).

Although the policy change we recommend in this paper probably should be applied to all federal lands, here we address only those lands in the National Forest System (NFS) of the Forest Service. Justification of this focus is that NFS lands are particularly valuable federal assets that figure most in particularly intense controversies between environmental groups and groups concerned with regional and local economic growth and development.

Many lay-people, environmentalists, and politicians, as well as some resource managers, currently view multiple use lands in the NFS as a pot of available land that should be moved into either the National Park system, wildlife refuges or the wilderness

system. In contrast, national forests were established by the Organic Act and subsequent legislation to be managed for multiple uses. That is, to provide this nation with commodities (e.g., water, building materials, newsprint, and papers of various kinds, and forage), services (e.g., recreation), and environmental protection (e.g., to insure the maintenance of biodiversity).

Management goals for federally-managed public forests are of several kinds. They are managed overall for multiple outputs of goods and services; that is, conditions sought from forests in same overall sense as other public forests. Management is influenced to considerable degree by legislation applying only to federally-managed land, e.g., Wilderness Act, National Forest Management Act. The latter act specified a legally mandated planning process of substantial complexity. It also specifies (or at least provides) numerous opportunities for participation by public/citizen groups. One form, when others do not achieve agreement, is participation by lawsuit. This tactic has been used with some considerable frequency in various parts of the country. The legal issue is frequently related to specified procedures called for in NFMA. In contrast, the substance of the matter is often disagreement concerning management direction and emphasis.

LAND TRANSFER PROPOSAL

We have been strong supporters of the National Forest System throughout our professional careers and would continue to be if we believed current arrangements had a chance of being viable in the future. Indeed, one of us was asked when first in office as State Forester two decades ago, ". . . what do you think of the idea that the three National Forests in this state be transferred to the state." Replying ". . . that is not a good idea, National Forests are competently managed, and they are good people with whom to cooperate . . ." gave the flavor of my thinking at the time. Somewhat later we argued in print [Henry H. Webster and Daniel E. Chappelle. 1993.

An alternative to large-scale land tenure changes. *Journal of Forestry* 91(2):30-32] that attempts at large-scale changes in land tenure result primarily in waste of human energy, frustration, and granitic deadlock. In spite of this we have come to the conclusion that a change in ownership patterns may be the only way to improve conditions on federal commercial timberlands. Our specific recommendation is that all NFS lands be transferred to the states except those having clear national significance. We make this recommendation because we are witnessing colossal waste of our valuable natural endowment and likely will see the situation worsen if arrangements are not changed. The question of what constitutes land having "national significance" will have to be decided by executive and legislative branches of the federal government. In our view, however, such lands would have to offer some feature not generally found in forested environments, such as some outstanding topographic feature or unusual flora or fauna.

A major rationale for our proposal is that multiple use management of federal forests currently appears to be unworkable in our society. The electorate does not understand it and has been sold on single use management, mainly by advocates of preservationist policies. Of course, it is quite evident that most of the public has no idea of the difference between the Forest Service's multiple-use orientation and the NPS's (single-use orientation). Unfortunately, rarely could analysis serving as a basis for multiple use decisions be termed unambiguously defensible. This undermined the scientific underpinnings for forest management to achieve multiple use optimization. This has occurred because it has been difficult to scientifically measure quantities and values of many outputs of multiple-use management. Good evidence of this problem is found in arguments one hears regarding the "below cost" timber sale issue, which usually imply that timber is the only output. In our judgment, neither the majority of the public, Congress, nor environmental groups subscribe to the multiple-use concept. From recent literature, we even have doubts about many resource managers (including those in the Forest Service). There is always the tendency of single-use

proponents to push for lands dedicated to their pet use and then regard remaining multiple use lands as fair game for future dedications. Perhaps it is simply time to admit that multiple use is not politically feasible!

Our proposal for transfer of federal forest land to states will probably seem very radical to many people. However, in terms of our system of government, certainly it is not as radical as the original formation and configuration of the National Forest System. Federal government stewardship of public lands was essential in this country's history in that it provided for conservation of some very valuable assets when states were unable to do so. However, it seems that this role is now logically at its end point for those lands used for commodity production (i.e., multiple-use lands). Instead, we find now that federal stewardship is not on the cutting edge and in fact poses a barrier to advancement of regional economic and social development. In fact, because of lack of management and resulting poor health, many of these forests now pose extreme hazard to people and property because of increasing fire hazard. We need to somehow break the gridlock currently strangling our NFS and we need to improve productivity (and associated health) of our public lands (see Figure 1).

As noted above, until very recently we have been strong advocates of working within existing institutional arrangements. However, it appears that we are in an era of acceptance by the electorate of considerable institutional change with the primary goal to eliminate deficits in the federal budget and perhaps reduce federal government influence on people's lives. We offer this proposal in that spirit, readily acknowledging that change of this magnitude will be accomplished only with great difficulty.

Figure 1. Examples of Growing Entanglement of Federal Land Management.

- Deplorable lack of forest management has contributed to failing health of forest stands in many parts of the country.
- Continuing waste of our natural endowment and increasing reliance on other countries to meet our high demands for forest products.
- Citizen lack of appreciation of the role of natural resources in regional economic and social development in American society has enabled environmental groups to convince most people that federal lands are not needed for commodity production and that they can serve as a pool of resources to be devoted to one use -- preservation as ecosystems to maximize diversity.
- Many regions of the country not developing economically and socially as well as they might because the federal government owns a large proportion of the land.
- Multiple use management of federal forests currently appears unworkable in our society.
- Federal stewardship not being on the cutting edge poses a barrier to advancement of regional economic and social development. In fact, because of lack of management and resulting poor health, many federal forests now pose extreme hazard to people and property because of increasing fire hazard.
- Because of continuing federal budget deficits, enormous federal debt, and large funding needs for human development programs, the federal government will not adequately fund even necessary custodial services (e.g., fire control) foreseeable future.
- Forest Service has largely become unconcerned with economic development, even at the national level.
- Federal land management agencies fail to emphasize local and regional economic and social conditions.
- Some natural resource legislation has led to the frittering away of large sums of federal funds in land use planning and legal proceedings that could have been better allocated to on - ground management.

STATE OWNERSHIP INITIATIVE

Reading in the area of public policy literature led us to see a path out of the quagmire. Alice M. Rivlin published a book in 1992 entitled *Reviving the American Dream: The Economy, the States & the Federal Government* (The Brookings Institution, Washington, DC, 196 pp.) that provides a possible solution to the current gridlock in public land management. Dr. Rivlin was the first director of the Congressional Budget Office, later served as Director, Office of Management and Budget, Executive Office of the President, and currently is Vice Chairman, Board of Governors of the Federal

Reserve System. Although Rivlin did not focus specifically on public lands, her prescriptions could provide solutions to the problems posed above, as suggested by a summary quotation from the jacket of this book:

"Under her plan, the federal government would eliminate most of its programs in education, housing, highways, social services, economic development, and job training, enabling it to move the federal budget from deficit toward a surplus. States would pick up these responsibilities, carrying out a 'productivity agenda' to revitalize the American economy."

Rivlin elsewhere suggests a system of shared taxes among states to pay for these new responsibilities. This suggestion is closely modeled on arrangements successfully used in Germany over an extended period.

Basically the Rivlin approach applied to federal forest lands leads to transfer of these productive assets to the states. We believe such a transfer could lead to improved forest management in this country. For one thing, there is a higher likelihood that states would invest more funding in managing forest lands because benefits flow more directly to the states than to the nation as a whole. Also economic benefits likely will be larger because states are more likely to allocate more land to increase economic development than has the federal government. This assertion is based on observations of forest management at the state level in various parts of the country. In addition, various innovative financing schemes and partnerships in forest resource management have been instituted by state governments.

It should be emphasized that this proposal does not flow from the "sagebrush rebellion," "county supremacy," "Wise Use," or the right wing states rights movements, which we do not support. Rather, our proposal is a pragmatic way to solve a serious public policy dilemma and offered in the spirit of increasing the cost effectiveness of government in reaching public goals.

Our proposal flows from very serious concerns regarding public forest land:

- Largely because of a lack of funds, a lower level of forest management has been practiced than desirable in the pursuit of public objectives. This lack of investment over a long period of time has resulted in degradation of some very important public assets;
- A lack of emphasis on local and regional economic and social conditions by federal land management agencies;
- Because of a serious lack of appreciation of the role of natural resources in regional economic and social development among the Americans, environmental groups have been able to convince most American people that federal lands are not needed for commodity production and can serve as a pool of resources to be devoted to one use -- preservation as ecosystems to maximize diversity. This notion is fallacious and fails to recognize the importance of natural resources to employment and income generation.
- Many regions of the country have not developed economically and socially as well as they might, if the federal government was not such a dominant landowner.

The level of forest management practiced on national forests has never been very high, particularly compared to industrial forest lands. In fact, it is likely that on average state governments currently practice a higher level of forest management than the Forest Service. State forest management tends to focus a great deal more on local concerns, particularly relating to economic growth and development.

Strength of state programs for protection, management, and use of forest resources can be illustrated rather simply. Examples of important initiatives by selected states are summarized succinctly in Figure 2. States included are a reasonable (though non-random) sample of the 50 states. Both knowledge of the authors of this article, and an attempt at widespread geographic distribution played parts in selection. Taken together, these examples illustrate major competence and initiative by states. This

Figure 2. Selected Examples of Effective and Innovative State Programs for Forest Resources.

- **California:** Organization of partnerships among diverse owners for mutually - agreed, reasonably compatible management of large blocks of land.
- **Massachusetts:** Successful development of cutting - practice regulations that have allowed an increasing harvest of timber to occur in careful manner in a very intensively suburbanized state (this has occurred with reasonable harmony among harvesters and residents).
- **Michigan:** Management planning for large State Forest system focuses directly on separating uses and users to prevent unnecessary conflicts; created a new investment oriented financing mechanism to finance improved management for timber on carefully selected parts of State Forests; governor's target industry program for forest resources and industries was one of a considerable number of factors that led to a 25-percent decrease in the state 's dependence on the recession-prone automobile industry.
- **Minnesota:** Impending expansion of carefully planned timber harvests on State Forests; impending strengthening of already - good technical assistance to nonindustrial private forest owners; considerable success in fostering agreement among stakeholders via roundtables; forest products industry currently state's fastest growing industrial sector (twice the rate of the overall quite healthy state economy).
- **Missouri:** Brought about notable improvement in resource management programs for forests, wildlife, and fisheries by dedicating fixed percentage of the general sales tax to such management.
- **Montana:** Has developed very effective methods for assessing compliance with best management practices on all types of forest ownership.
- **North Carolina:** Very strong and well-financed forestry extension program providing effective technical assistance to both forest owners and modest-size forest products firms.
- **South Dakota:** Successfully manages Custer State Park in the Black Hills for a wide range of purposes/uses including many kinds of recreation activities, wildlife, and timber. Partial geographic separation and skilled application of relatively light-handed timber management / harvest made range of uses compatible. Large size of Custer State Park undoubtedly helps as does open character of ponderosa pine stands (some trees removal causes little or no change in appearance) and the relative isolation of Black Hills. But basic idea is probably doable elsewhere (evidence: Algonquin Provincial Park in Ontario is managed much the same way with entirely different forest types within 140 miles of an extremely large population [Toronto, etc.], numerous cottages on western and southern edges [Muskoka], and numerous resorts).
- **Virginia:** Generally acknowledged "best-tied together" package of technical assistance and financial incentives for nonindustrial private forest owners (common delivery system for both in essence). Encouragement of landowners to follow best - management - practices for water quality. Very effectively uses low-cost incentives first. High - cost regulatory arrangements are limited to the relatively few situations where incentives fail to prevent serious difficulties. (Amounts to pattern-setting cost - effective approach to aspects of environmental protection).
- **Washington:** Intensive management of timber resources of state public lands for purpose of helping to adequately finance the public school system. Outstanding early example of fostering agreement among resource stakeholders via the Washington timber -fish - wildlife agreement.
- **Wisconsin:** Highly effective management of county - owned forests. State provides direct help in terms of both technical guidance and part of funding. County forests are especially

important in this state since that's where tax - reverted land went by provision of state constitution. Wisconsin's historically large forest products industry is sharing in the growth noted previously for Minnesota and Michigan, its Lake States neighbors.

pattern of state competence and initiative, and increasing federal embroilment, has amounted to a sea change in relations between levels of government.

There has been a major change in relations between states and the federal government in forest resource matters over a period of about two decades. The Forest Service was historically the lead agency for all of U.S. forest resource management and protection. A great deal of its activity over decades served as a model for other organizations, both public and private. In part, this role as model was simply by example. In another major part, it was by aid (both technical and financial) to states and other entities. As historian William G. Robbins (*American Forestry: A History of National, State, and Private Cooperation*. University of Nebraska Press, 1985) put it, "... [cooperative efforts and support of state activities came to encompass] virtually every arena of interest to forest owners and industrial processors." All principal branches of the Forest Service took part in this role as model. The state and private forestry branch was and is the direct link for most technical and funding assistance to states and other entities. The research branch provides much essential information of many types. Management of national forests long provided a useful model by example. Being frequently better staffed and equipped than state and county forest management agencies, national forests provided a model, goal or target of aspiration. This pattern, particularly that of model by example for national forests, has in the past decade or two been seriously obscured. Controversies appear to spring up in national forests almost nationwide, that may or may not have strong connection to particular locations. Effects have been serious as discussed elsewhere in this paper.

FEDERAL INVESTMENTS UNLIKELY

Forest management and silvicultural research provide the knowledge base for a much higher level of production if adequate investment is provided. A major problem with the National Forest System is that it is highly unlikely that the Federal Government will ever provide anywhere near this level of investment, even if public opinion permitted a more intensive level of forest management. Because of continuing federal budget deficits, enormous federal debt, and large funding needs for human development programs, it is quite apparent that in the foreseeable future the federal government will not adequately fund even necessary custodial services (e.g., fire control), as is apparent in our National Parks. It is even less likely to fund investment needed to practice forest management adequately from the standpoint of the economic system, the social system or even the ecological system. This is indeed ironic, given current emphasis on ecosystem management.

Increased investment for federal forest management undoubtedly could be justified on many national forest lands on the basis of increased timber prices alone. However, a more important reason is the increased quantity and quality of priced and non-priced goods and services that can be produced if forest management is intensified using the best practices known to forest management. On the other hand, there is no doubt that prevailing public opinion is overwhelmingly against commodity production on national forest lands. In fact, public opinion seems to be strongly against the federal government being involved in producing any commodity traded in the market system. In part, this public opinion can be ascribed to the tremendous public relations campaigns of major environmental groups and lack of understanding of the economic importance of natural resources on the part of a largely urbanized population.

Also, recently the political climate in this country has shifted to the point where a considerable part of the electorate have taken a strident position against federal government involvement in most areas of life, except national defense and law enforcement. Hence, current public opinion of natural resources reflects these significant changes and it is unlikely that the national forests will ever again be as important for commodity production as they were during the period of 1950 to 1975 (not that we consider a return of that situation desirable). To a certain extent during that period NFS lands served to provide timber to meet national needs as seriously overcut private lands regenerated and recovered.

Although much of the American public has been convinced that forests (and especially public forests) and perhaps even natural resources in general, are largely irrelevant to the economy, they believe they are extremely important to the integrity of the global ecological system. It is assumed that materials will always be available from elsewhere. This is a major influence leading to a higher level of imports. A similar trend has occurred with minerals and petroleum. However, although national forests may make minor direct contributions to national income, these lands often provide an important economic base to communities and regions, particularly in the West. Given the nation's needs for both commodities, services and environmental protection, it is essential that more managerial attention (and funding) be given to public forest lands. Also, it is important to increase exports and decrease imports (e.g., wood from rain forests of South America and Asia) in order to improve the nation's trade position.

BIAS AGAINST FOREST MANAGEMENT

Some environmental groups in conjunction with certain segments of the media have been able to turn the American people against forest management practices needed to sustain many forest types, especially clearcutting (and, more generally, even-aged management) and to a lesser extent, prescribed burning. Clearcutting

particularly has been attacked in an aggressive way. It is evident that there have been numerous cases of forest malpractice over the years, both in Forest Service and other ownerships. However, these environmental groups would have the public believe that clearcutting is never appropriate and some of the more radical even maintain that trees should never be cut. Many contend that stands regenerated by man are not "real forests." Also, many people maintain that prescribed fire should never be used. In contrast, however, natural fires are acceptable to them and in fact should be allowed to proceed without intervention. Because of lack of fire and cutting, many areas of the country, particularly the intermountain West, have reached a condition extremely hazardous to human life and property. Since the lands are in federal ownership, the local people, who bear the largest risks, have little influence on how the forests are managed.

Costs of taking these extreme positions on forest management are largely hidden from the American people. High costs of these radical environmental policies are reflected in higher costs of living in this country. For example, the higher cost of wood materials (e.g., lumber, waferboard, etc.) are included in the cost of a house. Higher costs of containers (e.g., boxes) reflect higher raw material costs. Higher newspaper prices reflect higher costs of newsprint. Although most of this is imported from Canada, similar public pressures are found there but with less entangling results. The Canadian political and legal systems seem more capable of resisting ill - guided pressures. Higher materials costs are reflected not only in higher living costs, but also in expanding trade deficits. Also, higher living costs increase the concentration of income and wealth towards the top. This perverse redistribution of income and wealth occurs because shelter, containers and paper are needed by everyone regardless of income level (although perhaps not the same quantity and quality). Finally, the increasing costs of life and property losses by wildfire should be recognized.

Many important managerial needs are neglected on the national forests because the Forest Service necessarily has a national focus and cannot fulfill regional and local needs or exploit regional opportunities. Also, it is apparent that the Forest Service has largely lost any concern with economic development, even at the national level. The agency is now dominated by ecological concerns. It is well recognized that the dominant position of the Forest Service as a landowner in many western states has had the effect of inhibiting economic development. People living in these areas feel they have less influence over their area's future than residents in regions having more balanced land ownership distribution.

COMPLICATED FEDERAL PLANNING PROCEDURES

Planning processes for National Forests are extremely complex with numerous opportunities for appeals and legal objections built in via the National Forest Management Act. This was not the intent of NFMA's chief sponsor, Senator Hubert Humphrey of Minnesota. He stated succinctly at the Society of American Foresters (SAF) meeting in 1975 that the purpose of this federal legislation was "... to get forestry out of the courts, and into the woods." The effect has been exactly the opposite with "... caution piled on caution, and delay piled on delay..." as a retired deputy chief for research recently put it [Robert E. Buckman. 1995. The President's forest plan: no direction without consensus. *Journal of Forestry* 93(7):8-9]. Were he still alive, the notably pragmatic Senator Humphrey might well now favor repeal of his own handiwork.

Planning processes for State Forests are substantially simpler in many (if not all) states. They can focus more directly on helping to decide on primary purposes of management of parts of a given state forest, thereby giving management a more stable sense of direction. They are not subject to NFMA, and so do not have the appeal

processes and opportunities for statute-based legal objections in most states. These are major advantages in terms of efficient and cost - effective management.

This is illustrated by an apocryphal - sounding but apparently true story from the state where we were both formerly located. Location of a new medium density fiberboard plant was being considered by a forest products firm and an associated investor. The location first seriously considered was on the western (or Lake Michigan) side of lower peninsula Michigan in a town already having a relatively new major sawmill and a still slightly - newer pole - treating plant. A major part of raw material supply would come from red pine plantations dating from the Civilian Conservation Corps in the 1930s. These plantations are located in part on the Pere Marquette State Forest and a larger part on the Huron - Manistee National Forest. Growth is entirely adequate to sustain the modest increase in harvest that this proposed new plant would involve. The whole idea was also quite in harmony with Governor - led efforts to diversify the state economy.

The forest products firm and the associated investor sought some degree of assurance of actual raw material availability. The state resources agency produced within one day a letter stating that were the plant located there State Forest timber sale offerings would be increased by the State Forest's area - determined - proportionate - share of the proposed plant's total raw material requirements. This was over the signature of Michael D. Moore, then deputy director in charge of all state resource management activities. He subsequently served as director of the large umbrella agency in which all state resource management activities are located. After much prodding by members of Congress and others, the National Forest finally estimated that it would require three years for them to complete revision of their NFMA - guided management plan in order to give similar assurance.

The final result (involving a different industrial firm) has been in effect to move the medium density fiberboard plant about 150 miles further north to substantially lessen dependence on National Forests. It is currently under construction just north of the international bridge in the two - nation community of Sault Sainte Marie. It seems likely that various parts of its raw material will come from both sides of the bridge.

IMPLEMENTATION OF OWNERSHIP TRANSFERS

Our proposal presupposes that before public forest lands are transferred to states, lands truly having national significance would be transferred to the NPS or the FWS, including possibly the entire federal wilderness system. Our rationale in making this recommendation is that if recreational (including all types from wilderness camping to highly developed activities), aesthetic and spiritual goals are most appropriate, then the NPS would seem to be the appropriate management agency at the federal level. Those lands more appropriately managed as wildlife refuges should be transferred to the FWS. Of course, those lands not truly having national significance should be transferred to states (or perhaps even to a lower governmental level).

Various matters relating to implementation of land transfers to states are shown in Figure 3. Of course, if our recommendation were to be implemented it is essential that the NPS and the FWS be funded more adequately than currently. Conditions of the National Parks are in a definite downward spiral. Increased funding would be possible if funding for the national forest system was eliminated from the federal budget and a portion reallocated to the newly organized NPS and FWS.

Another transition problem relates to wildland fire control. The Forest Service and other federal land management agencies assume much of this responsibility, especially in the West. There is no doubt that the Forest Service has excelled in fire

control over the years. Although it is true that much can be accomplished by the states, especially as they have formed cooperative compacts with other states (and, in some cases, with Canadian provinces), those efforts may not be sufficient in some cases of extreme catastrophe.

Figure 3. Some matters of implementing land transfer to states.

- **Determining National Significance:** National significance needs to be evaluated largely by the executive and legislative branches of government and is inherently a political decision. It is true, however, that much information needed in making allocation decisions would have to come from federal resource management agencies. Transfer of lands truly having national significance to the NPS or the FWS insures that national objectives will still be pursued. National significance can change over time so there needs to be an ongoing reevaluation of lands in the National Park, Wilderness and Wildlife Refuge Systems. If lands deemed not to have national significance are refused by states, they could be taken to not even have significance to the states. In those cases, perhaps they should be sold to the private sector.
 - **Transfer process:** Probably the most reasonable way to handle the land transfer is to set a time limit during which specific areas could be transferred to the NPS or FWS by acts of Congress before being transferred to states. Another way would be to handle the issue as the military base closure issue has been handled (i.e., have a task force develop a list of lands to be transferred to NPS that could not be modified by Congress, only approved or disapproved as a group). Undoubtedly this process would be contentious and accompanied by much political bargaining.
 - **Wildland fire control:** If the majority of the NFS lands were transferred to states, state fire control organizations would have to be greatly strengthened. Presumably the federal government would have to maintain fire control capability to protect lands it would retain because they have national significance. Since these lands would be managed by the NPS and FWS, the fire control agency could be lodged in the Interior Department. States would have to expand and upgrade their fire control organizations as their land ownership expands. It is clear that compacts between states and the federal government could provide protection at minimum cost. On the other hand, possibly the federal government should maintain the current fire control function in the Forest Service as a separate branch of that agency. A third alternative is to merge the fire control organization into a reorganized Federal Emergency Management Agency. This makes a lot of sense because much of the equipment and manpower could be used other types of disaster as well.
 - **Funding matters:** The question as to whether any state payments to the federal government should be made for the transferred lands is a difficult one. Although the federal government does not maintain a capital budget, asset values could be developed using commonly accepted valuation procedures. However, it is not likely that states would be able or willing to pay such amounts. We believe that a transfer without funding (a land grant or "block grant" of a sort) or merely symbolic amounts would be appropriate if we wish to see our public lands used to achieve public goals more fully than has occurred in the recent past.
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Many readers may conclude that implementation of this transfer of federal forest land to the states would prove disastrous to environmental protection and biodiversity. However, federal environmental laws (e.g., the ESA) apply to state lands as well as federal. Also, states in many cases have enacted impressive environmental laws of their own (some of which are even more restrictive than federal law). There is no reason to expect a diminution in environmental protection. In fact, it is possible that environmental protection will improve since local people often have a more effective voice regarding state management and are more threatened by a lack of environmental protection. In addition, environmental groups have highly effective state-level groups to interact with state government. On the positive side, transferring federal forest lands to the states eliminates a great deal of needless federal spending as well as likely improving management.

At first it might appear unlikely that the states can better fund forest management than the federal government. Although perhaps not possible in all geographic areas, it seems likely that states will invest more than by the federal government because:

- In many cases states already have forestry services that can assume much of the task of providing management to transferred lands;
- States have more of an economic development goal for forest management than the federal government;
- States have developed innovative private - public cooperative schemes to increase investment in forest management (e.g., states are willing to float bond issues to fund forestry improvements);
- Both commodity production programs and recreation programs will return revenues to state treasuries. As a part of this move perhaps a great deal of "below cost" recreation will be appropriately priced.

- Although state publics are not more knowledgeable or supportive of multiple use than the national public, there is more acceptance of zoning of forest land for best use (or key use), including commodity production.

We are quite aware that our suggestion goes against observations by an eminent person whom we greatly admire and respect. Marion Clawson, long associated with Resources for the Future, has been a career - long pioneer in an effort to use rational analysis to guide resource management. He was interviewed on the landmark occasion of his ninetieth birthday. Among other observations, he stated "There's a long history of states managing state - owned land. An pretty nearly all of it is bad ..." (Old Timber and New Growth: An interview with Marion Clawson. Resources: A newsletter of Resources for the Future, Fall, 1995, No. 121, pp. 6 - 9.)

We respectfully suggest that our recommendation and Marion Clawson's observations deal with different eras. The difference between eras is that state resource management has greatly improved (as illustrated in Figure 2), while federal resource management has become enormously entangled.

In contrast to many current proposals of granting the states responsibilities and resources to meet public needs, this proposal makes a great deal of sense in that land resources are local resources, are immovable, and are spatially priced. Therefore, regardless of ownership and management, these assets inherently have a local character. Concerns and objectives of the local population should always carry greater weight than those of more distant people. By transferring these assets they can be more efficiently managed to pursue social objectives. Also, after lands are transferred to the states, one would expect that continuing reevaluations of the need to retain lands in the state systems would be conducted. It would be expected that some lands would be transferred eventually to the private sector just as one would expect that some private lands would be purchased for the NPS or the FWS when they are recognized as having national significance. Of course, any lands eventually transferred to the

private sector should be sold at market price and the funds returned to the federal government. States would still have incentive to transfer lands to the private sector because in so doing the local tax base could expand and they could save costs of administering lands inappropriate to the public purpose.

The Forest Service could then be reorganized with its remaining main functions, research, extension (state and private) services and possibly a fire control branch. These functions should be carried out largely with a focus on national needs, as is currently the case. Very likely many extension activities are already being carried out by the states (in cooperation with the federal government). Therefore, perhaps serious budget cuts would be justified in this area as well. However, given the lack of a knowledge base regarding the ecological system and its interrelationships with the economic and social systems, the Forest Service research program should be greatly expanded.

Forest management has never reached the full potential in this country on federal public lands. Perhaps the transfer of federal commercial timberlands to the states will result finally in the introduction of economically justified intensive forest management in this country and hence reduce the waste of our natural endowment.