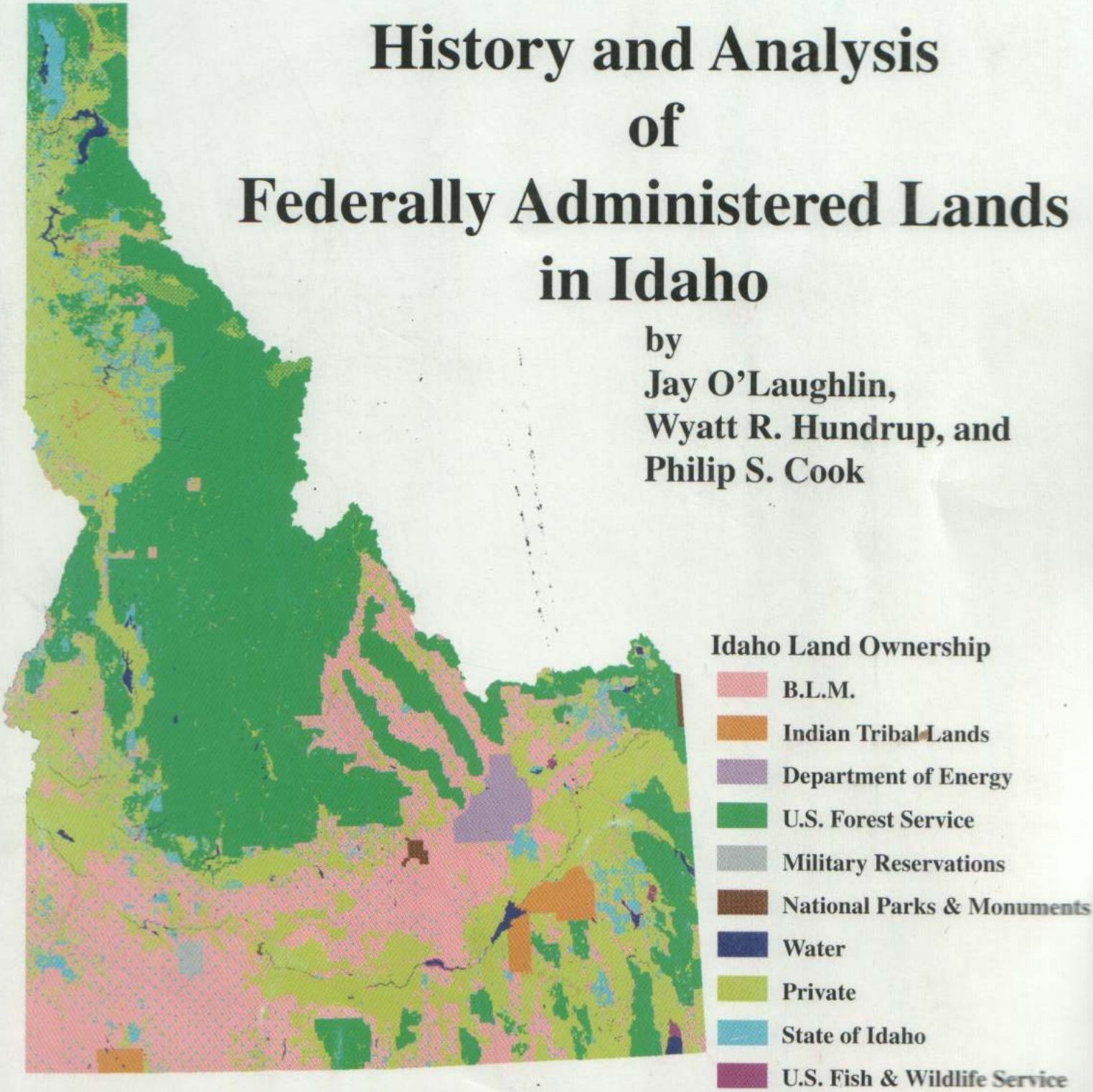
Idaho Forest, Wildlife and Range Policy Analysis Group

Report No. 16 June 1998

History and Analysis of Federally Administered Lands in Idaho

by
Jay O'Laughlin,
Wyatt R. Hundrup, and
Philip S. Cook



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- ✔ The Idaho Forest, Wildlife and Range Policy Analysis Group was established by the Idaho Legislature in 1989 to provide objective analysis of the impacts of natural resource proposals (see Idaho Code § 38-714).
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About the Policy Analysis Group (PAG)

Role and Mission. The Idaho Legislature created the Policy Analysis Group (or "PAG") in 1989 as a way for the University of Idaho to respond quickly to requests for information and analysis about current natural resource issues. The PAG's formal mission is to provide timely, scientific and objective data and analysis, and analytical and information services, on resource and land use questions of general interest to the people of Idaho.

PAG Reports. This is the sixteenth report of the Policy Analysis Group (see inside cover). The PAG is required by law to report the findings of all its work, whether tentative or conclusive, and make them freely available. PAG reports are primarily policy education documents, as one would expect from a state university program funded by legislative appropriation. The PAG identifies and analyzes scientific and institutional problems associated with natural resource policy issues. In keeping with the PAG's mandate, several alternative policy options are developed and their potential benefits and detrimental effects and analyzed. As an operational policy the PAG does not recommend an alternative.

Advisory Committee. A standing Advisory Committee (see inside cover) has specific functions assigned by the PAG's enabling legislation. The committee's main charge is to review current issues and suggest topics for analysis. Based on those suggestions, the dean of the College of Forestry, Wildlife and Range Sciences works closely with the PAG director to design analysis projects. The Advisory Committee has a responsibility to suggest the appropriate focus of the analysis. This is done iteratively, until an outline for the project is mutually agreed upon by the committee and the PAG. The outline is usually organized as a series of focus questions, and the PAG's analytical tasks are to develop replies to the questions. The PAG uses the available resources of the university and other public and private organizations as needed. When the PAG becomes active on a project, the committee receives periodic oral progress reports. This process defines the scope of PAG report content and provides freedom for the PAG to conduct unbiased analysis.

Technical Review. Peer review of PAG work is absolutely essential for ensuring not only technical accuracy but also impartiality and fairness. A technical advisory committee and technical reviewers are selected separately for each project by the dean and PAG director, sometimes upon recommendation of the Advisory Committee, to ensure that a wide range of expertise is reflected in the design and execution of PAG reports, and that no point of view is favored. Report review criteria used by the National Research Council of the National Academy of Sciences are the guidelines furnished to PAG reviewers.

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* Authors of the report have carefully considered each comment on the review draft. In this way the reviewers have contributed substantially to the form and content of the report. However, the reviewers have not approved the contents of this report.

PREFACE

Issues about the federal lands are controversial, making policy analysis especially challenging. Many Idahoans care deeply about these issues, for many different reasons.

When a member of the PAG's Advisory Committee (see inside cover) suggested federal land ownership as a topic, the other members reacted strongly, but divergently. Some suggested this was not a topic worthy of analysis, that the PAG could best use its resources elsewhere. Others countered that there is no more important topic in the state. Following deliberations spanning several meetings, the PAG undertook analysis to clarify through the lens of history the role of federal lands in Idaho. By design, recommendations are not part of what we do, so we steered away from the important but normative judgments of what ***should*** be done about federal lands in the state. Our challenge was to analyze what ***could*** be done with these lands. The history of federal land policy helped us understand that today's issues are not new, that some of today's situations have been encountered before, and several alternatives for federal land management have been suggested before.

In 1996 the Idaho State Board of Land Commissioners was mandated by the Idaho Legislature* to examine ways to forge a closer cooperative relationship between the state and the United States Forest Service, the agency responsible for almost 39% of the land in Idaho. Because the PAG had this project underway at that time, as PAG director I was invited to participate as a member of the Federal Lands Task Force the Land Board was assembling to address this issue. Believing that science-based knowledge about land and resource management could result in a more informed policy outcome, Dean Charles Hatch encouraged me to accept the invitation to serve on the Task Force.

This report has been improved because of my participation on the Federal Lands Task Force. I can only hope the "New Approaches for Managing Federally Administered Lands" report of the Task Force has been improved by my participation. There is a fundamental difference between these two separate but related efforts. The Task Force report makes a policy recommendation, this PAG report does not. The Task Force recommendation is that one or more new approaches to managing federal lands be attempted and evaluated on an experimental or pilot project basis in Idaho. All three of the "new approaches" recommended by the Task Force are analyzed in this PAG report. They are the trust land management model, the collaborative process model (called the Local Advisory Council alternative herein), and the cooperative state/federal model. A variety of other alternative approaches are also considered herein.

This report serves two purposes. First it replies to a set of focus questions (see **Executive Summary**) that were agreed upon between the PAG and the PAG Advisory Committee. Second, this analysis provides historical underpinning to the "New Approaches ..." report of the Federal Lands Task Force by bringing long-standing issues about the federal lands into the present. This sets the stage for considering the future of the federal lands, which is the future of 64% of the state of Idaho.

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* Idaho Code § 58-104(10) [1996].

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EXECUTIVE SUMMARY

The federal government is directly responsible for the administration of one-fourth of the land in the United States of America.* Idaho has almost 64% of its land administered by a variety of federal agencies (see report cover, Figure E-1 below, and Appendix Table A, p.100). In only two other states does federal land exceed 60% of the state—Nevada (77%) and Utah (63%).

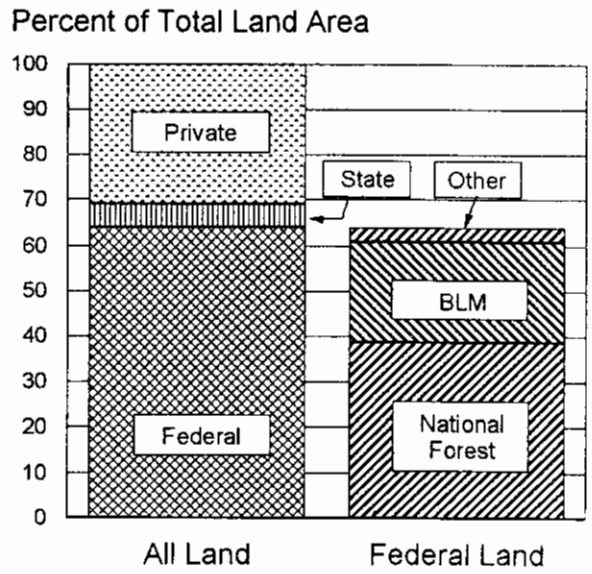


Figure E-1. Idaho land ownership, 1996; percent of total land area by public and private sector, with federal land percent of total by agency.

Source: Calculated from data in Appendix Table A (see page 100).

Of the 50 states, Idaho has the largest proportion of its land (almost 39%) in the National Forest System of lands administered by the U.S. Forest Service. The Bureau of Land Management (BLM) is responsible for another 22% of the land in Idaho. Other federal agencies have 3% of the land in the state. These other agencies have more specific missions than the Forest Service and BLM. Because of their predominance across the Idaho landscape and lack of a clearly defined mission (at least in relation to other agencies), this report focuses on the Forest Service and BLM. We also tend to focus more attention on national forests than on BLM lands because of the greater extent of national forests in Idaho, and their multitude of resource values and marketable products, and our professional expertise.

* Citations to literature and legal documents appear in the body of the report, but not in this **Executive Summary**.

Focus Questions and Brief Replies

This report replies to several questions about federal lands in Idaho. These focus questions and brief replies follow. This information provides the background for considering a variety of alternatives to the current system of managing Forest Service and BLM lands.

[1] ***Why is 64% of Idaho federal land?*** The reply is found in the changing role of federal land in the historical development of our nation. All of the land in the United States was previously owned by other nations and Indian tribes. Acquiring land through purchase and conquest, the federal government has at one time or another owned 80% of the nation's land; now it owns 24.2%.

Until a century ago federal land was used to encourage settlement and development through policies for disposing the land to private entities and states. Fewer people settled in Idaho than in

most of the other states, so federal land ownership remained high during the nation's settlement and development era. For the past century the policy has been to retain the federal lands and assign management responsibilities to various federal agencies.

[2] ***What is the purpose of federal lands?*** History illuminates the purpose of federal lands. Various policies have been developed to guide the federal agencies as they plan and implement land management activities. These policies take the form of legislative statutes, administrative regulations, and judicial rulings. These three types of law are supplemented by executive orders and agency directives and guidelines.

For the Forest Service and BLM, the purpose of these lands as defined in statutory law is "multiple use." The multiple-use laws give the agencies much discretion in deciding what uses to provide, and who will get the benefits of those decisions. This discretion provides little basis for judicial review, as almost any mix of management strategies can be considered to meet the multiple-use mandates. From 1950 to 1990, commodity production was emphasized—timber production on the national forests and livestock and mining on the BLM lands. Since 1970, however, various environmental laws and their provisions for citizen lawsuits have gradually shifted the management emphasis to favor protection of wildlife and fish habitat.

Deciding what uses of federal lands are permissible, and where, when, and how those uses may be carried out, presents difficult choices that have become progressively more complicated since the decisions during the Progressive Era more than a century ago to retain these lands in public ownership. Laws since the late 1960s require consultation with the public and with regulatory agencies. This often led to conflict and confrontation between different interests with different views on what mix of uses federal lands should provide. Legal strategies and counter strategies by contending factions sometimes produced deadlock. In the 1990s, the situation is frequently described as "gridlock," which refers to the inability to resolve conflicts in a decision-making body, such as Congress or a bureaucratic agency, resulting in government inaction.

[3] ***What does the law say about "ownership" of federal lands?*** These lands are federal property owned by the federal government. At statehood in 1890, Idaho forfeited any and all claims to these lands in exchange for grants of land to support public institutions in the state, as did all states admitted to the Union after 1803.

[4] ***What "federalism" issues are relevant?*** Federalism means that the nation's government is organized so that two or more levels of government have formal authority over the same areas and people. Three resource management issues associated with federalism are analyzed herein. They are:

Preemption.— Situations where federal jurisdiction takes precedence over state jurisdiction are called preemption. The Supreme Court heard 63 preemption cases in the 1980s involving federal lands and resources, yet the issues remain murky. Congress has absolute authority over the federal lands, but federal jurisdiction preempts state jurisdiction over the lands and resources only when Congress so specifies. For example, Congress has not specified that all wildlife on federal lands are subject to federal control, so state jurisdiction reigns except in the cases where Congress has spoken, such as migratory waterfowl and endangered species.

Revenue Sharing.— The federal government is exempt from paying the property taxes used to bolster local government finance of roads and schools. However, since 1908 policies have provided that federal lands contribute something toward this purpose. The amount is determined by the quantity of federal land in a county, how much revenue is produced from that land, and congressional appropriations. The shift in management emphasis from timber production to wildlife and fish protection has reduced federal revenue sharing, which has impacts on local government finance in Idaho and elsewhere.

Locus of Decision Making and the "Public Interest."— At what location should the appropriate uses of federal lands be decided? Local citizens would like to have more say, for obvious economic reasons that include commodity-related jobs and government employment as well as local finance from revenue sharing. But federal lands are owned by every

citizen in the nation, and democratic principles and the laws governing federal lands give everyone equal access to provide input to and challenge the decisions of federal land managers. The situation challenges managers to find a balance between their science-based professional training and the desires of their clients, both locally and nationally.

Organization of Report

This report consists of 5 chapters. Chapter 1 responds to question [1] above, Chapter 2 to question [2], etc. As required by the PAG's legislative mandate, alternatives are analyzed in Chapter 5. In this **Executive Summary** we have spared the reader the citations to literature and legal documents that appear in the report itself.

Superscript numbers scattered throughout the text of the report refer to statutes, case law, and other legal citations that are listed as **Endnotes** rather than imbedded as citations in the text. At the end of the report is a list of the **Literature Cited**, followed by a **Glossary** of technical terms and an **Index**.

Findings

History reveals that things weren't always the way they are today. History also provides a storehouse of information for considering what options for the future might work. Our nation's concept of public lands has evolved from one where federal lands were disposed to state and private entities to support settlement and development. Returning to that policy is an option, of course, but not one suited to these times as the lower 48 states of the nation were considered "settled" a century ago. Since that time, outside of Alaska the general policy for federal lands has been retention and management by bureaucratic agencies, with policy directions determined by agency and/or resource.

Fragmented Authority and Accountability. Attempting to determine how much federal land there is in Idaho, we encountered a situation that can be described as a lack of accountability. After individually confirming each agency's holdings, we conclude that 63.8% of Idaho is federal land. This is consistent with what the U.S. General Services Administration (GSA) reported in 1987. The GSA is responsible for accounting for real property owned by the United States. Since then the GSA, which relies on data furnished by the agencies, has reported different amounts of federal land in the state, ranging from 60.6% to 62.6% of the state's land area. This accounting discrepancy of one million or more acres is a symptom of fragmented authority, indicating that no one is charged with the overall accountability for these lands. Instead, a variety of agencies operate as independent authorities, and no one double checks on them to see if things add up.

This is not the case with agency resource management decisions, which many people check on, some as watchdogs. Laws give almost any citizen standing to offer legal challenges to decisions that might violate procedural or substantive requirements in the various laws that govern the management decisions on federal lands, especially the multiple-use lands of the Forest Service and BLM.

Authority for land management is fragmented among a variety of agencies and resource categories. Depending on the resource and agency, land management policies range from custodial management to intensive use, and include the goals of preservation of some landscape features, including wilderness and critical habitats for threatened and endangered species, and protection of environmental quality. The statutory purpose of Forest Service and BLM land is multiple-use resource management. The policies requiring consultation among different agencies and between agencies and various interest groups often are unable to resolve the conflict inherent in a multiple-use strategy on federal lands. Conflicts in the goals of laws lead to confrontations among interests that require judicial interpretations if one party brings the issue to the court's attention by filing a lawsuit.

Accountability is affected by fragmented authority. These are national lands, thus there are issues concerning how state and local interests can be balanced with national interests. These "federalism" issues involve to what extent federal lands should provide revenues for local government functions, and where authority for management decisions should reside—at the local level, or elsewhere? Similarly, where should

accountability for decisions reside? The current situation moves decision authority to remote administrators or judges. Accountability is removed from the local resource manager to remote locations that may neither understand local social, economic, or ecological conditions nor respond to them as the local manager would.

Gridlock. The use of adversarial legal strategies and tactics promotes "gridlock," a term many people use to describe the current federal land management situation. Among them are President Clinton and the two Chiefs of the Forest Service during the Clinton Administration.

Conflicts between preservation and development interests are more than a century old, but with modern laws put in place since the mid-1960s these value conflicts can result in deadlock. The lack of consensus affects agency decisions through what political scientists call gridlock. We use the term "gridlock" to include cause—decision deadlock from failure to resolve conflict or attain consensus among affected interests—and effect, which is inaction arising from the checks and balances built into the design of the government system.

Historical analysis reveals that the current situation is rooted in the social values of preserving and protecting various features of lands and resources. Preservation values were codified with the Wilderness Act of 1964, and subsequent environmental protection laws including the Clean Water Act of 1972, Endangered Species Act of 1973, and National Forest Management Act of 1976 elevate these values These laws are strong, and sometimes perceived as conflicting with the statutory mission of the land management agencies to provide multiple goods and services. On top of that are regulations for implementing the National Environmental Policy Act of 1969 (NEPA) requiring not only analysis of environmental impacts of federal actions, but also public involvement in decisions.

One result is that on the national forests the intensive timber harvesting that began in earnest in the 1950s began to wind down in 1990. By 1997, national forest timber harvests were about one-third what they were in 1990. Idaho has followed that trend, with a 60% reduction in timber harvests on its national forests since 1990. While timber harvests have declined, project delays and agency expenditures for preparing supporting environmental analysis documents have increased.

NEPA encouraged interest groups to file lawsuits, and courts found federal land managers were sometimes not meeting mandates of environmental laws. This includes procedural violations of NEPA and other planning and analysis laws as well as substantive mandates. The well-publicized spotted owl situation is one example, but Idaho does not have spotted owls. One reason for timber harvest reductions in Idaho's national forests in the 1990s is conservation of fish species protected by the Endangered Species Act—salmon, and more recently, steelhead and bull trout.

Gridlock has social costs that include distrust as well as expenditures for legal-defensive paperwork that could be used elsewhere. The Forest Service and BLM spend 30 cents of every budget dollar on resource management, and the rest on administration, including environmental analysis in support of plans and projects. Through distrust, gridlock also erodes the morale of public servants who dedicate more time to defending their chosen courses of action than to implementing them.

Analysis of Alternatives

Some leading public lands scholars say it is time for federal land policy reform. Among them are Randall O'Toole (1988, see also F.O.G. 1998), and Professors Charles Wilkinson (1995), Robert Nelson (1995), Sally Fairfax (1996), and Jack Ward Thomas (1997*b*). Ten alternatives are analyzed herein. Summary arguments for and against each alternative are provided in the body of the report. In this summary only a brief overview is provided. The report presents criteria and a framework for comparing the alternatives, but neither do we attempt a comprehensive comparative analysis of them, nor recommend one or more as superior to the others.

Current Baseline Situation (No Change). Two alternatives are considered. First is the baseline situation represented by current federal land-use plans prepared in the 1980s, as modified by interim strategies of the mid-1990s to protect fisheries. Second, ecosystem-based management

is the underlying strategy that will be used to underpin the next round of required land-use plans and to replace the interim protection strategies for fisheries. The ecosystem-based approach is evolving to a watershed-based strategy that attempts to work through gridlock by approaching land and resource management planning in a way that integrates ecological concerns with outputs desired by people.

Federal scientists recently conducted an ecosystem-based assessment of federal lands as part of the Interior Columbia Basin Ecosystem Management Project (ICBEMP). The region includes all of Idaho except the Bear River drainage, a small portion of the southeast corner of the state. The scientists identified three widespread ecological problems: [1] forest conditions that promote high-intensity wildfire, [2] exotic plants that have altered vegetation conditions, and [3] declines in salmon, steelhead, and trout populations. The ecosystem-based management approach would have managers consider that these conditions are not only related to each other, but also to the human communities in the Basin. The scientists concluded that "active management appears to have the greatest chance of producing the mix of goods and services that people want from ecosystems, as well as maintaining or enhancing the long-term ecological integrity of the Basin" (Quigley et al. 1996, p.185). Gridlock inhibits action, and today, two years after this assessment was published, little has happened on the ground.

These undesirable forest, rangeland, and aquatic ecosystem situations could be improved by active resource management strategies. Alone, any one of these problems is difficult to address. Taken together, tradeoffs among different resource values imply that difficult choices need to be made. For example, active fuel management to reduce wildfire in riparian areas would reduce risks to aquatic systems, but is it enough to outweigh the risk to aquatic systems posed by active management? Replies to such tradeoff questions pit resource specialist against resource specialist and user group against user group, further complicating potential improvements with the distrust associated with gridlock.

Alternatives to the current situation within which the agencies are trying to implement ecosystem-based management strategies take two general forms. First, change land ownership; second, retain the lands in federal ownership, but change the rules under which the land management agencies operate.

Change Ownership of Land. Two alternatives are considered. Changing ownership could be accomplished by either sale of land to private entities or transfer of land to state governments. These alternatives were analyzed in some detail in the early 1980s as the "Sagebrush Rebellion" wound down. At that time there was public debate about privatizing federal properties, or selling them to private interests. This idea met with little favorable reaction then, and seems to have mustered no more support today.

The idea of transferring ownership of federal lands to the states has surfaced in several recent congressional proposals. The key issue is whether the lands would be managed under the same set of rules following the transfer to state management. Federal lands are managed for different purposes than state lands and have different sets of rules to abide by. The state of Idaho has concluded that without changes in the rules, the state would face substantial additional costs now borne by the federal government, with uncertain prospects for increasing revenues under current policies that define the rules.

This analysis shows almost no support at this time for the idea of changing the ownership of federal land to private or state control. However, changing the rules could enhance the effectiveness and efficiency of federal land management.

Change Rules for Federal Land Management. Six alternatives for changing the rules governing the way federal lands are managed are considered.

Economic-based Reforms.— Improved management based on economic efficiency arguments means giving more attention to the costs and returns from ownership and management, providing maximum long-term benefits in relation to the costs incurred. Applying this standard of management could involve establishing a capital account that recognizes depreciation of assets and past investments and annual interest charges on resource values Reasonable charges or fees would be imposed, and improved efficiency of planning and adminis-

tration would be a goal. A basic assumption that has yet to be demonstrated by proponents of reforms based on economic efficiency is that ecological capability and environmental quality will not be diminished.

Economic incentives are powerful motivating forces, and should be considered not just by themselves but along with any and all suggestions or alternatives for change. To increase the effectiveness and efficiency of land and resource management, there seems to be a need to enhance the accountability of federal agencies. Judgments of economic efficiency depend on accounting for benefits and costs, thus economic-based reform is one approach to enhanced accountability.

Land Leasing.— Leasing transfers control of some part of the bundle of rights of property ownership to someone other than the owner for a specified period of time and for agreed-upon uses in exchange for periodic payments. Leasing is common in the private sector—farmers often lease land for crop production from their neighbors. Leasing is not at all unusual for public lands and resources. Federal lands are leased to private interests for oil and gas exploration, livestock grazing, utility corridors, and ski resorts and other recreational developments.

An expanded federal land leasing program in the U.S. would need to focus on the goals of a leasing program and how those goals are reflected in the terms of the leases. The lease instrument is flexible, and can be designed to insure the desired outcomes are attained. For some resources, it may be useful to consider leasing arrangements in a different light than they currently are. For example, if it is desirable to produce timber from federal lands, leasing arrangements could be structured to ensure that secondary effects of timber management are appropriately mitigated.

Federal Land Management Commission.— The time seems to be right for a national dialogue on the purpose and management of the federal lands as a system, something that has not been undertaken seriously since the Public Land Law Review Commission of the late 1960s. We do not, however, propose a similar commission. Most thoughtful people know what the problem on multiple-use lands is—mixed objectives from a mixture of laws encouraging adversarial strategies and promoting gridlock.

A commission could be appointed and given authority and accountability to oversee the management of federal lands. Such a body could design forums in which differences among interests could be resolved without resorting to the courts. Because gridlock is produced by adversarial legalistic strategies, the Federal Land Management Commission could charter a task force to examine the array of land-use planning and environmental laws that govern federal lands and recommend changes.

Local Advisory Council.— Collaborative efforts to manage federal lands through community-based partnerships or councils are blossoming throughout the western United States. Success may depend on moving the final authority for making decisions to local levels. Proposing that decisions about national interest lands should be made by local authorities raises "federalism" issues. Ecosystem-based management argues that effective management decisions need to consider interrelated conditions at the local as well as broader scales. However, some level of national involvement in local decisions is necessary for federal lands to continue to provide national values.

Trust Land Management.— Roughly 135 million acres of school grant lands in 22 states are currently managed by the states under the trust land management concept. These lands provide a body of experience that could be used to begin to consider adoption of this model for the federal lands. Because it is based on principles of clarity, accountability, enforceability, and perpetuity, trust land management may be an effective approach to achieving sustainable resource management. This alternative would require statutory authorization to vest boards of trustees with responsibility for insuring that the public lands are managed exclusively for the benefit of designated beneficiaries. Important questions are what the purpose of the trust would be, who the beneficiaries and trustees would be, and who would designate them.

Cooperative State/Federal Management.— Under these arrangements state and federal authorities agree in writing to accomplish a mutually beneficial objective. Both parties agree to accept defined responsibilities and both contribute resources. The 14,320 acre City of Rocks National Reserve in southern Idaho is an

example. Through legislation in 1988 Congress enabled the Idaho Department of Parks and Recreation to manage this unit of the National Park System under a plan developed cooperatively by federal, state, and local interests. The general intent is to provide for resource protection and use, with the future possibility of transferring management and administration of the area to state or local government at such time as the Secretary of the Interior determines that adequate resource protection is assured.

Framework for Comparing Alternatives. We suggest a comprehensive variety of criteria for evaluating these alternatives, including biophysical considerations, economic efficiency and equity, and social acceptability. "Sustainability" as a criterion requires considerations of ecological soundness, economic viability, and social desirability, thus is a summary of the other criteria. Administrative practicality is also an important set of criteria, and subdivided into mission clarity, accountability, and enforceability. It is well beyond the scope of this project to attempt such a comprehensive policy analysis, but we have paved the way for such analysis by identifying a set of alternatives for managing federal lands and comprehensive criteria with which to judge them.

Even after a comprehensive analysis, it would be difficult to select one alternative to the current land management situation. Today's policies and fragmented systems of authority and accountability for the federal lands have evolved over a century of efforts to retain and manage under centralized government control a substantial portion of the nation's land. Depending on the particular characteristics of different sets of lands and resources, one alternative might be more appropriate than another in different cases. It might also be appropriate to combine the features of different alternatives to fit different situations.

The Forest Service and BLM may not be successful in designing and implementing ecosystem-based management under the current system of rules. It is not necessary to change ownership of the lands because whatever goals could be attained by disposal could be met by retention and management under different sets of rules.

We see three common threads among the six alternatives that would change the rules. First is to clearly define the purpose of federal lands. Clarity of purpose and mission enhances virtually all other considerations. It gives the manager tangible goals for which the public can hold the manager accountable.

Second is transferring the locus of final decision-making authority closer to the land. There is a community-based movement in the West to figure out more meaningful ways to include local interests in federal lands decision-making processes. This could be done effectively through local advisory councils, trust land management, or cooperative state/federal management alternatives. A Federal Land Management Commission could make the determination as to which alternative is most appropriate for given sets of lands and resources.

Third is accountability. This means the manager is answerable for the condition of lands and resources, and for the expenditure of public funds. Efficiency as well as accountability could be enhanced by more widespread use of managerial incentives and leasing arrangements. Managers should be held accountable for environmental quality, and this is assured through various environmental statutes. We see no need to change them. Because adversarial legal strategies encourage decision deadlock and rigidify systemic institutional gridlock, a Federal Land Management Commission could sort through the various agency regulations for implementing environmental laws as well as the land-use planning laws and regulations for the multiple-use agencies and recommend changes.

Other than these concluding observations this report offers no recommendation as to what ***should*** be done about gridlock, but instead points out what ***could*** be done by considering the features of various alternatives.

Chapter 1. Why is 64% of Idaho federal land?

How did the federal government agencies come to be responsible for the majority of land in Idaho? This chapter replies to the question.

Most of the federal lands are in the western states, and their distribution is rather uneven. In Idaho and three other states—Nevada, Utah, and Oregon—the federal presence is especially strong, with more than half of the land administered by a variety of federal agencies (USDI-BLM 1998). This chapter explains how this situation developed in Idaho by first describing the current situation, and then by tracing the history of federal lands in Idaho.

All of the land in the U.S. was previously "owned" by either foreign nations or Indian tribes (Coggins et al. 1993). At one time or another, the federal government has "owned" 80% of the land that falls within the current boundaries of the United States of America (USDI-BLM 1998).

The term "ownership" used in conjunction with federal administration of lands and resources causes problems for some people who prefer to think of federal land as public land. In fact, though, the federal government not only is responsible for the administration and management of these lands, but also "owns" these lands. The legal support for this point is presented in Chapter 3. The use of the term land "ownership" with respect to the federal government is a more convenient way to state the facts of the matter than to say "administers" or "is responsible" for the management of these lands. At the risk of offending some readers, we will use the "ownership" shorthand in the text of this report.

Current Land Ownership and Land Use in Idaho

Land Ownership. Approximately 63.8% of Idaho's total land area is owned by the federal government. Two agencies are responsible for 96% of this land—the U.S. Forest Service and the Bureau of Land Management (BLM) (see report cover and Figure E-1).

Appendix Table A (p.100) identifies the different categories of landowners in Idaho, the acreage owned by each, and the percent of the total land area in Idaho that each owner holds. It was difficult to assemble these data, and there remains some doubt that our total may not be completely accurate because it is a different number than either the U.S. General Services Administration (GSA) or the Department of the Interior (USDI-BLM 1998) publishes in their reports. We referenced a variety of federal documents, and we confirmed data with agencies.

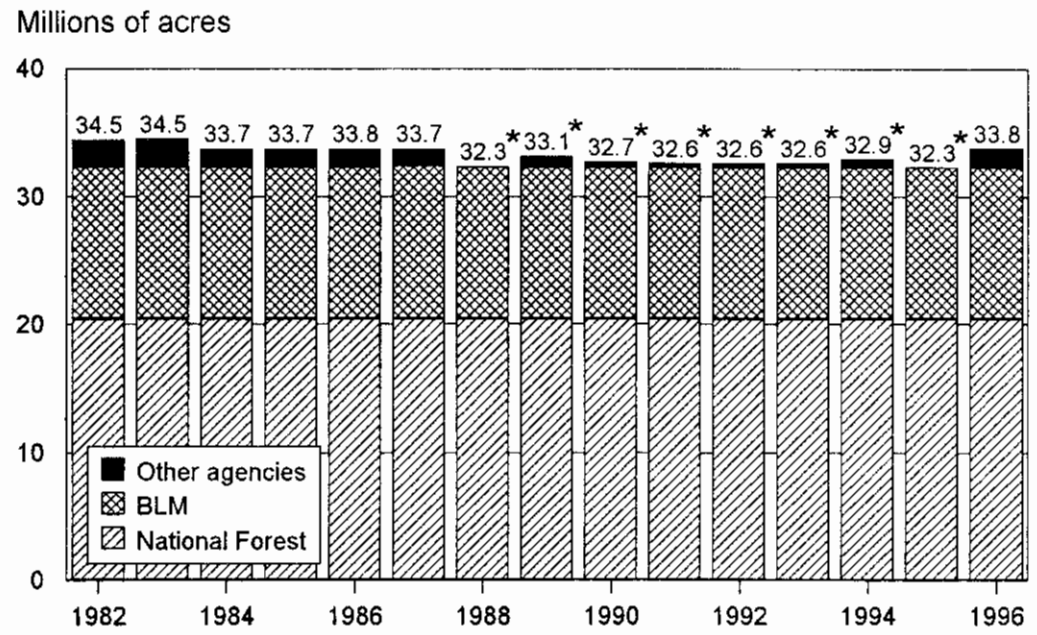
Our total of federal land in Idaho came to 33,772,718 acres (Appendix Table A, p.100). Idaho has 52,933,120 million acres of land, a census-derived figure consistently used by most federal agencies, and used herein to generate the statistic that 63.8% of the land in Idaho is federally owned. The GSA is charged with maintaining an inventory of real property owned by the United States, and relies on detailed reports submitted by the various real property-holding agencies (US-GSA 1990).

The total acreage of federal lands in each state is published annually in the *Public Land Statistics* report of the BLM (see, for example, USDI-BLM 1998). The trend of reported totals of federal land ownership in Idaho from 1982 to 1995 is depicted in Figure 1-1. According to the following analysis that supports the 1996 data in Figure 1-1, the total acreage reported by the BLM from 1989-1995 is incorrect. We believe each agency knows how much land it has, and that the GSA reported an error in 1988 and has failed to correct it. The BLM's annual publication accepts this erroneous information from the GSA uncritically and disseminates it widely.

In 1987 the GSA reported 33,716,129 acres of federally owned land in Idaho (USDI-BLM, *Public Land Statistics: 1988*), which is very close to the total we determined for 1996 (Figure 1-1). In 1988 the reported total declined to 32,094,162 acres (USDI-BLM, *Public Land Statistics: 1989*). Since then the total has fluctuated between 33,121,559 acres in 1989 and 32,071,048 acres in 1995, or between 62.6% and 60.6% of the total land in Idaho.

In 1991 we inquired about the decline from 1987 to 1988. The GSA replied that the Forest Service made a reporting error and that a new accounting system would prevent such errors in the future (J.M. Cayce, personal communication).

We see no evidence that the GSA has tried to correct this 1.7 million acre error. We are



* Based on analysis (see Appendix Table A, p.100), total acreage from 1988-1995 as reported in *Public Land Statistics* is incorrect; so is the calculated residual sub-total for "other agencies."

Figure 1-1. Federal land in Idaho, 1982-1996; with National Forest, BLM, and other federal agency ownership.

Source: **BLM, 1982-1984** — from *Public Land Statistics* (USDI-BLM 1998, for example), which reported General Services Administration data for all federal agencies; **BLM, 1985-1995** — from *Public Land Statistics* (USDI-BLM 1998, for example) for BLM and total acres data; **National Forest** — from annual *Report of the Forest Service* (USDA-FS 1997, for example); **1996** — from Appendix Table A, p.100 of this report.

convinced the accounting in Appendix Table A (p.100) is a more accurate portrayal of federal land ownership in Idaho than the GSA total reported by the BLM. Our total appears as the 1996 data in Figure 1-1.

As a check on our analysis, consider that in 1994 the Agriculture and Interior Departments reported to the U.S. General Accounting Office that the Forest Service, BLM, Fish and Wildlife Service, and National Park Service owned 32,439,588 acres in Idaho (US-GAO 1996*a*). To our knowledge these four agencies have not engaged in substantial land disposals in Idaho since then.

The Forest Service and BLM are responsible for 96% of the federal land in Idaho (Figure 1-1). Between 1982 and 1996, the Forest Service has held between 20.427 and 20.459 million acres; the BLM, between 11.845 and 11.919 million acres.

Land Use. Range (41%) and forest (39%) lands are the major land-use categories in the state. Agriculture occupies 15 percent of the state (see back cover of report and Figure 1-2). Roughly 4 percent of the state of Idaho can be considered unproductive or barren land. Approximately one percent of Idaho is water, and less than one percent is wetland and urban land (Idaho Association of Counties 1996).

The two predominant uses of federal land in Idaho are first, the combined purposes of forest and wildlife (54%); and second, grazing (44%) (Figure 1-3). The remaining 2% of the federal lands are for reclamation and irrigation purposes (US-GSA 1990). In 1993, roughly 30% of the federal lands in Idaho were subject to legislative or administrative restrictions for conservation purposes including wilderness, lands recommended as wilderness in land-use plans, recreation, and wild and scenic river corridors (US-GAO 1995).

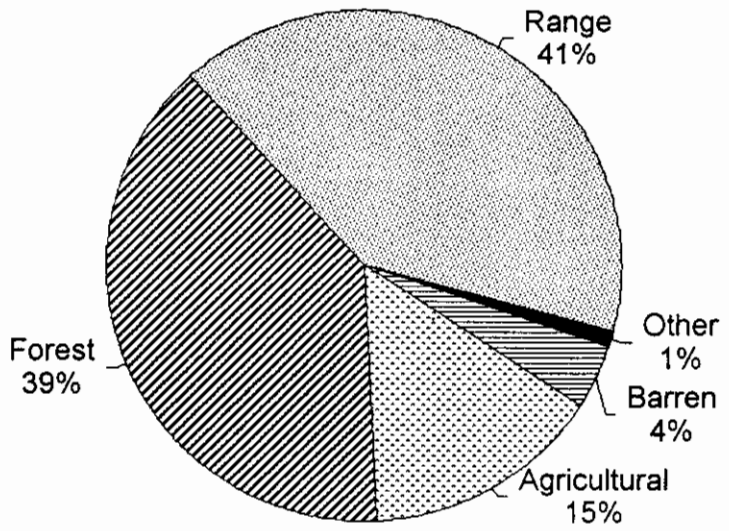


Figure 1-2. Land use in Idaho.

Source: *Idaho Public Lands: Facts and Figures* (Idaho Association of Counties 1996).

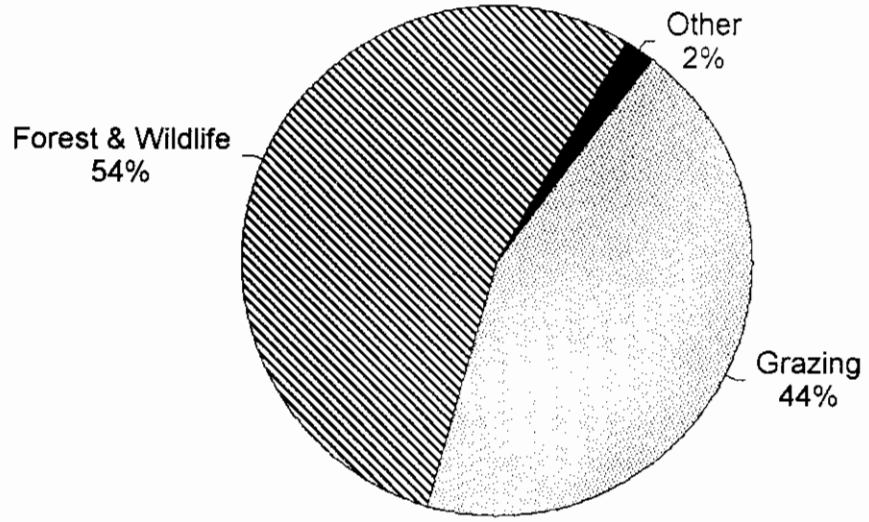


Figure 1-3. Land use on federal lands in Idaho.

Source: U.S. General Services Administration (US-GSA 1990).

Federal Land Eras

America's land system did not evolve overnight (Raup 1963). It stems from a fertile blend of vision and political expediency that happened in a four year period, between 1783 and the Northwest Ordinance of 1787, but it is rooted in the settlement experience of the thirteen colonies (Raup 1963).

During the first century of the United States, the nation grew by acquiring land. These lands were to be disposed to state and private owners for the purposes of encouraging settlement and development. During the nation's second century, the policy changed and land that still remained in federal ownership was placed under the administration of various federal agencies for a variety of management purposes.

Disposal of the Public Domain* to State and Private Ownership. The opportunity for Europeans to acquire land was one of the main motives in the settlement of the American continent, whether the land was on the eastern seaboard or the vast hinterlands that stretched from the Appalachians to the Pacific (Roosevelt 1967).

The Idaho territory was part of the Oregon Compromise between the federal government and Great Britain in 1846, which fixed the northwest border between Canada and the U.S. at the 49th parallel (Coggins et al. 1993). This land was acquired in 1803, when the U.S. purchased the Louisiana territory from France for $15 million. This extended public domain lands from the Mississippi River west to the Rocky Mountains, and from the Gulf of Mexico to Canada. It was the largest and most consequential addition of land because it tied the original colonies on the east to the coastal northwest where, because of Gray's discovery of the mouth of the Columbia River, the United States had a territorial claim. Before land could be transferred to settlers, it was then necessary to clear aboriginal title. Normally this was accomplished by treaties with native tribes (Smith, review comments).

Public domain lands were used to encourage companies to build railroads. When the western territories became states in the Union, public domain lands were given to them to help support the establishment of public schools and other institutions. The disposal of public land began before the United States Constitution was drafted in 1787. In August 1776, Congress offered land to deserters from the British army. In September 1776, grants were made to soldiers and officers in the American army (Hibbard 1965). The soldiers were paid with scrip that would be redeemable for lands west of the original 13 colonies (Fairfax and Yale 1987).

In 1803, the new state of Ohio made an agreement with the federal government not to tax federal lands in the state. The United States thus agreed to give Ohio one section in each 36 square mile township to support public education and other public purposes (Gates 1968). The same pattern was followed as other states were admitted into the Union. After 1848, all states, including Idaho in 1890, received two sections per township. Utah, Arizona, and New Mexico received four sections per township (Souder and Fairfax 1996).

The sale of public lands was used to pay off debts from the War of 1812 and to otherwise finance the operations of a new centralized government. The sale of land to English immigrants offered something few residents of England could ever expect to obtain (Bosselman 1994).

For more than 125 years, land disposal continued as the United States expanded its domain with land acquired from state cession, treaty, purchase, and conquest. The federal government disposed of this land first through sales, and later by grants to states, corporations, and individuals primarily to encourage development of the western territories (Fairfax and Yale 1987).

Railroad companies were encouraged to develop rail lines through a program of land grants from the public domain. In Idaho, 1.3 million acres were granted to railroad companies (Gates 1968). One result evident today is the checkerboard pattern of private land interspersed with federal land in the Coeur d'Alene and Bitterroot Mountains of northern Idaho (see report cover). The companies had their choice of 20 odd-numbered sections within a 40-mile strip for every mile of railroad built (Coggins et al. 1993). Through 1871, more than 94.3 million acres of

* "Public domain" and other technical terms are defined in the **Glossary**.

alternate sections of land had been granted to railroad companies, especially to the Union Pacific and Central Pacific railroads.

Several laws encouraged people to move west. The Preemption Act of 1841[1] authorized settlement upon and purchase of 160 acres of unoccupied, unreserved, surveyed, nonmineral public lands. After application, a settler was allowed six months to establish actual residence on the homestead, after which time the settler could purchase the land at $1.25 per acre (Coggins et al. 1993). By the time of the Homestead Act of 1862,[2] with similar provisions extended to unsurveyed lands, much of the desirable public domain land had already been disposed through sale or grants to states and railroads (Dana and Fairfax 1980).

Settlement of much of the western public domain land was difficult because it was too arid to attract homesteaders. The Desert Land Act of 1877[3] encouraged development of such lands by allowing entry* onto 640 acres at 25 cents per acre. The patent* for the land followed upon proof that the land had been irrigated (Coggins et al. 1993). In Idaho, 3,090,428 acres were originally entered under this Act, of which 989,218 acres were patented (Hibbard 1965).

Although it did not affect Idaho, the Timber and Stone Act of 1878[4] was part of the land disposal era. This Act authorized the sale of 160-acre plots of unoccupied, surveyed, nonmineral land chiefly valuable for timber or stone and unfit for cultivation in Washington, Oregon, California, and Nevada (Dana and Fairfax 1980). Designed to transfer lands to individual farmers exclusively for their own use and benefit, the end result was a massive transfer of prime timberland to industrial interests (Cubbage et al. 1993).

Idaho was granted statehood in 1890 and received the customary two sections per each 36 square mile township as a federal land grant. Elsewhere today these are generally referred to as school grant lands or school trust lands. Idaho calls them endowment lands and retains approximately 2.5 million acres of the original grants of 3.6 million acres (O'Laughlin 1990).

The land grants to the states for public schools and other institutions took two basic forms. First was the *in-place* grant of specified sections of land, which were sections 16 and 36 in Idaho. Second was the *quantity* grants. These were of a specified amount of acreage to be selected by the state from available federal land. The purpose of the *quantity* grants was if the *in-place* grants were already occupied, then the states were given the right to make *in-lieu* selections of other available federal lands as compensation (Coggins et al. 1993). The *in-lieu* land grants were lands transferred directly to the state from federal administration (D. MacNarie, personal communication). For example, today the Idaho Department of Lands (IDL) is responsible for the management of 185,896 acres of endowment lands east of Priest Lake in the Idaho panhandle (see report cover). Of this, 104,381 acres are classified as primary forest land (IDL 1997*a*). Portions of this land are the *quantity* or *in-lieu* land grants because some of the original *in-place* land grants for the schools were either already part of the National Forest System, or mostly covered by lakes, or under the ownership of another entity.

Shortly after Idaho became a state in 1890, the federal government recognized the lack of an irrigation program for individual landholders. Under the Carey Act of 1894[5] the federal government agreed to donate to certain states up to one million acres for the purposes of irrigation and cultivation. The federal government agreed to grant patents either to the state or directly to the settler. In 1908 an additional two million acres were granted to Idaho. Of the 3 million total acres in Idaho available under this Act for settlement purposes 658,179 acres were actually patented (Hibbard 1965).

After that, patenting of the public domain slowed and there was growing concern about the condition of resources on the remaining public domain lands. General attitudes towards the public lands changed, contributing to efforts that ultimately resulted in their retention by the federal government (Cody 1995). However, the Taylor Grazing Act of 1934[6] explicitly recognized that the public lands would be administered "pending final disposal," thereby continuing the presumption that these public lands might at some time be transferred to private or state ownership, and that the federal government was only serving as custodian until that time (Peffer

* "Entry" and "patent" and other technical terms are defined in the **Glossary**.

1951).

Shortly after the passage of the Taylor Grazing Act, President Franklin D. Roosevelt withdrew all federal land in the 48 contiguous states from homestead entry. The effect of this action was to prevent non-mineral entry of public land without prior permission, thus effectively closing the public domain (Smith, review comments). Thus, the Taylor Grazing Act and the withdrawal of homesteading from all western lands marked the end of major disposition of the public domain lands (Peffer 1951) outside of Alaska.

Federal land ownership has declined from one-third of the nation's land 3 decades ago (PLLRC 1970) to one-fourth of the land today (USDI-BLM 1998). The disposal of federal land to state and tribal ownership in Alaska accounts for almost all the change.

Retention and Management by Federal Agencies. More than a century ago, the nation's leaders recognized that there were good reasons not to give away all the public domain and to retain some land in federal ownership, with collective control foremost among them (Gates 1984, Sax 1984). Today the federal government owns and is responsible for the administration of 24.2% of the land in America (USDI-BLM 1998).

During the last quarter of the 19th Century, the western territories were settled and the frontier "closed." The dominant theme of public domain policy shifted away from land grants and disposal toward retention of the public domain in federal "ownership" and management of the lands and resources by bureaucratic agencies. This section briefly describes the origins of the four major federal land systems and agencies for their administration. Those are the National Park System, Wildlife Refuge System, National Forest System, and the Bureau of Land Management (BLM). The development and implementation of different management strategies for federal lands administered by the U.S. Forest Service and the BLM is the subject of Chapter 2.

The 1872 withdrawal of the Yellowstone area in northwestern Wyoming from homestead and all other entry was the beginning of the shift to retention. The Yellowstone area was to be "reserved and withdrawn from settlement, occupancy, or sale ... and dedicated and set apart as a public park or pleasuring ground for the benefit and enjoyment of the people."[7]

In 1892 the first federal wildlife refuge, Afognak Island in Alaska, was established by presidential proclamation (Bean 1983). President Theodore Roosevelt proclaimed the Pelican Island wildlife refuge in 1903. Congress became directly involved by authorizing President Roosevelt to designate two wildlife refuge areas in 1905 and 1906, and then by itself establishing a National Bison Range in Montana in 1908. A systematic program for wildlife refuge acquisition was authorized by the Migratory Bird Conservation Act of 1929.[8] At that time the Bureau of Biological Survey in the Department of Agriculture had the major federal responsibilities for wildlife conservation. In 1939 this bureau and the Bureau of Fisheries in the Department of Commerce were transferred to the Department of the Interior, and were merged into one agency. It has been known as the Fish and Wildlife Service since 1940 (Bean 1983). Not until 1997 was an "organic act" for the agency written into law.[9]

The General Revision Act of 1891[10] was a major overhaul of public land law. This Act has been called the Forest Reserve Act (Gates 1968) and more recently has become referred to as the Creative Act because it "created" the forest. This Act set the stage for land retention and conservation legislation passed in the late 1890s to early 1900s by authorizing the president to withdraw areas from homesteading for the establishment of forest reservations. Specifically, the Act states that "The President of the United States may, from time to time, set apart and reserve, in any State or Territory having public land bearing forests, in any part of the public lands wholly or in part covered with timber or undergrowth, whether of commercial value or not, as public reservations..." The Act was repealed by the Federal Land Policy and Management Act (FLPMA) of 1976[11] (Cody 1995).

In 1897 the U.S. Congress passed legislation that established a mission and provided authority for managing the forest reserves. The law, now commonly referred to as the Organic Administration Act of 1897,[12] among other things defined the purpose of the forest reserves and authorized the Secretary of the Interior to establish rules for their utilization.

The Transfer Act of 1905[13] authorized the transfer of the forest reserves from the Department of the Interior to the Department of Agriculture (Cubbage et al. 1993). Since 1907, under the Disposition of Receipts from National Forest Revenues Act,[14] these reservations have been called National Forests. Also in 1907, Congress tacked on a rider to the agriculture appropriations bill that prohibited further additions to the forest reserves in the 6 northwestern states. However, in the ten days before President Theodore Roosevelt signed the bill into law,[15] he added an additional 16 million acres of new forest reserves to the 95 million acres he had already designated between 1901 and early 1907 (Cubbage et al. 1993).

The Yellowstone area was withdrawn from the public domain in 1872.[16] From then until 1915 Congress created several more national park reserves and the president created others using executive authority under the Antiquities Act of 1906.[17] Not until the National Park Service Act of 1916[18] was there an agency to manage these special land areas. The significance of this Act was that it created the National Park Service and provide it with an organic charter (Smith, review comments). Under the Act, the agency has a dual mission "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

The Taylor Grazing Act of 1934[19] sought to conserve federal rangelands by halting competitive overuse and degradation of conditions by "stabilizing" the livestock industry (Fairfax and Yale 1987). Following passage of the Act, President Franklin Roosevelt withdrew 143 million acres of land from entry. This land was divided into "grazing districts" and allocated to historic range users.

The Federal Land Policy and Management Act of 1976[20] (FLPMA) imposed multiple-use criteria on the management of federal rangelands, but the Act specifically did not repeal the older statute or its use orientation, meaning that cattle grazing still dominates the BLM range program (Fairfax and Yale 1987).

FLPMA also clarified the federal government's policy on public land retention by establishing the national policy that "the public lands be retained in Federal ownership, unless as a result of the land use planning procedure provided for in this Act, it is determined that disposal of a particular parcel will serve the national interest." This put an end to the presumption that the public lands might be transferred to state or private ownership. It also expressed the federal government's changing perspective on public lands from that of administering the land "pending final disposal" to that of "federal ownership" (Smith, review comments).

The federal government acquires land to carry out its functions as the federal government, such as purchasing land to build a court house or to enhance conservation, such as the purchase of national park inholdings (Coggins and Glicksman 1996).

For example, during the period from 1912 to 1930, the Forest Service purchased several million acres of land east of the Mississippi River under the Weeks Act of 1911[21] (Cubbage et al. 1993). At that time, these were quite literally *The Lands Nobody Wanted* (Shands 1977). This Act authorized the federal purchase of private forest lands along the headwaters of navigable streams for watershed protection purposes. It also provided for the acquisition of privately held land within national forest boundaries through exchange for other national forest land in the same state. The Weeks Act was amended by the Clarke-McNary Act of 1924, which among other things extended the purchase authority to practically all lands and authorized purchases for timber production purposes (Cubbage et al. 1993).

During the two World Wars and the Great Depression of the 1930s, the federal government purchased extensive land holdings for economic recovery programs and military purposes (Fairfax and Yale 1987). For example, the 6,000 acre Mountain Home Air Force Base in Idaho was purchased for $1 to $2 per acre, in November 1942, with facilities construction beginning during World War II (Mountain Home AFB 1997).

The Bankhead-Jones Farm Tenant Act of 1937[22] provided for loans to tenant farmers, share-croppers, and farm laborers for purchase of farms and for rehabilitation. It also provided for the retirement of submarginal land (Hallberg 1992). The Act mandates that the Secretary of

the Interior is "to protect, improve, and develop, and administer any property so acquired and to construct such structures thereon as may be necessary to adapt it to its most beneficial use." Under this Act, 72,276 acres of land in Idaho were purchased by the federal government and, through various executive orders, its administration was transferred from the U.S. Department of Agriculture to the U.S. Department of the Interior's Bureau of Land Management between 1941 and 1958 (*Public Land Statistics* 1997).

Summary and Conclusions

At one time or another the federal government has owned 80% of the land area in the United States. These lands, plus those that went into state or private ownership, were all previously owned by other nations or Indian tribes.

Today the federal government owns one-fourth of the nation's land. The disposal of more than one billion acres, or half the nation's land, to states and private owners was mainly accomplished during the period 1787-1891 to encourage settlement and development in the lower 48 states. Fewer people settled in Idaho than most other states, so the percentage of federal ownership remained high. Today it is almost 64%.

More than a century ago the decision was made to place much of the remaining public domain lands into systems managed for a variety of purposes by a variety of agencies. Almost 96% of the federal land in Idaho is in either the National Forest System or falls under the responsibility of the Bureau of Land Management.

Chapter 2. What is the purpose of federal lands?

The purposes of federal lands can be determined two ways. Neither approach is entirely sufficient, but each is illuminating. First, one can examine the history of events for different units of the federal lands system and attempt to infer the intent of lands acquisition, retention, and management and how those intentions have changed over time. In Chapter 1 we scratched the surface of the wealth of historical analysis of the federal lands. We suggest interested readers start with Gates' (1968) history written for the Public Land Law Review Commission (PLLRC 1970). For more recent history, through the mid-1980s, Fairfax and Yale (1987) provide an overview by asking questions about revenue production and providing brief and comprehensible replies. Other specific works approach federal land management history from an agency, resource, or regional perspective. For example, Adams (1993) provides a comprehensive view of policy development by resource. Coggins and Glicksman (1996) provide legal history, again organized by resource.

Second, one can attempt to discern the purpose of federal lands system units by examining the statutory mission Congress assigned to the agencies it charged with the responsibility of managing these lands. These are expressed as either public policy objectives or mission statements. Over time the acts or statutes that established the purposes of the federal lands have been amended. Knowledge of the changes these acts have undergone since the birth of the agencies fosters a deeper understanding of the purpose of these policies and how they provide direction for management of the land today. Missions of the agencies are often shaped by a combination of statutes interacting with one another, rather than by single laws. For example, the BLM's mission is shaped by the Taylor Grazing Act of 1934[23] and the Federal Land Policy and Management Act of 1976.[24] Part of management direction is also arrived at through planning laws. For example, the Forest Service mission is broadly defined by the Multiple-Use Sustained-Yield Act of 1960,[25] and determined for individual units and implemented through the National Forest Management Act of 1976,[26] which defines a comprehensive long-range planning process to guide management.

Analysis of statutes only begins to tell the whole story, because these laws provide authority for the agencies to develop regulations to implement the statutory mandates, and this is where much of the direction for agency actions actually comes from. And on top of that are rulings by the judicial branch as to whether or not statutes are properly implemented and regulations are consistent with statutes. Judicial review of the implementation of environmental laws such as the Clean Water Act[27] and the Endangered Species Act[28] makes it clear that these laws supercede land management mission and planning laws, as federal agencies must adhere to the environmental laws.

The United States of America has 2,271,343,000 acres of land within its boundaries (U.S. Bureau of the Census 1996). One-fourth of this is federal land (USDI-BLM 1998). The four major federal land management agencies are the U.S. Forest Service, Bureau of Land Management, National Park Service, and U.S. Fish and Wildlife Service. Each has its own unique mission and set of responsibilities for the lands under its jurisdiction (see brief summaries in Cody 1995).

Roughly 20% of the nation's land is administered by two agencies—the Forest Service in the Department of Agriculture, and the Bureau of Land Management in the Department of the Interior. These two agencies are responsible for 61% of the land in Idaho. Summaries of the missions are provided in this section. Various other federal agencies administer an additional 4% of the nation's land. In Idaho, another 3% of the state's land is administered by these other agencies (Appendix Table A, p.100).

U.S. Forest Service

The national forests were born more than a century ago when the nation's "forest reserves" were carved out of the public domain beginning in 1891.[29] Before then, much of the nation's forest wealth had been cut and hauled out of the woods and into sawmills to help build the nation (Cutright 1985). Protecting forests from fire and unwise timber harvesting became a concern. As wealth began to accumulate in the hands of a few

lumber barons and oil tycoons, a reformist movement historians now call the Progressive Era forged changes in American industry. This era also began a shift in public land policy (Gates 1968). National parks were created to protect scenic wonders and provide "pleasuring grounds" for people. Forest reserves, now called the national forests, were created out of the public domain in the western states for the purposes of protecting watershed values and providing timber supplies. The byword for management was, and still is, conservation. This meant different things to different people a century ago, and that schism remains today (Cubbage et al. 1993).

The Forest Service is a "multiple-use" agency in the U.S. Department of Agriculture. It is charged with the responsibility of managing 191,644,936 acres of land in the National Forest System (USDA-FS 1997). This is approximately 8 percent of the nation's land, and includes 38.6% of the land in Idaho (Appendix Table A).

Policy Objectives. The earliest management guidelines for the Forest Service were developed in the Organic Administration Act of 1897, which stated that "No public forest reservation shall be established, except to improve and protect the forest within the reservation, or for the purpose of securing favorable conditions of water flows, and to furnish a continuous supply of timber for the use and necessities of citizens of the United States."[30]

The original purposes for the national forests were expanded to a broader list in 1960 by the Multiple-Use Sustained-Yield Act, which mandates that the "national forests are established and shall be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes."[31] The Act further states that "The Secretary of Agriculture is authorized and directed to develop and administer the renewable surface resources of the national forests for multiple use and sustained yield of the several products and services obtained therefrom. The establishment and maintenance of areas as wilderness are consistent with the purposes and provisions of this Act."

The Multiple-Use Sustained-Yield Act directs resource management of the national forests for the combination of uses that best meets the needs of the American people. Management of the resources was to be coordinated in consideration of the relative values of the various resources, though not necessarily maximizing economic returns or designating specific areas to be managed for specific uses.

Understanding what *multiple-use* and *sustained-yield* mean is important because the Multiple-Use Sustained-Yield Act of 1960 still defines the statutory purpose of these lands. It gives virtually unreviewable discretion to the Forest Service. *Multiple-use* is "the management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people"; *sustained-yield* is "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the national forests without impairment of the productivity of the land." *Sustained yield* has not actually been used as a decision criterion, and the definition of *multiple use* makes it clear that the best economic result is not necessarily the best result.

In 1964, the Wilderness Act[32] gave statutory authority to create the National Wilderness Preservation System from lands already administered by federal agencies. The purpose of the Act is to "secure for the American people of present and future generations the benefits of an enduring resource of wilderness...to be administered for the use and enjoyment of the American people in such a manner as will leave them unimpaired." Congress designates wilderness areas for the purpose of preserving these areas in their natural condition (Cubbage et al. 1993). The Act defines wilderness as "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor and does not remain."

The Multiple-Use Sustained-Yield Act of 1960 was designed to give the Forest Service what was thought to be better direction; however, the Act did not establish any basis for assessment of resource uses and gave no direction to the Forest Service for deciding what priority to attach to the various resources (Dana and Fairfax 1980). An attempt to do so came later with land-use planning laws.

Planning Approaches. The federal lands are used by private persons, groups, and

corporations for a variety of uses, including grazing, timber harvest, extraction of coal and minerals, and recreation (Clawson 1983). With so many uses, detailed planning is a must, and the primary planning statute for the Forest Service is the National Forest Management Act of 1976[33] (NFMA). NFMA is not the Forest Service's first attempt at formal planning. The agency has engaged in forms of planning almost from the beginning of its institutional existence (Coggins and Glicksman 1996).

Until 1960, planning concentrated on timber harvests and grazing. However, with increases in timber harvesting and recreation in the national forests after World War II, the planning system began to falter. After the Multiple-Use Sustained-Yield Act of 1960, the Forest Service developed formal District and Regional Multiple Use Planning Guides. These guidelines helped planners to zone the forests and prepare District Multiple Use Management Plans that suggested coordinated resource uses for each zone (Coggins and Glicksman 1996).

The National Environmental Policy Act of 1969[34] (NEPA) applies to "any major federal action that significantly impacts the quality of the human environment." NEPA became an important tool of environmental decision making. The stated purpose of the Act is "to declare a national policy which will encourage production and enjoyable harmony between man and his environment, ... prevent or eliminate damage to the environment, ...and stimulate the health and welfare of man ... to enrich the understanding of the ecological systems and natural resources important to the Nation."

NEPA gave a sense of urgency to Forest Service planning (Dana and Fairfax 1980). The Regional Multiple Use Planning Guides evolved into Planning Area Guides, and plans were required for each national forest and the ranger districts within them. The initial response to NEPA in most agencies, including the BLM and USFS, was the assertion that their activities protected or enhanced the environment already, without NEPA. These agencies soon realized they would have to comply with the new requirements. The Forest Service responded by incorporating NEPA requirements into its new planning process (Dana and Fairfax 1980).

The Forest Service does NEPA analysis at two levels. The 191 million acres of national forest lands are administered in 120 planning units, which are individual national forests or, when individual forests are relatively small, combinations of forests. The National Forest Management Act of 1976 (NFMA), an amendment to the Resources Planning Act of 1974[35] (RPA), requires comprehensive plans for the national forests, and they are subjected to NEPA procedures.

The Forest Service is mandated under RPA to prepare three planning documents: [1] an assessment describing the renewable resources of all the nation's forest and range lands every 10 years; [2] a program, with a planning horizon of at least 45 years, proposing long-range objectives and setting out the specific costs for all Forest Service activities every five years; and [3] an annual report evaluating Forest Service activities in comparison with the objectives proposed in the program (Coggins et al. 1993).

The NFMA amends the RPA and the Organic Administration Act of 1897. The Act requires land and resource management planning for units within the national forest system and additional regulation of timber harvesting on national forests (Cubbage et al. 1993). Section 2 of the NFMA requires the Forest Service to serve the public interest by "assessing the Nation's renewable resources, and developing and preparing a national renewable resource and program, which is periodically reviewed and updated." There are 4 major provisions in the NFMA: [1] public participation in the planning process, [2] regulations for the preparation and revisions of the management plans, [3] resource management guidelines for controversial management activities such as clear-cutting, and [4] economic analysis of management alternatives (Cubbage et al. 1993).

The Environmental Impact Statement (EIS) provisions of NEPA require agencies to consider the alternatives and weigh all relevant costs, benefits, and impacts prior to taking action to program planning. Applying these requirements to Forest Service or BLM land-use plans can be problematic. Because land-use and management activities are ongoing, it is often difficult to analyze alternatives as if there were no existing commitments. Individual project activities, which are "tiered" to the forest plans, also are

subjected to NEPA analysis. In addition, the Council on Environmental Quality (CEQ) guidelines[36] required public involvement at every stage of agency deliberations, and the agencies were required to allow interested persons, as well as the average "person on the street," to comment on plans (Dana and Fairfax 1980).

In reaction to perceived logging abuses in the Bitterroot National Forest just east of the Idaho border in Montana, the Senate Agriculture Committee in 1972 drafted timber harvesting limitations, called the Church Guidelines after Sen. Frank Church (D-Idaho). The Church Guidelines were to govern Forest Service practices in the interim between the enactment of the NFMA and promulgation of new national forest plans pursuant to it (Coggins and Glicksman 1996).

NFMA planning provisions are far-ranging and highly detailed, making it inevitable that the Forest Service would be criticized for its implementation of NFMA. Moreover, the level of detail required has, as some scholars predicted, presented many opportunities for legal challenges and deadlock (see Fairfax 1981, Behan 1981). In the end, plans don't get executed because they are not attached to the budget process; and their primary value lies in the land-use zoning maps produced at great expense and effort (Thomas 1998). Without the funds for implementing management actions, NFMA comprehensive land-use plans are paperwork exercises.

Beginning in the 1970s, decisions about the use of national forest lands were deadlocked as different interest groups contended with each other for influence. Courts were called on more and more often to iron out the differences, as judges were asked through lawsuits filed by litigious groups to interpret technical matters of the various environmental and land-use planning statutory mandates and supporting regulations.

The spotted owl situation in the Pacific Northwest in the late 1980s epitomized the situation, but it was by no means an isolated case, as the red-cockaded woodpecker of the southeastern states and the chinook salmon, grizzly bear, and gray wolf of the Inland Northwest raised other conservation issues for which groups sought judicial remedy. Administrative appeals of management decisions and lawsuits alleging procedural failings in the required environmental analyses became common tactics to thwart managerial decisions.

At the centennial of the national forests in 1991, controversies over the purpose for and management of these lands led the Forest Service to reevaluate itself and its mission. The agency attempted to cope with pressures from within as its own employees demanded reform, and from without as lumbermen warned of economic collapse. Meanwhile environmentalists opposed management proposals, and the U.S. Congress proposed restructuring and delimiting the discretionary authority of managers (Hirt 1994).

Today the Forest Service is struggling to implement ecosystem-based management planning. We cover these efforts as they affect Idaho in Chapter 5.

Idaho National Forests. Idaho is the 10th largest state, covering 82,700 square miles, or about 53 million acres (USDI-BLM 1998). Idaho has 20.4 million acres of national forests. Two other states—Alaska and California—each have slightly more acreage of national forests, but Idaho, being smaller, has a larger proportion of national forest land. Almost 39% of Idaho is national forest land. Oregon ranks a distant second with 25% of the state in national forests (Table 2-1). Idaho's future to a large extent is dependent on the future of the national forests.

Idaho is the only western state without a national park entirely within its boundaries. This does not mean that Idaho is lacking lands that could be considered among the Nation's "crown jewels." The scenery in Idaho is as spectacular as anywhere in the West, and the state has many unique geologic and cultural features. Many people, especially those living east of the 100th meridian, do not recognize that there is any difference between a national forest and a national park (Reibsame 1997). Both the Sawtooth National Recreation Area (NRA) and the Hells Canyon NRA seem to meet the criteria for national park status, and both NRAs been proposed as such. The Sawtooth NRA was designated in 1972. Before then it had been proposed five times as a national park, dating back to 1913. Lacking the consensus of local political support necessary for designation as a national park however, both these areas remain under the management of the U.S. Forest Service

Table 2-1. Top five states: National Forest System lands, 1996.

State	National Forest Land (acres)	Land Area of State (acres)	National Forest as % of Total State
Alaska	22,483,751	365,481,600	6.2%
California	20,537,679	100,206,720	20.5%
Idaho	20,440,564	52,933,120	38.6%
Montana	16,797,507	93,271,040	18.0%
Oregon	15,625,616	61,598,720	25.4%

Source: *Report of the Forest Service* (USDA-FS 1997), *Public Land Statistics* (USDI-BLM 1998).

under legislation designating them national recreation areas and specifying acceptable uses (MacCracken and O'Laughlin 1992). In addition, roughly one-fifth of Idaho's national forests have been statutorily designated as components of the National Wilderness Preservation System (see MacCracken et al. 1993). Idaho's federal wilderness lands are 7.7% of the state, a proportion exceeded only by Alaska (15.6%) and Washington (14.0%) (Table 2-2).

Table 2-2. Top five states: National Wilderness Preservation System lands, 1989.

State	Statutory Wilderness Lands (acres)	Land Area of State (acres)	Wilderness as % of Total State
Alaska	57,109,119	365,481,600	15.6%
California	5,925,254	100,206,720	5.9%
Washington	4,257,488	30,320,610	14.0%
Idaho	4,081,315	52,933,120	7.7%
Montana	3,442,165	93,271,040	3.7%

Source: *Wilderness Management* (Hendee et al. 1990), *Public Land Statistics* (USDI-BLM 1998).

Bureau of Land Management

This report focuses most of its attention on Idaho's national forests, as any report about Idaho's natural resource heritage and wealth must do. Because BLM lands are also a significant portion of the land in the state, they are also considered in this report. The remaining 1.6 million acres of federal lands in Idaho are generally administered for much more specific purposes than national forests (20.4 million acres) and BLM lands (11.8 million acres).

The Bureau of Land Management (BLM) is a "multiple-use" agency in the U.S. Department of the Interior. The BLM manages a variety of uses on the lands the agency administers. There are 263,929,258 acres nationwide of public land under exclusive jurisdiction of the BLM (USDI-BLM 1998), making the BLM responsible for approximately 11.6% of the land in the U.S., including 22.4 percent of the land in Idaho (Appendix Table A, p.100). Uses of these lands include statutory directions for recreation, timber harvesting, livestock grazing, fish and wildlife management, wilderness, and mining (Cody 1995).

Policy Objectives. The Taylor Grazing Act of 1934 provides statutory direction to the lands that are now managed by the BLM. The opening

statement of the Act states that its purpose is to "stop injury to the public grazing lands by preventing over-grazing and soil deterioration, to provide for their orderly use, improvement, and development, to stabilize the livestock industry dependent on the public range and for other purposes."[37] In order to accomplish these goals the Secretary of the Interior was authorized to establish grazing districts on 142 million acres of vacant, unappropriated, and unreserved public lands which, in his or her judgment, were chiefly valuable for grazing and raising forage crops. In addition, the Secretary was also authorized to make rules and regulations governing the use of these lands (Dana and Fairfax 1980).

The Taylor Grazing Act leaves the decision to the BLM, acting for the Secretary, to decide how the range should be managed. The agency is authorized to use conservation strategies as appropriate. This includes specifying numbers of stock and seasons of use.

The BLM was created to manage "unreserved public land" and took its present form in 1946 when President Truman signed a reorganization plan that consolidated the Grazing Service and the federal government's General Land Office into a new bureau in the Department of the Interior (NRC 1993).

The Federal Land Policy and Management Act of 1976[38] (FLPMA) provided the BLM statutory status as a permanent federal agency, mandated multiple-use management of lands under its jurisdiction, and required comprehensive long-range planning for the use of those lands (Cubbage et al. 1993). FLPMA consolidated and articulated the management responsibilities of the BLM by mandating that "The Secretary [of the Interior], with respect to the public lands [administered by the BLM], shall promulgate rules and regulations to carry out the purposes of this Act and of other laws applicable to the public lands."

As well as establishing the BLM as a multiple-use agency, FLPMA also contains directives instructing the agency in the administration of mining claims and their abandonment, range management grazing fees, grazing leases and permits, grazing advisory boards, and rights-of-way.

Planning Approaches. FLPMA also provides that "the national interest will be best realized if the public lands and their resources are periodically and systematically inventoried and their present and future use is projected through a land use planning process coordinated with other Federal and State planning efforts."

Before that, the BLM's initial step in formal planning began with the Classification and Multiple Use Act of 1964,[39] which expired in 1970. This early planning effort resulted in Management Framework Plans (MFPs). MFPs were sometimes no more than map overlays and inlays and cover approximately 80 percent of BLM lands, excluding Alaska (Coggins and Glicksman 1996).

Under FLPMA the BLM is directed to plan, but otherwise, the Act does not specify schedules, procedures, or content of land-use plans. Unlike the Forest Service's NFMA, FLPMA does not require promulgation of detailed, substantive planning regulations (Coggins and Glicksman 1996). FLPMA authorizes the Secretary of the Interior to prepare and maintain an inventory of all public lands and their resource values. FLPMA also establishes four things: [1] the organization of the BLM and Grazing Advisory Board; [2] some management guidelines for public lands; [3] guidelines for right of way, boundary, and access for public lands; and [4] wilderness review procedures for BLM roadless areas (Cubbage et al. 1993).

The National Environmental Policy Act of 1969[40] (NEPA) has impacted BLM planning. In *NRDC v. Morton,* a 1974 NEPA case,[41] the court rejected the BLM's argument that a programmatic EIS would suffice to assess all BLM grazing programs (Coggins and Glicksman 1996). This programmatic EIS was intended to serve as the foundation for all subsequent actions implementing the entire livestock grazing program (Bean 1983). Instead, the court ordered the BLM to prepare district-specific impact statements by 1988.

Two mandatory procedural requisites are outlined by FLPMA for BLM planning (Coggins and Glicksman 1996). First, public involvement and participation in the planning process is emphasized. Second, the Act directs the Secretary to "use a systematic interdisciplinary approach to achieve integrated consideration of physical,

biological, economic, and other sciences."

The Management Framework Plans (MFPs) produced before FLPMA lacked the procedure and content that the Resource Management Plans (RMPs) do under FLPMA. However, the BLM has continued to use the simpler MFP planning process, avoiding preparation of RMPs under FLPMA guidelines (Coggins and Glicksman 1996).

The BLM is also involved in ecosystem-based planning for management at the regional scale and is working in conjunction with the Forest Service (see Chapter 5). In so doing, the BLM faces problems similar to those of the Forest Service.

Management: From Policy and Planning to Action

Policies for the public lands take the form of laws, regulations, and rulings. Until these are put into action by the people who manage public lands and resources, policies are merely words, and words can be confusing. For example, the misnamed National Forest Management Act of 1976 (NFMA) speaks very little to management. NFMA is an amendment to the Resources Planning Act of 1974 (RPA), specifying how plans for the National Forest System will be developed. It does not change the management goal of multiple use but requires comprehensive planning to determine what those uses would be.

History recognizes the first authorization to manage the federal lands as 1897[42] (Gates 1968). At that time custodial management was the mode and remained so until after World War II, when the nation needed timber supplies and intensive use began. In the 1960s, preservation values were codified with the Wilderness Act of 1964. Environmental laws of the 1970s followed. Regulations to implement the National Environmental Policy Act of 1969 (NEPA) called for public involvement in federal land management decisions, which together with preservation and environmental protection laws began what Clawson (1984) called an era of consultation and confrontation. Conflict between opposing forces and the use of adversarial legal strategies and tactics have led to a situation many observers call "gridlock." These developments are described in this section.

Management History. The history of federal land management in a policy context cannot be fully told except on a resource by resource basis, such as the work of Fairfax and Yale (1987), Adams (1993), or Coggins and Glicksman (1996). It is beyond the scope of this analysis to retell the full story of resource management, but it is useful to sketch some general trends that have occurred. These general trends have occurred in several different stages.

From the Creative Act of 1891[43] to the Organic Act of 1897,[44] successive presidents withdrew from the public domain almost 40 million acres for inclusion in the national forest reserves, placed for convenience at the time in the Department of the Interior. The Creative Act contained no provisions for the management or use of these withdrawn lands (Clawson 1983). Although the Organic Act authorized management of the national forest reserves to protect watersheds and provide timber supplies, there were neither men, money, nor knowledge to manage them constructively and effectively (Clawson 1983). The Transfer Act of 1905[45] shifted administrative responsibilities for these lands into the Department of Agriculture, and they officially became the national forests in 1907, managed by the Forest Service. Between 1905 and 1950, the level of timber harvest, recreation, and energy activity on the national forests was low (Clawson 1983). Grazing activity during this period was heavy (Clawson 1983) and wildfire control programs were instituted to protect resources, and actively pursued, reducing the acreage subjected to wildfire dramatically (MacCleery 1992).

For years the Forest Service viewed its role as that of a custodian of the public forest lands (Sedjo 1981). Until 1922, the volume of timber sold each year did not reach 1 billion board-feet. During a building boom of the 1920s, the timber volume sold reached nearly 1.5 billion board-feet but fell sharply with the onset of the Great Depression. Greater accessibility to private timber kept the demand for national forest timber low (Clawson 1983).

The management of the remaining public domain, under the administration of the General Land Office (GLO) until 1934, can also be described as custodial. The GLO was little more than a real estate agency (Huffman 1994) and

allowed various homesteading, including livestock raising and other forms of entry. The GLO allowed land exchanges in which public domain land could be traded for private land within a national forest, but the agency acted slowly. Land disposal continued until 1934 with the passing of the Taylor Grazing Act, at which time the public domain lands were placed under the administration of the Division of Grazing (Clawson 1983). The term "public domain" lost its original meaning in 1934.

The intensification of uses and management on national forests, grazing districts, and other related federal lands occurred gradually, not overnight (Clawson 1983). Intensive management is not necessarily the same thing as high levels of usage. Intensive management is the application of high levels of labor and capital to produce high levels of outputs (SAF 1983).

The situation in Idaho parallels the national trend. The beginning of intensive use can be pinned on 1950 because it was the first year in modern times that the federal lands, as a whole, produced greater gross revenues than their total expenditures, including investment expenditures (Clawson 1983). A decade of revenue surplus followed, spurred by increased timber output from the national forests. The volume of timber cut from national forest lands rose from less than 4 billion board-feet in 1950 to over 9 billion board-feet by 1960. As timber output increased, so did the number of outdoor recreation visits, increasing from fewer than 30 million in 1950 to more than 90 million visitor-days in 1960. In addition, the amount of forage available to game animals increased more than 50 percent in the 1950s. However, domestic livestock forage declined by nearly 10 percent (Clawson 1983).

To meet the nation's needs, the intensity of management on national forests, grazing districts, and related areas rose greatly during the 1950s. This increased pressure on the Forest Service and BLM to produce more timber sales, more mineral leases, and more people to manage campgrounds and other uses of the land (Clawson 1983). Intensive use and management kept increasing during the 1960s. The amount of timber sold from national forests peaked in 1970 at about 11.7 billion board feet nationwide. National forest timber harvests across the nation began to plummet in 1990 (Hirt 1994), signaling the end of the era of intensive timber harvesting. Today, the national forests provide less than 4 billion board feet.

Idaho timber harvests from all ownerships have averaged roughly 1.7 billion board feet per year from 1960-1990 (Figure 2-1). National forests in the state provided at least 40% of the timber harvested in Idaho from the early 1960s to the early 1990s. Now the national forests provide about 20% of the timber harvest, roughly the same proportion as during the early 1950s (Figure 2-2). Since 1991 the total timber harvest in the state has been reduced proportionate to the decline in national forest harvests (Figure 2-2).

Livestock grazing on federal lands in Idaho is lower now than in the 1950s (Figure 2-3). In 1960 grazing use on BLM lands abruptly declined from about 1.4 million animal unit months (AUMs) to its current level of about 1.1 million AUMs. Grazing on national forests in Idaho has fluctuated between 600,000 and 900,000 AUMs, with data missing from source documents for much of the 1960s and 1970s (Figure 2-3).

Recreational use of federal lands in Idaho has steadily increased from 1 million visits per year to the national forests in the early 1950s to more than 15 million visitor-days now (Figure 2-4). The BLM lands support 5.4 million recreation visits per year in Idaho (USDI-BLM 1996, 1997). In the future, recreation demands for federal lands in Idaho are expected to continue to increase (Haynes and Horne 1997).

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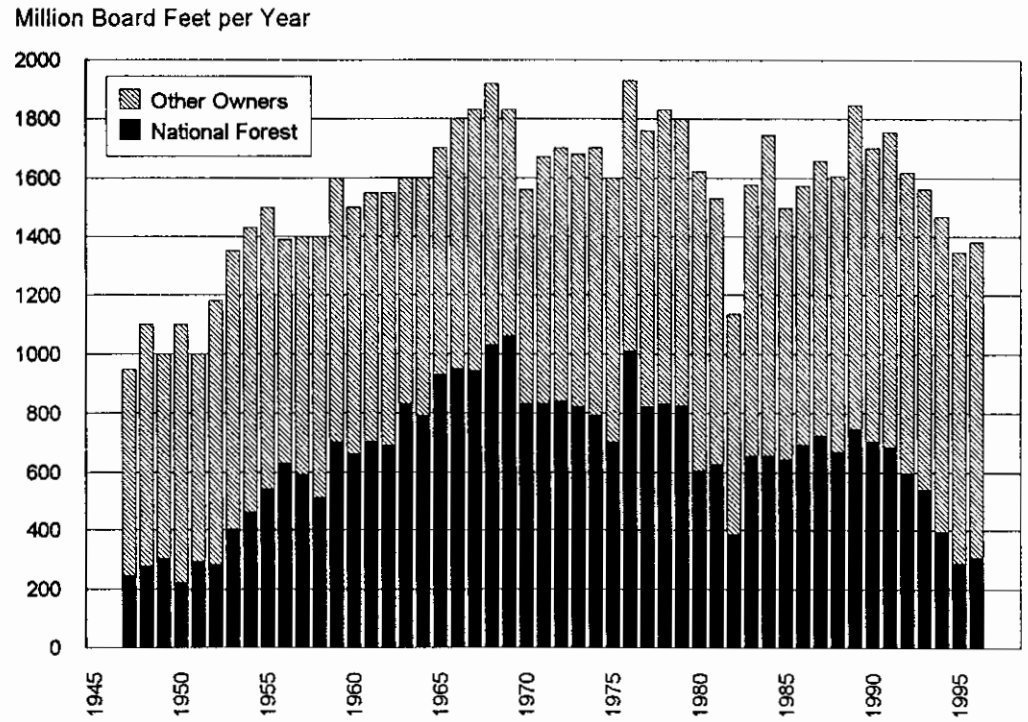

Figure 2-1. Idaho timber harvest, 1947-1996; with national forest contribution.

Source: *Idaho's Forest Products Industry: A Descriptive Analysis 1979-1996* (Keegan et al. 1997).

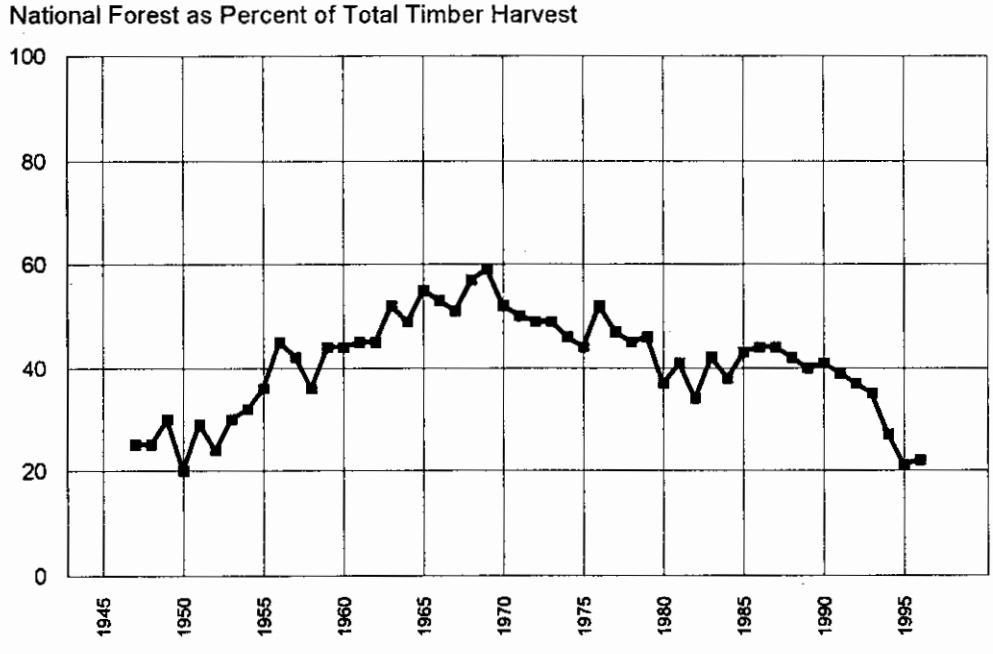

Figure 2-2. National forest contribution to Idaho timber harvest, 1947-1996; as percent of total timber harvest.

Source: From data in *Idaho's Forest Products Industry: A Descriptive Analysis 1979-1996* (Keegan et al. 1997).

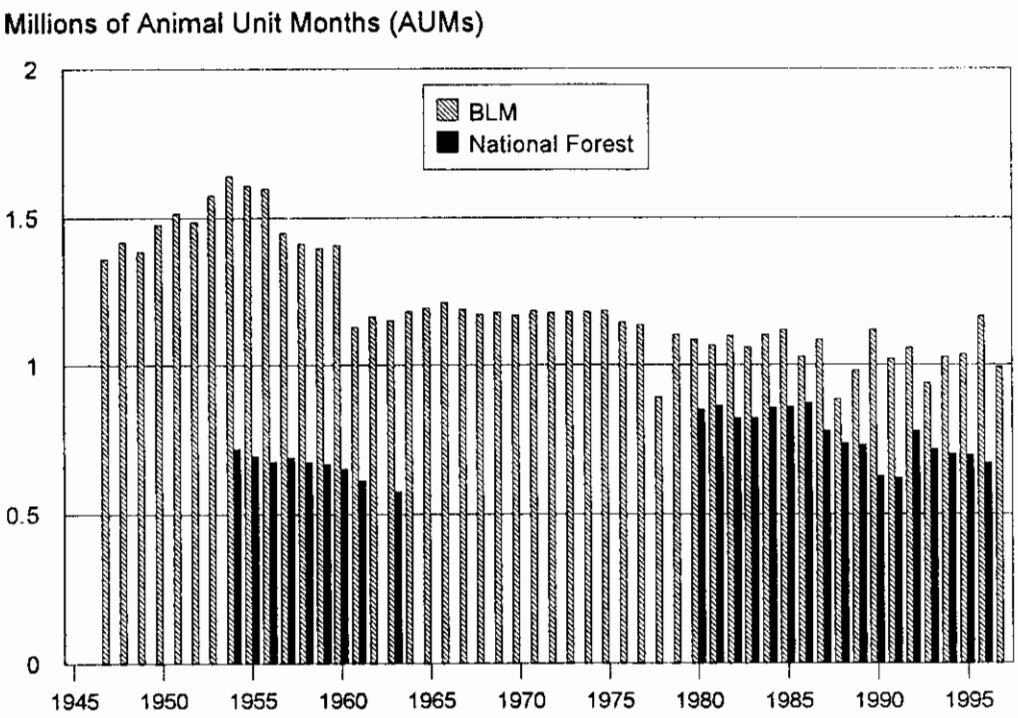

Figure 2-3. Domestic livestock on federal lands in Idaho, 1947-1996.

Source: **BLM, 1947-1980** — *The Taylor Grazing Act, 1934-1984: 50 Years of Progress* (USDI-BLM 1984); **BLM, 1981-1997** — from *Public Land Statistics* (USDI-BLM 1998, for example); all BLM data reported as "animal unit months"; **National Forest** — from annual *Report of the Forest Service* (USDA-FS 1997, for example); data from 1954-1963 reported as "animals"; 1962 report missing from University of Idaho library; 1964-1979 data were not provided by state in the source documents; data from 1980-1992 reported as "animal unit months"; data from 1993-1996 reported as "head months" and converted to animal unit months.

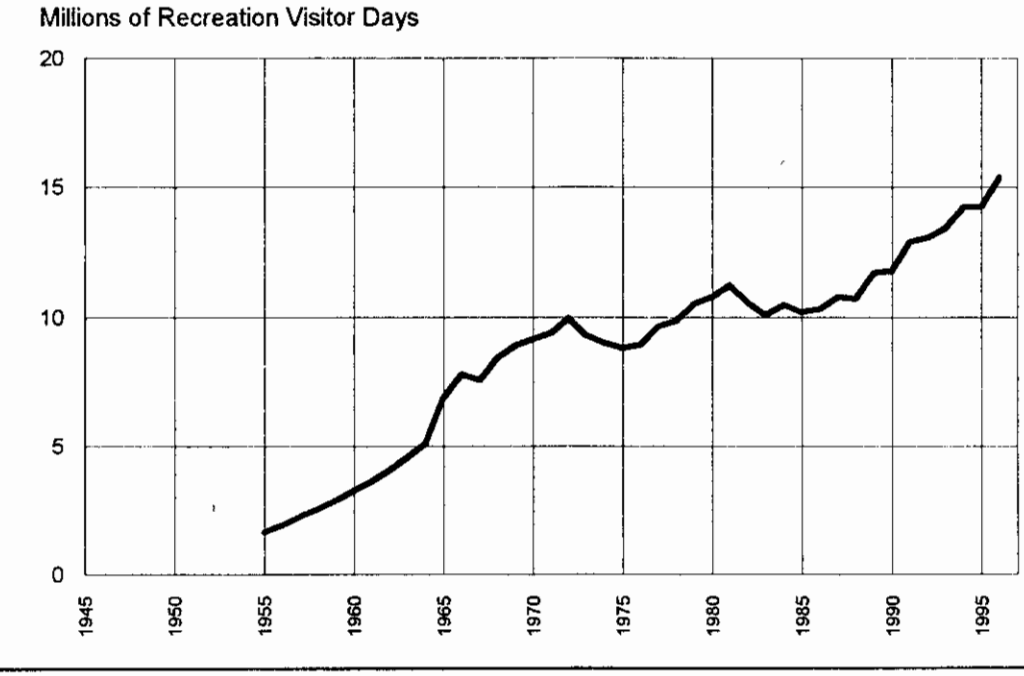

Figure 2-4. Recreational use of Idaho national forests, 1947-1996.

Source: Annual *Report of the Forest Service* (USDA-FS 1997, for example).

Preservation and Environmental Protection. Although there had been some preservationist land policies dating back to the removal of the Yellowstone area from settlement in 1872, legislation does not necessarily reflect the preservation emphasis until 1964 with the passing of the Wilderness Act (Coggins and Glicksman 1996). Some scholars call this an era of preservation (Coggins and Glicksman 1996), others call it an era of environmental protection (Dombeck et al. 1997). The new emphasis

> resulted from federal land laws emphasizing preservation of lands and resources. Preservation is defined as maintaining lands, flora, fauna, or objects in a prehistoric state (e.g., wilderness), restoring them to such a state, preserving their organic existence (e.g., endangered wildlife species), and, more generally, protecting nature from the effects of technological civilization (Coggins and Glicksman 1996).
>
> No longer can federal agencies manage public lands exclusively for livestock forage consumption, timber, and minerals production (Dombeck et al. 1997).

The Wilderness Act establishes the National Wilderness Preservation System comprised of federally owned lands designated by Congress as "wilderness areas" for the purpose of preserving these areas in their natural condition (Cubbage et al. 1993). The history of efforts to establish wilderness preserves on the federal lands illustrates several things. First, such efforts do not happen overnight. The 1964 statutory establishment of federal wilderness preserves was preceded by administrative designations of primitive areas and wilderness that began in 1924 when Aldo Leopold helped establish the Gila Wilderness in the national forests of central New Mexico. The Selway-Bitterroot Wilderness Area in Idaho and several wilderness areas elsewhere were administratively designated in 1939. When the Wilderness Act became law in 1964, areas totaling 9 million acres that had been administratively designated as wilderness became the first statutory wilderness areas (MacCracken et al. 1993; citing Davis 1983, Hendee et al. 1990). Second, it took 15 years of constant and dedicated efforts by many groups and individuals to get Congress to pass the Wilderness Act (see Allin 1982).

Since 1964, Congress has created substantive preservation law, and Congress has expanded the acreage of land management systems devoted to preservation more than to those devoted to development (Coggins and Glicksman 1996). The trend toward preservation is also reflected in other federal statutes related to public natural resources in the form of pollution reduction, wildlife preservation, environmental assessment, land management, and "similar demonstrations of preservationistic ethics" (Coggins and Glicksman 1996).

The pollution laws began with the Clean Air Act of 1970[46] and the revised Federal Water Pollution Control Amendments of 1972 that stiffened a law dating back to 1948 that we now call the Clean Water Act.[47] Although wildlife conservation laws began with the Migratory Bird Treaty Act in 1918,[48] most wildlife laws were passed following the Wild Free-Roaming Horses and Burros Act of 1971[49] (Bean 1983).

Environmental assessment laws are exemplified by the National Environmental Policy Act of 1969[50] (NEPA). NEPA requires agency decision makers to consider the environmental consequences of "any major federal action significantly impacting the quality of the human environment." NEPA requires environmental analysis and if there is a finding of significant impacts, this serves as a mechanism for publicizing deleterious effects of development proposals and as support for litigation challenging the proposal (Coggins and Glicksman 1996).

Public land management laws have also taken on a "preservationist" viewpoint (Coggins and Glicksman 1996). Since 1964, Congress has also enacted such legislation from preservation of historic structures to the regulation of strip mining (Coggins and Glicksman 1996). Although environmental laws often feature protection rather than preservation, the point is that resource values not previously considered are now part of the decision process as a result of these laws. FLPMA mandates that resource protection is a major management goal of the BLM. NFMA and its regulations make providing plant and animal species diversity a substantive goal for Forest Service managers. Today protection and preservation efforts have displaced the more traditional goal of specific resource commodity outputs.

Requirements in planning and environmental

laws and their judicial interpretations reflect changing public values and concerns (US-GAO 1997*a*). Together with social and ecological factors, these legal requirements have shifted the management emphasis in the Forest Service under its broad multiple-use sustained-yield mandate from consumption (primarily producing timber) to conservation (primarily sustaining wildlife and fish). In particular, the Endangered Species Act represents a congressional design to give greater priority to species protection than the current primary missions of the Forest Service and other federal agencies. When proposing projects, these agencies bear the burden of demonstrating that proposed actions will not likely jeopardize protected species (US-GAO 1997*a*). This requires cooperation between the land management agencies and the regulatory agencies charged with administering the Endangered Species Act,[51] implemented through a process called consultation.

Conflict and Confrontation. The 1960s can be characterized as a decade of "conflict and confrontation" in forest and range policy (Dana and Fairfax 1980). This led to many new laws in the 1970s. Preservation and environmental protection laws dovetailed with NEPA regula-tions requiring public involvement. Clawson (1983, 1984) terms the period beginning with NEPA implementation as "consultation and confrontation." The NFMA and FLPMA planning laws also required public involvement through communication with affected interests about federal land-use allocations and project management decisions. When affected interests take action because they do not feel their desires have been met, the result is confrontation.

"Adversarial legalism" became a pervasive strategy in the mid1960s (Kagan 1991). The shift toward confrontation is heightened by the involvement of the judicial branch ruling on adversarial proceedings to resolve conflicts resulting from confrontations. Legislation, particularly the NEPA requirement for environmental analysis, has opened the door to litigation (Clawson 1983). NEPA has launched thousands of lawsuits that were not originally foreseen (Rodgers 1994). Confrontations on the one hand are from pro-development interests with expectations that commodities will continue to be provided, and on the other from pro-conservation interests with expectations that federal lands and resources will be protected for future generations.

The courts have found many NEPA analyses to be inadequate, and that activities could not proceed until satisfactory NEPA documents had been prepared. In general, courts have taken a more generous attitude toward letting interest groups and individuals sue in the name of larger groups (Clawson 1983). The judiciary of the United States as a whole is far more active today than it was in the past, and courts have been very active on natural resource matters, especially regarding federal lands (Dana and Fairfax 1980). Judicial activism has been based on the changing attitudes of the public, and many conservationists and interest groups will enter into litigation despite the possibility of defeat (Clawson 1983). The point is that court decisions vitally affect federal land management; and federal land management agencies can no longer ignore the possibility of adverse legal action (Dana and Fairfax 1980).

Gridlock: Management Inaction

"Gridlock" is a term frequently used to describe the situation affecting the management of federal multiple-use lands in the 1990s. Rather than being the specific purpose of federal lands, gridlock is the result of failure to resolve conflicting purposes for those lands. This is revealed in the lack of an agreed-upon mission priority for these lands (US-GAO 1997*a*). Nelson (1994) argues provocatively that because of gridlock, the purpose of federal lands has become theater or entertainment rather than the provision of multiple goods and services. His argument is offered in support of his decentralization proposal for system reform, and is largely, but not entirely, tongue-in-cheek (Nelson, personal communication).

Gridlock, as the term applies to federal lands, has two related components. One part of gridlock comes from the design of our system of government with its checks and balances between the legislative, executive, and judicial branches. No one branch can act entirely independently of the other two branches. That part we will call systemic gridlock. The other part we call deadlock. It results from decision stalemate produced by the land-use planning and environmental laws

that arose beginning in the mid1960s and govern which resource uses may be undertaken by federal land managers.

Interest group politics, featuring the interaction of competing private interests, is a dominant feature of federal land management (Huffman 1994). Deadlock results when competing interests cannot be reconciled by the contending parties. Conflict between interest groups and the system of laws governing federal lands encourages "adversarial legalism" strategies (Kagan 1991). Lacking consensus among affected interests, the system of checks and balances built into our governmental system becomes gridlocked. The result is delayed decisions, additional expenses, inaction, and distrust.

Gridlock, many people observe, has become the pervasive mode for federal land and resource management in the 1990s. We document those observations herein, beginning with an explanation of the two interrelated component parts of gridlock. We then examine the reasons for gridlock, and illustrate how gridlock has affected the National Forest System.

What is "deadlock"? A situation in which no action can be taken is deadlock. Deadlock in environmental policy, in Congress, and other public decision-making bodies such as bureaucratic agencies, reflects a fundamental reality of American politics (Kraft 1994).

Parties contending for preservation or economic development of federal lands have led to the formation of an industry of specialists who make a living promoting the point of view or policy position of a particular interest group. These lobbyists have a self interest in sustaining rather than resolving conflict and may be called a conflict industry (Thomas 1998). Clients for whom the lobbyists work want results in the form of policy choice, not conflict (Myers, review comments). The existence of a conflict industry represents a large and still-growing public attitude that is suspicious of agency action (Toweill, review comments). Some are suspicious because traditional commodity uses are being reduced, and some because these uses are not being reduced enough.

Idaho and Montana were used by Kemmis (1990) as an example of decision deadlock on the public lands. Substantial amounts of the vast areas of federal lands in these two states remain "roadless"—that is, the lands are in an undeveloped or wild condition—and thus potentially suitable for addition to the National Wilderness Preservation System under the Wilderness Act of 1964.

Since 1980 the states of Montana and Idaho have been embroiled in a seemingly endless process of deciding how much of that land to designate as protected wilderness (MacCracken et al. 1993). Various interests—environmental, recreational, agricultural, forest industry, and mining—are pitted against each other in a standoff struggle that has sapped the energy and resources of all concerned. At the same time the struggles have gradually undermined nearly all parties' faith that the process of public decision making is capable of identifying or producing the "public interest." All parties feel frustration (Kemmis 1990).

Kemmis quotes Idaho environmentalist Pat Ford (1986) about how wilderness politics in Idaho frustrates participants and produces deadlock:

> In 1980, when [Idaho Senator Frank] Church was defeated (and died three months later), conservationists lost that powerful friend, and with him any ability to pass legislation. Afterwards, their grassroots power worked defensively, by converting [Ohio Congressman] John Seiberling into a passionate believer in Idaho roadless areas. Seiberling, the chair of the key House subcommittee on wilderness, insisted in 1984 on an Idaho wilderness bill too large for [Idaho Senator James] McClure to swallow. This maneuver blocked the delegation from passing anything, a little-recognized achievement for state environmentalists.
>
> In the same years, Idaho's timber industry played wilderness politics by other means. A multi-year advertising and media campaign linked wilderness to "lockup" and job loss from mill closures. The state congressional delegation sounded the same theme for five years. As a result, the word "wilderness" has negative connotations today for a good half of Idaho's people. ...
>
> The result has been a deadlock. Each side has been able to block the other's initiatives (Ford 1986).

In an attempt to break the decision deadlock, the Idaho legislature funded an attempt in 1990-1992 to find a negotiated settlement of the road-

less area and wilderness allocation issue. Although by some estimations the process was a failure because it did not resolve the issues, some observers and participants considered it a limited success. Most of the parties that have a stake in the Idaho wilderness allocation issue have publicly stated that settlement of the controversy over roadless areas would be in the best interests of the people of Idaho. Although some of the participants in the mediated negotiations modified their position, some refused to move beyond a certain point. Thus, the negotiations may have helped to clarify and solidify the positions of some groups, as well as help the groups identify their "BATNA" or best alternative to a negotiated agreement (MacCracken et al. 1993).

The concept behind wilderness is to keep roadless lands undisturbed, and this is not viewed as negatively in Idaho as is the idea of wilderness (Ford 1986). In Idaho now, one seldom hears about adding more areas to the Wilderness System. Instead the goal of preservation advocates has become keeping the roadless lands in an undeveloped condition by challenging virtually every development project through whatever avenue is available to them.

When groups of people or coalitions of interests attempt to overpower other groups or coalitions to achieve their ends, we have a politics of advocacy (Chrislip 1997). Advocacy politics has failed to solve problems, failed to prevent divisiveness in society, and failed to engage citizens effectively in public decisions. When advocacy works, it creates winners and losers, leaving divisions; when it does not, it leaves gridlock (Chrislip 1997).

What is "gridlock"? Policy gridlock refers to the inability to resolve conflicts in a decision-making body, such as Congress or the bureaucratic agencies, which results in government inaction in the face of important political problems. There is no consensus as to what to do and therefore no movement in any direction (Kraft 1994).

The term "gridlock" is commonly used to refer to deadlocked conflict situations on the public lands, and gained widespread usage during the struggles to protect habitat for the northern spotted owl and preserve late-successional Douglas-fir forests in the Pacific Northwest in the early 1990s. But the term actually has been used much earlier in public lands debates, and also has a much broader meaning in the context of environmental policy (Kraft 1994) and the design of American political institutions. Governmental gridlock is an instrumental part of American government that is built into institutions and sustained by political leaders (Brady and Volden 1997).

In his book interpreting the history of the National Forest System since World War II, Hirt (1994) included a chapter titled "From Gridlocked Conflict to Compromised Policy Reform, 1969-1976." Gridlock in that context resulted from what Hirt called the "Fight to Protect Nontimber Values, 1953-1960." This "fight" was a reaction to intensive postwar timber harvesting, the catalyst for the Multiple-Use Sustained-Yield Act, and a precursor to Clawson's (1983, 1984) confrontation and consultation stage of federal land management.

In 1992 the Congressional Research Service convened a conference to examine the general state of public land management. Frank Gregg, Director of the BLM during the administration of President Carter, had the task of giving the closing summary. To describe the views of conference participants, he stated:

> We have now amassed a considerable history in participating in and judging the revised system, and we agree that we are in another generation of dissatisfaction. We have characterized the present as gridlock, polarization, so extreme as to suggest extraordinary urgency in pondering what needs to be done (F. Gregg, quoted by Nelson 1994).

When President Clinton was campaigning for the presidential election in 1992, he promised that if elected he would break the "gridlock" from the court-ordered injunction to cease timber sales on federal lands that had been designated as critical habitat for the northern spotted owl (Thomas 1997*a*). Once again, Hirt (1994) used the term gridlock, this time to describe the spotted owl situation:

> Early in his term, [President] Clinton called a Northwest Forest Conference, or "timber summit," in Portland, Oregon, to seek a solution to what he called the "gridlock" that had developed over national forest species. Popularly conceived of as a conflict between logging, old-growth protection, and endangered environ-

> mentalists and loggers (or between owls and jobs), the so-called gridlock actually represented an impasse that had developed between branches of the federal government and between different departments within the executive branch. ... As Clinton acknowledged then, "It is true that I was mortified when I began to review the legal documents surrounding this controversy to see that six different departments of the government were at odds with each other; so that there was no voice of the United States. I want each of the cabinet members to talk to each other to try to bring these conflicts to an end" (Hirt 1994).

As President Clinton stated above, federal lands gridlock is a result not only of the many laws governing the operation of the national forests, but also the actions or inactions of the agencies that implement the laws. According to one law professor, anyone familiar with natural resources law knows that the federal land management statutes are "so self-conflicted in their goals and so discretionary in their requirements that they stand little chance of redirecting federal programs and private industries that both benefit from and influence the execution of these laws" (Houck 1995, p.700).

The president of the National Association of State Foresters, Marvin Brown, summed up his view of the situation when he said, "conflicting mandates in Federal environmental protection, planning, and management statutes have increasingly led to gridlock" (Crandall 1997).

Neil Sampson, who led a team of scientists and resource managers assessing forest health conditions in the Inland West (Sampson and Adams 1994), adds several important observations about gridlock:

> On top of all these laws is built an ever-larger layer of agency policies and regulations, along with court decisions and case laws. ... Not only do their current rules overlap in places, but there are instances in which they conflict, and compliance with one risks violating another. Another effect of this complex situation is that every legal challenge helps move decision-making away from the forest. Lawsuits don't attack forest planners—the defendant is the Chief of the Forest Service or the Secretary of Agriculture, whomever the law identifies as the responsible federal official. ... Thus, though the original laws may be fairly straightforward and functionally separate, today they support such a broad and complex legal framework that the process grinds into gridlock (Sampson 1995, p.40).

One policy Sampson (1995) referred to is the Forest Service administrative appeals process. Senator Dale Bumpers (D-AR) said, "the appeals process we passed in 1976, with the best of intentions, has been wildly abused" (Crandall 1997).

Another situation that fosters gridlock is, as President Clinton stated above, interagency conflict. The current Chief of the U.S. Forest Service, Mike Dombeck, and his immediate predecessor, Jack Ward Thomas, wrote about this:

> The Endangered Species Act (ESA) and air- and water-quality laws establish goals and processes to manage endangered species and protect air and water resources. Meeting the mandates of these laws has been entrusted to regulatory agencies not the land management agencies. Often there is substantial disagreement among agencies about the potential of the ecosystem or specific resources to respond to alteration or disturbance. Disagreement can lead to "grid lock" (Thomas and Dombeck 1996, p.183).

Gridlock removes decisions far from the resource. Andy Stahl, environmental activist and executive director of the Association of Forest Service Employees for Environmental Ethics, said

> Forest Service decision-making has been taken away from the on-the-ground ranger and increasingly moved up the chain of command to the regional and national offices. This bureaucratization of the Forest Service penalizes initiative and innovation at the field level, where creative solutions are most needed (Stahl 1995, p.27).

Procedural gridlock now prevents the Forest Service from responding to changing forest conditions in a timely way (Sampson 1995). Declining forest conditions and wildlife populations can result as the hands of resource managers are tied by gridlock. Gridlock not only promotes uncertainty and instability in federal resource management agencies, it also moves decision-making far from the land and resources (Sampson 1995, Stahl 1995).

In 1992, former BLM Director Frank Gregg, as quoted above, described a situation with "gridlock, polarization, so extreme as to suggest extraordinary urgency in pondering what needs to

be done." The actions taken by the Clinton administration in the spotted owl case attempted to treat the symptoms of gridlock. Perhaps what needs to be done instead is seek the cause and treat it.

Reasons for Gridlock. Kraft (1994) identifies six reasons for gridlock in environmental policy: [1] institutional arrangements, such as the separation of powers and other structural fewtares that fragment authority and divide government; [2] complexity of environmental problems, compounded by scientific uncertainty; [3] degree of public consensus; [4] disagreement among organized interests; [5] imbalance of certain short-term costs against uncertain long-term benefits; and [6] political leadership (Kraft 1994). All of these are evident in federal land management gridlock.

First of all, gridlock reflects disagreement among affected interests, coupled with the complaysuit of the issues. When contending interests cannot or will not resolve the differences between them and employ adversarial legal strategies and tactics, deadlock can result. Gridlock thus stems from the law and lawmakers. It also comes from the regulations and regulators. It also involves the land management agencies, bewildered by the lack of consensus and no direction from broadly defined objectives. Gridlock comes also from the courts, who determine for the agencies which laws shall prevail. Gridlock comes from the law and the law is a reflection of what our governmental system thinks is best for the people.

Gridlock in one sense produces social benefits because it reflects the lack of social conser-Sus on desired change. Thus gridlock either perpeculates the current situation or generates institutional changes in a deliberative fashion. As Kagan (1991) describes it, "adversarial legalism" provides citizen watchdog groups access to the rule-making process in government agencies. Through the threat of judicial review, this helps guard against arbitrariness in agency decisions or "capture" of agencies by interest groups.

However, the deadlock that results from "adversarial legalism" has associated social costs that should be considered (Kagan 1991). Gridlock encourages inertia and this can be socially harmful. The implementation of new regulations is often blocked by litigation, sometimes by the regulated entities, and sometimes by proregulation advocacy groups complaining of regulatory inaction or laxity. This encourages the development of legally "bulletproof" scientific evidence and procedural methods, with accompanying delays and costs (Kagan 1991).

Kagan (1991), a political science and law professor, describes the underlying problem of the distortions of legal contentiousness and its associated costs in a way that illustrates his point that deadlock fosters mistrust. He makes it clear that this may not be in the best interests of society:

> The spirit of distrust of authority that underlies adversarial legalism can be used against the trustworthy, too. An equal opportunity weapon, it can be invoked by the misguided, the mendacious, and the malevolent as well as by the mistreated. Its processes enable contending parties to use the extraordinary costs and delays of adversarial litigation in a purely tactical way, to extort unjustified concessions from the other side (Kagan 1991).

Someone pays for adversarial legalism. Although the social and economic costs of adversarial legalism and resulting gridlock have not been accounted in any comprehensive account, scattered pieces of evidence exist (Kagan 1991). In 1989, the American legal system added approximately $80 million in value to the economy. (This represents gross receipts less purchased inputs from other industries.) This makes the legal industry larger than the U.S. steel industry, textile industry, and domestic automobile industry (Kagan 1991). Less visible than the direct cost of lawyers' fees are liability insurance premiums passed on by all the American enterprises to their consumers—another $80 billion (Kagan 1991). Further uncounted costs are expenditures to forfend legal attack. Most notorious are the unnecessary hospitalizations, lab tests, and other procedures of "defensive medicine" to ward off possible malpractice suits. Somewhat analogous is the time-consuming and costly "defensive science" used by bureaucratic resource management agencies whose decisions must support their position with a judicially reviewable public record that carefully reports and responds to potential environmental objections (Kagan 1991).

Virtually every management plan for the national forests has been held up in judicial re-

view resulting from adversarial legalism (Kagan 1991). According to some estimates, the Forest Service in the 1980s spent $200 million per year reformulating these plans, conducting hearings on them, and otherwise trying to make them legally defensible (*The Economist* 1990). To make its plans in Idaho and other states in the Interior Columbia River Basin legally defensible, the Forest Service and BLM invested $35 million in the Interior Columbia Basin Ecosystem Management Project between 1993 and 1998. This is the current trajectory of federal land management in Idaho, analyzed in some detail in Chapter 5. One of the most revealing findings is that in Idaho and western Montana, the Forest Service and BLM spend 30 cents of every dollar in their budget on resource management (UCRB-DEIS 1997, p.4-217), with the other 70 cents going toward administration and preparation of documents in support of resource management activities.

Another cost of adversarial legalism is its corrosive effect on personal and institutional relationships that can be characterized in one word—distrust (Kagan 1991). Distrust demoralizes public agency personnel who are forced by the prospect of legal reviews to spend hours doing defensive paperwork instead of discharging their professional responsibilities (Kagan 1991).

The legal system, then, is to a large extent responsible for gridlock on the federal lands. Federal land law is the product of the federal legislature—the U.S. Congress. After contemplating the past 200 years of federal land management history, Clawson (1983), made several observations about the legislature and its inability to deal with federal land management:

Legislators are remote from the land. The enactment of federal land laws, and to some extent their administration, is in the hands of people that are often ill-informed and physically remote from the lands. This causes people most affected by the laws to complain continuously throughout history about the appropriate role of distant legislators and administrators (Clawson 1983).

Legislators respond to crisis situations. Federal land laws frequently have been enacted as a direct response to an acute situation. For example, the National Forest Management Act of vesting on the national forests. This example also points out that much of Congress' federal land legislation is "too late," meaning that it is more reactive than pro-active (Clawson 1983).

Legislation that has become federal land law typically uses imprecise and sometimes vague language. When Congress passes a bill and the president signs it into law, the federal agencies face the task of trying to make it work on the ground, and the courts are left to interpret what the legislators really meant when they enacted the legislation. As a result it is difficult to manage the federal lands efficiently for any particular purpose or for any particular output (Clawson 1983).

Implementation is more important than legislation. The way federal land laws operate in the field always differs from what the lawmakers intended. This is desirable because what works well in one region may not work so well elsewhere. As the federal land-managing bureaucracy has grown and federal employees are located closer to the land they administer, outright disregard of federal law is less likely to go unnoticed than it was long ago. However, it is still a mistake to think that mere passage of a law changes operations on the land (Clawson 1983).

The key point is that implementation is where the actual impact of a law is forged (Brewer and Clark 1994). Laws may not change agency behavior at all, or agencies may not behave as Congress intended. For example, after Congress passed the Multiple-Use Sustained-Yield Act of 1960, timber output continued to dominate agency behavior, which eventually led to the National Forest Management Act of 1976.

When Congress is more specific, for example, the 1978 amendments to the Endangered Species Act that dealt with critical habitat, the U.S. Fish and Wildlife Service wrote regulations that essentially rendered critical habitat meaningless (Bean 1983), thus acting in a manner Congress did not intend (Houck 1993).

Legislation spawns regulation. All levels of government have become more complex over the years, and this is certainly the case in federal land management. When action on the land does not fit the law or the present regulations today, the

review comments). When the self-interest of federal land users does not lead them to act as the law intended or as the administrators think desirable, the typical bureaucratic response is to devise administrative controls over private actions in order to achieve the desired result. This discourages federal land users and does not promote efficient management of the federal lands (Clawson 1983).

Gridlock in the National Forest System. At this writing the Secretary of Agriculture is considering a report from a Committee of Scientists he convened to recommend revisions in the regulations for implementing the National Forest Management Act of 1976. The Secretary attempted to develop new regulations in 1995 and was rebuffed by Congress.

Political scientists describe gridlock as a situation when checks and balances among the legislative and executive branch lead to inaction or decision deadlock (Kraft 1994, Brady and Volden 1997). One cause of gridlock is public involvement and "adversarial legalism" strategies that attempt to affect public land management decisions (Kagan 1991). Gridlock is triggered by the lack of consensus among interest groups regarding the appropriate choice of policy directions or implementation. The underlying problem reflects differences in values as to what the purpose of the federal lands is, and what the lands should be used for. We have attempted to graphically depict the decision process affecting national forests (Figure 2-5).

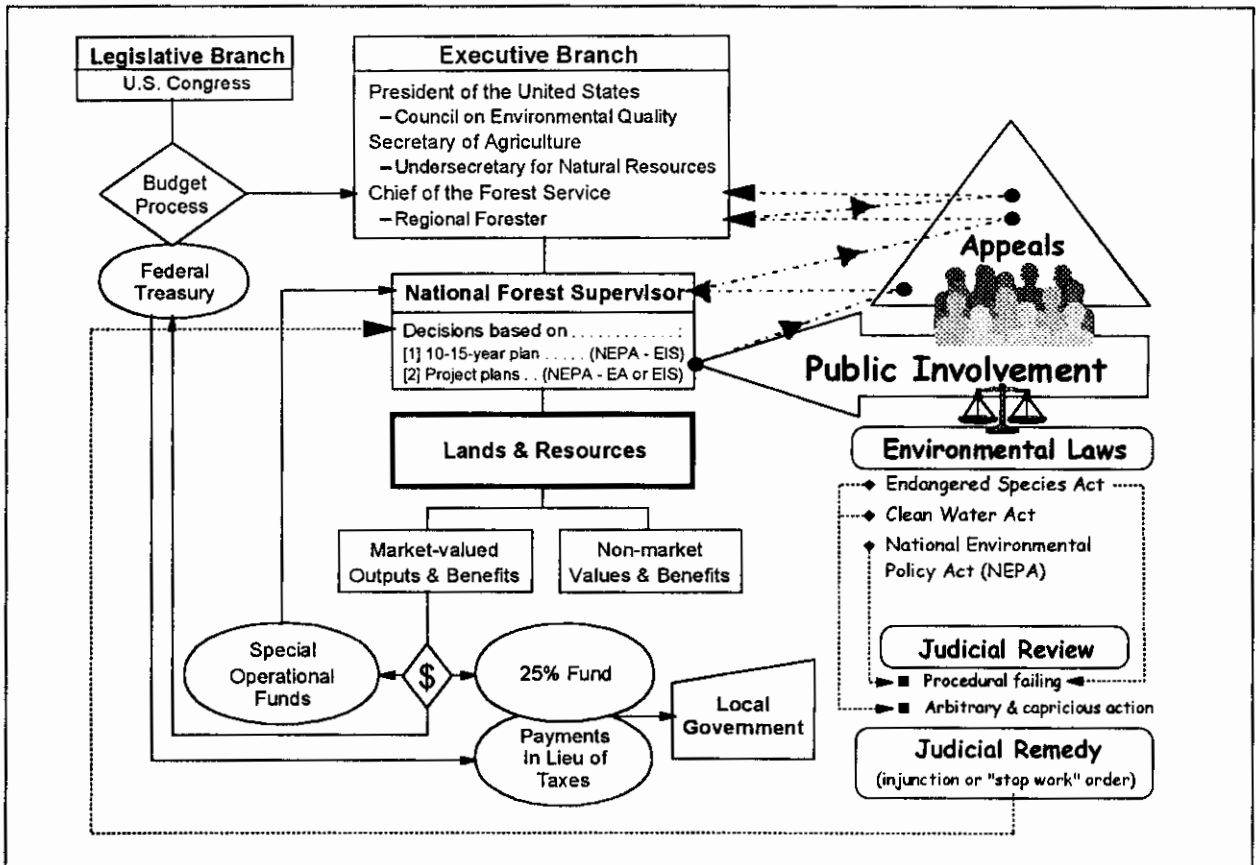

Figure 2-5. National forest administrative hierarchy, flow of funds, and public involvement.

Figure 2-5 illustrates the decision, budget process, and administrative hierarchy for one national forest. Supervisors of national forests—there are 10 national forests entirely in the state of Idaho—answer to four levels of administrative hierarchy. Three levels are in Washington, D.C. For Idaho national forests, the Regional Forester is either in Montana or Utah, depending on which national forest unit is being considered.

Figure 2-5 traces the flow of funds through the federal government. As with all federal pro-

grams, federal land management activities are funded from appropriations from the federal treasury and depend on the system of checks and balances built into the budget process. The legislative branch has created output targets tied to functional programs for which funds are appropriated. This creates some tension in the executive branch (i.e., the Forest Service) as national budget targets are distributed to regions and then individual national forests. Even though these targets are less important today than just a few years ago, the tension in the budget system remains, and may become increasingly tense without specific targets with which Congress can monitor agency accountability.

Congress has also created special operational "trust funds" such as salvage timber funds and Knutson-Vandenburg[52] funds that national forest supervisors use for some sources of operational funding. These special "trust funds" (see Figure 2-5) tie some program funding to market-valued outputs. Congress created two special funding programs that recognize the dependence of local governments on property taxes, and the fact that the federal government is exempt from paying such taxes. The policy for sharing 25% of the gross revenues from federal lands with local governments ties local communities to resource commodity outputs (Figure 2-5). Timber is by far the largest source of revenue produced from federal lands in Idaho. Further analysis of revenue is provided in Chapter 4.

The role of the judicial branch in affecting decisions on national forests is also illustrated (Figure 2-5). This occurs primarily as a result of the citizen suit provisions of environmental laws, principally the National Environmental Policy Act (NEPA), the Endangered Species Act, and the Clean Water Act.

The administrative appeals process that the Forest Service created and maintains is illustrated (Figure 2-5). The implementing regulations for NEPA require public involvement in the development of environmental analyses, either an Environmental Assessment (EA) or and Environmental Impact Statement (EIS) for any "major" federal action. If citizens or groups are dissatisfied with decisions after the NEPA process, they may appeal to the forest supervisor, then to the regional forester. In some cases the appeal may be elevated two levels above the decision to the Chief of the Forest Service.

Gridlock is the end result of decision deadlock among competing interest groups as well as systemic inability of governmental institutions to arrive at policy decisions. On national forests, administrative provisions allowing citizens to express their opinions about their lands bounce decisions from one level of government to another, from the local manager to the regional office, and sometimes to Washington, D.C. Laws create numerous avenues to challenge decisions once the appeals process has run its course. It would be difficult to explain the reasons for gridlock (illustrated in Figure 2-5) better than the words of former Forest Service Chief Jack Ward Thomas:

> Through the cumulative effects of a series of poorly related laws, lawmakers have decreed that extensive public involvement, detailed land-use planning, elaborate appeals processes, emphasis on threatened or endangered species, periodic adjustments in plans when "new information" comes to fore, overlapping agency responsibilities, maintenance of air and water quality, consideration of aesthetic values, and maintenance of a broad distribution of viable populations of all native vertebrates are to be achieved while paying attention to utilization of resources such as timber, recreation, grazing, fish and wildlife, and water. In addition, high and increasing levels of micromanagement and oversight by both the Administration and Congress must be dealt with. All of these requirements and activities are considered desirable —or at least acceptable—in the management of federal lands (Thomas 1997*b*).

Without agreement on the Forest Service mission priorities, the U.S. General Accounting Office sees "distrust and gridlock" inhibiting any attempt to streamline the agency's statutory framework (US-GAO 1997*a*). Clarification or modification of congressional intent and expectations requires that Congress and the Forest Service reach agreement on the agency's long-term strategic goals, on the uses the agency should emphasize under its broad multiple-use and sustained-yield mandate, and how to resolve conflicts or make choices among competing uses on its lands (US-GAO 1997*a*).

Summary and Conclusions

The statutory mission or purpose of national forests and BLM lands is multiple-use resource management "in the combination that will best meet the needs of the American people." The appropriate uses are to be determined by comprehensive planning processes. The agencies must also follow environmental laws and involve the public in decision-making processes. The management emphasis on national forests has shifted from consumption to conservation, particularly because of the priority given to Sustaining fish and wildlife by the Endangered Species Act. This conflicts with the desires of those who favor the production of commodities such as timber and livestock forage.

The current federal land management situation is characterized by a desire to preserve some lands and resources and develop others for social and economic purposes. This leads to conflict and confrontations between interest groups on where to do this. Figuring out how to protect environmental values also leads to confrontations. Confrontations arise from legal requirements for consultation with regulatory agencies and interactions with the public. Processes to resolve these conflicts over public values remove authority for management decisions from local managers and place it in remote bureaucratic offices or courtrooms. Management actions can become deadlocked by adversarial legal tactics. Lacking consensus direction, the systemic gridlock built into the governmental system of checks and balances rigidifies.

Many people from many points of view describe the current federal land management situation as gridlock. Gridlock promotes uncertainty and instability and is accompanied by distrust. To improve the situation, Congress and the multiple-use management agencies have to come to some kind of agreement on long-term direction and the priority of uses the land is to sustain. That is difficult to do when gridlock and distrust prevail.

Chapter 3. What does the law say about "ownership" of federal land?

This chapter replies to the third focus question guiding the analysis. The questions of law concerning whether or not the federal government "owns" the public lands can be dispensed with rather quickly. The federal government owns the public lands.

The United States Constitution's Property Clause sets out the fundamental grant of power to Congress over the public lands: "The Congress shall have Power to dispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States."[53] The State of Idaho has no claim to title over the federally owned lands within the state. Upon statehood, Idaho absolutely relinquished any claim to rights over the federal property within its boundaries. The Idaho Constitution states that "... the people of the state of Idaho do agree and declare that we forever disclaim all right and title to the unappropriated public lands lying within the boundaries ... and until the title thereto shall have been extinguished by the United States, absolute jurisdiction and control of the congress of the United States."[54]

The Idaho Constitution then clarifies the situation by stating that "The property of the United States, except when taxation thereof is authorized by the United States, ... shall be exempt from taxation."[55]

At statehood, Idaho got the same deal the other western states did, which was grants of land in exchange for relinquishing claims on unappropriated public lands (Gates 1968).

In a very real sense, federal lands are property of the United States Government and belong to the agencies that manage them, and the government may do whatever it chooses with these lands, subject only to those constitutional constraints that apply to all government actions (Huffman 1994).

However, from the perspective of other property owners, the idea that the government can "own" lands in the same sense as any private owner is, according to Huffman (1994), a dangerous myth because the government can influence land and resource markets in ways private parties cannot. The government can subsidize the use of publicly owned resources to the competitive disadvantage of private owners, and it can withhold public resources from the market to the disadvantage of consumers (Huffman 1994).

Federal Land Ownership and Law (by Arthur D. Smith, Jr.)

We thank Professor Arthur D. Smith, Jr., College of Law, University of Idaho, for writing this section.

Title to Federal Land. The need to provide means to pay off the revolutionary war debt was responsible for the first federal lands. Cessions of unsettled lands by the original 13 colonies to the central government was a condition of the original union under the Articles of Confederation and later under the United States' Constitution. Aside from the annexation of Texas in 1845, later acquisitions of federal land resulted from treaties with foreign governments: Louisiana with France in 1803; Florida from Spain in 1819; Oregon from Britain in 1846; California from Mexico in 1848; Alaska from Russia in 1867.

"Unsettled" lands were occupied by native tribes—"domestic sovereigns"—with valid aboriginal claims. Until treaties were negotiated with tribes to secure those claims, clear title could not be transferred to settlers.[56] Present day tribal lands and off-reservation treaty rights represent property retained by tribes in various treaties with the United States.

A vast amount of federal land was transferred from the federal government under different statutes in order to secure various public objectives. Land was used as a source of federal revenue, to promote settlement, to develop transportation facilities, as a reward for military service, and as a means of promoting public education in the various states. In one notable instance, submerged land, title passed automatically to states upon admission to the union.

Before admission of new states, the federal government was the sole government authority over federal lands. Upon admission of new states general government authority (sovereignty) was vested in new states, the federal government retaining only such authority as specified by the federal constitution. Because title to land under

navigable water was considered an incident of general sovereignty,[57] submerged land passed automatically to new states as they were created.[58] However, title to other federal land remained in the federal government and this was recognized by articles of admission in which each state, like Idaho, "disclaim[ed] all right and title to the unappropriated public lands" within its boundaries.

Thus, except for reacquired land, ***title*** to present federal land has remained in the federal government since its acquisition from foreign nations. However, ownership is only one source of legal authority to direct land use. Land use is also a subject of government regulation. In our constitutional system, government authority is divided between the states and the federal government. As a result, federal land is subject to both state and federal governmental authority.

Federal and State Authority Over Federal Land. Under the Constitution, the federal government may exercise only such powers as were delegated it by the original states. However, to the extent that agents of the government act within their constitutional authority, federal laws are supreme—that is, federal law will displace or "preempt" inconsistent state laws. States, on the other hand, are the repositories of all legitimate governmental authority and they may exercise that authority unless it is inconsistent with federal law.

Federal authority over federal land may be justified by several grants of authority in the constitution. For example, military reservations rest on federal authority to provide for the common defense and environmental laws dealing with water pollution and endangered species are based on federal authority to regulate interstate commerce. In addition the Property Clause grants Congress the power to "make all needful rules and regulations respecting the territory or other property of the United States." This is potentially the most far-reaching justification for federal authority over federal land.

The original reason for the property clause was to provide the federal government with authority to deal with western lands ceded to the central government by the original colonies after independence from Great Britain. Following acquisition of new territories, the property clause provided the authority for dealing with these lands before the creation of new states. The question following statehood is whether this superficially unlimited authorization is merely a grant of ***proprietary power*** or ownership—i.e. the power to own and manage land as would any private landowner—or the delegation of ***governmental power***. If the former, the federal government would be able, as any owner, to determine the highest and best use of its land, but would be subject to state regulation to the same extent as private owners, ***unless*** the basis for its action was some ***other*** constitutional authority (such as defense or commerce). On the other hand, if the Property Clause is a source of governmental authority, Congress is constitutionally free to deal with its property for any purpose—regardless of state law—merely because of federal ownership.

Because it was long assumed expansive governmental authority based on federal ownership of land within states was inconsistent with state sovereignty and the notion of limited federal power, the traditional understanding was that the Property Clause granted only proprietary authority.[59] Justice Field described the governmental jurisdiction over Fort Leavenworth following the admission of Kansas as follows:

> The United States, therefore, retained, after the admission of the State, only the rights of an ordinary proprietor; except as an instrument for the execution of the powers of the general government, that part of the tract, which was actually used for a fort or military pose, was beyond such control of the State, by taxation or otherwise, as would defeat its use for those purposes. So far as the land constituting the Reservation was not used for military purposes, the possession of the United States was only that of an individual proprietor. The State could have exercised, with reference to it, the same authority and jurisdiction which she could have exercised over similar property held by private parties.[60]

However, in modern times the interpretation of the Property Clause as a grant of unlimited government authority has become entrenched. So much entrenched that in 1979 the Ninth Circuit has characterized arguments based on the traditional understanding as "legally frivolous."[61] The complete inversion of this constitutional understanding resulted from a series of decisions ex-

tending from pre-Civil War days to present in which every clash between state and federal land law was resolved by federal courts in favor of the federal government.

At first the rulings that the property power was preemptive were cautious and exceptional. In 1839,[62] a party in possession of land claimed title by right of adverse possession while another claimant asserted title under a federal settlement law. The Supreme Court held that state adverse possession law had to give way to federal statutory requirements.[63] Given the vast federal holdings, a contrary ruling would have permitted states effectively to dispose of federal land. This ruling is the origin of the notion that federal law designed to protect federal land is an exception to the general rule that the Property Clause is proprietary. For a long time the primacy of federal power was couched in these terms. Thus in 1897,[64] the Court held that the unlawful enclosures act prohibited a private landowner in a checkerboard ownership from enclosing federal land by building a fence entirely on alternate private sections. The Court reasoned that the federal government retained something "analogous to the police power of the several states" in order to protect federal land and that any other result would "place the public domain of the United States completely at the mercy of state legislation."

So long as the federal policy was to dispose of land, the view that protection was a narrow and short term exception could be maintained. However, once the federal government commenced a general policy of permanent retention and management of federal land, the potential clashes between federal and state law increased. In an early harbinger of events in 1911, the Court upheld rules requiring grazing permits on national forests even though the federal government had not complied with state open range law. Later the Court held that Forest Service officials could reduce excessive deer populations on national forests without complying with state licence and season requirements.[65] Finally, in 1976, *Kleppe v. New Mexico*,[66] the Court upheld the constitutionality of the Wild Free-Roaming Horses and Burros Act which prohibited non-federal round-up and sale of feral horses and burros on public land, something which was expressly required by state estray laws.

The *Kleppe* case is not only the latest in a long line of precedent upholding federal land law in the face of contrary state requirements. It also is a case in which the Court went out of its way to make clear that the Property Clause was to be understood as a broad delegation of government authority. New Mexico had argued that precedent recognized only a narrow "protection of property" exception to the proprietary nature of the property clause, viewing property as meaning federal land. Justice Marshall countered that the federal statute might be justified on the basis of protecting federal property, meaning animals as property or at least animals as part of the federal ecosystem, but emphasized that the Court "rejected appellees' narrow reading of the Property Clause" and went on to characterize the Property Clause as including "the powers both of a proprietor and of a legislature" and as encompassing "complete power" over public land.

Congress has, by statute, recognized areas of state primacy (such as state regulation of non-endangered wildlife) and has sought to assure state and local interests a voice in federal land management. However, since *Kleppe*, there is no serious doubt about the preemptive effect of the Property Clause on federal land. The open question now is the degree to which the federal government may regulate private and state owners in order to secure federal land management objectives[67]

Duties Imposed by Federal Ownership. Since 1892, submerged land owned by states is impressed with a public trust.[68] From an early date, courts have indicated that ownership of federal land also involved trust responsibilities. In *Pollard*,[69] the Supreme Court stated that federal lands were held in trust for eventual disposal. Although this was dicta, it faithfully reflected early understanding of the public purposes for which the federal government held land in early days. However, public attitudes changed as the frontier era drew to a close and in 1891 Congress authorized the creation of forest reserves by executive order. In 1911,[70] ranchers argued that the creation of forest reserves violated the trust identified in 1845.[71] The Supreme Court's response acknowledges existence of a trust, but, consistent with the broad constitutional authority granted in the property clause, indicated that

Congress was the appropriate body to determine how that trust was best discharged over time:

> All the public lands of the nation are held in trust for the people of the whole country. And it is not for the courts to say how that trust shall be administered. That is for Congress to determine. The courts cannot compel it to set aside the lands for settlement; or to suffer them to be used for agricultural or grazing purposes; nor interfere when, in the exercise of its discretion, Congress establishes a forest reserve for what it decides to be national and public purposes.[72]

State courts have used traditional public trust notions as a basis of both procedural and substantive restrictions on disposition of submerged land.[73] Federal courts have been less aggressive in applying trust concepts to the more diverse and wide-spread federal estate, but, as Wilkinson (1980) has noted, a number of doctrines interpreting executive authority are predicated on trust notions.

Separation of power notions are likely to continue to restrain federal courts from relying on trust concepts to formulate substantive duties regarding federal land management. Thus, politics will continue to be the principal arbiter of federal land policy and the judicial role is likely to be focused on consistency of executive action with federal statutes. However, though historically limited in application, the trust concept has had a long important tradition in federal land law. It remains as a potential justification for judicial action should extraordinary circumstances suggest a disregard of broad public interest.

Summary and Conclusions

Federal lands are property of the United States Government and "belong" to the agencies that manage them (Huffman 1994). Federal land is subject to both state and federal government authority. Clashes between these two levels of government increased when the general policy to permanently retain and manage land was made more than a century ago. By statute, Congress has recognized areas of state primacy, such as state control of non-endangered wildlife. Federal ownership of land imposes some duties on the government. These lands are held in trust for every citizen, and it is up to Congress, not the courts, to determine how that trust shall be administered and what the national and public purposes of these lands are.[74] Politics thus becomes the principal mechanism whereby federal land policy is decided.

Chapter 4. What "federalism" issues are relevant?

This chapter analyzes some aspects of the historic tension between the federal and state governments regarding the control of land and resources. That tension exists today and likely always will be part of the western landscape. The extent of the federal government's role in the pattern of natural resource use and development has been defined by the interests of the states and, to a degree, local governments (Francis and Ganzel 1984).

"Federalism" is a term for jurisdictional relationships between the federal and state governments on the federal lands. With the exception of observing constitutionally-guaranteed rights and procedures, Congress has absolute power over the federal lands and natural resources; however, state law governs activities on federal lands unless and until Congress decrees otherwise (Coggins and Glicksman 1996). Federalism is fundamentally a question of balancing broad, national interests with more specific state and local concerns (Brick, review comments). There is a movement in the western states to shift some of the authority to the local level, and the federal lands play an important part in the movement (see, for example, Kemmis 1990, Reibsame 1997).

Views of American federalism alternately ebb and flow between centralized and decentralized responsibility for governance. In 1982, for example, the nation was undergoing a surge of decentralization (Stewart 1982). Because of partisan differences between the executive and legislative branches today, it is difficult to characterize the situation. Nevertheless, federalism remains an important political topic.

The heart of the issue is the division of powers by geographic area. That is, how much authority, and over what subjects, belongs to the states, local governments, and federal government? The difficulty with federalism is that governmental responsibilities have never been clearly divided among these different levels (Stewart 1982).

Three federalism issues are analyzed in this chapter: [1] state roles and federal "preemption," [2] "fiscal federalism" or revenue sharing, and [3] where land management decisions are made.

Cooperative Federalism and Preemption

Cooperative federalism is a term that loosely means shared governmental responsibilities for regulating private activity (Coggins and Glicksman 1996). On the federal lands, cooperative federalism takes a variety of forms that are determined by the contours and content of federal laws. Seldom are the states excluded from participation, but the role of the states may range from consultant to dominant partner. Three such general categories are described in this section. Federal laws vary considerably by resource, and it is in that context that the role of the states can be determined, but it is never easy.

Possible State Roles. In general, states may assume three roles in federal natural resource programs: *consultants*, *active partners*, or *dominant partners* (Coggins and Glicksman 1996).

As *consultants*—some federal programs encourage participation of states, but their role may be limited to that of advisor or consultant. For example, environmental impact evaluation under the National Environmental Policy Act (NEPA) welcomes state and local governments, as well as individuals, to comment on federal proposals that significantly impact the quality of the human environment. But the final decision is solely within the discretion of the responsible federal agency (Coggins and Glicksman 1996). So although the federal agency proposing the action may listen to what stakeholders have to say concerning the impacts of that federal action on the environment, under NEPA the agency is not obliged to change its action. A similar example is FLPMA (Myers, review comments).

As *active partners*—some federal regulatory programs include a more active and significant role for the states. Federal pollution control statutes, for example, the Clean Water Act, may allow states to impose restrictions beyond the minimum standard the federal government sets and also allow the states to act as primary enforcers.

Furthermore, state pollution law may govern activities on federal lands (Coggins and Glicksman 1996). This is the case in Idaho, where the Forest Service and BLM have a Memorandum of Agreement to abide by state water quality

standards promulgated to meet the requirements of the Clean Water Act.

The state's role as an active partner in federal land management was encouraged by the Idaho Legislature when, in 1996, it authorized "the state board of land commissioners to enter into a joint exercise powers agreement with the United States Forest Service for the management of certain United States Forest Service lands."[75] The state has not yet made a formal proposal for such an agreement, and a response from the federal side cannot be expected until then.

As *dominant partners*—some federal statutes place virtually all resource regulatory responsibilities upon the states. Or, in some instances, state laws govern activities on federal lands unless and until Congress decrees otherwise. Though not precisely spelled out in the U.S. Constitution or by federal statute, this principle has been assumed throughout the history of the United States, even by the courts. For example, states have dominant roles in managing wildlife resources on national forest and BLM lands. States are also the primary allocators of water rights (Coggins and Glicksman 1996).

Preemption. The preeminent federalism question is whether federal law preempts state law (Coggins and Glicksman 1996).

During the 1980s the U.S. Supreme Court heard 63 cases on federalism involving natural resources (Coggins and Glicksman 1996). Preemption may be summarized from a legal perspective as follows:

> The federal laws vary widely in the type and degree of participation they accord states and in the extent to which they accommodate state law. The jurisdictional provisions of the federal statutes must be read in the context of resource-by-resource traditions. No one rule or statement can adequately describe federal/state jurisdictional relationships in public natural resources law because those relationships are extremely complex and almost ad hoc. Often, a single federalism problem in public natural resources law involves interpretation of multiple statutes, each with different provisions and backgrounds (Coggins and Glicksman 1996).

Over the years there have been important court cases relevant to the federalism issue that have helped define the separation of state and federal governmental responsibilities. In the 1976 *Kleppe v. New Mexico*[76] decision, the U.S. Supreme Court interpreted the Property Clause of the U.S. Constitution and extended federal authority over federal lands to the point that diminished the traditionally exercised state authorities. The Court held that federal authority over federal lands was "without limit," eroding arguments that the federal government acts as only a custodian of the federal lands (Fairfax 1984).

In the 1987 *Granite Rock*[77] decision, the U.S. Supreme Court reaffirmed the *Kleppe* finding, but held that the Property Clause does not confer unrestrainable authority over federal lands to the federal government. There is instead a dual federal/state situation. Preemption questions depend on congressional action and intent, not on the bare fact of federal ownership (Fairfax and Cowart 1987).

Easy or certain answers elude those trying to address federalism questions. In general, recent preemption opinions of the court appear to increase the area of permissible state discretion, but the current state of preemption law is problematic and the *Granite Rock* decision is an uncertain foundation for future legal evolution in this area (Coggins and Glicksman 1996). Federal land decisions are administered by a variety of federal agencies that are affected by numerous statutes focusing on competing goals. In the absence of a clear congressional statement of intent, preemption questions depend entirely on which part of which statute the court chooses to focus on (Fairfax and Cowart 1987).

Revenue Sharing

Programs to share revenues from federal lands with state and local governments may be termed "fiscal federalism" (Coggins and Glicksman 1996). In 1994 Idaho received almost $36 million from the various fiscal federalism programs explained in this section.

Policies that have been on the books since 1897 have evolved into large and amorphous programs that make the states partners in resource development on federal lands (Coggins and Glicksman 1996). For example, 13 western states received almost $900 million from federal revenue sharing in 1984 (Fairfax and Yale 1987).

From a local government perspective, fiscal

federalism is an overwhelmingly important issue. Local public finance is largely dependent on property taxes for maintaining local roads and, to a lesser extent, public schools. Removal of lands from property tax rolls increases the tax burden on other landowners.

Federal lands are exempt from state and local taxation and have been since exemptions were written into state constitutions as part of the statehood bargains (Fairfax and Yale 1987). For political reasons Congress compensates localities for the burdens imposed by the presence of federal lands. This is done through a combination of percentage shares of gross revenues and, to compensate counties where or when revenues are low or non-existent, a per-acre formula "payment in lieu of taxes" or PILT. Each policy is briefly explained below.

Revenue-sharing Payments (25% Fund). In 1897 Congress began a revenue sharing program in connection with the forest reserves created in 1891. These became the national forests in 1907. In 1908 the National Forest Revenues Act[78] provided that 10% of the net revenues generated by the sale of timber and other forest products on national forest lands would be returned to the states (Fairfax and Yale 1987).

In 1976 the sharing of revenues from national forests to local governments was increased to include 25% of the gross receipts through an amendment in the National Forest Management Act. The funds these payments provide are to be used on roads and schools in the counties where the revenues were generated (Fairfax and Yale 1987, Schmit and Rasker 1996). The administration of these payments, now commonly referred to as "25% fund" payments, is the responsibility of the Forest Service (Schmit and Rasker 1996).

Calculation of the 25% payments to states for use of the counties is based on the proportion of a national forest's acreage, including wilderness acreage, administered by the Forest Service within each county. Timber sales provide the primary source of revenues produced on national forest lands subject to 25% payments, although revenues also come from grazing fees, recreation user fees, admission fees, and other land use activities for which a fee is charged (Schmit and Rasker 1996).

Under the Federal Lands Policy and Management Act the BLM returns a portion of grazing fees and mineral leases and permits to the states and counties.

Payments in Lieu of Taxes (PILT). The federal government provides payments to partially compensate state and local governments for revenues lost as a result of the presence of tax-exempt federal lands with their borders. PILT supplements revenue-sharing funds in order to help finance local government services (Cooke and Daily 1993).

The PILT program began in connection with acquired federal lands, known as "entitlement" lands, that were quite different from the "original" public domain. During the two World Wars and the Great Depression of the 1930s, the federal government purchased extensive land holdings for economic recovery programs and military purposes. These acquisitions removed lands from the local tax base that had previously been taxed. Congress established the PILT program to compensate localities for the financial burdens created by the presence of these tax-exempt "entitlement" lands that were removed from the local property tax base. State and local government advocates in 1976 successfully expanded justification for PILT to localities including public domain as well as acquired lands (Fairfax and Yale 1987). All national forest system lands, BLM lands, other federal lands with water resource development projects, and Army Corp of Engineers dredge disposal areas are "entitlement lands" for PILT calculations.[79] In Idaho, 32,366,494 acres of federal land receive PILT payments (Cooke and Daily 1993). This is 96% of the federal land in the state.

The PILT program is administered by the BLM and includes national forests as well as BLM lands. Payments to the counties are based on the amount of revenue-sharing payments the county received in the preceding year, the number of federal acres in the county, and the county's population (Fairfax and Yale 1987).

Several flaws in the PILT program were identified by the Public Land Law Review Commission (PLLRC 1970). In response, the Payment In Lieu of Taxes (PILT) Act[80] was passed in 1976 (Coggins et al. 1993). The PILT statute offers two formulas for determining the payment,

and localities receive the greater of the two. They get either ten cents per acre, or seventy-five cents per acre adjusted by a population-based formula and reduced by the amount received by the local government under any of six other revenue sharing programs—the Mineral Leasing Act,[81] Taylor Grazing Act,[82] National Forest Revenues Act,[83] Bankhead Jones Farm Tenants Act,[84] Mineral Leasing on Acquired Lands Act,[85] and the Material Disposal Act[86] (Fairfax and Yale 1987).

Unlike revenue-sharing moneys which must be used to finance local roads or schools, PILT payments may be used for any governmental purpose (Schmit and Rasker 1996). In Colorado,[87] a federal court held that counties are free to spend PILT monies for any governmental purposes and that the states cannot place restrictions on such county expenditures (Coggins et al. 1993).

In 1994, Congress authorized an increase in PILT distributions per acre and such payments are scheduled to more than double from their original levels by the year 1999.[88] However, because annual congressional appropriations determine the total amount of PILT payments available for distribution, Congress will have to make sufficient appropriations to cover the increases (Schmit and Rasker 1996).

Revenue Production from National Forest and BLM Lands. The revenue-producing function of the federal lands is of great interest to state and local governments (Fairfax and Yale 1987). Between 1994 and 1996, the Forest Service and BLM lands in Idaho produced between $70 million and $110 million in receipts (Table 4-1). During this 3-year period the Forest Service produced at least 7 dollars for every dollar produced by the BLM; in 1994 the ratio was 13:1. During this three year period, the two agencies expended between $280 million and $362 million per year in Idaho. The trend in both receipts and expenditures is downward. Expenditures exceeded revenues each year somewhere between $200 million and $252 million (Table 4-1).

Nationwide, Forest Service receipts are down, but expenditures are rising. For example, in 1993 the Forest Service took in receipts of $1.5 billion while incurring obligations of $3.2 billion; in 1996, receipts declined to $1 billion, while obligations increased to $3.8 billion (USDA-FS 1997).

Payments to Idaho Counties. As explained above, federal lands are exempt from taxation and in recognition that the presence of federal lands may represent increased costs to local governments, counties are financially compensated for federal land ownership through a combination of the sharing of revenues produced from federal lands and PILT payments. As economic activity on the federal lands increases, more funds are generated and a proportionately greater amount is returned to the counties. A variety of payment schedules have evolved over the years, depending on the resources and agencies involved. Cooke and Dailey (1993) explained how the payments are calculated and demonstrated their application in Idaho counties in 1991.

Payments fluctuate from year to year, depending on resource management activity that produces revenues. The trend in statewide payments to all counties in Idaho is illustrative, and is particularly interesting when compared with harvests of timber from national forests, which is by far the leading source of these payments (Figure 4-1).

Timber harvests from Idaho national forests declined by 60% from 1990 to 1996 (Figure 4-1). However, payments to counties were on a different trajectory from 1991 to 1995. This anomaly was the result of a change in the value of timber harvested. Extensive wildfires on the Boise and Payette National Forests killed many large-diameter high-value ponderosa pines that were brought to market. Reduction of timber harvests from national forests in eastern Oregon also increased market competition for Idaho timber, driving up bids on some timber sales. Beginning in 1995, it appears that the revenue-sharing payments to counties have returned to the same trajectory as timber harvests.

Between 1995 and 1996 there was a 40% decrease in revenue-sharing payments from national forest timber harvest. With a one-year decline from $25 million to $15 million, it is understandable why many county commissioners in Idaho are especially concerned about the

Table 4-1. Forest Service and BLM receipts and expenditures in Idaho, 1994-1996.

	1994	1995	1996
Receipts			
Forest Service	$ 102,525,104	$ 60,085,048	$ 69,828,464
BLM	7,703,274	9,600,000	10,000,000
Total Receipts	$ 110,228,378	$ 69,685,048	$ 79,828,464
Disbursements to Idaho			
PILT	$ 7,379,262	$ 7,055,399	$ 7,995,629
National Forest Revenue Sharing ("25% Fund")	25,751,989	15,021,262	$ 17,457,116
BLM Mineral Leases & Permits to State	2,219,598	2,126,103	2,655,483
BLM Mineral Leases & Permits to Counties	216,543	236,234	265,548
BLM Grazing Fees	231,431	244,896	275,321
Subtotal (to Idaho)	$ 35,798,823	$ 24,683,894	$ 28,649,097
Operating Costs			
Fire Suppression	90,442,051	57,593,586	54,475,013
Forest Service Budget*	196,178,000	185,610,000	162,214,000
BLM Budget*	40,134,132	36,744,001	34,801,249
Total Expenditures	$ 362,553,006	$ 304,631,481	$ 280,166,359
Expenditures in Excess of Receipts**	$ 252,324,628	$ 234,946,433	$ 200,337,895

* According to the agencies, about 30% of the Forest Service and BLM budgets in Idaho is expended on resource management activities (UCRB-DEIS 1997, p.4-217).

** Source documents identified this as "profit or loss"; more appropriately, it is total expenditures for the Forest Service and BLM in Idaho, less receipts net of PILT and revenue-sharing payments.

Source: *Taking Control of Federal Lands: A Good Deal for Idaho?* (Williams 1995, IDL 1997*b*); BLM disbursements to Idaho data from BLM State Office (J. Foster, personal communication).

future of federal lands. During the 1980s, it appears that payments to counties were fairly closely correlated with timber sales, and that is likely to be the situation in the future. If timber harvests decline from current levels, it is likely that payments to counties will also decline. However, the reverse may not hold if national forest timber harvests increase. There may be a reverse effect of the market anomaly of 1991-1995, when revenues increased as harvests decreased. Ecosystem-based management promises small-diameter low-value timber with higher harvesting costs (Quigley et al. 1996). This might result in payments to counties becoming lower if and when timber harvests increase because the quality of timber will be lower than it has been in the past.

Coggins and Glicksman (1996) concluded that the nature and specifics of resource revenue-sharing programs should alert the objective observer to the need for a more comprehensible, better-justified system of fiscal federalism than currently exists. Proposals and debate are ongoing at this writing.

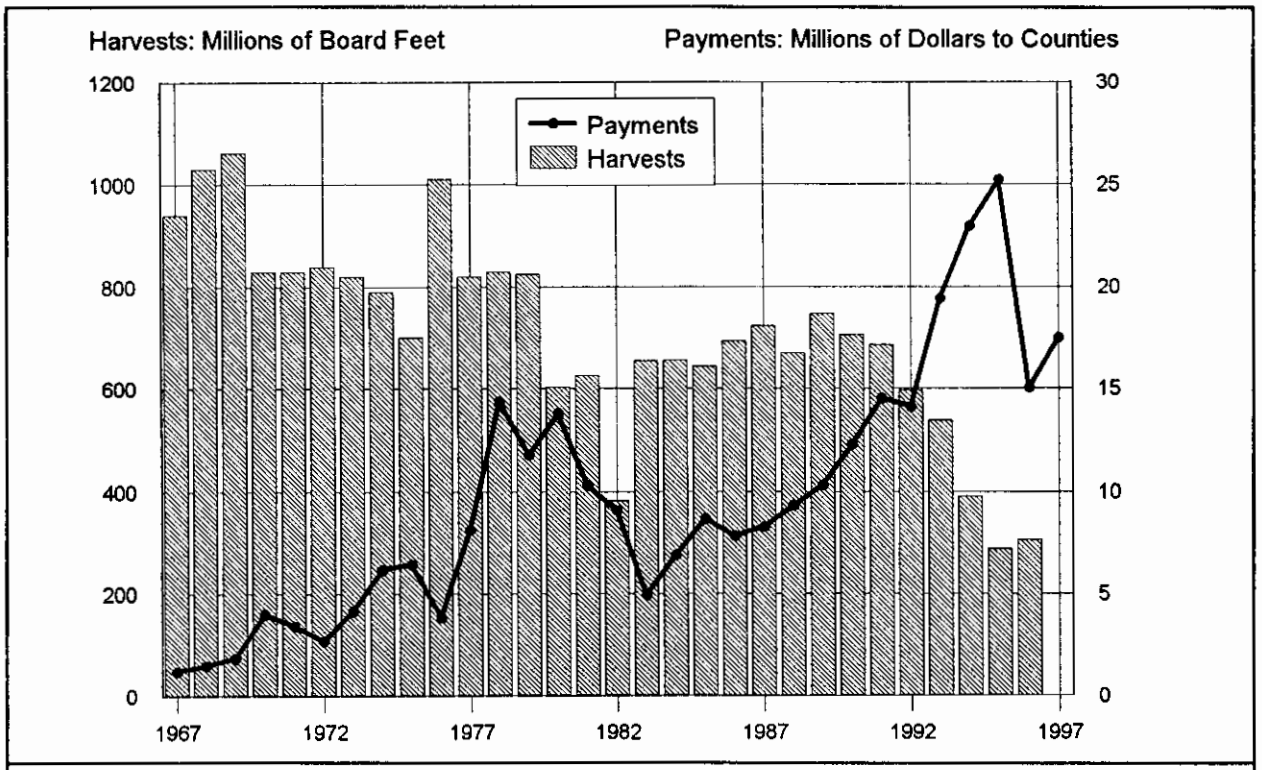

Figure 4-1. Revenue-sharing payments to Idaho counties, 1967-1997; from timber harvests on Idaho national forests, 1967-1996.

Source: Idaho Department of Education (1997), *Idaho's Forest Products Industry: A Descriptive Analysis 1979-1996* (Keegan et al. 1997).

Locus of Decision Making and the "Public Interest"

Where should decisions about the federal lands be made, at the local level or somewhere else? Reconciling national interests with local interests is an issue as old as the republic itself, and one of particular importance in the western states because that is where most of the federal lands are.

The purpose of this section is to set the stage for the next chapter, where alternatives to the current system of federal land management are analyzed. An obvious solution to gridlock, which has a decision deadlock component symptomatic of "adversarial legalism," is to reverse the "anti-authority spiral" associated with distrust and reconstitute governmental authority (Kagan 1991). The stage is set here by introducing some of the key players. Representing the national interests are the perspectives of the national environmental groups on "federalism" issues. Representing the local interests are local environmentalists. Comments from scholars reinforce the main point. National environmental groups have different interests than local environmental groups.

At issue is how local interests in federal lands can be met without unduly compromising the national interest in national lands. In other words, how can the federal government use its authority for controlling resources in a way that meets the "public interest"?

What is the "public interest"? When the forest reserves were transferred to the Department of Agriculture in 1905, Gifford Pinchot, the first Chief of the Forest Service, was given the following instructions by the Secretary of Agriculture. Pinchot wrote these words for the secretary's signature:

> [A]ll land is to be devoted to its most productive use for the permanent good of the whole people, and not for the temporary benefit of individuals or companies. ... [W]here conflicting interests must be reconciled the question will always be decided from the standpoint of the greatest good of the greatest number in the long run (Pinchot 1947, p.261).

Pinchot's idea that forest resources should serve all the people has not been restricted to the national forests alone (Worrell 1970). Pinchot's broad description of the public interest in forest resources is not very useful as a basic criterion for judging forest policies, but it is nonetheless a relevant consideration (Worrell 1970).

The idea of a "public interest" as a guide to governmental actions and policies has generated considerable argument over the years as to just what this term means (see Worrell 1970). What is the public interest, and which policies are agreed to be in the public interest? Although using it as a criterion to judge policy presents problems, there remains widespread agreement that the "public interest" has meaning for policy decisions. However, there is no such thing as the public interest which can always be determined (Worrell 1970). Nevertheless, Worrell (1970) concludes that there is a sense in which the public interest can be and actually is used as a policy criterion:

> The usefulness of a concept like the public interest lies perhaps in the search for it, in the effort by administrator and scholar to make explicit the data and rationale behind particular decisions that are or have been urged as being in the public interest. ... Like justice, the public interest is given meaning in the constant striving to achieve it, in the on-going effort to assess the impact of particular facts and to determine effects of particular situations (Wengert 1961, p.220).

Consistent with this idea, we will attempt to determine the rationale for federal lands in the context of the public interest because it is sometimes used as a justification for particular policy choices on federal lands.

Some people view the public interest as the sum of all individual or group interests; therefore, if all private interests are at the table, the public interest is represented. Others see the public interest as something different or greater than the aggregation of private interests; simply having all private interests at the collaborative table does not represent the public interest (Kweit and Kweit 1981). Can private interests represent this greater public interest? Some believe they can (e.g., Susskind and Cruikshank 1987), but others do not (Kweit and Kweit 1981, Ethridge 1987). Organizations that claim to represent the public interest may have private agendas, too. The public interest may require representation by a governmental agency charged with protecting it (Ayers and Braithwaite 1992).

Although arguing about the public interest may sound like a stodgy academic debate, the implications are profound for the role of Congress, administrative agencies, and citizens in the management of federal lands. The framers of the U.S. Constitution were concerned that private interests could form factions that would act contrary to rights of individual citizens and the public interest (Madison 1787). They chose representative government over more direct or participatory democracy because they believed representative democracy was better able to act in the public interest (Chrislip and Larson 1994).

Collaborative Processes and the "Public Interest." Today there is considerable discussion and many attempts to use collaborative processes for managing federal lands. These efforts may closely resemble direct democracy, but have the potential to produce the factionalism that so concerned the nation's founders.

Most governmental administrative agencies are charged with protecting the public interest, and there is concern that relinquishing too much control of decisions through collaboration with private interest groups may present problems. Agencies may be reluctant to engage in collaborative processes because they are mandated to protect certain values and need insulation from external pressures (John 1994). Consistency and predictability in decision making are legally important, and collaborative processes may result in decisions where individuals or groups in like circumstances might not be treated alike (Kweit and Kweit 1981, Meidinger 1987, John 1994).

Another concern is that cooperation or collaboration with interest groups may lead to "capture" of administrative agencies (Susskind and Cruikshank 1987, Goslant 1988, Ayres and Braithwaite 1992, John 1994). Administrative agencies commonly have their own clienteles or constituencies that are in a position to benefit from agency decisions (Goslant 1988). Agencies might begin to make decisions that consistently favor some stakeholders over others. Some capture may be beneficial, if it leads to an understanding and internalization of the interests of

other parties (Ayers and Braithwaite 1992), but in the extreme—regulators becoming controlled by the regulated—capture does not serve the interest of all stakeholders, including the public (Susskind and Cruikshank 1987). Research in the late 1970s revealed that neither the Forest Service or BLM had been "captured" (Culhane 1981).

Administrative agencies are ultimately responsible for the results of federal land decisions made through collaborative processes. This legal accountability maintains the agencies' important role in defining and defending the public interest (OECD 1997). Officials with statutory power need to retain their authority in order to ensure this accountability (Susskind and Cruikshank 1987).

In the name of serving the public interest, Kemmis (1990) argues for cooperation among competing interests to revitalize western communities by cooperative efforts to break gridlock:

> [I]t is less and less clear how the public interest can be served without an effort to create political forms in which these [competing] groups are at least occasionally cooperating not only with each other but also with chambers of commerce, taxpayer associations, bankers, realtors—in general, the "other guys." ... The lesson can hardly be overstated: proponents of the public interest must find ways to break out of the politics of stalemate, even if it means (as it does) that they have to begin opening up areas of cooperation with "the enemy" (Kemmis 1990).

The community perspective, of course, is not the final word when it comes to national lands.

National Interests. What are the national interests in federal lands? The Public Land Law Review Commission (PLLRC 1970) identified efficient management to reduce the burden on taxpayers, the contribution to a quality environment through enhanced human and social values, and fair and equal treatment of all users of the federal lands (Pyles 1970, Harvey 1984).

Sax (1984) identified the national interest as being control over federal lands and resources to impose constraints on actions that state or private interests would not engender. This echoes the observations of Worrell (1970) and Gates (1984). Dowdle (1984) characterizes the basic premise as the "market failure" hypothesis and disputes its relevance for federal timberlands, but not for other values provided by federal lands.

Today, several national environmental groups have offered arguments that national interests need to be considered in federal land decisions. Several examples follow.

The Nature's Conservancy's President and CEO John Sawhill sees value in local community-based efforts. In the organization's 1998 report to members he wrote,

> I believe that community-based conservation will emerge as the primary vehicle through which the Conservancy delivers our conservation product. ... We boast today of being a multi-local organization, but the future will find us even more decentralized, even more responsive to the distinct conservation needs of local communities (J. Sawhill, quoted by Brick 1998).

The Wilderness Society's president William Meadows expresses support for community-based efforts focused on national public lands as long as they include national representation. Community-based proposals, he added, should undergo environmental and economic review, and should be tested first on a small scale. Perhaps most important was his observation that implementation should take place through federal administrative channels, not through acts of Congress. He spoke out against the Quincy Library Group effort, a community-based attempt to break gridlock on national forests in northern California, because national interests "were actively excluded" (Meadows 1998).

The Sierra Club has taken a position that timber should not be harvested from federal lands, and is uncomfortable with local solutions to federal land management problems. In a memo to the Sierra Club's board of directors, chairman Michael McCloskey (1996) wrote:

> A new dogma is emerging as a challenge to us. It embodies the proposition that the best way for the public to determine how to manage its interests in the environment is through collaboration among stakeholders, not through normal governmental processes. ... [S]uch processes tend to de-legitimate conflict as a way of dealing with issues and of mobilizing support. ... Too much time spent in stakeholder processes may produce the result of demobilizing and destabilizing our side. ... It is curious that these ideas would have the effect of transferring influence to the very communities where we are

least organized and potent (McCloskey 1996).

Professor Philip Brick (1998) observes that the national interest promoted by some environmental groups is the maintenance of their membership rolls. He observed that the environmental movement is well equipped to lobby and litigate at the national level, winning a few small battles here and there and forcing gridlock where it can't win. He said the national groups rely on the "checkbook activism" of a large but relatively uncommitted white, urban, upper-middle class bloc. In his opinion, the national groups will have difficulty finding virtue in working at the local level (Brick 1998).

Professor Sally Fairfax finds the position of some national environmental groups on public land policy reform inconsistent with their stance on resource management:

> Least explicable of all is the consistent rush of environmentalists to defend the federal agencies whenever the [public lands] title issue is raised. Having spent two-thirds of the twentieth century pointing out ... the flaws of federal management, those groups' embrace of federal agencies and their stout unwillingness to consider alternatives to federal management is nothing short of sad and ironic. It demonstrates the bankruptcy of our ideas on public resources (Fairfax 1996).

Some of the ideas about public resources Fairfax refers to are analyzed in Chapter 5.

State and Local Interests. People who live and work on or near the federal lands have concerns that go beyond their interest as members of the national public (Harvey 1984). They have a strong desire that federal lands contribute meaningfully to the quality of the environment in which they live. They also have an interest in having the federal government pay its fair share of the costs of adequate state and local governmental services. Furthermore, federal lands and resources are an important part of the economic base of at least 22 states, so there is an interest in laws and policies that have federal lands and resources contributing to regional growth, development, and employment (PLLRC 1970, Harvey 1984).

State and local governments affected by federal land-use decisions expect to be consulted and to have a voice in the federal decision-making process. They expect impacts of federal decisions on state and local programs to be given consideration. Because they use federal lands, state and local governments expect a preference over competing potential users (PLLRC 1970, Harvey 1984).

In support of community-based efforts, and as if to rebut Mr. McCloskey's statement in the section above, Forest Service Chief Mike Dombeck said,

> Many conservationists look askance at community-based conservation and restoration, thinking perhaps that national interests will be "co-opted." They fear community-based efforts represent an abdication of decisionmaking responsibility, or worse yet, presage the divestiture of public resources.
>
> These are honest concerns, but community-based collaborative efforts do not diminish federal mandates to clean our air and water, preserve endangered species, and protect public resources. These efforts actually amplify the effectiveness of the law by vesting communities with an interest in conservation (Dombeck et al. 1998).

Some local environmentalists in Idaho have a view toward cooperation that is closer to that of Chief Dombeck and the Nature Conservancy rather than Mr. McCloskey. For example, Idaho environmentalist Pat Ford (1986) observed that the conservation ethic in Idaho is stronger than it was in 1970, but it is still just one voice among many. He said,

> To rise from combatant to the larger role of harmonizer, conservationists must build a larger, more compelling vision than now exists, embracing the economic relations among people and communities (Ford 1986).

Since then, the litigation strategy of some national environmental groups has undermined the efforts of local environmentalists to build support for conservation in Idaho's rural communities. The 1995 *Pacific Rivers*[89] litigation in Idaho is a case in point. The Sierra Club Legal Defense Fund, since renamed the Earth Justice Legal Foundation, filed the case against the Forest Service on behalf of the Pacific Rivers Council, based in Portland, Oregon. The suit attempted to force information about endangered salmon species into decision-making at both the land-use plan and project-specific levels, and was successful from that standpoint. The Idaho case followed an earlier successful effort in Oregon.[90]

These two cases seemed to be part of a broader effort to reduce timber harvesting and other extractive activities on national forest land, or at least redefine the balance of commodity uses with other forest resource values (Feldman 1996).

In the Idaho *Pacific Rivers* case, an injunction was granted on January 12, 1995, halting new timber sales, grazing activities, mining, and road building projects until formal ESA section 7 consultation on the forest plans is completed. The environmentalists, aware of the black eye they got from the injunction, came back to the judge with a proposed stay, and although chagrined, the judge agreed and lifted the injunction on January 25 (Coffin 1995). The injunction was dissolved on March 25, 1995. In the end, it accomplished what the environmentalists wanted by forcing early implementation of PACFISH interim rules for streamside management (R. Barker, personal communication, see O'Laughlin and Cook 1995).

However, as *High Country News* reported, the "Salmon campaign fractures over how to include people: environmentalists ignited firestorm in central Idaho by requesting a blanket injunction on all logging, mining, and grazing on six national forests to protect endangered salmon habitat" (Stuebner 1995). Wendy Wilson, executive director of Idaho Rivers United, and Pat Ford, Idaho environmentalist and executive director of Save Our Wild Salmon, said the *Pacific Rivers* litigation set back their efforts to build organizational support for the ESA and trust in local communities (Stuebner 1995). Craig Gehrke, Idaho staff representative of The Wilderness Society, argued that the Pacific Rivers Council did the right thing. He said, "Let's face reality, we've got an endangered species here, you've got to revise the forest plans and lower those timber targets so you can protect salmon habitat" (Stuebner 1995).

The *Pacific Rivers* litigation illustrates many things. Among them is that perspectives of some national environmental groups may be different than the perspectives of local environmental groups.

Summary and Conclusions

Federal lands in Idaho are federal property. Congress has absolute control over these lands and resources, but states have jurisdiction unless Congress has decided otherwise. States cannot make land-use decisions on federal lands because through various laws Congress has assigned that responsibility to federal agencies.

Since 1908 Congress has determined that federal lands should contribute some portion of the costs of maintaining local government, especially local roads and schools. The revenue comes to the counties under two policies. A minimum payment is provided through a Payment in Lieu of Taxes (PILT) formula. Funds are appropriated from the U.S. Treasury for these payments. Counties are also provided with a 25% share of the gross revenues produced by federal lands in that county. Revenue-sharing payments have been trending downward in Idaho for the last few years, forcing local governments to reconsider all their sources and uses of funds.

The economic benefits local communities gain from federal lands, including government employment and resource-related jobs as well as revenue sharing and PILT payments, gives them a different perspective on federal land and resource management than national interest groups have.

Reconciling local and national interests in the federal lands is a difficult problem. Rural western communities would like more say in how nearby federal lands and resources are managed. National environmental groups also want some say, but may have difficulty getting their views aired in local forums.

Federal agencies are seeking new ways to work through these problems and build some consensus, but are constrained in that appealed decisions are resolved by remote administrators and courts that have much to say about management priorities on federal lands through judicial review of management projects using the lens of environmental laws. The conflicts between user groups, at local and national levels, and the myriad laws and their interpretations all promote gridlock, with resulting delay and/or indecision about resource management activities.

There is considerable discussion in the western states today about returning decision-making authority closer to the land and resources. Community-based conservation is not a panacea for federal land management, and issues of national importance ought to be resolved through national, not local, processes (Brick

1998).

Unless one is content with gridlock, some innovative thinking about new approaches for making decisions about federal lands is needed. In the end we might hope, as Floyd (1988) did in his analysis of the BLM's experimental stewardship program, that locally-based dispute resolution programs could provide an impetus for national conservation groups to rethink their strategy of concentrating resources focused on Washington, D.C., and instead join their local allies to forge environmental policy that works on the ground.

Arguing from the local community perspective, Kemmis (1990) summarizes the fundamental "federalism" issues involved with federal lands decisions:

> The question which everyone overlooks is whether federal control of local resources makes the local economy weaker than any of those local contestants would choose. In fact, federal control does have precisely that effect. This is due, very substantially, to the nature of federal bureaucratic decision making. ... At this point we have to speak of politics and economics in the same breath. If localities in the west had more control over their resources, and if the various interests within those localities could agree on some common directions for utilizing those resources, then local economies could be substantially strengthened and stabilized. But the political "ifs" which precede this economic "then" are significant indeed. ...
>
> [T]he people of [western rural communities] are dealing not only with a procedural politics, but also with a version of imperialism which encourages this kind of [confrontational] behavior. It is not simply that they are expected to present adversarial cases to a neutral third party, but to a "fed"—to a representative of a remote, powerful government which owns most of the land and resources upon which their livelihood and well-being depend.
>
> It would be an insult to these people to assume that they are incapable of reaching some accommodation among themselves about how to inhabit their own place. Such accommodation would never be easy, and it would probably always be open to some redefinition. But if they were allowed to solve their problems (and manage their resources) themselves, they would soon discover that no one wants local sawmills closed, and no one wants wildlife habitat annihilated. If encouraged to collaborate, they would learn to inhabit the place on their place's own terms better than any regulatory bureaucracy will ever accomplish. But this kind of collaborative citizenship is withheld from them by a com-bination of proceduralism and imperialism (Kemmis 1990).

Donald Snow (1997 *a,b*), journalist and environmental activist from Missoula, Montana, is an advocate for strong communities with a say in what happens on nearby federal lands. Echoing Fairfax's (1996) observations quoted above, he calls for a new experiment in Jeffersonian democracy on the federal lands:

> Despite a century of effort, residents of the West have never managed to democratize the public lands. ... Oddly enough, some environmentalists have been among the most deeply invested in the antidemocratic management regime exercised on the public lands. Any suggestions aimed at devolving power or land management authority to local levels—even on a temporary, experimental basis—are met with howls of derision, especially from national environmental leaders. But these days, the federal emperors in the West are wearing hardly a stitch, and environmentalists who continue to defend the threadbare paradigm of remote-control land management are beginning to look like a court of fools. Perhaps it's time to try something bold (Snow 1997*b*).

In many respects the future of the federal lands is the future of the West (Wilkinson 1995). Current policies promote rather than attempt to resolve conflict. Gridlock offers a future of continuing conflict and confrontation. The losers are American communities and the people in them. Except for the entrenched members of the conflict industry, there are no winners.

Chapter 5. Analysis of Alternatives

History shows there is nothing inevitable about the course of development in public policy for the national forests and BLM lands. The significance of history is that we face the same choices today, and history can illuminate some of the present day options (Huffman 1978).

Much has been written about different institutional arrangements governing the management of federal lands (see, for example, Clawson 1984, F.O.G. 1998). There are two major options, each with different approaches arrayed under them. First is to remove the lands from federal ownership and let someone else manage them. This could be done by sale or transfer of title. Second is to leave the lands in federal ownership but change the rules under which they are governed. As a starting point for seriously considering such change, one option is the convening of a Federal Land Management Commission with a mission to suggest, implement, and oversee management changes. The major alternatives discussed in the literature are change based on economic reform, land leasing, local advisory councils, trust land management, and cooperative state/federal management.

Before analyzing these different alternatives, we analyze the current trajectory of federal land management policy under ecosystem-based concepts.

Current Baseline Situation (No Change)

Two alternatives describe the baseline situation. First is the direction under current land-use plans as modified by interim directions designed to enhance fisheries conservation efforts. Second is the draft preferred alternative under ecosystem-based management directions proposed by the Interior Columbia Basin Ecosystem Management Project (see UCRB-DEIS 1997).

Current Land-use Plans and Interim Directions. Since 1976 both the Forest Service and BLM have been required to prepare comprehensive land-use plans for 10-15 year periods (see Chapter 2). It took the Forest Service more than 10 years to complete the first set of plans. The agency is now approaching the necessity of completing the second round of such plans by the year 2002 in Idaho. The BLM also needs to revise its plans.

The first round of plans did not specifically provide for the needs of threatened and endangered fish species. The needs of salmon conservation led to interim directions called PACFISH for national forests and BLM lands in salmon watersheds, and INFISH for inland native fisheries on national forests. These interim strategies are to be replaced by permanent strategies under an ecosystem-based management concept.

Ecosystem-based Management: Preferred Draft Alternative. The current system of federal land and resource management decision-making is underpinned by a concept known as ecosystem-based management, or simply ecosystem management (EM, for short). The Forest Service made the decision to adopt an EM approach in 1992, and the rest of the federal agencies involved in land management and regulation of land management activities have since followed. Because EM is the guiding principle for the current trajectory of federal land management, some questions will inevitably arise about what EM is, where it came from, and where it is going.

There are dozens of definitions of EM, and none of them are codified in law or regulations. One of the differences between EM and the more traditional approach to land management is the focus on what is left on the land as a result of management activities rather than what is taken away from the land.

At present it is perhaps premature to recognize EM as a new phase of federal land management. One argument against formal recognition of ecosystem management as a stage of public land policy development is the fact that there is no statutory authority for ecosystem management. But there aren't any laws against it, either. Statutory authority is a non-issue. The reason for not recognizing EM as a new phase is that the federal agencies have not yet defined processes for implementing ecosystem management across the spatial scales that must be considered, nor have they addressed associated accountability issues (US-GAO *1997b*).

Ecosystem management is evolving toward watershed restoration and collaborative stewardship. Indeed, Chief Dombeck and former Chief

Thomas recognize the 1990s as a new era in public land resource management in which watershed restoration and collaborative stewardship will represent the reemergence of Aldo Leopold's land ethic (Dombeck et al. 1997).

Ecosystem management is under way in Idaho and neighboring states in the Interior Columbia River Basin. In 1993, the Forest Service and BLM were directed by President Clinton to conduct a regional-scale ecosystem assessment for the Interior Columbia River Basin, which includes almost the entire state of Idaho. At this writing the project has not yet drawn to a close. The idea underlying this effort is to contribute a "scientifically sound" approach to federal land and resource management decisions, with decision about the federal lands based on a scientific assessment of resource conditions.

The proposed new management direction is to be based on the following assessment data.

Resource Assessment Data. This section summarizes the ecosystem-based information regarding Idaho's resources that was made available in documents published by the Interior Columbia Basin Ecosystem Management Project (ICBEMP). We briefly summarize ICBEMP findings on scenery, recreation, forest and rangeland ecosystem health, water quality, riparian health, wildlife, fish, and human communities. Several reviewers found these brief summaries of resource conditions on the federal lands in Idaho to be less than satisfactory. Nonetheless, they represent the current conditions as described by the scientific assessment produced after a 4-year, $35 million dollar expenditure by the Forest Service and BLM in the ICBEMP effort. We have provided additional supplementary information where we thought it might be useful.

Scientific information compiled for the ICBEMP is available in a four volume *Assessment of Ecosystem Components* (Quigley and Arbelbide 1997), much of it published in the *Integrated Scientific Assessment* (Quigley et al. 1996). Information in the *Summary of Scientific Findings* (USDA-FS 1996) and *Highlighted Scientific Findings* (Quigley and Cole 1997) make the work of ICBEMP scientists readily available and understandable to a non-scientific audience. Information in the Draft Environmental Impact Statement for the Upper Columbia River Basin (UCRB-DEIS 1997) indicates how the federal agencies propose to deal with the resource conditions documented in the scientific assessment. The UCRB includes almost the entire state of Idaho, with the exception of the Bear River watershed in the southeastern corner of the state.

Scenic Conditions.— Scenery contributes to the quality of life and also has economic benefits through recreation and tourism. Viewing scenery has the highest participation rate of any recreation activity in the country, involving about 21 percent of the U.S. population (UCRB-DEIS 1997). Federal scientists point out that communities are affected by the surrounding scenic condition because an attractive natural setting contributes to perceptions of community desirability (Burchfield et al. 1997).

Nearly two-thirds of the federal lands in Idaho and western Montana are rated high or very high in scenic "integrity." Overall scenic conditions within the Interior Columbia River Basin are very good, with several major portions of the Basin representing perhaps the most visually intact areas within the contiguous United States (Burchfield et al. 1997).

Analysis of current forest conditions in the scientific assessment indicates that areas of great scenic value are at high risk from stand-replacing fires (UCRB-DEIS 1997).

Recreation.— There are more than 34 million recreation visitor days (RVDs) per year in Idaho (Idaho Department of Commerce, personal communication). The Forest Service reported in 1996 that there were more than 15 million RVDs in Idaho on national forest lands; BLM lands support more than 5 million recreation visitors per year (see Chapter 2). Day use and motor viewing account for the greatest recreation activity days on federal lands in the Interior Columbia River Basin. The next most popular recreation activities are camping, fishing, trail use, and hunting. Seventy-five percent of all activity days are in roaded natural settings, while most trail use occurs in primitive/semi-primitive areas (UCRB-DEIS 1997).

More than half of the federal lands in Idaho are in an undeveloped condition, that is, are "roadless." For each resident of Idaho there are approximately 6 acres of federal land in the state that are preserved and not subject to development other than recreation. This includes lands

designated as wilderness (4.0 million acres total, Table 2-2), recommended as wilderness (1.3 million acres of national forests, 1.0 million acres of BLM lands), national park units (67,000 acres), and national recreation areas (1.4 million acres). There are an additional 8 million or more acres of undeveloped national forest roadless areas and 1.8 million acres of undeveloped BLM lands (MacCracken and O'Laughlin 1992, MacCracken et al. 1993). Thus out of 33.8 million acres of federal land in Idaho (Appendix Table A), 17.6 million (or 52%) are undeveloped.

Rangeland Health.— Ecosystem health refers to "the capacity of forest, rangeland, and aquatic ecosystems to persist and perform as expected or desired in a particular area" (UCRB-DEIS 1997). Compared to 100 years ago, the extent of native grasslands has been reduced 70%, and shrublands have been reduced by 70%. Rangeland ecosystems have been affected by grazing, encroachment by woody species, changes in fire regimes, and invasion by exotic species. In the last 100 years, exotic plant species have expanded throughout native forests and rangelands to the extent that they now occupy 20 times the area once thought to be the potential. Rangeland health can be improved through integrated weed management strategies, prescribed burning, and managing the season and intensity of grazing (Quigley et al. 1996).

According to the BLM, 4% of the public rangelands in Idaho in 1997 are in excellent condition, 20% are in good condition, 25% are in fair condition, 28% are in poor condition, 11% are unclassified, and 12% are in the seedling stage. In 1997 the BLM reported 1.2 million acres of public lands infested with noxious weeds, a 20-fold increase from the agency's 1996 assessment of 60,000 acres (USDI-BLM 1996, 1997). Although not clear in the source documents, we presume that this information is only for BLM lands. No explanation for the 20-fold increase in one year is provided in the source documents.

Forest Health.— Federal forests have become more densely stocked, developed increasing dominance of shade-tolerant species, and become more susceptible to severe fire, insect, and disease disturbances. Fire severity has increased while fire frequency has decreased. The areas with potential for lethal stand-replacing fires are now three times what they were historically (Figure 5-1).

The primary causative factors behind fire regime changes are effective fire prevention and suppression strategies, selection and regeneration cutting, domestic livestock grazing, and the introduction of exotic plants (Quigley et al. 1996).

National forests represent 73% of the timberlands in Idaho (Brown and Chojnacky 1996). Compared to state and private forests in Idaho, in the 1980s Idaho's national forests had 33% more volume per acre, and 50% more mortality per acre (O'Laughlin 1996*a*).

Some of Idaho's national forests are in a condition where forest inventory data indicate that trees across all the suitable inventoried timberlands of entire national forests are dying faster than they are growing (Figure 5-2). This is a result of the combined effects of forest changes and insect, disease, and wildfire activity. This situation characterized the Boise and Payette National Forests in the early 1990s (O'Laughlin et al. 1993). More recent evidence indicates that the Clearwater National Forest is approaching the same situation, as mortality in 1995 was estimated at 95% of gross annual growth (Clearwater National Forest 1997).

The implications of increased mortality relate to buildup of fuel and resulting severity of the inevitable wildfires ignited by lightning and resulting ecological and economic impacts. As the ICBEMP scientists noted, fire suppression costs, firefighter fatalities per year, and the proportion of high-intensity fires have doubled between the periods of 1910-1970 and 1970-1995. Reducing these risks involves maintaining forest cover and structure within a range consistent with long-term forest processes (Quigley et al. 1996). Although data are lacking with which to make judgments as to mortality rates covering only a 35 or 40 year period, it may be that such high forest mortality rates across such large areas are inconsistent with long-term processes. Fuel buildup intensifies wildfires. As ICBEMP scientists put it, the increase in lethal fire regimes (Figure 5-1) "poses a significant threat to ecological integrity, water quality, species recovery, and homes in rural areas" (Quigley and Cole 1997, p.13).

Fire Regime Changes and Implications

- Lethal fire potential has tripled on federal lands in Idaho and Montana
- Lethal fire poses threats to ecological integrity, water quality, species recovery, and rural homes
- Between the periods 1910-1970 & 1970-1995, fire control problems have doubled :
  - fire suppression costs,
  - firefighter fatalities per year, and
  - high intensity fires.

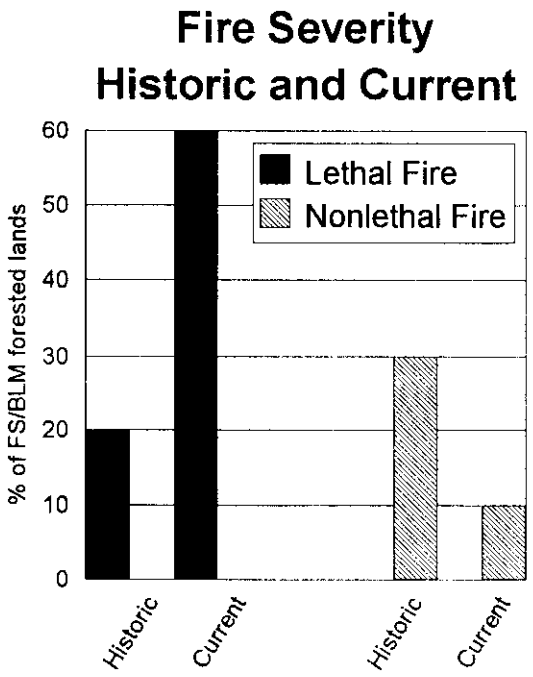

Figure 5-1. Implications of fire regime changes on federal lands in Idaho, measured by historic and current lethal and nonlethal conditions as a percentage of Forest Service and BLM lands.

Source: *Integrated Scientific Assessment for Ecosystem Management in the Interior Columbia Basin* (Quigley et al. 1996), *Highlighted Scientific Findings of the Interior Columbia Basin Ecosystem Management Project* (Quigley and Cole 1997).

Riparian Health.— Evidence suggests that human activities, such as forest conversion and streamside disturbances, significantly affect riparian vegetation and in-stream habitats (USDA-FS 1996). Information on aquatic systems such as the identification of aquatic "strongholds" and areas of high quality fish habitat provide a basis for the conservation and restoration of aquatic ecosystems (Quigley et al. 1996). This information can be used to improve the condition of riparian areas where aquatic habitat conditions do not meet water quality standards.

Riparian vegetation has also changed significantly. There have been widespread declines in riparian shrublands (USDA-FS 1996), late-seral structural stages, upland shrublands, upland herblands, and native grasslands due to exclusion of fire, introduction of exotic plant species, and timber harvest and agricultural practices (Quigley et al. 1996).

Water Quality.— Sediment is the main source of pollution impairing water quality in Idaho's streams and rivers. Ten percent of the stream and river miles in Idaho do not meet water quality standards; 43% of these impaired waters are on federal lands. Fish populations have declined in areas that have been heavily developed, such as areas with high road density (USDA-FS 1996).

Wildlife.— Native grasslands and forest types have declined in total area and shifted in distribution since historic times, especially on federal lands; many species of plants, invertebrates, and vertebrates are associated with these different habitat types and the loss of these wetlands, native grasslands, and forest types has resulted in a decrease in species diversity and richness (Quigley and Arbelbide 1997, Vol. I). Conserving and restoring these lost or declining habitats will be important for the continued existence of many species (Quigley and Cole 1997).

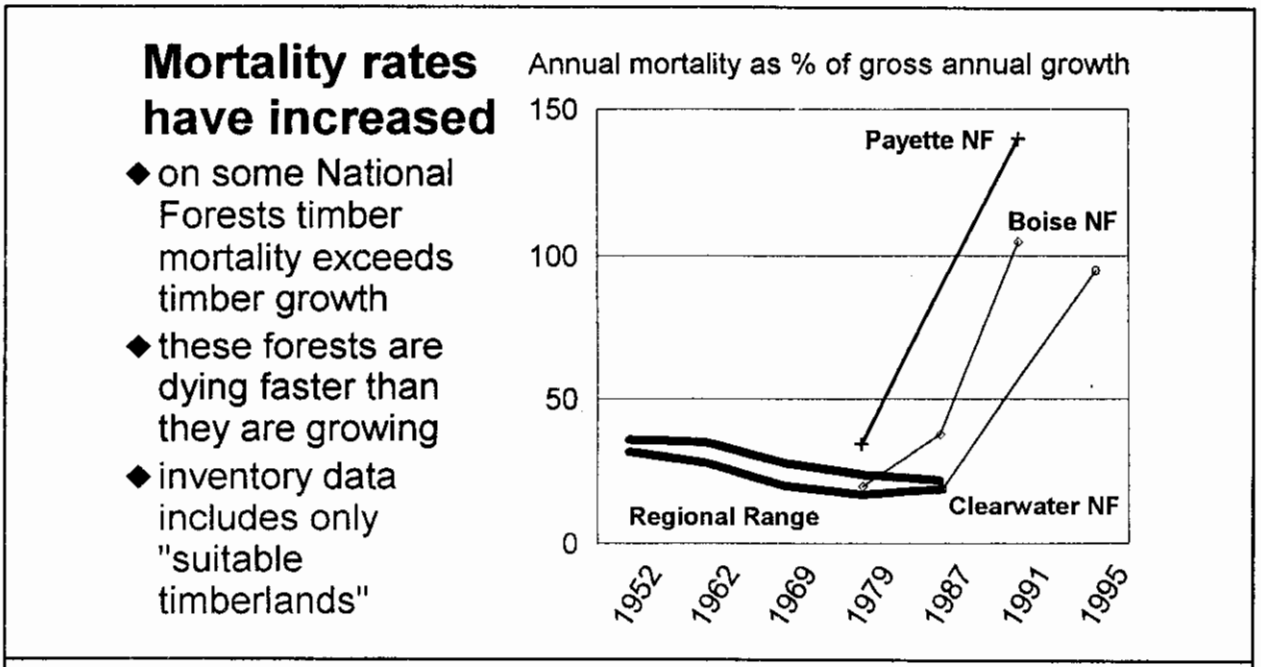

Figure 5-2. Forest health conditions for selected Idaho national forests, 1979-1995; measured by annual mortality and growth on suitable timberlands and compared to regional range, 1952-1995.

Source: *Forest Health Conditions in Idaho* (O'Laughlin et al. 1993), Clearwater National Forest (1997).

Federal scientists have concluded that many species associated with old forest types, native grasslands, and native shrublands have lost much of their original habitat and are sensitive to the human activities that have caused these losses. Reptiles are susceptible to dams, off-road vehicle use, loss of wetlands, livestock grazing, and fire suppression (Quigley and Arbelbide 1997, Vol. I). Birds are susceptible to management-induced changes in vegetation. In particular, impacts to native grasslands and shrublands have caused declines in Columbian sharp-tailed grouse and sage grouse numbers (Quigley and Arbelbide 1997, Vol. III).

Fish.— Some fish species have also declined as a result of human-caused changes to the environment. Salmonid species now occupy a fraction of their historic range. Strong populations inhabit an even smaller area than historically, inhabiting from less than one percent to 33 percent of their historic range, depending upon the species. For example, steelhead once occupied 46 percent of the Interior Columbia River Basin and now occupy only 1 percent as "strongholds"; bull trout once occupied 45 percent of the basin and now occupy 13 percent as "strongholds" (USDA-FS 1996).

About 58 percent of the strong salmonid communities are in areas with no roads or with very low road density (less than one-tenth of a mile of road per square mile). Half of the Forest Service and BLM administered lands with low road density have strong populations of salmonids. The decrease in populations are not just a result of high road density. Dams, agriculture and rangeland conversions, timber harvest, and competition with introduced fish species also have caused a decrease in salmonid populations. All these issues need to be addressed because salmonid habitat protection and restoration alone will not ensure future healthy populations (Quigley et al. 1996, Quigley and Cole 1997).

Though non-native fish species are important for recreation, their presence complicates restoration and maintenance of native fish species. Not only do non-native fish compete for higher-quality habitat, some interbreed with native fish, adversely affecting native genetic stock (Quigley and Cole 1997). One such example is the mixing of non-native eastern brook trout with native bull trout in their habitat. Another is rainbow trout introduced into streams with native west slope cutthroat trout.

Threatened and Endangered Species.— Idaho currently has 20 threatened or endangered

species (3 mammal species, 3 bird species, 5 fish species, 6 snail species, and 3 plant species). There are more than 1100 threatened and endangered species in the U.S. (O'Laughlin and Cook 1995, with updated information).

Human Communities. Broad-scale resource assessments focused on "ecosystem health" and "ecological integrity" on the one hand and concerns about "community stability" and "social resiliency" on the other need to be reduced to the local level before any clarity or resolution can be expected. Variations are substantially different in ecological conditions and community dimensions across an area as large as a state or a multi-state region such as the Interior Columbia River Basin.

The pertinent questions are few, but difficult to answer: Which values are important to which communities? What is the condition of the nearby resources to support those values? Part of the discussion needs to focus on what the national interest in the federal lands is, and how it can be balanced effectively with local interests. Otherwise, there would be no need for retaining these public lands in federal ownership.

We do not have the answers to these questions, nor do we believe anyone else does. Decisions about federal lands are collective, and to be made in democratic fashion. One result of gridlock is the distrust many people have about collective decisions affecting federal lands and resources, and whether or not decisions are being made in a manner that respects the American values of individual freedom and democratic process. Replies to these questions won't come easily, but they are worth pursuing because the stake is large—one-fourth of the nation's land. In the Interior Columbia River Basin the stake is even larger, with half the land in federal control. The stake in Idaho is even greater.

The broad-scale resource assessment findings of the ICBEMP regarding human communities follow. The past two decades have seen rapid population growth in the Interior Columbia River Basin. According to the ICBEMP, what was once a mature, resource-based economy has evolved into a diverse economy. Over the next 50 years federal scientists expect growth in technology, service sectors, and transportation, largely in urban areas. This trend is expected expect to accompany declines in manufacturing, agriculture, and government sectors, largely in rural areas (Quigley et al. 1996).

Federal scientists said, "Changes in current Forest Service and BLM activities have little effect on the economy of the basin" (Quigley et al. 1996, p.82). This statement, coupled with policies that have reduced resource commodity outputs from 1990 levels and uncertainty about future output levels, has led to unrest in many rural communities. Federal scientists also recognized that some communities will be affected more than others. For example, "there are 29 out of 539 census-recognized places that may be sensitive to levels of public timber harvest" (Quigley et al. 1996, p.82). The following analysis indicates that this estimate may be too low, and could be 39 communities just in Idaho.

Responding to the unease people have about these statements, the U.S. Congress required the ICBEMP team to develop a report on how communities in the Basin would be affected. This *Economic and Social Condition of Communities Report* (USDA-FS 1998) was mailed in March 1998, and the deadline for public comments on the Draft EISs was extended for two months to allow people to respond to the new report. In it the project team identifies 425 communities in the Basin for which it has data, and says that many communities are specialized in natural resources, including agriculture, mining, timber, and government (i.e., there is a federal office in the community).

For example, the *Communities Report* identifies 137 communities that have an economic specialization in logging and wood products manufacturing. The report recognizes by name 56 communities in the Basin with a very high specialization in timber-based industries; 28, or half, of these communities are in Idaho. Another 29 communities have a high specialization in timber; 11 of these are in Idaho (see listing of Idaho communities in Appendix Tables B-1 and B-2, pp.102-103). Another 23 communities have a medium specialization in timber; 8 of these are in Idaho. Similar listings of communities in the Basin specialized in agriculture, mining, and government are provided in the *Communities Report* (see USDA-FS 1998).

The *Communities Report* does not say how many of these timber-based communities "may

be sensitive to levels of public timber harvest," but the 29 that Quigley et al. (1996) referred to may be too few. That number may not be high enough for just Idaho, where federal lands make up 73% of the timberland base and 39 communities are highly specialized in logging and wood products manufacturing (see Appendix Tables B-1 and B-2, pp.102-103). These communities might be affected by administrative actions. The ICBEMP proposes to remove 29% of the federal timberlands that are in riparian areas from the suitable timberland base (UCRB-DEIS 1997). Land management activities may also be delayed until watershed analysis is developed and implemented, which could take as long as four years (Quigley et al. 1997).

The cumulative socio-economic effects on specialized communities under the proposed alternatives indicate that under the Preferred Alternative (Alternative 4 in Table 5-1), there would be no change from the current situation for mining and recreation industries; however, after considering the effects of uncertainties there would be negative effects on grazing and timber-based industries (Table 5-1). These effects include employment and sharing of revenues with local governments. The "uncertainty" variable adjusts for "new management strategies [that] call for changes from what has been experienced in Alternative 1 [the direction in existing plans] and Alternative 2," which is existing plans modified by interim strategies such as PACFISH (USDA-FS 1998, p.99).

Table 5-1. Cumulative effects on specialized industries of alternatives considered by the Interior Columbia Basin Ecosystem Management Project.

	Alt. 1	Alt. 2[1]	Alt. 3	Alt. 4[2]	Alt. 5	Alt. 6	Alt. 7
Effects on Mining	1	NC	NC	NC	NC	NC	-
Effects on Grazing	NC(+)[3]	NC(NC)[3]	NC(-)[3]	NC(-)[3]	+(-)[3]	NC(-)[3]	-(-)[3]
Effects on Timber	+(+)[3]	NC(NC)[3]	+(-)[3]	+(-)[3]	+(NC)[3]	-(-)[3]	-(-)[3]
Effects on Recreation	NC	NC	NC	NC	+ and NC [4]	NC	- and NC [4]

NC is no change from current management direction (Alt. 2); + is positive change; - is negative change.
[1] Alternative 2 reflects management direction under current plans and interim directions such as PACFISH.
[2] Alternative 4 is identified as the Preferred Alternative (UCRB-DEIS 1997).
[3] Addition of "Uncertainty" variable is indicated in parentheses.
[4] Effects would be different depending on location within the project area.

Source: *Economic and Social Condition of [Interior Columbia Basin] Communities* (USDA-FS 1998).

Ecosystem-based Management as Public Policy. Ecosystem management (EM) is at the cutting edge of including science-based information in public policy for land and resource management. A 1995 National Research Council report on *Science and The Endangered Species Act* noted the emergence of EM as a "significant field of applied biology ... where our knowledge is still inadequate. ... A challenge for the future is to find more integrated mechanisms to sustain both species and ecosystems that do not depend on case-by-case management" (NRC 1995, p.ix).

One of the challenges EM must confront is appropriate geographic scale. At issue is how widespread problems such as forest health and salmon conservation can be managed consistent with local conditions. One choice is a "top-down" approach such as the ICBEMP Preferred Alternative (UCRB-DEIS 1997), disaggregating regional or national concerns to smaller scales. Pfister (1993), a forest ecologist, argues for a "bottom-up" approach:

> The best approach to long-term sustainability may be to seek it at local levels and obtain it at the national level through the process of aggregation and integration. A bottom-up approach

> may be much more effective than a top-down approach. Direction from the national level will be more effective in the long run if it enables and empowers local entities to resolve problems locally while thinking globally (Pfister 1993, p.232).

President Clinton gave science a prominent role in his charge to the federal agencies to develop and implement a "scientifically sound ecosystem-based management" approach for federal lands and resources in Idaho and other states in the Interior Columbia River Basin (UCRB-DEIS 1997). What that means is open to question, especially when the science is lacking. For example, science-based guidelines for managing forest ecosystems in riparian areas are not possible because the science is lacking (see Gregory 1997). In this case, as in the case of spotted owl conservation, the opinion of scientists substitutes for the results of scientific study. The report to Congress on spotted owls that triggered the President's Forest Plan for the federal forests in the Pacific Northwest was a product of scientists, not science (Gordon and Lyons 1997). The same may be said of riparian management guidelines in the ICBEMP.

EM has become a light-ning rod for public policy controversy (Lackey 1998). People are skeptical about EM when scientists, managers, or analysts play ecosystem concepts as the guiding rule or "policy trump card" whereby EM becomes an advocacy exercise for favoring one set of values for public lands over others (Freemuth 1996).

Shortly before he was appointed Chief of the Forest Service in 1993, Dr. Jack Ward Thomas expressed the situation with surprising candor in an address to Forest Service public relations officers:

> We're going to practice ecosystem management. And everyone will be happy. Now tell me what that one means? I bet you when we say it everyone of us means something different. I promise you I can justify anything you want to do by saying it's ecosystem management (Thomas 1993).

Although Dr. Thomas meant what he said, this statement was taken out of context. Immediately following this, he said, "Therefore it is essential that the concept be put into context by defining the area to be covered, the time frame considered, the variables to be analyzed, the consequences to be considered—and, most important, it is recognized that ecosystem management is more about people than anything else" (J.W. Thomas, personal communication).

Having been asked uncountable times since 1993 what EM is, Dr. Thomas (1998) has a short answer. EM is an evolution in thought rather than a revolution. In concept, it means looking at larger areas, more variables, over longer time frames, and including people. In practice, it is applied at the local level, with effects considered at higher levels, including national and international levels (Thomas 1998).

The Interior Columbia Basin Ecosystem Management Project (ICBEMP) is developing implementation strategies for EM that will affect the way federal lands in Idaho are managed. These standards, or "required actions," are developed at the multi-state basin scale. Thus land managers in the cool moist forests of northern Idaho must adhere to the same standards as their counterparts in the dry warm forests more characteristic of much of the Interior Columbia River Basin. The ICBEMP documents recognize that prescriptive standards are inappropriate at such a large scale (UCRB-DEIS 1997, Vol. II).

Meanwhile, rural communities face uncertainty. Events since 1990 have led to a 60% reduction in timber harvests on federal lands in Idaho. EM may reduce this even more, but it may also increase it. The direction in the current ICBEMP plans is uncertain, but the balance seems to tip toward further reductions (see Table 5-1).

The two "needs" for the ICBEMP are: [1] long-term ecosystem health and integrity, and [2] sustainable and predictable levels of products and services (UCRB-DEIS 1997, p.1-9). At issue is whether the management direction of the ICBEMP balances these needs. The Society of American Foresters believes the proposed draft direction is unbalanced because it favors the Need [1] over Need [2] (O'Laughlin et al. 1998). The evidence supporting this statement is the following material from the ICBEMP documents.

"Maintaining the integrity of ecosystems is assumed to be the overriding goal of ecosystem management" (USDA-FS 1996, p.115). Management priorities accordingly subordinate Need [2] to Need [1]: "Within the limitations of ecological integrity, health, and diversity, forests and rangelands must meet people's needs for uses, values,

products, and services" (UCRB-DEIS 1997, p.1-9).

These goals are problematic, however. *Integrity* and *health* express goals that are based on human values. Ecological *integrity* involves both quantifiable measures of ecosystems as well as social or value judgments of what is being sought (Woodley et al. 1993). Humans have some state they wish ecosystems to be in and *integrity* is one way to refer to this state (Kay 1993).

The concept of ecological *integrity* may be intuitively appealing and understandable, but managing for or making policies based on ecological *integrity* requires more precise definition and more objective and empirical measures than are often expressed (Regier 1993). ICBEMP documents do not provide an operational definition of *integrity* (O'Laughlin et al. 1998). Ecological *integrity* could be defined in an operational way by selecting variables representing ecosystem states that indicate *integrity* and then identifying levels of those variables that indicate *integrity* or lack thereof (Keddy et al. 1993). Although numerous researchers have proposed systems of indicators for ecological *integrity* (e.g., Marshall et al. 1993, Munn 1993, Steedman and Haider 1993), no such system has been widely accepted.

The lack of agreement on *integrity* indicators is reflected in reactions to ICBEMP. Levels of products and services proposed under ICBEMP are constrained by the value-based estimates of conditions within the opinions of the scientists making judgments about *health* and *integrity*. However, in the DEISs scientific opinion often is not identified as such, nor is there an attempt to separate opinion from experimental-based evidence (O'Laughlin et al. 1998).

EM intends to maintain ecosystems in the appropriate conditions to achieve desired social benefits as defined by society, not by scientists (Lackey 1998), and there is a lack of agreement in society about what those conditions should be.

Perhaps the most contentious issue in managing for ecological *integrity* is the role of humans in ecosystems. Some scientists define integrity as "conditions under little or no influence from human actions" (Angermeier and Karr 1994); others define it to include human actions (Kay 1993, see Woodley 1993). ICBEMP proposes restoring ecological *integrity* through prescriptive standards that tend to reduce human influence (O'Laughlin et al. 1998). This policy rests on the finding that 16% of the federal lands in the Basin are judged to have high *integrity* and 60% have low *integrity* (Quigley et al. 1996, p.12). The more a system has been altered, the lower its *integrity*. However, low *integrity* areas may not be highly degraded, and many are fulfilling societal needs (Quigley and Cole 1997, p.9). This view of *integrity* tends to ignore that states other than the pristine or naturally whole may be taken to be "normal and good" (Regier 1993).

Some scientists object to the use of ecological *integrity* as an assessment instrument because they believe its roots in human values detracts from its scientific soundness (see O'Laughlin et al. 1993, Steedman 1994). But, the reality is that when one specifies systems, such as ecosystems, one is not dealing with objective science, but with perspectives, with ways of looking at the world, and these reflect a value system (Kay 1993). According to ICBEMP's Science Integration Team, "Measures of *integrity* or resiliency require judgments about wholeness which rest on comparisons of subjectively chosen indicators. In that sense, the *integrity* of ecosystems is more an expression of environmental policy than scientific theory" (Haynes et al. 1996, p.17). Kay (1993) suggests that in no way do human values detract from the concept of *integrity*; it is just the reality of dealing with complex systems.

Health is defined by the ICBEMP to include human expectations, thus is broader than *integrity*. However, until the *health* of ecosystems is measurable, its principle value is not as a management objective, but as a communications device, a metaphor. Until measurements have been agreed upon by the scientific community, and they have not, *health* remains a value judgment (O'Laughlin 1996*a*).

Effective ecosystem management requires a clear understanding of management goals and objectives (Thomas and Dombeck 1996). These help the manager decide what to do, and make him or her accountable to others. Determining appropriate management objectives for public lands is a difficult task. Lacking clarity in the form of agreed-upon benchmarks of socially desired conditions (Lackey 1998), terms like *health* and *integrity* fall short of being effective management guides (O'Laughlin et al. 1998).

Summary and Conclusions. One of the results of the assessment shows the value of roadless or undeveloped areas for protecting fish habitat. Another is the high proportion of federal lands at risk from hard-to-control stand-replacing wildfires as a result of 80 years of effectively excluding fire from performing its ecological functions. Reducing the risk of high-intensity wildfire is important, so is reducing the risk of land management activities that could affect aquatic systems. The assessment of federal resources in the Interior Columbia Basin Ecosystem Management Project (ICBEMP) indicates three widespread problems that would seem to require some action: [1] forest conditions that promote high-intensity wildfire, [2] exotic plants that have altered vegetation conditions across large areas of the landscape, and [3] declines in salmon, steelhead, and trout popu-lations (Quigley et al. 1996, USDA-FS 1996). Any one of these situations presents substantial challenges; taken together, the tasks are even more daunting. Some situations could be im-proved by active resource management, with an adaptive approach to provide the necessary safeguards to ensure that management designed to accomplish one objective does not create an undesirable tradeoff elsewhere. The ecosystem-based management approach would have mana-gers consider that these conditions are not only related to each other, but also to the human communities across the Interior Columbia River Basin.

The arguments for and against ecosystem-based management for federal lands in Idaho as proposed by the ICBEMP are summarized in Table 5-2.

Table 5-2. Arguments for and against ecosystem-based management, as embodied in the Preferred Alternative of the Interior Columbia Basin Ecosystem Management Project.

Arguments For	Arguments Against
Ecosystem-based management has evolved under the current management system.	There is no statutory authority for ecosystem-based management.
Vegetation communities, watersheds, and wildlife habitats are ecosystems.	Boundaries of ecosystems do not reflect the realities of managing resources in different political jurisdictions and different ownerships.
Ecosystem-based resource management assessments reveal some resource conditions have deteriorated and need active management.	Active management activities may produce new risks to resources.
Public involvement opportunities are many and can impact resource management decisions.	Decisions can take a long time and are subject to changes in social desires.
Bottom-up resource management process reflects local resource conditions.	Ecosystem-based management done at the regional scale is a top-down process.
Ecosystem-based management recognizes adaptive management and managerial flexibility to adapt to local conditions.	Federal ecosystem management is based on prescriptive standards developed at a regional scale that may not reflect local conditions.
Planning for large-scale issues such as forest health and endangered species conservation may decrease litigation, or the success of litigation, against resource management projects.	The numerous standards ("required actions") and decision processes may delay or stop on-the-ground projects.

In conclusion, the ICBEMP Team has spent considerable time, effort, and money assessing resource conditions in the region. Project scientists conclude that "... active management appears to have the greatest chance of producing the mix of goods and services that people want from ecosystems, as well as maintaining or enhancing the long-term ecological integrity of the Basin" (Quigley et al. 1996, p.185). According to the Society of American Foresters (O'Laughlin et al. 1998), the management direction proposed in the Draft Environmental Impact Statements (DEISs) needs additional work to meet President Clinton's July 1993 directive to "develop a scientifically sound and ecosystem-based strategy for management of Eastside forests" (Quigley et al. 1996, p.17).

The basin-wide resource assessment and proposed follow-up action plan calls for active management in some places and enhanced protection in others. Although the basin-wide scale is useful for identifying pervasive conditions, trying to figure out where action is needed and where it is not at this scale complicates, rather than simplifies, the situation. Local ecosystem-based management actions can best be determined from local conditions (Pfister 1993). The ICBEMP proposes standards, or required actions, applied to resource management activity across basin and the state (UCRB-DEIS 1997). This will reduce managerial flexibility and make management responses more difficult as managers begin to implement ecosystem-based management and recognize the integrated nature of managing vegetation, fish, wildlife, and the nearby human communities.

The recognition of environmental *integrity*, however defined, as a universal value will not solve the problem of making difficult policy choices involving other important social values (Vig and Kraft 1994). No longer will success be found in "command and control" regulation with its standards-and-enforcement approach. Innovative management strategies and tools are necessary, including more use of economic incentives, comparative risk assessment, and alternative dispute resolution (ADR) methods (Vig and Kraft 1994). Environmental policy needs to be rethought in ecological terms, including the larger social, economic, political, and moral system in which it is imbedded. There is great potential for integrating and balancing the big "Es" of environment, economy, ethics, and equity (Paehlke 1995). A willingness to try less intrusive and centralized approaches such as local education and community consensus-building might often lead to superior results (Vig and Kraft 1994).

Change Ownership of Land

Two alternatives to federal ownership of public lands are either to sell the lands to private interests or transfer land title to the states. These alternatives are analyzed in the following sections. A third alternative that is frequently used, especially by the Forest Service, is land exchange. We consider this a technique or tool to accomplish ownership objectives through exchange of like-valued parcels of land (NRC 1993) rather than an alternative to federal ownership of land.

Land Sale. This "privatization" alternative would have property rights to the public lands sold to private individuals, corporations, and groups or associations under terms specified by Congress.

Advocates for this alternative base their arguments on economic efficiency (Clawson 1983, 1984). The claim is that private ownership and management of natural resources is generally efficient because private owners have a profit motive. One argument is that private ownership and management will lead to a balance between costs and benefits because the private owner will reject unproductive uses of land and methods of resource management. In addition, if particular land-use activities on a given land area would produce values for the private owner, then the owner will have incentives to produce those values. In this manner the owner will weigh the differences of producing values from one use of the land versus another and produce those uses in proportion to those values. Another argument for private ownership is the claim that when individuals each maximize their net gains from the use of their land, then the total social net product has also been maximized. In this way individuals pursuing own ends in the use of their own land will, in aggregate, produce the maximum gain for the whole society (Clawson 1983, 1984).

Because some values from land are public goods, such as wilderness areas and some wildlife habitats, the motivations and interests of private ownership are an inadequate argument for selling all the public lands. But there are likely to be some tracts of public land where economic efficiency arguments would hold. The fact that one-fourth of the United States is federal land is perhaps more an accident of history than a conscious policy objective. No one has argued that this is the right amount of federal land. Some would argue there should be more, and some would argue that there should be less. As a National Research Council team put it, "How much of the nation should remain in federal ownership is a contentious issue fueled by political philosophies, changing perceptions of the public interest, and different impressions about private ownership trends" (NRC 1993). One factor worth considering is population growth and distribution (NRC 1993). The five fastest growing states are in the west, and Idaho is one of them. Another factor is occupational structure, with a shift towards the service sector. New institutions such as land trusts and easements have tended to reduce the polarity between public and private landowner. The increased sophistication about conservation at the ecosystem level also needs to be considered (NRC 1993).

Ownership Transfer. This alternative involves transfer of title to public lands to the states in which they lie, either without charge or upon payment of a specified price per acre (Clawson 1983, 1984).

Transferring management responsibilities of federally administered lands to the states is a current issue being considered in Congress. There have been several recent legislative efforts, none of which have yet borne fruit. During the 104th Congress, several bills were offered. These included bills proposing the transfer of all lands administered by the BLM to the states under provisions that would give the state's governor two years to formally accept the land and, in doing so, the title would then be received 10 years later.[91]

Would such a transfer be a good deal for Idaho? State Controller J.D. Williams (1995) addressed the question in a report, and concluded that it would depend on the rules the state was required to follow:

> It appears from this analysis of operating costs and revenues generated that the only way Idaho could successfully manage these lands would be for Congress to remove the environmental operating restrictions that currently apply to federal acres and allow the state to operate them in the same way it currently oversees the state endowment lands. Income from the federal lands would have to be significantly increased before we could afford to manage them (Williams 1995).

Federal lands are managed under a different set of rules than are state lands. It is unlikely that the state could do a more effective or more efficient job of management if it had to operate under the same rules. The Williams (1995) report also suggested that questions regarding the transfer of federal lands to state management can be answered, given time and an experimental approach. That could involve designating a portion of federal lands such as a BLM district or a national forest and allow the states to take over its management. This experiment under different rules could give the state a chance to determine how transfers could be effected and to evaluate financial consequences. It would also give the citizens of Idaho a chance to see how such a transfer would affect their current use of the lands (Williams 1995), and how resource problems such as forest health and environmental conditions would change.

After the State Controller's report (Williams 1995) had some time to sink in, the Idaho Legislature authorized the State Board of Land Commissioners to undertake a joint exercise of powers agreement with the U.S. Forest Service.[92] In response to this mandate the State Land Board appointed a Federal Lands Task Force to examine alternative approaches to managing federal lands in the state and report their findings. This task force adopted a principle that the ownership of federally administered lands will not be transferred to the state (FLTF 1998).

Also in the 104th Congress, a House bill was designed to transfer to the Alaska legislature the 17 million acre Tongass National Forest.[93] A Senate bill proposed to transfer the Tishomingo National Wildlife Refuge to the state of Oklahoma, with provisions that the state could not sell the land and would be required to manage it as a

wildlife refuge.[94] Another House bill was written to direct the Park Service to develop criteria for determining which parks should remain under federal administration and to review all parks using these criteria.[95] The agency would then recommend that parks not meeting criteria be transferred to other entities at the Park Service's recommendation (O'Toole 1997). Only the last of these bills made it out of committee and it eventually failed to pass in the House. However, it resurfaced in the 105th Congress.[96] At this writing it is still in committee.

In the 105th Congress, Senator Larry Craig (R-Idaho) introduced a proposal that would authorize the transfer of federal lands to the states.[97] At this writing it has been referred to the Senate Subcommittee on Forests and Federal Land Management that Senator Craig chairs.

Summary and Conclusions. The arguments for and against changing title to federal land by either selling the land to private interests or transferring ownership to the states are summarized in Table 5-3.

These two alternatives have been under discussion since the Sagebrush Rebellion two decades ago, but have not gathered much momentum because the public has not supported these ideas. For example, consider the results of one question in a public opinion poll of 1,516 U.S. adults reached by telephone in 1983 by ABC News/Washington Post (NRC 1993):

> Do you think the U.S. government should sell some national forest land to private organizations or not, or is that something you don't have an opinion on?

	Percentage
Yes, it should sell	11
No, it should not sell	58
No opinion	31

Today it is likely that support for divestiture or disposal of the federal lands is still not there. For example, when President Clinton spoke out against the proposed New World Mine near Yellowstone National Park in 1995, he proposed a land exchange between the Crown Butte Mines, Inc., and the Agriculture and Interior departments that would stop the mine. But several conservation groups, the National Parks Conservation Association among them, do not favor land exchanges either. Instead, they are supporting legislation that would protect the area permanently, without making any special deals with Crown Butte.

Considering the lack of a groundswell of public opinion for the need to either sell or transfer the ownership of title to the federal lands to private entities or the states, we conclude that these alternatives are not likely to be as socially acceptable as alternatives that would retain federal ownership and change the rules under which management decisions are made.

Table 5-3. Arguments for and against changing ownership by land sale or ownership transfer.

Arguments For	Arguments Against
Private landowners tend to manage for financial efficiency.	Many public values cannot be measured in economic terms.
Private interests tend to have more focused, defined management objectives.	"Multiple use" management objective of federal lands is a satisfactory representation of public desires.
Federal lands are not contributing satisfactorily to state and local social and economic needs.	Federal lands protect national public interests that private or state ownership may not.
Local landowners may produce more outputs favored by local residents.	Public opinion favors federal ownership.
The "scientific management" paradigm is a failure.	Politics has gotten in the way of "scientific management."

Change Rules for Federal Land Management

Several alternatives that would modify the rules under which federal lands are managed may offer improvement to the current situation. Earlier discussion of the purpose or objectives for federal "multiple-use" lands indicated this as a source of management problems. The purposes or goals that federal lands and land management are to serve is an overridingly important consideration in the creation of new institutional or procedural arrangements for managing federal lands (US-GAO 1997*a*). Because these are public lands, determining the goals for them is profoundly important. This is not easy when gridlock and distrust prevail.

Many public lands scholars have commented on the need for reform of some kind or another, including O'Toole (1988), Wilkinson (1995), Nelson (1995), Fairfax (1996), and Thomas (1997*b*). Nelson (1994) put it rather simply: "the system of public land management is broken and needs to be fixed."

These words were not lost on the U.S. General Accounting Office, which said, "The Forest Service's decision-making process is clearly broken and in need of repair" (US-GAO 1997*a*). In February 1998, Chief Dombeck delivered a keynote address to a federal lands symposium in Boise, Idaho, and said the Forest Service is counting on the Interior Columbia Basin Ecosystem Management Project to help. He asked those in attendance, "what the alternatives are" to the project (Freemuth 1998). Herein are six.

This section presents analysis of six alternatives that would retain federal ownership but change the rules for making decisions. First is economic-based reforms that have the goal of changing managerial incentives and increasing accountability. Second is more widespread leasing of land, which is used for minerals in the U.S. and is the way Canada manages most of the forest resources upon which their forest products industry depends; it is the largest industry in Canada. Third is the idea of a Federal Land Management Commission. The commission could review existing rules and make recommendations, much like the Public Land Law Review Commission did with its 1970 report (PLLRC 1970). More important, the commission could be charged with overseeing the management of Forest Service and BLM lands. Fourth, we focus a good deal of attention on the idea of collaborative management with local advisory councils. Many people are working on this approach. Fifth, we analyze in some detail the concept of trust land management as an alternative because this model is used by 22 states to manage public lands. Sixth is cooperative state/federal management, which is used to implement a variety of cooperative federalism programs for resource management, including agreements that make the state an active, and sometimes dominant, partner in managing lands and resources.

Economic-based Reforms. Under this alternative, greater efforts would be made toward improving the management of federal lands. In the economic dimension this means applying a standard of economic management, improving planning, establishing a capital account, imposing fees and charges, and increasing efficiency. Improved economic management means giving more concern to the costs and returns from ownership and management. The basic economic issue is to provide the maximum benefits on a long-term basis in relation to the costs incurred. Improving planning could be done by using more precise language, rather than the broad and sometimes vague wording of the three major planning acts for federally administered lands—the Renewable Resources Planning Act, the National Forest Management Act, and the Federal Land Policy and Management Act.[98] Establishment of a capital account could well be considered if the general direction for management is toward more economic land management. This would require annual depreciation charges on past investments and annual interest charges on the value of the resources. According to Clawson (1984), an accurate economic analysis of the management of federal lands must include separate treatment of investments, changing capital values, and reasonable charges for the use of the capital included. Fees and charges for some services, especially outdoor recreation, are part of the package. The resulting revenues would be used to provide more funding for the management of the areas from which the revenues originated.

Clawson (1984) felt that unless economic

efficiency is improved, public dissatisfactions with present management will continue to rise and improved management will not occur. We have now reached the point in Idaho where only 30 cents of each budgeted dollar the Forest Service and BLM receive is expended on resource management (UCRB-DEIS 1997, p.4-217). There seems to be little recognition or concern about this fact, which may indicate that Clawson, an economist, was incorrect.

Since the early 1980s, several economists, including Randal O'Toole in his 1988 treatise on *Reforming the Forest Service*, have offered thoughtful suggestions for reform based on modified managerial incentive and budgeting structures.

Summary and Conclusions.— The arguments for and against reform of federal land and resource management policy that focus on economic institutions affecting management agencies are summarized in Table 5-4.

In conclusion, a basic underlying assumption of this alternative is that changing the economic institutions governing the public lands will not result in diminished ecological capability. This has proven difficult to demonstrate, and economic-based reform is not likely to be socially acceptable unless and until that happens. The focus on sustainable development of resources that emerged in the late 1980s promises to do this, but a decade later this promise seems difficult to deliver on. Land management reform that is ecologically sound, economically viable, and socially desirable—that is, sustainable land management (see Aplet et al. 1993)—remains a lofty goal, but one that may be attainable by reforming some of the gridlock-causing features of current institutional arrangements.

Table 5-4. Arguments for and against economic-based reforms.

Arguments For	Arguments Against
Federal land management is economically inefficient.	Federal lands provide many public values that cannot be measured in economic terms.
Funds for managing non-market values are dependent upon commodity extraction.	Federal land protects environment values, which can be economically superior to commodity extraction.
Federal budget appropriations for land and resource management are shrinking.	Congress and land management agencies could more efficiently spend current budget under existing institutional arrangements.
Local communities are being adversely affected by reduced federal budgets and commodity outputs.	Local communities should diversify their economies away from dependence on federal jobs and commodities.

Land Leasing. Leasing is the transfer of control to someone other than an owner (the lessee) of some part of the bundle of rights that go with ownership of property for a specified period of time and for agreed-upon uses in exchange for periodic payment (Clawson 1983, Black 1990). Leasing is common in the private sector. Renters lease apartments, drivers sometimes lease cars, and farmers often lease land for crops.

The leasing of public lands and resources to private interests is more common than one might suppose. In the U.S., federal lands are leased to private interests for oil and gas exploration, livestock grazing, utility corridors, and ski resorts and other recreation developments. In Canada, provincial lands are leased to private entities for growing and harvesting timber. Although technically some of these lease arrangements in both the U.S. and Canada are "licenses" and "permits," we use "lease" to refer to all of these arrangements "whereby individuals, corporations, or groups are allowed to make some time-limited use of federal land for some defined purpose under specific conditions or terms, with the

lessee having substantial discretionary power over the actual use and management of the land" (Clawson 1983, p.202). The court has ruled that Congress has the constitutional power to lease federal lands.[99]

Clawson (1983) has developed the most comprehensive proposal for leasing federal lands to private entities. He proposes greatly expanding the amount of federal lands leased, the time periods for which they are leased, and purposes for which they are leased. Uses could include commercial, conservation, recreation, or preservation purposes:

> The basic goal in formulating terms for private leasing of federal land would be to harness the self-interests of the lessee to the social goals of the national government as landowner. To the extent that the terms of the lease could harness those self-interests, the ingenuity and ability of private lessees would be enlisted and the supervisory problems of the federal agencies would be reduced (Clawson 1983).

The terms of leases would have to be attractive to prospective lessees, acceptable to federal agencies, and acceptable to the electorate (Clawson 1983).

Leases are only as good as the terms and conditions set forth in the lease. Clawson (1983) provides the following advice for ensuring good leases:

> [T]he written lease should be explicit, with no understandings (or misunderstandings) based on conversations; length of the lease should be stated; permissible and impermissible uses of the property should be spelled out; provisions should be made for negotiating its renewal; payment for existing renewable resources (trees and grass, particularly) by the lessee at the beginning of the lessee period, for their maintenance during the lease period, and for the compensation to the lessee for unexhausted improvements at the end of the lease period should be provided for; performance bond should be specified; and the methods and timing of rent payments should be stated clearly (Clawson 1983).

Leasing of federal land to private interests raises numerous questions about the goals of such leasing, economic returns, eligibility to lease, and other consequences. For example, U.S. laws for oil and gas leasing on federal lands penalize lessees for not exploring and developing resources "diligently." The short time periods and the payment schedules of the leases favor early production. Originally, these arrangements were set up to encourage exploration while avoiding speculation, but they also lessen economic returns to the government and do not promote conservation goals (McDonald 1979, Muraoka and Mead 1987). Arguments abound about the economic returns from livestock grazing leases on federal lands and whether or not low fees contribute to range management that encourages environmental degradation (e.g., Clawson 1983, Coggins and Glicksman 1996).

Timber Rights Leasing in Canada.— Leasing of rights to timber in western Canadian provinces provides a illustrative example of the mixed consequences of leasing. Leasing systems there were originally set up to promote development and investment by forest products industries. Leases were only awarded to a company if it promised to build a major wood processing facility. Stumpage rates were intentionally set low to compensate for locations away from major markets, and rates were set for the life of the lease—21 years for the first leases in Alberta. Financial return to the government was not an important public policy objective; investment and its associated employment were the primary economic objectives of leasing systems (Pratt and Urquhart 1994).

Prior to the implementation of leasing, provinces sold timber cutting rights to the highest bidder, which often led to bidding wars between operators. This resulted in operators cutting costs wherever possible in order to cover the high cost of timber. "Cut and run" practices were common, and investment in silvicultural and reforestation practices were almost nonexistent. Leasing provided secure and long term tenure arrangements that made investment in appropriate silviculture and reforestation feasible (Swift 1983, Bankes 1986, Pratt and Urquhart 1994).

However, social and resource conditions have changed in Canada, in ways similar to those in the U.S. The emphasis on forest industry development does not sit well with some Canadians, so the objectives of the leasing systems are changing. Sustainability, biological diversity, restoration, and recreational values are finding their way into leasing policies and

legislative requirements where employment, economic development, and revenues once dominated (Ministry of Forests 1995, 1998). Some lease holders complain that these concepts badly compromise the government's commitment that the primary use of these lands would be timber production (Pratt and Urquhart 1994).

How can changes in social and resource conditions be handled in a leasing system? British Columbia has a unique system whereby leases, typically with 25- or 15-year terms, are replaceable every five years. Although the new lease must be for the same volume of timber or area of land, it may include new conditions that are consistent with current policy and legislative requirements. If the replacement offer is accepted by the lease holder, it supersedes the previous agreement. If any replacement offer is declined, the existing lease runs its designated term and expires (Ministry of Forests 1998). Additionally, leasees must have their harvesting and silvicultural plans approved by the provincial forest service, but they cannot seek approval without first allowing a thorough review by the public and explicitly taking into account public comments (Ministry of Forests 1998).

Leasing Issues.— Does land leasing insure an adequate financial return to the government? It depends on the contractual arrangements of the leases. As pointed out earlier, financial return may not be a primary objective of a leasing program. Federal oil and gas leases are awarded either noncompetitively or by competitive bidding if the lease is within an area known to contain oil and gas (RMMLF 1977, NRC 1989). Financial returns will vary according to the bidding system (McDonald 1979). Recreational-use lease rates on federal lands often do not reflect fair market value (US-GAO 1996*d*). Returns also may not be consistent if lease contracts allows adjustments. For example, grazing lease holders on BLM lands are allowed to adjust stocking levels downward in response to fee increases. Allowing that discretion can have a negative effect on the returns to land from grazing activity (Johnson and Watts 1989).

Who should be able to lease land? It depends on the rules set by the land owner. In the provincial forests of Canada, it was only those who were committed to building processing facilities (Pratt and Urquhart 1994). Idaho state land grazing leases are open only to those who plan to graze livestock in a manner approved by the State Board of Land Commissioners.[100] U.S. federal land oil and gas leases are open to all U.S. citizens, associations of citizens, corporations, and municipalities (RMMLF 1977). In his proposal for federal land leasing, Clawson (1983) suggests that leasing should not exacerbate the problems of intermingled federal and nonfederal lands. He suggests preferential leasing rights for owners of intermingled lands.

Preferential right to renew leases is also an important issue. The right of renewal can be critical to the security of investment of the lessee (Bankes 1986). Federal grazing leases insure that current leasees are given first preference for renewal.[101] Preferential renewal makes leases attractive to forest industries because of long rotation lengths for timber and the high cost of processing equipment (Pratt and Urquhart 1994).

Does leasing insure equity among leasees? The content of lease agreements are determined in the political arena and will inevitably reflect the respective bargaining power of the parties and the situations that exist at time of agreement (Bankes 1986, Johnson and Watts 1989). Some lessees may get better deals than others. For example, in Alberta, Canada, leases negotiated with large, powerful diversified forest products companies were more favorable to those companies than the leases negotiated with less powerful and less diversified companies (Bankes 1986). In British Columbia concentration of control over timber rights by fewer and fewer companies has been a continuing trend since the implementation of leasing (Swift 1983).

Summary and Conclusions.— The arguments for and against leasing federal land are summarized in Table 5-5.

We conclude that the effects of federal land leasing is the U.S. will depend on the goals of a leasing program and how those goals are reflected in the terms of the leases. In general, the lease instrument is flexible, and many specifications can be built into it to insure desired outcomes.

Table 5-5. Arguments for and against leasing federal land.

Arguments For	Arguments Against
Many resources are already provided under lease arrangements.	Current lease arrangements do not involve broad control of all land uses.
Leases can be designed to require protection of non-commodity values.	Environmental laws provide satisfactory protection.
Leases enhance predictability of outputs ("sustained yield").	The "sustained yield" policy has never been practiced.
Canada's extensive experience with public forest land leases that are essentially state-level lease arrangements supporting the nation's forest products industry.	Perception that Canada's forestry sector is not sustainable and environmentally destructive.
Long-term nature of leases provide security to lessees that encourages long-term investment in resource management.	Leases tie up land for too long.

Federal Land Management Commission. Congress has absolute control over federal lands, making it possible to create a new entity with authority to oversee federal land management. One of the first tasks of such a congressionally chartered commission could be to review federal land laws. However, that would be a time-consuming task and there are resource conditions that could be improved by decisive action now. The most important task for a Federal Land Management Commission is to oversee how the multiple-use agencies are managing their lands. Nevertheless, a review of land law might prove useful, and the idea is presented in the following section.

Land Law Review.— Because of the many statutes, regulations, and case law decisions that affect the management of federal lands and resources, a starting point for reform might be a land law review commission. There have been several of these in the past, including two in the 1890s and one in the 1930s (Gates 1980). The most recent effort culminated in 1970.

The Public Land Law Review Commission (PLLRC) was established by Congress in 1964 to review and recommend modifications to federal laws, rules, and regulations pertaining to the federal lands (PLLRC 1970). The PLLRC was created, in part, because of questions about disposition of the remaining public domain lands. The Bureau of Land Management, which inherited the public domain lands from the General Land Office, lacked an organic act that set out clear authority as to the purpose of these lands and whether or not they should be retained or sold by the federal government. Congressman Wayne Aspinall (D-CO), who chaired the House Interior and Insular Affairs Committee, wanted to clear up public domain disposition issues and insisted that a law review be undertaken before he allowed a wilderness bill to pass through his committee (Dana and Fairfax 1980).

The PLLRC consisted of 19 members: 6 members of the U.S. House of Representatives, 6 members of the U.S. Senate, 6 members chosen by the President, and the remaining member, the chairman, chosen by the commission. The commission reviewed more than 3,500 laws relating to federal land management and presented its completed report, *One Third of the Nation's Land* (PLLRC 1970), to the president in 1970.

The PLLRC's report made more than 400 recommendations about policies affecting the federal lands (Robbins 1976). The report recognized that the era of large scale disposal of federal land was over and recommended that only those lands whose maximum benefit to the general public would be in private hands should be made available for disposal (PLLRC 1970). The report did recommend the sale of federal lands for new or expanding cities and developments, and it recommended that full value be

received for the sale of public lands (PLLRC 1970).

The PLLRC's recommendations asserted Congress' authority to make land withdrawals by stating a need for reviewing all determinations made by the executive branch, including existing national forests and monuments. The commission believed that the executive and administrative agencies had exercised too much discretion in withdrawing and reserving public lands (Dana and Fairfax 1980). The report recommended that Congress make the standards and criteria by which executive agencies would make withdrawals (PLLRC 1970).

The PLLRC recognized the impact that federal land ownership has on local government financing and recommended that the federal government should make payments in lieu of taxes to local entities where federal land occurs (PLLRC 1970). The PLLRC emphasized that better land-use planning was needed by the federal management agencies and recommended that dominant use should be allowed when it would contribute maximum benefit (PLLRC 1970). The report recommended streamlining appeals processes regarding land use decisions. Overall, the PLLRC recognized the complexity and contradictions of existing federal land laws and recommended reforms to simplify and clarify federal land management.

The work of the PLLRC was challenged for many reasons. The commission was primarily the creation of Congressman Aspinall and there was little public support, interest, or involvement in its work (Dana and Fairfax 1980). To no one's surprise Congressman Aspinall was chosen to chair the commission, and its staff and advisory committees were filled with commodity-oriented representatives that reflected the ideology of the commission's founder and chairman (Dana and Fairfax 1980, Gates 1980).

Despite the claim that the era of large-scale disposal of federal lands had ended, many of the report's recommendations ask for further authority to dispose of public lands. Many people found the suggestion that all executive reservations and classifications, including national forests and monuments, ought to be reviewed by Congress with consideration for sale into state or private hands to be unconscionable (Dana and Fairfax 1980). Gates (1980) suggests that the PLLRC report was drafted by people who were fundamentally convinced that state ownership and management was preferable to federal control and were not comfortable with the idea that federal lands are for the benefit of all people of the United States, not just those living in the states where the lands are located. The PLLRC was not willing to recognize that the nation and its citizens' attitudes towards government ownership and private property had changed since the late 1800s (Gates 1980).

The commodity orientation of the report's recommendations also caused problems (Dana and Fairfax 1980). The report considered all uses of public lands to be commodities (PLLRC 1970), and different commodities were treated differently in the report's recommendations (Dana and Fairfax 1980). The PLLRC reflected Congressman Aspinall's desire that it be representative of western economic interests (Gates 1980). The congressman wanted to ease the path of economic users of the public lands and to limit the controls imposed by public authorities (Gates 1980).

After the initial hoopla upon completion of the PLLRC report, it died primarily due to the lack of interest (Dana and Fairfax 1980). The commission's discussions of land disposal and commodity utilization were out of touch with the times (Robbins 1976, Dana and Fairfax 1980). Some of the PLRRC's recommendations were adopted, either by Congress or the executive branch, but they were adopted in a piecemeal fashion, which replaced one set of conflicting policies with another (Hagenstein 1984).

Management Oversight.— Because of pervasive forest and aquatic resource management problems on federal lands in Idaho and neighboring states, delay while the commission conducts a land law review might not be desirable. The creation of a Federal Land Management Commission could replace the political gridlock caused by tension created between the executive and legislative branches over federal land management issues. This idea is illustrated in Figure 5-3.

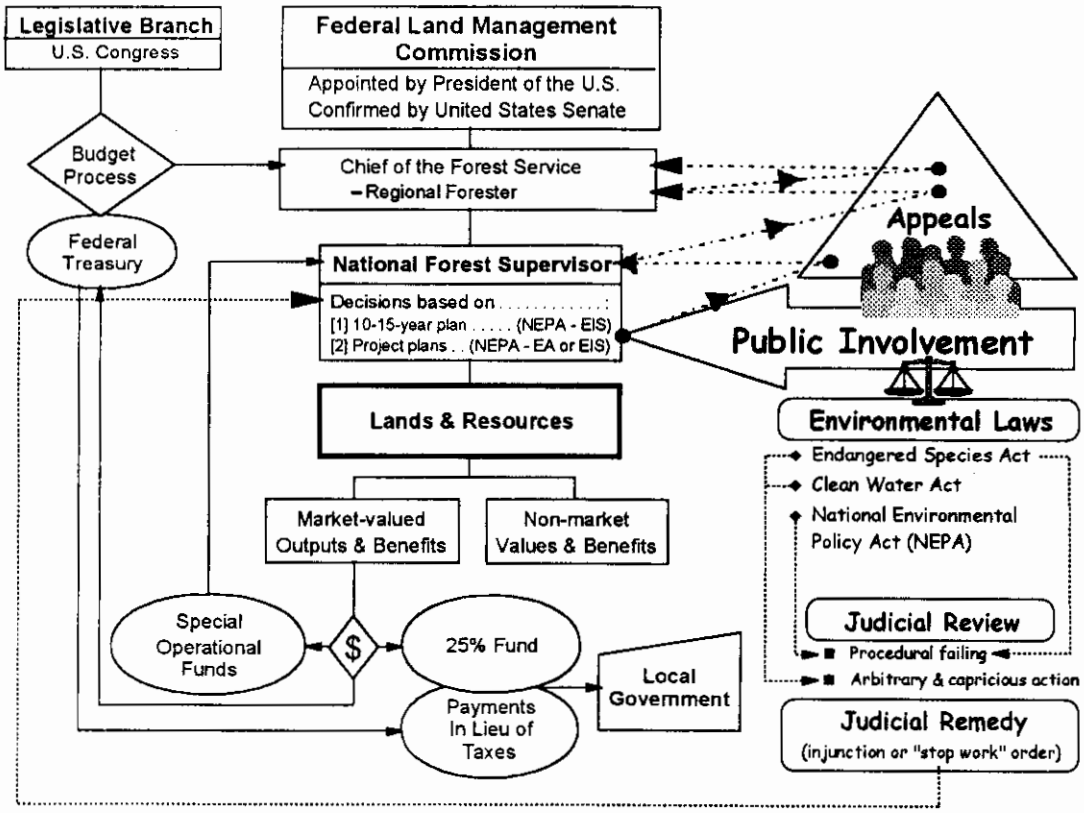

Figure 5-3. Federal Land Management Commission alternative design for a national forest.

Using the management of national forests as an example, the commission essentially replaces the President and the Secretary of Agriculture (compare Figure 5-3 with Figure 2-5). Because of its novelty, it might be useful to have the commission treated as if its members were cabinet-level officers, appointed by the President and confirmed by the Senate. To insulate the commission from the cycles of politics, members could be appointed for staggered and overlapping terms. For example, if the commission consisted of six members, they could be appointed for six year terms, with turnover of two members every two years. A staggered appointment schedule at the outset could accomplish this, with two original members appointed for six year terms, two for four years, and two for two years.

The tasks for the commission would be those functions currently performed by the offices of the President and the Secretary of Agriculture. As we understand these functions, they provide a place in the hierarchy of the federal government for the Chief of the Forest Service to report.

Whether or not the commission undertakes an exhaustive land law review, there are two major issues it will have to contend with. One is the administrative appeals process, the other is fiscal federalism, or providing a fair share of funding for the services provided by local government. The appeals process is a constant topic of discussion. Perhaps the commission would remove the regional forester and chief from the appeals process and form an appeals board similar to that used by the Department of the Interior for public appeals of BLM management issues that are not resolved locally. Revenue-sharing proposals are a current topic of debate among administration officials, Congress, and local government officials. Perhaps a study underway in the Forest Service (Schuster 1998) will provide a new market value-based alternative to the current debate which centers on providing some portion of historic revenue levels, subject to congressional appropriation of funds.

Summary and Conclusions.— The arguments for and against a Federal Land Management Commission are summarized in Table 5-6.

We conclude that a commission would likely come to the same conclusions reached in this report. Federal land decision-making processes are in gridlock as a result of the myriad of laws influencing management decisions, especially those that encourage what Kagan (1991) describes as "adversarial legalism." The commission could recommend changes in these laws. More important, the commission could be assigned the responsibility for seeing that "multiple-use" lands are managed to provide output levels that are sustainable over time without socially or ecologically undesirable effects.

Table 5-6. Arguments for and against a Federal Land Management Commission.

Arguments For	Arguments Against
Consensus regarding uses of federal lands may be more likely to be reached by smaller groups of individuals.	All stakeholders may not be adequately represented by commissioners.
Clarification of agency mission priorities is needed.	Environmental laws and courts have clearly defined the priorities.
Federal lands cannot be managed by science or legislation, only by consensus of interested parties.	Consensus of all parties interested in federal lands is unattainable.
Some modification of federal laws affecting land management may be needed.	Congress can change laws whenever it wants to.

Local Advisory Council. This alternative reflects widespread current efforts to incorporate collaborative processes into federal land management. We use the term local advisory council to cover much ground, including collaborative planning, collaborative learning, and formal community-based efforts to provide advice to the Forest Service and BLM. Two examples discussed herein are the Quincy Library Group's efforts to change the land-use plan for three national forests in northern California through prescriptive legislation and the Resource Advisory Councils recently instituted to help guide BLM management efforts.

The *American Heritage Dictionary* provides two definitions for the verb *collaborate*: [1] to work together, especially in a joint intellectual effort, and [2] to cooperate treasonably, as with an enemy occupation force in one's country. To many people, the former definition probably represents something good while the latter definition does not. Just as the definitions differ in their connotations, collaborative management processes are inherently neither good nor bad. The appropriateness of collaborative management on federal lands depends on one's perspectives about the role of government, the participants in the collaborative efforts, and the land management issues themselves.

The premise of collaboration is a belief that "if you bring the appropriate people together in constructive ways with good information, they will create authentic visions and strategies for addressing the shared concerns of the organization or community" (Chrislip and Larson 1994, p.14). Processes in which administrative agencies collaborate with stakeholders, including the public, are alleged to promote decisions that are more representative, responsive, effective, and legitimate because those who will be affected by the decisions are involved in their design (Rosenbaum 1976, OECD 1997). Some suggest that participation by stakeholders in decisions over matters that affect their lives is a democratic good independent of any improved outcomes that

follow from it (Ayres and Braithwaite 1992).

Questions arise, however, about whether collaborative processes are in fact representative. Individuals or groups that participate in collaborative processes may not be representative of all stakeholders (Duane 1997, OECD 1997). Participants, particularly if they are self-selected, may represent only well-organized interests with the time and resources to participate (Goslant 1988, Crowfoot and Wondolleck 1990). Efforts to expand the number of participants in collaborative groups are often a push for expansion of involvement of those stakeholders already present, not an increase in the diversity of stakeholders involved (Rosenbaum 1976, Kweit and Kweit 1981).

Can collaborative processes fairly represent the "public interest"? This is of particular concern with federal lands because they presumably belong to all citizens of the United States. Some national environmental group representatives have expressed concern that collaborative efforts involving primarily local stakeholders do not adequately represent the national public interest in federal lands (McCloskey 1996; see "public interest" discussion in Chapter 4).

Professor Coggins (1998) observes that collaboration, along with devolution, community, dialogue, and consensus, is one of the latest buzzwords in federal land management policy. In his view, collaboration joins a list of other undefinable, if not undecipherable, concepts in the "pantheon of panaceas" that includes multiple use, holistic management, deep ecology, wise use, biodiversity, and ecosystem management (Coggins 1998).

According to some observers, collaboration in the context of public land and resource management involves committing decision-making authority and resources to a group of stakeholders with shared interests in taking action on an issue (Gardner 1994). But in practice, that authority is seldom explicitly committed to the collaborative group. If collaborative management is to be anything more than advisory, legislation is necessary. Otherwise outcomes from collaborative processes are subject to challenge as an unlawful delegation of duty by federal officials and as a violation of the Federal Advisory Committee Act (FACA) (Myers, review comments).

Collaboration enjoys considerable popularity (see, for example, Jones 1996). Media content analysis shows that messages about the Forest Service's use of collaborative and participatory approaches to planning and management were overwhelmingly positive—about 88% of all the comments in the media at the national level between 1992 and 1996 were favorable, versus 12% that were not (Fan and Bengston 1997).

So in spite of admitted "misanthropic curmudgeons" like Professor Coggins (1998), local partnerships have been held up as models for the future of natural resource management policy (Brick 1998). The hope is to replace gridlock by finding consensus and moving forward. But forward to what? Is devolved authority to local levels the goal? How will national interests be represented? How will science be integrated into local citizen planning and management (Brick 1998)?

Viewed as an evolution rather than revolution, local collaboration might contribute four important functions to existing arrangements (Brick 1998): [1] Advise land managers and offer innovative approaches. Local collaborative groups and partnerships can identify improvements to seemingly intractable political disputes in an agency environment that is increasingly driven by procedures, not results. These improvements would still have to conform to national laws and withstand national scrutiny. [2] Build social and political capital for environmental goals. National or regional regulations can compel change, but without corresponding local support gains will be shallow and short-lived. [3] Expand environmental justice. In federal lands controversies, the environmental movement has done more to deny the problem than address how environmental preservation need not conflict with living-wage jobs in rural communities. [4] Save the environmental movement from itself. Advocating a total ban on logging in national forests, a position some groups have adopted, rests on "a remarkably shaky foundation" that over-optimistically ignores history and has strategic weaknesses, including "the bitter and well-organized resistance of working men and women in rural communities" (Brick 1998).

Collaborative Planning.— The concept of collaborative, area-wide planning grew out of the necessity for addressing problems with greater than local significance. The focus is on conflicts between development and protection of natural resources in a specific geographic area, such as a watershed or endangered species habitat, and typically encompasses a number of land ownerships and several local governmental jurisdictions. For all its promise, it remains a time-consuming, resource-intensive, and uncertain process. The problem is that it typically is undertaken in circumstances where conflicts have led to hardened positions, virtually guaranteeing difficult and lengthy consensus-building processes (Porter and Salvesen 1995). The federal government has demonstrated over the past twenty years that public hearings and litigation regarding an unending land management planning process is an inadequate approach to working with the local community (Fairfax 1996).

The local advisory group approach features interaction among groups of interested citizens that arise spontaneously to collaborate with Forest Service managers, usually to provide public input to mandated planning processes the managers must follow. Many collaborative groups have been formed in the past few years to address a variety of natural resource issues (UCRB-DEIS 1997). (See, for example, the articles on community-based collaboration efforts in *High Country News* [May 13, 1996] and *American Forests* [Winter 1998].) Such groups allow agencies to accomplish several things. Among them are acquiring needed information from the public, ensuring resource decisions are acceptable and will endure, building support for forest management decisions, influencing public knowledge and values, broadening the workforce available to get things done on the ground, and making the agency a better neighbor (Yaffee and Wondolleck 1997). In general, these groups do not have the authority to affect decisions, as authority resides with agency managers under federal law.

Current efforts at collaboration are advisory in nature, such as the Applegate Partnership in southern Oregon or the Resource Advisory Councils (RACs) established recently by the Bureau of Land Management (covered in a later section of this chapter). The general assumption is that the federal agency resource managers will follow the advice of the collaborative group, but there is nothing that compels them to do so.

Collaborative groups are springing up all over the West. The Henrys Fork Watershed Council was featured in an article in a *High Country News* article in an edition about collaborative efforts (Sherlock 1996), and it is also featured as a potential model for Watershed Advisory Groups under Idaho state law (O'Laughlin 1996*b*), in an essay by Charles Wilkinson (1997) in *Atlas of the New West* (Reibsame 1997), and as a model of collaborative process in an American Fisheries Society book on *Watershed Restoration* (VanKirk and Griffin 1997).

The Henrys Fork Watershed Council experience with collaboration is instructive. This collaborative council was formed when irrigators and fish advocates recognized it was in their common interest to work out solutions that would improve conditions on the world class trout fishery in the Henrys Fork of the Snake River they and many other interests valued, and which provided regional economic activity. Many observers, including Forest Service Chief Mike Dombeck (1998), cite the council as a model of collaborative process that illustrates how divergent interests can find solutions. When Idaho revised its policies for implementing the Clean Water Act in 1995, the Henrys Fork Watershed Council was one of the first local Watershed Advisory Groups (WAGs) to be appointed (O'Laughlin 1996*b*). Idaho recognizes these WAGs might be a more effective approach to control nonpoint source pollution than the more traditional command and control regulatory approach. Patience, funding, and cooperation among agencies and affected interests may prove that to be so (O'Laughlin 1996*b*).

The Henrys Fork Watershed Council experience with federal agencies has not been entirely positive. Jan Brown, the executive director of the Henrys Fork Foundation and a founder of the council, said the agencies don't take collaboration seriously. She said, "They don't acknowledge that the results will be better if collaboration occurs" (Barker 1998). Why? Because there are some really bad results (J.W. Thomas, review comments).

Forest Service and Collaborative Stewardship.— Open to question is how the Forest Service views resource management in the context of its underlying philosophy of ecosystem management. Collaborative processes have a role, as the following Forest Service posting on the Internet in March 1998 indicates:

> There is a need to move to consensus in the forest community of interests, focus on outcomes, have more collaborative action, and ecosystem approaches to management. There is the perception that we need to move beyond the seeming management gridlock brought on by polarized interest groups and what we can agree the future should look like. Are these needs recognized and do we have a vehicle to address them?
>
> The international forestry community has addressed the problem by defining sustainable development as it relates to forestry with "Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests." These criteria and indicators are:
>
> - focus on "outputs" rather than kinds of activities or inputs;
> - recognize the environmental, social and economic elements of forestry;
> - address legal, political and institutional issues; and
> - provide a means to measure progress in sustainable forestry at a national level.
>
> The forestry community of interests can move forward by focusing on the future (USDA-FS 1995).

Consensus, community of interests, collaborative action, and "moving beyond the seeming management gridlock" are words and phrases from the quotation above. Together these words pave the way for the Forest Service to take a collaborative approach to stewardship. In the Forest Service lexicon, stewardship means "caring for the land and its resources to pass healthy ecosystems to future generations" (USDA-FS 1997).

Collaborative process means getting a group of people together to talk about things. Collaborative management means sharing authority for decisions. There is much evidence that despite all the talk about the value of collaborative process, federal agencies are unwilling—perhaps unable is a more accurate term—to share their authority to make decisions about the public lands they administer.

Chief Dombeck believes in collaborative processes, and often invokes the idea that "collaborative stewardship" will guide the agency's efforts. He has three principles for creating successful community-based resource coalitions: balance among diversity of interests, a shared vision or collective goal for conserving or restoring healthy ecosystems, and a commitment to use the best science available. He adds that collaboration is a process, not an outcome. He says, "It should never be used to abrogate decision-making responsibilities, regardless of whether those responsibilities rest with federal, state, or even private landowners." He adds that it is important that community-based restoration efforts reunite communities and reconnect people to the health of the land that sustains them (Dombeck et al. 1998).

Chief Dombeck says the essence of collaborative stewardship is to leave the world a better place for future generations, and that this is the essence of community-based forestry and watershed efforts. He speculates that Aldo Leopold might have said this is a basic requirement of membership in the land community (Dombeck et al. 1998).

As is usually the case in questions of natural resource stewardship and its responsibilities, there is some wisdom to be gleaned applicable to federal land management in Aldo Leopold's words:

> To analyze the problem of [land-use] action, the first thing to grasp is that government, no matter how good, can only do certain things. Government can't raise crops, maintain small, scattered structures . . . or bring to bear on small, local matters that combination of solicitude, foresight, and skill which we call husbandry. ... Husbandry is the heart of conservation. The second thing to grasp is that when we lay conservation in the lap of the government, it will always do the things it can, even though they are not the things that most need doing (Leopold 1942).

Today there is disagreement about what most needs doing on the federal lands. Conservation of one-fourth of the nation's land now depends on a system in gridlock.

Collaboration and Alternative Dispute Resolution (ADR).— Collaboration also implies a willingness to resolve differences through non-

litigative or alternative dispute resolution (ADR) processes. This is not a scientific enterprise, because most differences or disputes over land and resource management are about values. Resolving these disputes or conflicts is the hope that collaborative process holds. If people find a resource management situation to be undesirable from their perspective, realistically all that can be expected is some improvement in that situation. Expecting to resolve the conflicts that are inherent in land management is unrealistic.

There is a linkage between collaborative processes and dispute resolution (Fan and Bengston 1997). The Administrative Dispute Resolution Act of 1990[102] provides unambiguous authority and encouragement to use ADR processes. Survey research conducted at the University of Idaho asked mid-level managers with six different natural resource management or regulatory agencies, including the Forest Service and BLM, why they don't use ADR processes more often. Results revealed that although a large majority of employees were willing to use ADR, they were not aware that their agencies had ADR programs. There is a simple reason why—ADR programs don't exist in some of the agencies surveyed, including the Forest Service. The BLM has embarked on such a program, and the EPA seems to take ADR seriously. The research revealed several major barriers the agencies need to surmount to adopt ADR programs: [1] managerial authority, [2] the role of trained natural resource specialists, [3] science-based decision-making, [4] the effectiveness of ADR processes in settling complex and sensitive natural resource issues, and [5] employees' level of knowledge, training, and experience with ADR processes and techniques (Schumaker et al. 1997, Schumaker and O'Laughlin 1997).

Attempts by the Forest Service to include the public in decisions under the developing federal land and resource concept of ecosystem-based management have been studied by dispute resolution experts (see Yaffee and Wondolleck 1997). Collaboration and the need to effectively involve the public were the most important factors contributing to the successful ecosystem-based management projects. Non-traditional decision-making approaches are required for such projects to succeed. Such new approaches have the potential to create a legacy of democratic process and a rebuilding of community-scale values that traditional agency procedures have tended to erode (Yaffee 1996).

Collaborative approaches mean developing problem solving approaches that are interagency, multiparty, and interdisciplinary. It is clear that these efforts take time and effort and require skills not often present in resource managers untrained in collaborative group processes. Overcoming obstacles to progress means hard work and learning from the experience of others. One set of obstacles is to change agency cultures to foster innovation and an entrepreneurial spirit that will empower individual managers (Yaffee 1996).

Further discussion of collaborative learning as a potential new direction for the Forest Service follows.

Collaborative Learning.— Another set of obstacles to improvement of federal land management through collaborative processes is to develop information and information networks that encourage managers to educate and be educated (Yaffee 1996). An approach called collaborative learning (Daniels and Walker 1996, Daniels et al. 1996) deals specifically with collaborative process as a learning tool.

Ecosystem-based management requires increased understanding and modified attitudes of both the general public and key stakeholders to overcome the most frequently cited obstacle to successful projects—public opposition (Yaffee 1996). The use of collaborative decision-making processes can help by building understanding and a sense of ownership, but more fundamental education is needed. Ecosystems are abstract concepts. Why should a rancher change grazing practices to protect a butterfly, let alone an ecological process? Education and outreach are needed to build public understanding, but also to expand the awareness of managers, scientists, and policy-makers. Ecosystem-based management is a political process involving allocation decisions between different interests in society. In practical terms, this will not happen without political concurrence, and that requires building a shared understanding of the importance of healthy ecosystems, and a knowledge of how humans can benefit from the long-term economic and ecological sustainability that can derive from them (Yaffee 1996).

Collaborative learning is a framework for improving natural resource policy decisions through systems-based public involvement. It emphasizes activities that encourage systems thinking, joint learning, open communication, and focuses on appropriate change. This approach focuses on mutual learning as the vehicle for collaborative process (Daniels and Walker 1996).

Collaborative learning does not promise to solve problems. Instead, it offers an approach that can be used in carefully selected instances by trained facilitators to improve a situation. The approach is a hybrid, borrowing from the alternative dispute resolution fields of negotiation and mediation; and from "soft systems" methodology, which stresses that learning and thinking systematically are crucial to planning, making decisions about, and managing complex situations like natural resources (Daniels and Walker 1996). Collaborative learning has been applied to a number of situations in Oregon and Washington. One example was the development and evaluation of collaborative learning processes for land and resource management issues following forest fires that occurred in 1994 on the Wenatchee National Forest (Daniels et al. 1996).

The collaborative learning approach offers some promise to restoring public trust. The management teams of the three national forests in northern Idaho have been trained in the fundamentals of collaborative learning (O'Laughlin and Cook 1996). Perhaps the most basic lesson is that situations where this approach might lead to an improved situation need to be carefully selected. Over time, as public trust begins to blossom, it might be feasible to tackle a situation that is as complex as a national forest land and resource management plan, but only after developing some experience with individual projects.

Quincy Library Group.— The Quincy Library Group (QLG) is a special case based on collaborative planning that is advanced through an attempt to generate prescriptive legislation designed to force specific outcomes of resource management. Although the QLG effort has its detractors, it is perhaps the most significant attempt to change federal land and resource management through community-based collaborative efforts. The QLG is composed of environmentalists, timber workers, government employees, business people, educators, and retired citizens in a rural town in northern California's's Sierra Nevada Range (Jackson 1995). Motivated by frustration over continual fights about nearby national forests, these neighbors recognized they had much in common and together crafted an alternative forest management plan for two entire national forests and a portion of a third. This effort to manage 2.5 million acres of national forests was formed to address some significant issues related to forest conditions, spotted owl habitat in an area outside the President Clinton's Forest Plan, and government "red tape" (Chase 1995).

It was a long and arduous task, but the QLG resulted in a bill in the U.S. House of Representatives that passed 429-1 in mid-1997.[103] At this writing it has yet to pass the Senate.[104] The QLG has run into a variety of political problems (Gray and Kusel 1998), including empowering the local community at the expense of non-residents (Duane 1997), even though the QLG has been able to muster "the best non-partisan support that experienced politicians have ever seen" (Jackson 1995).

Two resource management issues that surfaced during debate in the U.S. House of Representatives are relevant to any proposal for change—roadless areas and riparian areas. The QLG guaranteed that large amounts of undeveloped lands would remain so, and adopted the recommended riparian conservation areas for managing forests in northern spotted owl habitat.

Much has been written about the QLG (see, for example, Marston 1997, QLG 1998). Perhaps the most pertinent is that of environmental activist and lawyer Michael Jackson, a QLG founding member. He observed that all along, QLG members expected that the Forest Service bureaucracy would be their main impediment, and these expectations "proved stunningly prescient." QLG members have learned what Jackson calls the "Washington shuffle"—the President of the United States, the Secretary of Agriculture, the Undersecretary of Agriculture for Natural Resources and Environment, the Chief of the Forest Service, the Regional Forester, and the Forest Supervisor have unanimously supported the QLG's forest planning alternative and said they will order it to be examined in the NEPA process, but nothing has happened on the ground. The Forest Service points to budget and

staffing problems, then they point to Congress. Republicans and Democrats read the political situation differently. So the QLG waits. And talks. And learns to care for each other more. Members now understand they are their only hope, the only bridge between the Forest Service, Congress, and the national environmental groups (Jackson 1995).

Michael Jackson's own words offer encouragement that community-based collaborative efforts are worthwhile:

> We understand that we are not to blame either for the appeals or the lawsuits or the clear-cut blocks or the depleted old growth. The government is to blame, and we are the government. It makes it much harder, but at least we know who is responsible. We intend to move the government out of its gridlock and do so in a civilly responsible way.
>
> ... [We] represent the thousands of people at the local level who are trying to take responsibility for their own lives and are trying to create a sense of community in their own areas. We have learned encouraging things about each other from each other. If that is happening in the rest of the West, as we believe it is, the country will be better for it (Jackson 1995).

In spite of the QLG efforts and the fact that their bill passed the U.S. House of Representatives on a 429-1 vote, gridlock still reigns over the Sierra Nevadas. Even if the current legislation does pass Congress and obtains the President's signature, it is evident from the way the QLG bill is written that a stable source of funding will be a continuing problem.

Opponents of the QLG approach to local collaborative stewardship of national forests find faults with numerous aspects of the product as well as the process. To begin with, good collaborative agreements require that representatives of all stakeholders are at the negotiating table, which was not the case with the QLG. Detractors feel that the number of people with ties to the timber industry in the QLG led to a disproportionate expression of their interests in the outcomes (Williams 1997). Additionally, key "communities of interest" were explicitly excluded from the QLG: the Forest Service and environmental groups from outside the local area (Duane 1997, Williams 1997), and grazing interests (Ridenhour 1998).

Although the Forest Service sent observers to QLG meetings, it was not an equal partner in the collaborative process (Duane 1997). The agency was not invited to participate in the collaboration. "In fact," observed Duane (1997), "much of the success of the QLG process hinged on the shared demonization of the Forest Service as the source of local problems."

National environmental groups were also absent from the QLG negotiations. These groups and their supporters believe they should have been present because there are values of national interest derived from these publicly-owned lands (Miller 1997). They believe that agreement by local political interests is not an adequate basis for management of a national, publicly-owned resource (Duane 1997). They also believe the QLG sets a bad precedent (Fitzgerald 1998).

The scientific soundness of the QLG's proposal for forest management has also been questioned (Ingalsbee 1997, Pace 1997, Stewart 1997). According to Rep. Bruce Vento (D-MN), not all scientists agree that the group selection timber harvests, fuelbreaks, and fuel reductions zones called for in the QLG plan will reduce fire risk and create healthier forests. Some believe that under the proposed management regimes fire danger will actually increase, water quality will be harmed, and wildlife and fish habitat will not be protected adequately. Legislators have also questioned whether the QLG management guidelines are specific enough for sound national forest management policy (Vento 1997).

The scale of the QLG project area is also a concern (Duane 1997, Miller 1997, Vento 1997). Although the QLG plan is labeled a "pilot project," it covers two national forests and one district of another, some 2.5 million acres in total. To some, this seems like an excessively large area for an experiment, not only ecologically but politically and socially.

Even some supporters of the QLG and the idea of local collaboration in determining management direction for the national forests have been dismayed by the turn of events once the proposal was brought into the legislative arena of the U.S. Congress (Miller 1997). Some people see the proposed legislation[105] requiring the Secretary of Agriculture to implement the QLG plan as unnecessary and political grandstanding. They believe the pilot project could be implemented administratively or through approp-

riations report language, rather than authorizing legislation (Pace 1997, Stewart 1997). As Felice Pace of the California Ancient Forest Alliance stated: "Pilot projects, if they are successful, should result in legislation, not the other way around" (Pace 1997).

Another legislative concern is that requiring implementation of QLG plan will open the door to other local collaborative groups that will demand management control of their local national forest (Pace 1997, Williams 1997, Bumpers 1997). At least 35 other groups across the country are working on collaborative proposals similar to the QLG plan (Bumpers 1997). The lack of control on the representativeness of these groups and the quality of the plans they might produce is a concern. Congress does not want end up managing the national forests via piecemeal legislation (Bumpers 1997, Murkowski 1997). Senator Bumpers (D-AR and one of the drafters of NFMA) has suggested that if Congress does approve the QLG legislation and it is truly a pilot project, Congress should not consider supporting any similar proposals until the final report is in on the QLG project (Bumpers 1997).

Funding the QLG plan is also a concern (Pace 1997, Stewart 1997, Vento 1997). Nothing guarantees that future Congresses will appropriate the funds necessary to carry the QLG plan through to completion. And will the funding of the QLG plan come at the expense of other national forests? Although the QLG bill prohibits funding the QLG program by taking funds away from those appropriated to other national forests in California, this does not mean that other forests in the region will not see decreases in funding because of the QLG plan. Most national forest funds are appropriated by program, not by forest, so the Forest Service can still re-program funds, sending more toward the QLG forests at the expense of other California national forests (Pace 1997).

The time frame of the proposed legislation is also a concern. Some are concerned about mandating a five-year term for an untested plan (Miller 1997, Stewart 1997). The House bill requires that the project last at least five years, even if the land and resource management plans for these three forests are amended or revised, perhaps in ways contrary to the QLG plan. Which plan should take precedence?

Although the legislation states that the QLG plan is not exempted from federal environmental laws, the relationship of the proposed QLG law to existing federal laws, particularly NEPA and NFMA, is unclear (Duane 1997). What if an EIS finds, or the project activities themselves demonstrate, that the plan has negative environmental consequences and is not in the best interest of the forests? Will the project continue? (Duane 1997, Miller 1997).

The QLG experience illustrates how important it is to represent national interests in decisions, especially national environmental groups. Jim Lyons, Undersecretary of Agriculture for Natural Resources and Environment, summarized the controversy in an interview published in *High Country News* (September 29, 1997, p.9). He said, "We may be seeing the devolution of the environmental movement to the local scale, and the national groups are not quite sure how to handle it" (Lyons 1997).

Lyons is charged with overseeing the operations of the Forest Service, and said this about the Forest Service role in the QLG effort:

> I was part of the [1994] dialogue that said to the local forest supervisors, "Work with them." But you had a couple of forest supervisors who were more focused on process than solution. What I had in mind would have been a little more responsive and timely. I wanted them to test what the group had in mind—reduce fire risk, reduce fuel loads. The QLG wanted a forest that was a little less of a fire trap. The problem was an agency that was so stuck on process it couldn't solve a problem (Lyons 1997).

In conclusion, there is a widely recognized fuel management problem in California's Sierra Nevada Range. Frustrated by their inability to influence plans to manage nearby national forests, a coalition of local interests developed their own plan and got their congressman to introduce it as legislation. After much log-rolling, the bill passed the House of Representatives and is stalled in the Senate at this writing. According to statements made by Jim Lyons, this episode can be attributed to the Forest Service, which became mired in process at the expense of results. The agency cannot get the problem solved and Congress will apparently not pass prescriptive legislation for managing individual

national forests.

Now what? Perhaps the local community-based efforts of the Quincy Library Group to sidestep the barriers put before them by the Forest Service will lead to changes in land and resource management activities. Whatever happens as a result of this effort, it is a bellwether for national forest management.

BLM Resource Advisory Councils (RACs).— As part of the agency's revised regulations on livestock grazing, the BLM is developing Resource Advisory Councils (RACs), each one covering a distinct geographic area. There are three such areas for the agency's 12 million acres of land in Idaho. The RACs are formed under the Federal Advisory Committee Act, and are designed to make recommendations to the federal agencies on ecosystem management, watershed planning, and other local or regional natural resource issues (UCRB-DEIS 1997). The genesis of RACs and some lessons learned follow.

In 1979 the Forest Service and BLM implemented a policy of "experimental stewardship" on selected federal lands in the western states, seeking to resolve conflicts among user groups while improving resource conditions (Floyd 1988). One of the 3 sites chosen was the Challis stewardship area in Idaho. By resolving user group disputes at the local level, the policy of experiment stewardship has demonstrated its potential for extending the usefulness of the multiple-use concept (Floyd 1988).

This stewardship program was a response to a federal court ruling[106] that required the BLM to develop 144 local, site-specific NEPA environmental impact statements (Floyd 1988). The suit was brought by several national conservation groups that objected to a single nationwide programmatic EIS. Ironically, national environmental groups often suggest that it is difficult for their representatives to participate in meetings held in remote western communities such as Challis, Idaho. For this stewardship process to operate successfully, local representatives of these national organizations must have the authority to make policy decisions. This eventually means increased responsibility for local chapters of national membership-based interest groups such as the National Audubon Society and the Sierra Club (Floyd 1988).

The experimental stewardship program was judged to have had "some remarkable successes and remarkably few failures" (Floyd 1988). The lack of an agreed-upon system of standards for evaluating resource condition makes it impossible to evaluate whether or not the experimental stewardship policy resulted in improved range resource conditions. Measurement methods are not nearly as important as agreement among all interested parties as to how evaluation will be accomplished. The objective of resolving conflicts among users groups on federal multiple-use lands was met. Conflicts among user groups can be managed without litigation (Floyd 1988).

In 1993, Bruce Babbitt, Secretary of the Interior, held a series of "listening forums" in several western states with the goal of reforming grazing on the public lands. After the forums, he proposed new federal regulations that would have raised grazing fees and directed BLM managers to eliminate "poor" grazing practices, especially in riparian areas. The regulations were proposed as legislation. Ranchers saw this as top-down, command-and-control federal interference, and mobilized against it. In early 1994, Secretary Babbitt's proposal was killed in the U.S. Senate (Wilkinson 1997).

Secretary Babbitt, stung by defeat, set up a series of eight roundtable meetings in Colorado with a broad mix of interests. Using the results of these meetings, new BLM range regulations were issued in 1995 (Wilkinson 1997). One aspect of the regulations was to replace the traditional Grazing Advisory Boards with local councils representing a broader range of interests. Management plans will be developed by Resource Advisory Councils (RACs), usually composed of 15 local members equally divided among community and development interests, environmental and resource conservation organizations, and the general public. The RACs must meet general environmental objectives set in the regulations. The Interior Department can override their recommendations, but otherwise the RACs have wide latitude to meet departmental objectives by working out on-the-ground solutions. The assumption is that the RAC's recommendations will generally be adopted (Wilkinson 1997).

Council members are selected on their experience and knowledge and their willingness to work with other people. They must reside in

the state, and at least one member must be an elected official. In some areas resource advice is also provided to the Forest Service and the state (Dombeck et al. 1997).

The approach to range reform embodied in Secretary Babbitt's approach reflects the sentiments of many Westerners who prefer collaboration rather than the pitched battles in what has sometimes been called the "War on the West" (Wilkinson 1997). Grassroots efforts at collaboration number in the hundreds, and have focused on problems of timber harvesting, wilderness designation, air pollution, watershed management, new mine start-ups, and grazing. Collaboration reflects a yearning for community, and a break from rootlessness and boom-and-bust cycles. It also reflects a need for prosperity and a clean, scenic environment. To be successful, collaboration needs civility (Wilkinson 1997). The effectiveness of this approach also depends on the willingness of resource managers to modify their decisions based on local advice.

Concerns About Collaborative Processes.— Although the federal land management philosophy of ecosystem management favors more collaborative decisions, it still requires the technical expertise and implementation ability that federal land resource management agencies provide (Duane 1997). It would be unwise to completely delegate analysis and decision making authority to the "community" for management of public land. For one thing, local government jurisdictions do not coincide with either ecological or economic boundaries of the resources of interest. What is needed is a process that incorporates the values of relevant interests while retaining the necessary injection of expertise and implementation authority (Duane 1997).

Power—the distribution and use of it—is an important element of collaboration. Collaboration is most successful when stakeholders are dependent on each other, but this interdependence implies that they must have power over each other (Meidinger 1987). Power may be necessary to productive collaboration, and therefore is good, but it does not imply that all power is good. Grossly disproportionate power relationships are likely to be bad, since all stakeholders would not have the realistic ability to punish and reward each other (Meidinger 1987). Desirable conditions for collaboration require that stakeholders are equally empowered, fully informed, and the conditions of "ideal speech" are met—that is, statements are comprehensible, scientifically true, and offered by those who can legitimately speak and who speak sincerely (Duane 1997).

Less powerful groups may have legitimate concerns about entering collaborative processes (Susskind and Cruikshank 1987). There may be inequities inherent in these processes. For example, citizen groups may have to challenge well-financed, generously-staffed corporations or trade industry associations and governmental agencies. Representatives from government and industry may be participating in the course of their jobs, whereas citizen participation may be an additional commitment outside of work and family responsibilities, and support staffs may be lacking (Crowfoot and Wondolleck 1990).

Collaborative decision-making raises concerns about co-optation (Amy 1987, Crowfoot and Wondolleck 1990). Co-optation is the process of neutralizing or winning over through assimilation into an established group. Participation in collaborative processes can be used to manipulate participants (Kweit and Kweit 1981). The claim that people have a common interest can be a way of misleading the less powerful into collaborating with the more powerful in schemes that mainly benefit the latter (Mansbridge 1980). Co-optation is not inevitable, as long as participants are not forced into negotiations and other avenues are not foreclosed if a stakeholder decides that the process is not going to serve his or her best interest (Susskind and Cruikshank 1987, Wondolleck 1988). However, the ability to exit the process and seek other legal remedies will probably make collaborative agreements fragile (Kagan 1997).

Collaborative processes can have the result of increasing the power of the most powerful stakeholders (Kweit and Kweit 1981, Amy 1987, Goslant 1988). It is therefore important to have administrative agencies that protect the public interest and the less powerful (Ayers and Braithwaite 1992).

Some practical concerns with collaborative processes are also raised. Finding and keeping representatives of all stakeholders may be a problem. Not everyone possesses the desire, resources, and skills that participation in collaborative

processes requires (Kweit and Kweit 1981, Crowfoot and Wondolleck 1990). Americans generally tend to avoid conflict, and the inevitable conflict and confrontation of collaborative processes may frighten away some people and take its toll on those who do participate (Weissberg 1974, Kweit and Kweit 1981).

Collaborative processes can be very time consuming both on the part of an administrative agency and the private interests involved (Kweit and Kweit 1981, Susskind and Cruikshank 1987, Crowfoot and Wondolleck 1990, OECD 1997). It may take more time to reach decisions collaboratively than through more traditional processes. The amounts of information that are needed for decision making can be large and filled with legal, scientific, and technical detail that can overload participants (Crowfoot and Wondolleck 1990, OECD 1997). A substantial amount of funding up front may be required to conduct a collaborative process (Susskind and Cruikshank 1987), but the desired result of reaching a collaborative agreement is not guaranteed.

Collaborative processes can fail, which may lead to frustration on the parts of those who participated. Dissatisfaction with outcomes can result in rejection of the entire collaborative experience (Kweit and Kweit 1981, Chrislip and Larson 1994, OECD 1997). Collaborative decision-making may actually lead to increased conflict in the political system and increased problems in policy making (Kweit and Kweit 1981).

A collaborative process should not be viewed as a one-time event. Collaborative processes are more likely to succeed when stakeholders are engaged in ongoing relationships that allow for continuing negotiation (Meidinger 1987, Susskind and Cruikshank 1987). Trust and cooperation between stakeholders are likely to grow with continuing processes (Duane 1997).

Collaborative processes can reach decisions that are good for all citizens. Collaboration makes sense when all parties gain something, even though their objectives and values may be different or even conflicting (John 1994). Good collaborative decisions are reached because there are good reasons for them to be reached, not because of the political or economic power of particular stakeholders (Duane 1997).

Summary and Conclusions.— The arguments for and against management of federal land by collaborative process through a local advisory council are summarized in Table 5-7.

One of the principles that is developing for a watershed management strategy is that it should involve local people in setting policy and solving problems (Turner 1997). There is a need for local authority and full representation from the community. Local involvement of this type will require a fundamental change in the approach used by most agencies (Turner 1997).

There are at least three explanations why federal agencies have not "devolved" their authority to local management councils: [1] they don't have to, [2] they don't want to, and [3] they can't. As pointed out herein, federal agencies have some discretion under the laws. For example, agencies have the discretion not to follow the recommendations of the Administrative Dispute Resolution Act of 1990.[107] If agency employees don't want to colla-borate, they don't have to. If they did, perhaps the discretion the agencies have could create a little wiggle room to share some authority, but perhaps not. As much as it is a set of techniques and processes, dispute resolution through collaborative process is a way of thinking and a way of acting.

Collaborative processes could add the social dimension to ecosystem-based management. It might be more effective if there were a way to share decision-making authority between federal agencies and the publics affected by those decisions. Otherwise collaborative decisions have no assurance of being adopted, and collaborative efforts are another attempt to involve the public in agency decisions.

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Table 5-7. Arguments for and against local advisory council (collaborative management).

Arguments For	Arguments Against
Resource management decisions are based on local resource conditions.	There are national interests in federal lands which may not be represented without final authority of federal officials.
Meaningful public involvement of community-based interests guarantees inclusion in resource management decisions.	Legislation is required to vest a local decision-making council with authority.
Decisions are based on local perceptions of resource values.	Difficult to choose an inclusive set of members of decision-making council.
Dispute resolution process is not managed by resource managers who may have conflicts of interest.	Difficulty in coming to consensus decisions among competing interests.
Decisions based on areas of agreement among affected interests.	Some interests may not be willing to participate in binding decisions that may compromise their values.
Does not require change in current multiple use mission statement.	The multiple use mission is a vague concept subject to dispute among competing interests.
Public attitudes toward collaborative processes are favorable.	Collaborative processes currently used are not binding on the manager.
May limit appeals by involving a diverse group of interests in the decision-making process.	Without specific, binding, decision-making authority, there is no incentive to collaborate.
May limit litigation.	May be less cost- and time-efficient than other models.
May eliminate projects that fail social acceptability criterion without extensive analysis.	Inclusion of science-based knowledge is problematic.

[This blank space is intentional.]

We conclude by illustrating a potential arrangement for a local collaborative group, or local advisory council, could work with a national forest supervisor (Figure 5-4).

In Figure 5-4 a local advisory council is presented as a new vehicle for public involvement in national forest decisions. The council could, as illustrated, be given several tasks. It could have the responsibility for hearing appeals and recommending modifications of management actions to federal land managers. In other words, the local advisory council could tell the manager what needs to be fixed, and provide advice on how to do it. The "fix-it" advice offered by the collaborative council could be just that—advice that the manager could use in determining a course of action. Alternatively, the council could be vested with authority to make the recommen-dations binding on the manager. The council could also be assigned the task of co-managing the NEPA public involvement process (Figure 5-4). Membership of the council could parallel that of the BLM RACs, which generally have members divided evenly among three groups—re-source users, environmental interests, and other public interests, including local government.

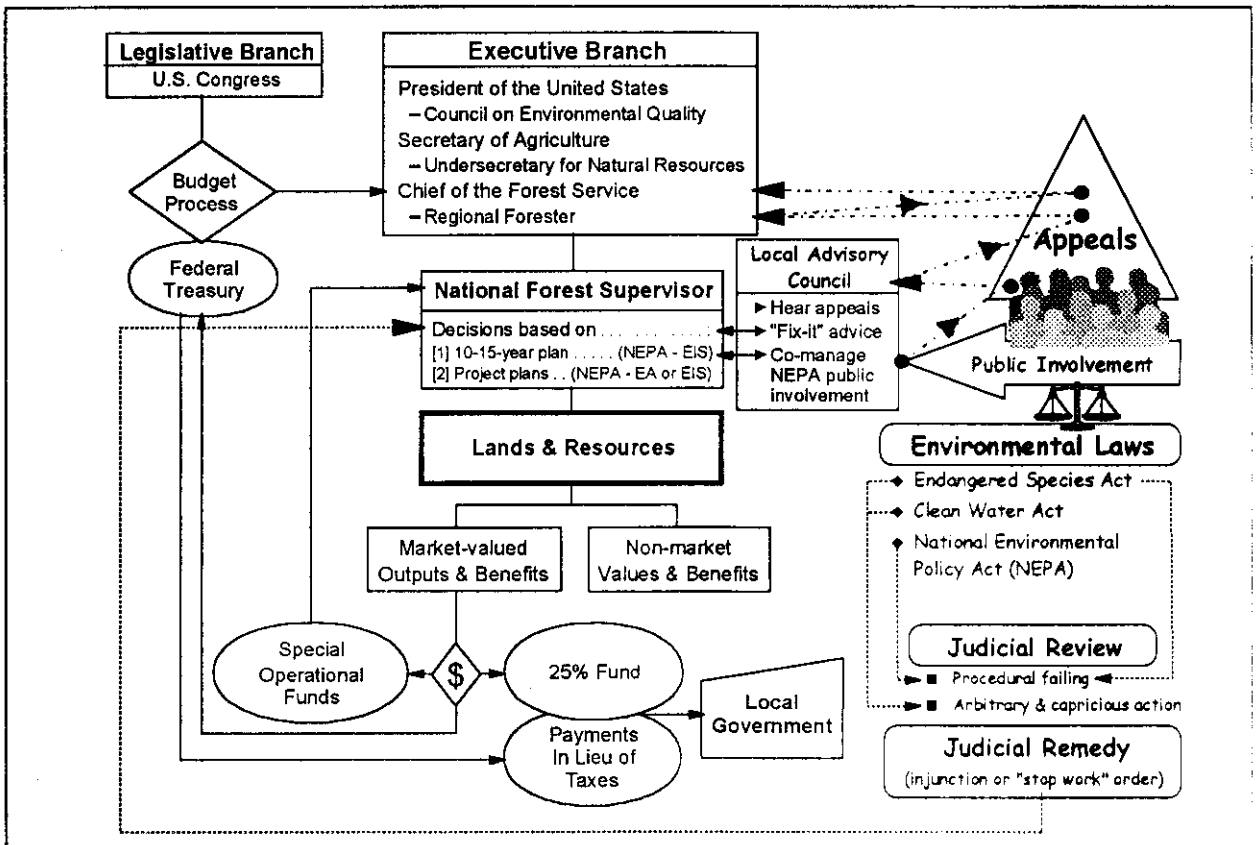

Figure 5-4. Local advisory council (collaborative management) alternative design for a national forest.

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Trust Land Management. The trust concept as applied to land management is well established in the private sector and in state government. More than 15 million acres of land in all 50 of the United States are managed under approximately 1,100 private land trusts (Souder and Fairfax 1996). The most prominent example is The Nature Conservancy (Mann and Plummer 1995). The state of Idaho manages almost 2.5 million acres of land under the trust concept; other states manage even more. Land trusts managed by 22 state governments are responsible for a total of 135 million acres, from which $4.5 billion are distributed annually to the beneficiaries (Souder and Fairfax 1996). By comparison, the National Forest System consists of almost 192 million acres, and in 1993 produced revenues of $1.5 billion while expending $3.2 billion from the federal treasury; since then, revenues fell to $1 billion in 1996, while expenditures rose to $3.8 billion (USDA-FS 1997). The National Forest System also produced nonfinancial benefits of inestimable value. Nevertheless an argument can be made that the trust land management alternative offers a potential for sustainable resource management offered by no other existing system of public resource management (Souder and Fairfax 1996).

"A trust is a fiduciary relationship in which the trustee holds and manages property for the benefit of a specific beneficiary. The major obligation of the trustee is to act with 'undivided loyalty' to the beneficiary" (Fairfax 1996; definitions in Table 5-8).

Table 5-8. Legal definitions of trust terms

- A *trust* is a fiduciary relationship with respect to property in which the person by whom the title to the property is held is subject to equitable duties to keep or use the property for the benefit of another.
- A *fiduciary relationship* places on the trustee the duty to act with strict honesty and candor and solely in the interest of the beneficiary.
- The *settler* of a trust is the person who creates the trust.
- The *trustee* is the person holding property in trust for the beneficiary.
- The property held in trust is the *trust property.*
- The *beneficiary* is the person for whose benefit the trust property is held in trust.
- The *trust instrument* is the "manifestation of the intention of the settler" by which the property interests are vested in the trustee and beneficiary and by which the rights and duties of the parties (called the trust terms) are set forth in a manner that admits of its proof in judicial proceedings.

Source: Souder and Fairfax (1996, p.2)

"Trust" has a dual meaning in the context of federal land management that should not be overlooked. Governing institutions today face unprecedented challenges as there are many more people with a stake in public problems who are demanding a say in the political decision-making process. Situations are complex and systemic, and are not amenable to expert or top-down approaches. Few people agree about the nature of the problems, so there is little agreement about solutions, and no shared values upon which to build a framework for improving the situation. Distrust and mistrust are pervasive (Chrislip 1997). In this region several scholars have commented on the erosion of trust that the public has in the U.S. Forest Service (see Hirt 1994, Langston 1995, Moore 1996, O'Laughlin et al. 1993). It is conceivable that the land management trust concept adapted to managing federal lands is an appropriate vehicle to begin to restore missing trust.

Key Concepts and Trust Components.— Establishing a trust of any sort requires specifying what Professors Jon Souder and Sally Fairfax call the elements and parts of a trust in their book *State Trust Lands: History, Management and Sustainable Use* (Souder and Fairfax 1996). We borrow heavily from what these social scientists learned during their 15-year research project and reported in their book.

It is important to understand the different elements and parts of the public land trust concept. In outline form, they are as follows:

- ◆ **Elements** of a Trust
  - Expressed Intention of the Trust
  - Trust Beneficiaries
  - Property within the Trust
- ◆ **Parts** of a Trust
  - Management System, including:
    - Trust Manager
    - Trustees
  - Trust Assets, consisting of:
    - Trust Lands and Resources
    - Permanent Fund
  - Revenues from Management

These elements and parts of the trust concept are used to manage state lands. Their potential application to managing a national forest is illustrated in Figure 5-5.

The following sections further explain the elements and parts of the trust land management model and its application to a national forest.

Elements of a Trust.— "For a trust to exist, three elements must be present. First, there must be an expression of intent. No trust is created unless the settler 'manifests an intention to impose duties which are enforceable in the courts.' Second, there must be a beneficiary. 'If the beneficiary cannot be ascertained, no trust is created.' Finally, there must be a property interest that exists or is ascertainable and is to be held for the benefit of the beneficiary" (Souder and Fairfax 1996, p.3).

"A key characteristic of trust principles is the clarity of the goal: the trustee is obligated to manage trust resources for the benefit of the beneficiary" (Souder and Fairfax 1996, p.3). Fairfax (1996) said, "Without belaboring the obvious, this [trust] mandate is significantly different from the rather mushy commands and Byzantine procedural requirements that afflict federal land management agencies." Furthermore, "trust lands are managed to achieve specific

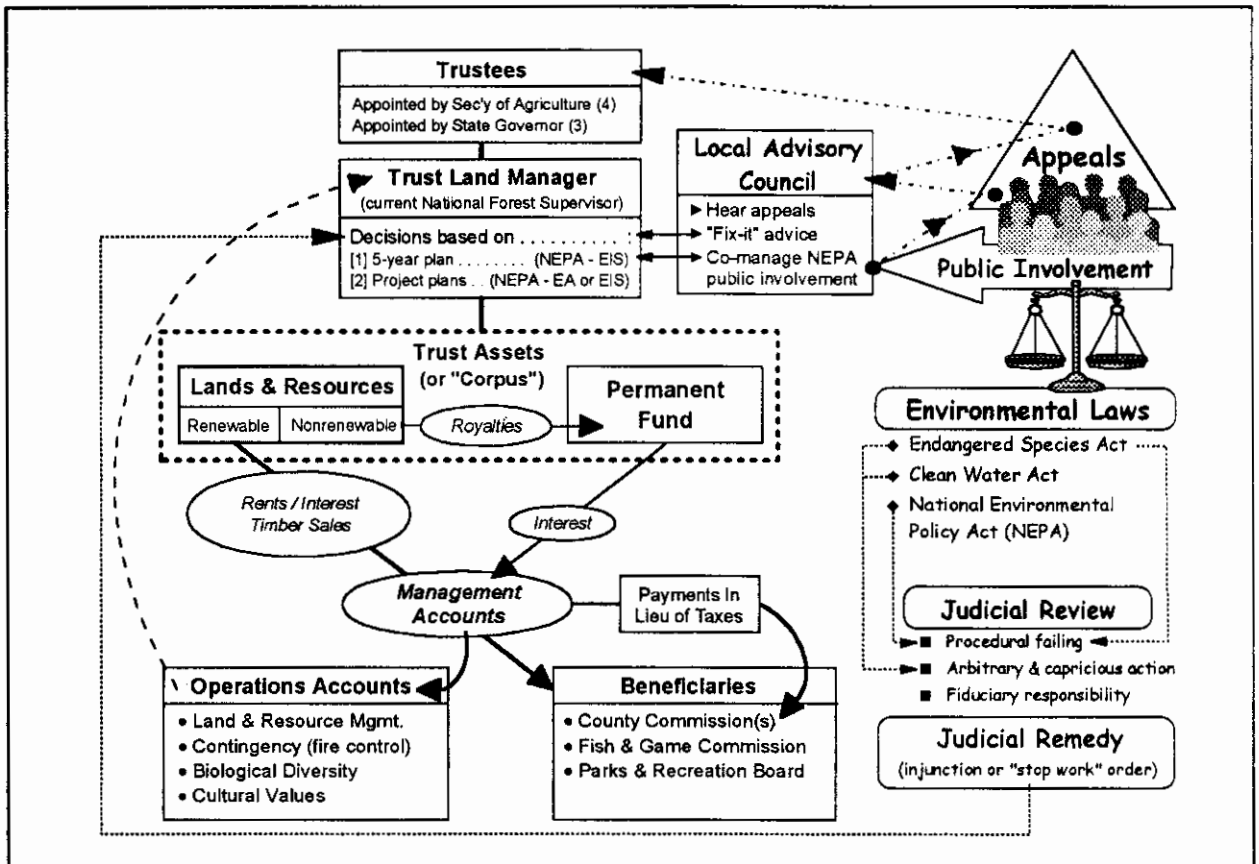

Figure 5-5. Trust land management alternative design for a national forest.

goals: raising money to support clearly identified beneficiaries. Translated into the language of sustainable management, these goals enable trust land managers to be uncommonly clear about what they must sustain" (Souder and Fairfax 1996, p.277).

A mission or goal statement for the trust can be devised to answer the questions who, what, where, why, when, and how. This can be done in one sentence. For example, "The trustees will provide to the beneficiaries net revenues from the trust lands to meet the beneficiaries needs each year, produced in a manner that considers long term resource management."

The mission or goal statement binds the trust manager and the trustee through the onus of the trust principles of *clarity, accountability, enforceability*, and *perpetuity*. The *clarity* of this goal statement is evident, as it replies to questions of who, where, what, why, when, and how. *Accountability* is the requisite reporting of financial transactions by the manager and trustees to the beneficiaries. As in all trusts, *enforceability* is ultimately attained through judicial proceedings; when challenged by beneficiaries, or those with standing to represent the beneficiaries, under trust law managers and trustees must offer evidence that they have acted prudently to meet the mandate expressed in this statement of intention. Souder and Fairfax (1996) argue that the daunting task of providing financial benefits from natural resources in *perpetuity*, which requires the maintenance of ecological capital to produce the economic capital, negates the argument that a trust mandate ignores nonfinancial values.

Identifying the appropriate beneficiaries for a federal land management trust is a key decision. State trust lands generally identify public schools as the beneficiary. Some innovation is needed for federal lands. Local governments are one possible beneficiary, because current policies entitle them to revenues from federal lands in lieu of property taxes. This gives them an obvious interest in economic returns. To balance that, some other beneficiaries could be named, such as recreation interests and fish and wildlife interests. The benefits from land management would provide revenues to meet their perceived needs for recreation facilities or habitat improvement projects.

Parts of a Trust.— "[T]he trust is a system to produce revenues for the beneficiaries ... that has three parts: management, the trust properties or assets (sometimes called the 'corpus'), and the revenues produced by managing the trust corpus. The trust corpus includes the trust land base and ... permanent funds" (Souder and Fairfax 1996, p.37). The relationship of these parts of the trust management or production system is depicted in Figure 5-5.

"One way to understand the body of trust law is as a method for removing—or minimizing—the manager as the beneficiary of management" (Souder and Fairfax 1996, p.299). On-the-ground land and resource management decisions are made by the trust manager. The trust manager reports to the trustees.

Trustees are responsible for ensuring that the trust mandate is achieved by the trust manager, thus are responsible for broader policy decisions within which the trust manger operates. The trustees also serve as the final decision-making authority for public appeals of decisions made by the trust manager.

For federal lands, existing managers could be designated as trust managers. For the Forest Service, the national forest supervisor and district rangers; for the BLM, district and area managers. Whether or not state-wide supervision is necessary is an open question that would be answered when trustees are designated. Trustees could be appointed for each unit, or one board of trustees could oversee management operations at the state level. Trustees would be selected by the appropriate federal Secretary to ensure that national interests are represented. It might be desirable to allow the governor of the state to have an advise and consent role regarding the trustees.

The corpus or trust land base forms the assets of the trust. Marketable goods and services from these lands generate revenues that fund the operation of the trust and provide returns to the trust beneficiaries from timber, grazing permits, camping fees, recreational access, and other revenue sources, generally at market rates. A permanent fund is established into which the revenue produced from mineral royalties and sales of land is deposited (Figure 5-5). Beneficiaries receive interest and/or dividends from the financial returns to this fund corpus.

Revenues from management consist of rents,

royalties, and interest or dividends (Figure 5-5). Rents include payments received under grazing permits, recreation fees, and timber sales, including interest from the sale of rights to harvest timber in the future. Royalties include payments from mineral leases and sales of land. Interest and dividends represent returns from investment of the permanent fund (see Souder and Fairfax 1996, pp.39, 55-61).

The revenues from the management of the trust lands could be placed into management accounts for operations and for dispersal to beneficiaries (Figure 5-5). Beneficiaries could represent local government, recreation, and fish and wildlife interests. The operations accounts could provide for land and resource management activities and a contingency fund for fire control. It would also be possible to establish accounts for funding other public values such as cultural values and biological diversity (Figure 5-5). It should be emphasized that the trustees are responsible for the operation of the trust.

Public Involvement.— The trust land management concept is flexible enough that public involvement and appeals processes can be custom made, such as a streamlined two-level appeals process that is possible under the trust model (Figure 5-5). The accountability of the trustees under the trust model on the one hand reduces opportunities for appeals to higher level government officials, but on the other hand brings finality to the decision process. Some people will view this as an improvement, but those who are currently taking their concerns to high levels in the executive branch or to the legislative branch for political approaches to further their objectives can be expected to argue strongly against modifying the current situation.

Trust law guides who can legally challenge the decisions of the trustees and trust manager for the manner in which they meet their *fiduciary relationship* with the beneficiary. Generally, this means that only the beneficiary or a party whom the court agrees is suitably representative of the beneficiary's interest can bring suit against the trustees or managers regarding the management of the trust assets.

Elimination of third party lawsuits challenging the trustees and trust manager does not necessarily mean that environmental protection will be diminished. As Figure 5-5 indicates, citizen suits under the provisions of the Endangered Species Act (ESA), Clean Water Act, and National Environmental Policy Act (NEPA) remain firmly in place. The trust model adds additional safeguards that may result in enhanced environmental protection because the fish and wildlife beneficiary presumably will look after activities of the operation of the trust as they relate to fish and wildlife habitat.

Figure 5-5 also illustrates the appeals process that could be used with the trust model. Final disposition of any appeal would rest with the trustees. Lawsuits brought against management decisions could be brought on behalf of their fiduciary responsibilities to the beneficiaries, unless the provisions for citizen suits under the ESA, Clean Water Act, or NEPA are involved.

Taking the trust model one step further, it is possible to add a local advisory council that through collaborative processes could serve as a local appeals board and "fix-it" council facilitating communication between local interests and federal agency resource managers. Similar in that respect to Figure 5-4 in the previous section on the local advisory council, Figure 5-5 adds such a feature to the trust model. This feature provides an additional point of communication between the trust land manager and the public.

Public involvement is one criticism of the trust land management arrangements for state lands in Idaho, and such a council might overcome some of these criticisms. Appellants could still take their appeal to the local manager, working through the council. If satisfaction is not attained and the council's "fix-it" advice is unsatisfactory to the appellants, they could take their plea to the trustees, the last and final step in the appeals process.

Sustainable Resource Management.— An argument can be made that the public land trust model promotes sustainable resource management better than any existing alternative model (Souder and Fairfax 1996, Souder et al. 1994). As the title of their book *State Trust Lands: History, Management and Sustainable Use* suggests, Souder and Fairfax (1996) have much to say about the trust model and its potential for sustainable resource management.

To begin with, the legalese pertaining to the structural elements and parts of a trust may be

translated into four general principles that guide trust land management: *clarity, accountability, enforceability,* and *perpetuity*. These principles of a trust are fundamentally important concepts for grasping the workings of a trust and its implications for public resource management:

> A key characteristic of trust principles is *clarity* of the goal: the trustee is obligated to manage trust resources for the benefit of the beneficiary. Benefit is typically defined in terms of monetary returns to the trust. The trustee must exercise prudence, skill, and diligence in making the trust productive for the specified beneficiary. The principle of undivided loyalty states that the trustee is strictly forbidden from diverting trust resources to others.
>
> *Clarity* of goals facilitates the second characteristic of the trust mandate: *accountability*. The trustee must keep property records and accounts of receipts and disbursements, and must furnish this information to the beneficiary. The trust's goals are *enforceable* because trust doctrine allows the beneficiary to sue to enforce the terms of the trust. Trust obligations are fully elaborated in common law, and statutes and many centuries of judicial experience offer guidance in enforcing the trust requirements. Again, the clarity of the purpose of the trust facilitates evaluating whether the trust goals have been achieved. The final component of trust management is *perpetuity*. Preserving the productive capacity of the corpus of the trust is one of any trustee's fundamental obligations. Trusts are not necessarily perpetual: a trust might be liquidated, for example, at the instruction of the trustor, when a beneficiary reaches a certain age or when the purposes for which the trust was established are achieved. The trust purposes can also be changed or the trust terminated if the purpose for which the trust was established is no longer reasonable (Souder and Fairfax 1996, p.3, emphasis added).

These four principles are all directly related to sustainable management of public lands. Souder and Fairfax (1996) elaborate on this idea in the sustainability context:

> The trust system's combination of *clarity, accountability*, and mechanisms for *enforcement*, we believe, suggests important structural considerations for persons engaged in serious efforts to design institutions to achieve sustainable resource management. The [state] school trust lands teach us that a commitment to sustainable resource management, however defined, is not enough: institutions and institutional designs do matter. State school land management is not, we thoroughly recognize, a perfect model of sustainable land management or, for that matter, trust management. It does, however, suggest what is possible in terms of *enforcement accountability* once the goals are *clear*. And it does signify the importance of making a commitment to *perpetuity* in evaluating day-to-day management programs (Souder and Fairfax 1996, p.282, emphasis added).

On *clarity*—Souder and Fairfax (1996) argue that trust land management is highly relevant to the growing national conversation about sustainable public land management, and the *clarity* of the trust manager's mandate is crucial to that argument: "Trust lands are managed to achieve specific goals: raising money to support clearly identified beneficiaries. Translated into the language of sustainable management, these goals enable trust land managers to be uncommonly clear about what they must sustain" (Souder and Fairfax 1996, p.277). Given political realities, a clear trust goal for federal lands may be difficult to attain (Myers, review comments). The trust model is appealing only if one agrees with the purposes for which the trust is established. Those purposes in turn define the beneficiaries. If, for example, the purposes of the trust is to provide revenue for fish and wildlife beneficiaries whose primary interest is maintenance of habitat and animal populations, it may be difficult to convince them that commodity production is an appropriate source of funding (Myers, review comments).

On *accountability*—the trustee is *accountable* for keeping and producing numbers for the public that will tell the public what management is costing and what it is producing. Then the public can tell when management's primary effort goes into sustaining or enhancing itself. Thus *accountability*—specifically, *financial accountability*—matters enormously to sustainability (Souder and Fairfax 1996, pp.276-278).

Recently the U.S. General Accounting Office reported that the lack of mission clarity in the multiple-use mandate is a major problem for the Forest Service (US-GAO 1996*b,c*; 1997*a,b*). In 1998 the GAO reported that although the Forest Service had shifted from producing goods and services to maintaining and restoring the health

of federal lands, it has not addressed adequately the new challenges from this change in priorities so that performance and financial accountability can be attained (US-GAO 1998*b*) and fair market values obtained for goods and services provided by the national forests (US-GAO 1998*a*).

The land trust concept has features that could help make the multiple-use land management agencies more responsible and accountable. Philosopher Mark Sagoff (1997) wrote about it this way:

> In order to wrest resources from the dead hand of federal bureaucracy yet avoid consigning the West to global markets that are likely to obliterate its history and character, new resource economists propose a number of strategies, all of which adhere to a single principle. The principle is that of making the managers of resources responsible and accountable for the way those resources are managed. ... And there is nothing like responsibility or accountability—such as people bear for the property they own in the context of strong ties with their neighbors—to concentrate the mind on the advantages and disadvantages of various actions. ...
>
> Some of the new resource economists have gone so far as to suggest that national lands such as forests and parks be privatized in fee simple to consortia of trustee-owners drawn from mainstream environmental groups. The idea would be to make these groups responsible to the resource rather than to their own political and economic agendas. Then they would have to consider the costs and benefits of the proposals they adopt—rather than, for example, simply how these proposals would affect their ability to raise funds. ...
>
> A better proposal might be to make the parks [and forests] autonomous institutions—the Smithsonian Institution would be a model—directed by boards of trustees. The trustees, who would represent environmental and other constituencies with local commitments and ties to the particular park or forest would have to work out a policy on a consensual basis. Since each park or forest would be constituted under a different set of trustees, the boards could learn from one another and even compete to do the best job of management. The parks [and forests] could function as laboratories of both democracy and ecology. And if trustees lived near the resource, they would be intimately related to and responsible for the results of their actions (Sagoff 1997).

On *enforceability*—courts are not required by notions of separation of powers to defer to the alleged expertise of the trustee, as is the case under current institutional arrangements for federal lands. The enforceable standard for evaluating the trustee's performance is not, "Did the manager act in an arbitrary and capricious manner?" Instead, it is "Did the manager act prudently as defined by the standard prudent investor rule?" The core of this standard is the use of research and analysis to achieve careful assessment of risks and benefits, and diversification of the asset portfolio to minimize risk. This shifts the burden from the public to show that managers acted poorly to the managers to show that they acted prudently (F.O.G. 1998, pp.17-18).

On *perpetuity*—Souder and Fairfax said, "We see a direct relationship in the trust land case between perpetual revenue production and the perpetual capacity to produce them. Thus, even in the trust lands case, perpetuity can mean more than just revenue production. By protecting the resources against special interest groups—whether they be lessees or legislatures—the trustees ultimately focus on protecting the lands themselves. The examples provided here show that this can be done by the trustees acting on their own or as a result of court decisions. But whichever occurs, the focus of the trust mandate remains on protecting the corpus in the long term, enabling it to remain a sustainable source of benefits" (Souder and Fairfax 1996, p.281).

Frequently Asked Questions.— This section attempts to address some of the questions people are likely to raise about the trust land management model applied to federal lands. Again we rely heavily on the findings from Souder and Fairfax' (1996) long-term resource project on state trust land management.

Why would anyone want to use the state model to manage federal lands, when it has produced poor results? This is the first question many people familiar with the widespread perception of state land management will ask (see, for example, Bell 1997, Hall 1998). Souder and Fairfax (1996) provide a reply:

> Although the state land commissions' traditional emphasis on revenues has not endeared the school land traditions to environmentalists, we believe other components of the trust—its emphasis on perpetuity and on preservation of

> the corpus of the trust—lead to management that is certainly more conservative than some have feared, and plausibly more conservative than [federal] public resource management, which is not so constrained nor so straightforwardly directed (Souder and Fairfax 1996, p.281).

What about nontimber outputs, such as wildlife and recreation? Souder and Fairfax (1996) do not address wildlife habitat issues, but do look briefly at hunting access to state trust lands in Montana and Colorado. Montana uses a system of permits to private individuals designed to maximize revenue, while Colorado leases trust lands to the state Division of Wildlife in a system designed to maximize public use. They said,

> This small comparison [of Montana and Colorado] suggests that, within the trust principles and the trustees' diverse interpretations of their mandate, there is room for considerable flexibility in pursuing a broad range of strategies regarding hunting and other recreation access programs (Souder and Fairfax 1996, p.273).

What about protection of aesthetic and other non-monetary values in the trust model? Souder and Fairfax (1996, p.273) write: "It is unclear how far the issue of non-monetary benefits and less-than-maximum benefits can be pushed in the trust context." They describe two recent court cases that produced different results. In Colorado,[108] the courts ruled that a state reclamation statute took precedence over the trust's mandate and halted a planned mine on state trust land for aesthetic reasons. However, in a Utah case[109] involving scenic, archaeological, and paleontological resources, the court suggested that the state's fiduciary responsibility took precedence and the way to protect these resources was for the state to exchange or sell the lands (Souder and Fairfax 1996). The trust model's ability to protect aesthetic and other non-monetary values appears to depend on court rulings about the relationship between the state trust mandate and other state statutes.

What about water quality, riparian areas, and soil conditions? Again, the experts don't know:

> We are not aware of any inquiries into whether riparian areas, the productive capacity of the soil, or range trends and conditions are better on state trust lands than on comparable parcels managed under other regimes. Hence we cannot evaluate the effectiveness of trustees' efforts to protect the productive capacity of the trust, nor can we compare it to federal or private regimes (Souder and Fairfax 1996, p.297).

The replies to these questions indicate that the trust concept is flexible and may be able to incorporate all of these concerns as part of the trust instrument used by the settlor, which would have to be the U.S. Congress, to establish a federal land management trust.

Summary and Conclusions.— We consider the trust land management alternative not from the standpoint that federal lands should be managed like state lands; rather, the trust model used to manage state lands has some features that could be applied to federal lands to create the sustainable resource management that everyone seems to want, but no one seems to be able to do under the current institutional arrangements.

The arguments for and against management of federal land under the trust concept are summarized in Table 5-9.

Our conclusion on the trust model is heavily influenced by the conclusion expressed by Souder and Fairfax (1996) in the closing paragraph of their book:

> With all resource management agencies—federal, state, and local—searching for ways to operate more efficiently, downsizing, and looking for opportunities to gain returns from resource management programs, the time is right for a resurgence of attention to these long ignored [state trust] lands [and] the lens they provide for exploring our nation's public resource management experiences and traditions. Trust land management is our nation's most ancient and durable resource policy (Souder and Fairfax 1996, p.300).

Table 5-9. Arguments for and against trust land management.

Arguments For	Arguments Against
Model is in widespread use: 135 million acres of state land in 22 states; fifteen million acres of private land.	Legislation required to establish the trust.
Clarity of mission statement.	Perception that the only purpose of trust is revenue generation.
Perpetuity principle enhances sustainable resource management to conserve the principle assets of the fund.	Lack of research data to show that trust land management results in better biophysical resource conditions.
Enforceable through fiduciary responsibility of trustees and managers to beneficiaries.	Selection of inclusive groups of trustees to represent various resource interests, and national as well as local perspectives.
Managers accountable to report financial transactions.	Trust concept is somewhat complex.
Public involvement opportunities are the same as under the current situation.	Perception that there may be fewer opportunities for public involvement.
Stable source of funding for resource management and local communities.	Start-up funds and safety net funds may be required.
Fewer lawsuits and broad appeal processes that hinder on-the-ground projects.	Limits of parties that can sue to the beneficiaries except for third party actions under NEPA, CWA, and ESA.

Cooperative State/Federal Management. This alternative is an arrangement where federal, state, and local interests agree to accomplish a mutually beneficial objective through a written agreement under which parties accept certain responsibilities and contribute resources.

The objective of the agreement is clearly stated, as are the specific responsibilities and contributions of all parties to the agreement. This clarity of purpose is accompanied by clear accountability. Since the agreement is in writing, usually in the form of a Memorandum of Agreement (MOA), all parties are fully informed of the obligations of the other parties and therefore can gauge the success and seriousness of every party in meeting those obligations.

Examples of agencies and private parties working cooperatively to accomplish land management objectives under the terms of an MOA abound. Many are task specific. For example, six different state and federal agencies in the State of Idaho are parties to an MOA providing for compliance with the federal Clean Water Act in silvicultural activities. The MOA not only provides for individual agency responsibilities on the land they manage, it provides for mutual accountability through random field audits of silvicultural operations.

Examples of a cooperative arrangement on a broader scale are less common. The City of Rocks National Reserve south of Burley, Idaho, near the Utah border, is one such example. In addition to its natural beauty, the City of Rocks has a significant cultural history as a camp site for the Shoshone Indians as well as emigrants traveling the California Trail.

As part of the Arizona-Idaho Conservation Act of 1988[110] which created the City of Rocks National Reserve, the reserve became part of the National Park System. Congress specified that while the area was to remain a unit of the National Park System, management would ultimately be turned over to the state or other appropriate local governing body. Management would be guided by a comprehensive plan developed in cooperation with the state, federal, and local

governments, and local residents. The provisions of the congressional action were incorporated into a cooperative agreement that specified the duties and obligations of the National Park Service and the Idaho Department of Parks and Recreation.

The comprehensive plan was completed in 1994, and the reserve has been managed by the state of Idaho since that time in accordance with the plan. Essentially, the Idaho Department of Parks and Recreation manages the National Reserve in full compliance with applicable federal statutes and regulations under a contractual agreement with the National Park Service.

The legislation establishing the reserve also provided federal funding for the development of the management plan and the operation of the reserve. The cooperative agreement requires periodic review and renewal, and includes a clause allowing either party to withdraw, thereby enhancing accountability between the cooperators.

The City of Rocks National Reserve demonstrates that the cooperative model can work to accomplish management of federal land under agreement between federal and state agencies. The application of this model to a larger, more diverse and complex block of land is possible. Congressional action authorizing the arrangement and delineating the objectives, responsibilities, and funding would be required.

Another potential example of this alternative is a current legislative proposal[111] to designate a Mountain Home Air Force Base training range that would be cooperatively managed by federal agencies and the state of Idaho (D. Toweill, personal communication).

Summary and Conclusions.— Arguments for and against the cooperative state/federal management alternative are summarized in Table 5-10.

This alternative is working for the City of Rocks National Reserve in southern Idaho, a relatively small area for which the purposes and mission are clearly identified. Whether or not this model can be applied to larger areas with more complex missions is not clear.

Table 5-10. Arguments for and against cooperative state/federal management.

Arguments For	Arguments Against
Localizes decision-making process.	The final authority for federal land decisions should not be local.
Agreements may be structured in a variety of ways to meet the needs of federal, state, and local interests.	Legislation would be required to vest cooperative managers with decision-making authority.
Cooperative management is currently used successfully; the City of Rocks National Reserve in southern Idaho is one example.	Cooperative management may not be effective for large areas of land managed under a multiple-use mission.
This model allows federal land to be managed under less cumbersome state planning and decision-making processes.	State planning and decision-making processes are not perceived to be as comprehensive as federal processes.
The concept is simple.	The concept is too simple.

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Framework for Comparing Alternatives

Policy analysis includes the weighing of selected alternatives with selected criteria. The alternatives we have selected were described above; our criteria are described below. Our purpose is not to provide an in-depth evaluation of each alternative against the criteria, but to propose a general framework for comparison of the alternatives. We do provide a preliminary evaluation of alternatives to illustrate the complexities and difficulties that a more in-depth analysis must address.

Criteria. Our criteria have been suggested by other researchers and attempt to represent a broad array of natural resource policy objectives. Clawson (1975) suggested five categories of criteria for natural resource policy analysis: physical and biological feasibility, economic efficiency, economic equity, social and cultural acceptability, and administrative practicality.

More recently, "sustainability" has been defined as "ecologically sound, economically viable, and socially desirable" (Aplet et al. 1993), which we also propose as criteria. Souder and Fairfax (1996) use four criteria in their evaluation of trust land management: mission clarity, accountability, enforceability, and perpetuity. We have combined and adapted these suggestions into a set of criteria used to make preliminary evaluations of the alternatives (see Table 5-11, p. 95).

Each of these main categories of criteria can be divided into subcategories. For illustrative purposes, we chose to represent biophysical conditions by trees and fish. We selected trees and fish because of the importance of these resources on the federal lands in Idaho and the challenge that managing these two resources simultaneously presents. The "trees" category represents characteristics such as species composition, age class distribution, productivity, and growth and mortality. "Fish" refers generally to habitat conditions, especially as affected by riparian and upland conditions. Other resources, such as soil, vegetation, and wildlife, may be equally important to include in a full set of biophysical criteria.

In our proposed framework, economic considerations are divided into "efficiency" and "equity" categories. Efficiency describes how much benefit is received for a particular level of categories based on scale: local and national. Other subcategories based on geographic scale could also be represented in a full analysis. This could include the state or region as intermediate cost (or what is the cost of a particular level of benefit). Generally, more benefit for a given cost (greater efficiency) is desirable from an individual's and society's viewpoint, but problems arise in trying to measure benefits and costs, particularly for values that may not be traded in the marketplace (e.g., wildlife, scenic beauty). Equity describes the relationship between who receives benefits and who pays the costs of producing those benefits. Generally, arrangements where those receiving the benefits are the same as those paying the costs are seen as more equitable.

We have divided social acceptability into two between local and national concerns. Categories could also be based on some characteristic (e.g., income level, ethnic group) or interest (e.g., forest workers, recreationists) that is important in determining the social acceptability of alternatives.

Establishing sustainable patterns of resource use is one of the major environmental issues of the 1990s (Paehlke 1994). We use three key aspects of sustainability—"ecologically sound, economically viable, and socially desirable" (Aplet et al. 1993)—as a set of criteria that summarize the subcategories beneath biophysical conditions, economics, and social acceptability.

Administrative practicality reflects the importance of implementation and evaluation in policy design. We use three components for this criteria based on the work of Souder and Fairfax (1996): mission clarity, accountability, and enforceability. Mission clarity refers to the specificity of management goals for the owner or manager. Accountability is a measure of the ability to track the benefits and costs of management, particularly the financial ones, and the ability to hold the owner or manager responsible for the results of management actions. Enforceability means grievances or concerns about management actions can be addressed in either a binding administrative framework or a court of law.

We see this set of criteria as presented in

Table 5-11 as generally comprehensive without being overly detailed. Others may see the criteria as too general, which would lead to incomplete results from an analysis. However, nothing prevents the criteria from being refined as more in-depth analyses are conducted about alternatives or proposals for specific tracts of land are evaluated.

Preliminary Evaluation. A scientific, in-depth analysis of the selected alternatives is not possible for several reasons. Experiments, pilot projects, or case examples of many of these alternatives do not exist. For example, a Federal Land Management Commission that actively oversees management of federal land has never been tried, so we have no data from which to predict results. Examples of some alternatives that do exist have not dealt with the full range of issues that are inherent in federal land management. For example, City of Rocks National Reserve is an example of the cooperative state/federal management alternative, but it is a small area and as a unit of the National Park System has a relatively more specific purpose or mission than the multiple-use mandate of the Forest Service or BLM. Additionally, case examples of the alternatives that exist have not been evaluated against some of the criteria we propose. For example, Souder and Fairfax (1996) in their evaluation of the trust land management model could not reach a conclusion about whether trust land management resulted in better biophysical conditions than federal management because such research did not exist. We lack necessary information for conducting a thorough, scientific analysis of the alternatives.

The limitations of our preliminary analysis are apparent. A glance at Table 5-11 shows that for almost all alternatives and criteria our preliminary evaluation results in a mixture of viewpoints or one that depends on further analysis (✻). While this may seem like an easy way out, to do otherwise would result in evaluations based primarily on our opinions, not experimental or experiential evidence. A positive (+) or negative (–) result would depend almost entirely on the assumptions we make about the details of untried alternatives. Our opinions are no more (or less) valid than the opinions of other researchers or informed members of the public.

Mixed Results.— The preponderance of mixed results (✻) in our preliminary analysis can be explained by five factors: [1] a predictable mixture of results, [2] lack of evidence to predict results, [3] results that are heavily dependent on assumptions, [4] lack of agreement on how to measure criteria, and [5] lack of scientific agreement on results. Often a mixture of these factors exists. Examples of each factor are provided below.

[1] *A predictable mixture of results.* The complexity of issues involved in changing federal land management results in a mixture of effects. For example, some people suggest that selling the federal lands would be more socially acceptable to the local public than current management arrangements. This is based primarily on the views of people whose jobs depend on resources extracted from the land, and the assumption that control of the resources by private entities at the local level would be more acceptable. However, that may not hold. Local constituencies also may be accustomed to free, unrestricted access to federal lands for recreation. This could change to fee-based or more restrictive access with a change to private ownership. From the perspective of recreational access, local social acceptability could be reduced. Hence, a mixed viewpoint result (✻) is assigned.

[2] *Lack of evidence to predict results.* As mentioned above, many of these alternatives have not been tried either at the scale of or in a setting similar to federal land management so we are unable to predict results based on experimental or experiential evidence. For example, would a Federal Land Management Commission be more socially acceptable to local interests? It would depend on how responsive the commission is to local issues. That would depend upon the institutional arrangements under which the commission operates and who the commissioners are. Would the leasing of federal lands result in positive (or negative) changes in economic equity? It would depend on the terms and conditions of the lease and who were eligible lessees. We do not have enough evidence from similar cases to make informed judgments about some of these alternatives and criteria; thus, an inconclusive result (✻) is assigned.

Table 5-11. Framework for comparing alternatives for managing federal lands, with preliminary evaluations.

Categories of Alternatives / Alternatives	Comparison Criteria[1]											
	Biophysical Conditions (BC)[2]		Economics (E)[2]		Social Acceptability (SA)[2]		"Sustainability"[3]			Administrative Practicality[4]		
	Trees[5]	Fish[5]	Efficiency	Equity	Local	Nat'l	BC[2]	E[2]	SA[2]	Mission Clarity	Accountability	Enforceability
No Change												
Current plans + interim directions[6]	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Ecosystem-based management[7]	*	*	*	*	*	*	*	*	*	*	*	*
Change Ownership												
Land sale	*	*	*	*	*	—	*	*	*	—	—	+
Ownership transfer to states	*	*	*	*	*	*	*	*	*	*	*	*
Change Rules for Management												
Economic-based reforms	*	*	+	+	*	*	*	*	*	*	*	*
Land leasing	*	*	*	*	*	*	*	*	*	*	*	*
Federal Land Mgmt. Commission	*	*	*	*	*	*	*	*	*	*	*	*
Local advisory council	*	*	*	*	+	—	*	*	*	*	*	*
Trust land management	*	*	*	*	*	*	*	*	*	+	+	+
Cooperative state/federal mgmt.	*	*	*	*	+	*	*	*	*	*	*	*

Key: NC is no change from current management direction; + is positive change; — is negative change; * is a mixture of viewpoints on change, subject to debate with results dependent on more specific criteria and/or more thorough analysis.

[1] With the exception of "Sustainability" this is the full set of criteria suggested by Clawson (1975) as necessary for comparing forest policy alternatives.

[2] The abbreviations for Biophysical Conditions (BC), Economics (E), and Social Acceptability (SA) are used in the "Sustainability" column.

[3] "Sustainability" means "ecologically sound, economically viable, and socially desirable" (Aplet et al. 1993). This column displays a summary of the biophysical, economic, and social acceptability criteria, but does not attempt to integrate them into a single criterion for "sustainability." Data represent the "average" of the analysis in the (BC), (E), and (SA) columns; if a cell in those columns contained a *, the corresponding "sustainability" cell also would have *.

[4] The criteria for administrative practicality are from Souder and Fairfax (1996) who use them to assess the trust land management alternative; their "perpetuity" criterion is represented here with "sustainability."

[5] Trees and fish are only two of the many important biophysical components of the resource base. Trees and fish were selected because of the deteriorating conditions for both resources on federal lands in Idaho. Tradeoffs between the two need to be considered.

[6] Current land-use plans under the National Forest Management Act and Federal Lands Policy and Management Act, plus "interim directions" for riparian area management to protect fish habitat. This is Alternative 2 in the Upper Columbia River Basin Draft EIS (UCRB-DEIS 1997).

[7] Ecosystem-based management as represented by the Preferred Alternative (Alternative 4) in the UCRB Draft EIS (1997).

[3] *Results are heavily dependent on assumptions.* Because we don't have many relevant models to follow, assumptions play a critical role in evaluation. For example, will selling federal lands result in better tree conditions? If we assume that forest industry purchases the land, the result will probably be forests with younger trees, an even age distribution, higher tree growth rates, and species that are commercially favorable. If, however, we assume that environmental groups also purchase forest land, then we will probably see forests of older, larger trees, with perhaps a different mix of species. If land is sold for commercial development, then we may see lands converted from forests to other uses. A prediction of the results of the sale of land is highly dependent on the assumptions we make about who buys the land; we assigned a mixed result (*).

[4] *Lack of agreement on how to measure criteria.* Social acceptability is an example of a criterion that is difficult to measure. Do we look at public opinion, the positions of interest groups, or legislative action? Do we look for unanimity, consensus, or a majority? For example, the lack of a congressional majority willing to change federal land management from its current direction towards ecosystem-based management may indicate that nationally the current situation and the Preferred Alternative in ICBEMP are socially acceptable. From a different perspective, national forest industry organizations as well as national environmental groups have found faults with the ICBEMP Preferred Alternative. Our ability to measure and agree on measures of some criteria needs further refinement before we can assign something other than an inconclusive result (*).

[5] *Lack of scientific agreement on results.* Some of the criteria for which we have scientific results still do not provide us with conclusive answers. For example, how will conditions for fish change if federal land management changes from its current direction to the Preferred Alternative in ICBEMP? Scientific opinions about the risks to fisheries from the buildup of fuels in riparian areas differ. Some scientists believe that not treating these fuels—using silvicultural activities such as harvesting, thinning, and prescribed burning—will result in fires that worsen conditions for fish. Others believe that the risks to fish associated with the fuels are less than the risks imposed by the activities that reduce the amount of fuels. The alternative receives a mixed result for fish (*).

Conclusions.— We included positive (+) or negative (–) evaluations in the few instances where we believe historical experience, experimental evidence, or logical reasoning support such a judgment. Trust land management is one of the few alternatives where models exist and some judgment can be made. After thorough study of the trust model applied to state school trust lands, Souder and Fairfax (1996) suggested that the trust model has a more clear mission and is more accountable and enforceable than current federal land management. We therefore give this alternative all positive (+) marks in administrative practicality. Souder and Fairfax (1996) also argue that trust management is more sustainable; however, because they were unable to find evidence that biophysical conditions were improved under trust management, we do not reach a positive result under our sustainability criteria.

We have much experience in the U.S. with private land ownership and management; therefore, many of our conclusive evaluations appear in this alternative. We assigned a negative (–) result for social acceptability at the national level for selling federal land. Based on the historical experience of the Sagebrush Rebellion of the early 1980s, this alternative does not appear to be acceptable nationally. We gave a positive mark (+) to the criteria of mission clarity, accountability, and enforceability for selling land. Private property owners tend to have more explicit objectives about management than the public as a whole. This does not mean that the objectives result in better or worse management from the social perspective than the current direction; it simply means they are more clear. Private enterprises also tend to track financial costs and benefits closely; thus, they would probably be more accountable. And we have an extensive and well-developed legal history of procedures available to private individuals to enforce their rights or address grievances between property owners. These tend to be clearer than enforceability provisions for the public interest.

It seems logical to us that local advisory councils would tend to make decisions using collaborative processes that would tend to favor local interests and disfavor national interests;

therefore, we assigned a positive (+) evaluation to local social acceptability and a negative (–) evaluation to national social acceptability. We also assigned positive (+) results to economic-based reforms for the criteria of efficiency and equity. This seems logical to us because these criteria would be the primary reasons for undertaking this alternative.

Although our leading example of cooperative management, City of Rocks National Reserve, has a clear mission, it is perhaps no clearer than any other unit of the National Park System. It does not seem logical that managers are more accountable or that enforceability is enhanced merely because the area is under cooperative management rather than single agency management. An in-depth analysis could evaluate the situation. It does seem evident to us that local involvement has been enhanced, rating a (+) on local social acceptability. An on-site visit provided anecdotal evidence that biophysical resource conditions had improved over what they were a decade ago. The resource base here includes unusual rock formations, recreation access and use, historical cultural features, and some seasonal livestock grazing.

As optimistic policy analysts, we could opine that all the alternatives could be crafted such that they would result in positive change for all criteria. However, the reality is that each alternative will result in winners and losers—ecologically, economically, socially, and politically. Trade-offs will have to be made. For any of these alternatives, the answers to whether or not they will result in better management of the federal lands will rest in the details of actual proposals. Improvements to the current situation will not likely result from plunging blindly and wholeheartedly into one alternative, but through the development of carefully designed pilot projects and experiments that allow gathering more information about the strengths and weaknesses of each alternative. Adaptive management is the key.

Conclusions

The federal lands are in a situation many people describe as gridlock. A review of the literature reveals very little support for maintaining this situation. Change is in the wind, but it is not clear where it will come from, nor when.

Federal land management is fundamentally about politics, the gain and loss of individual wealth and welfare through the political process (Huffman 1994). The essential point is that management decisions of government are always political. Politicians and citizens alike often argue that politics should not interfere with public lands management. This reflects naivete on the part of citizens. When politicians make the same argument, "it is a disingenuous effort to trump the claims of other political interests" (Huffman 1994).

Federal land and resource management boils down to the question, who has the power to make decisions? Ecosystem management or scientific management cannot escape the essential political nature of managing public lands. Huffman (1989) suggests we should call the federal lands what they really are—"political lands." The power for federal lands decisions lies in politics

Debates about ecosystem-based management are really debates about the desired state of the ecosystem, and secondarily about managing the ecosystem to achieve the desired state (Lackey 1998). The desired state is key, and it is based on human values. These are the subject of, pejoratively speaking, "politics" and, supportively speaking, "democracy." Our society finds it difficult to debate values, instead preferring to debate science issues as a surrogate for values and priorities (Lackey 1998).

Public involvement has also become a norm, and it would be ill-advised to attempt any new arrangements for federal land decisions without including adequate opportunities for public involvement. Indeed, meaningful public involvement is a good reason why alternatives to the current situation should be considered.

Public concern for the federal lands makes selling them almost out of the question as a feasible alternative. But that is not to say that one-fourth of the nation's land should be in federal ownership. The appropriate percentage may be more or less than that. The point is that it is possible to change management without changing the current ownership situation. As Sax (1984) points out, it is not who owns the land that is important to society, but how control is exerted over what is done with the land.

Wilkinson's (1995) observation is a relevant conclusion: "Public land policy needs reform. We

need to involve local citizens and governments more extensively, collaboratively, and better in public lands decisions."

The statutory purpose of lands managed by the Forest Service and BLM is the concept of "multiple use." This gives the agencies discretion that is virtually unreviewable by the judiciary. Instead, concerns about land management surface in arguments about environmental quality and due process for environmental analysis. Why don't we debate purpose and mission of the federal lands instead? "Multiple use" is why. Scholars that run the list from A to Z have pointed out that the "multiple-use" idea is more useful as a slogan or philosophy than a practical guide for resource management (Cubbage et al. 1993). The existing multiple-use model needs some rethinking:

> For far too long, we have proceeded as if the multiple-use concept—most particularly as practiced by the U.S. Forest Service—were the only feasible approach to resource development. The implicit dictum of a century of federal resource management is simple: forbid all resource development (as in a park or wilderness development), or follow the Forest Service's multiple-use model. As the Forest Service model becomes more and more widely recognized as a failure, or as falling apart, or both, the quest for *new visions* of public resource management grows increasingly urgent. And as we begin to recognize that sustainable use, rather than destructive use or abstinent nonuse, is the most pressing challenge, the utility of the trust lands model becomes increasingly apparent (Souder and Fairfax 1996, p.293, italicss added).

This analysis shows that the trust land management model has some strong arguments in its favor, but it is not the only *new vision* worthy of consideration. It is likely that different areas and different resources will be better suited to some *new visions* or alternative models than to others. If the current system is broken and needs to be fixed, as the U.S. Government Accounting Office argues (US-GAO 1997*a*), it is likely that several tools will be needed. Dr. Marion Clawson, who once was Director of the BLM, offered encouraging, if not inspirational, words:

> I reject any idea that we today are less imaginative and resourceful than men and women who pressed for the establishment of the national forests, national parks, and grazing districts. We too can innovate; let us try (Clawson 1984, p.232).

What should we try? Ecosystem-based management, conforming to watershed and other boundaries on the landscape, is the new direction proposed by federal agencies. This approach does not replace commodity production, but makes ecological considerations at least equal partners in the mix of multiple considerations. Legitimation of ecosystem management through public acceptance is only beginning, and is essentially on trial in the Interior Columbia River Basin, in which almost the entire state of Idaho lies. The ecosystem management approach has developed slowly and with much controversy. The problem with it may not be the underlying philosophy of balancing ecological considerations with social and economic concerns, but operating in the institutional framework that many people describe as gridlock.

Although the power to make federal land decisions lies in politics, perhaps gridlock can be alleviated to some degree by reducing the influence of politics over day-to-day land and resource management decisions. One way to do this is to charter a Federal Land Management Commission with responsibility for decisions on multiple-use lands.

There is an absence of meaningful consensus on the uses of federal lands (Floyd 1997). Speaking to the U.S. Congress for the Society of American Foresters, Floyd (1997) echoed the findings of the U.S. Government Accounting Office (US-GAO 1997*a*) when he said the lack of consensus about uses of federal land is an overarching problem. Americans have diverse views about the desired conditions of their forests and rangelands and about how these lands contribute to their quality of life. That diversity is often reflected in social conflict. Neither science nor legislation can resolve these differences. Science can bring facts to bear on resource management questions; legislation can provide processes that allow concerned citizens to resolve their differences within a framework of broad principles. The Society of American Foresters believes incremental changes in planning processes and public participation requirements will not resolve the underlying conflicts until there is a broad public consensus on the agencies' mission priorities, and a clarification of what

multiple use means, both in legislation and in practice (Floyd 1997).

Collaborative processes are held out as hope by many people that their voices will not only be heard by federal land and resource managers, but that actions will be taken when consensus is reached. This approach deserves serious consideration, and could help provide public acceptance of ecosystem-based management approaches. Successful collaboration on large-scale issues—such as forest health or salmon conservation that are so important in Idaho—seems at present to be a distant possibility, but a goal worth working toward.

The trust land management model seems to offer more potential for attaining sustainable resource management than any other existing model (Souder and Fairfax 1996). The four principles of trust land management argue for sustainability: clarity, accountability, enforceability, and perpetuity. The trust land management model can be adapted to federal land management.

Cooperative state and federal management of federal lands is a workable alterative that could perhaps be more widely applied than it currently is. In Idaho, the City of Rocks National Reserve is federal land that is being managed by the Idaho Department of Parks and Recreation under legislation in the form of an agreement with the National Park Service.[112] The arrangement seems to be working to the satisfaction of local, state, and national interests.

In the end, the struggle to implement ecosystem-based management on the federal multiple-use lands may not succeed under the current multiple-use concept. To give meaning to multiple use as a land management strategy, the divergent viewpoints of multiple user groups must come to some consensus. The current planning and decision-making arrangements seem inadequate for the task.

Appendix Table A. Idaho land ownership by category of owners, 1996.		
Land Ownership Category	**Acres in Category**	**Percent of Total Land**
Federal Agencies	**33,772,718**	**63.8%**
U.S. Forest Service[1]	20,458,283	38.6%
Bureau of Land Management[2]	11,852,354	22.4%
Department of Energy[3]	568,752	1.1%
Bureau of Reclamation[4]	475,590	0.9%
U.S. Air Force[5]	111,741	0.2%
National Park Service	97,296	0.2%
U.S. Fish & Wildlife Service[6]	89,119	0.2%
U.S. Army Corps of Engineers[7]	54,472	0.1%
Agricultural Research Service	33,110	<0.1%
Bureau of Indian Affairs	32,632	<0.1%
State of Idaho Agencies	**2,697,501**	**5.1%**
Department of Lands[8]	2,466,785	4.7%
Department of Fish & Game[9]	192,776	0.4%
Dept. of Parks & Recreation	37,940	<0.1%
Private[10]	**15,622,506**	**29.5%**
Tribal Lands[11]	**721,112**	**1.4%**
County	**96,311**	**0.2%**
Municipal	**22,972**	**<0.1%**
TOTAL LAND AREA[12]	**52,933,120**	**100.0%**
Water[13]	458,432	(not applicable)
TOTAL SURFACE AREA	53,391,552	(not applicable)

Source: *County Profiles of Idaho* (Idaho Department of Commerce 1996).
Other sources indicated by footnotes on the next page.

Source footnotes for Appendix Table A. Idaho landownership by category of owners, 1996.

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[1] *Report of the Forest Service: Fiscal Year 1996.* U.S. Department of Agriculture, Forest Service, Washington, D.C. (USDA-FS 1997).

[2] *Public Land Statistics: 1997.* Vol. 182, U.S. Department of the Interior, Washington, D.C. (USDI-BLM 1998).

[3] Confirmed by Bradley Bugger, U.S. Department of Energy, 24 November 1997.

[4] Confirmed by Connie Wensman, Bureau of Reclamation, U.S. Department of the Interior, 21 November 1997.

[5] Confirmed by Professor John Freemuth, Boise State University, 15 December 1997.

[6] *Annual Report of Lands Under Control of the U.S. Fish and Wildlife Service as of September 30, 1997.* U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. (US-FWS 1997).

[7] Confirmed by Clayton Garland, U.S. Army Corps of Engineers, 26 November 1997.

[8] Confirmed by Winston Wiggins, Idaho Department of Lands, 26 November 1997. These are "endowment lands" granted by the federal government at statehood for the purpose of supporting public schools and other institutions; they are managed under a trust concept, with all proceeds dedicated to the public institutions designated as beneficiaries.

[9] Confirmed by Tom Parker, Idaho Department of Fish and Game, 17 November 1997.

[10] Private ownership was calculated as a residual; that is, all other ownerships were summed and subtracted from the total to obtain private ownership acreage.

[11] *Lands Under Jurisdiction of the Bureau of Indian Affairs.* USDI Bureau of Indian Affairs. Available [Online]: <http://www.doi.gov/bia/realty/state.html> [17 November 1997]. This includes "Tribally Owned Trust" lands and "Individually Owned Trust" lands, but excludes the 32,632 acres of land administered by the Bureau of Indian Affairs.

[12] *Public Land Statistics: 1997.* Vol. 182, U.S. Department of the Interior, Washington, D.C. (USDI-BLM 1998); which uses *Statistical Abstract of the United States* (U.S. Bureau of the Census 1996) as source data.

[13] *Idaho's Forests, 1991.* INT-RB-88, USDA Forest Service, Ogden, Utah (Brown and Chojnacky 1996). This document reports 53,022,803 acres of land in Idaho, with a lower total for the national forests and a higher total for the BLM than appears in the agencies' annual reports (see Notes 1 and 2 above).

Appendix Table B-1. Northern Idaho communities with wood products specialization, 1995.

County	Town	Wood SR[1]	City Circle[2]
Benewah	Plummer	very high	Spokane
Benewah	St. Maries	very high	Spokane
Bonner	Clark Fork	high	Isolated
Bonner	Hope	very high	Coeur d'Alene
Bonner	Oldtown	very high	Spokane
Bonner	Ponderay	med	Coeur d'Alene
Bonner	Priest River	very high	Spokane
Bonner	Sandpoint	high	Coeur d'Alene
Boundary	Bonners Ferry	high	Isolated Trade Ctr
Boundary	Moyie Springs	very high	Isolated
Clearwater	Elk River	low	Isolated
Clearwater	Orofino	high	Isolated
Clearwater	Pierce	very high	Isolated
Clearwater	Weippe	very high	Isolated
Idaho	Cottonwood	low	Isolated
Idaho	Elk City	very high	Isolated
Idaho	Grangeville	med	Isolated Trade Ctr
Idaho	Kooskia	very high	Isolated
Idaho	Riggins	low	Isolated
Idaho	White Bird	high	Isolated
Kootenai	Athol	high	Coeur d'Alene
Kootenai	Coeur d'Alene	low	Coeur d'Alene
Kootenai	Fernan Lake	very high	Coeur d'Alene
Kootenai	Hayden	very high	Coeur d'Alene
Kootenai	Huetter	very high	Coeur d'Alene
Kootenai	Rathdrum	med	Spokane
Lewis	Kamiah	very high	Isolated
Nez Perce	Lewiston	high	Lewiston
Shoshone	Osburn	med	Isolated
Shoshone	Pinehurst	high	Coeur d'Alene

[1] Specialization Ratio = percentage of the industry's jobs in community divided by percentage of the industry's jobs in the region.

[2] City Circle means the proximity of the town to a city with a population greater than 20,000 people (within 50 miles if the city is on a freeway or 35 miles if not on a freeway) or a city with 9,000 to 20,000 people within 35 miles. Otherwise the town is "isolated." An "isolated trade center" is an isolated town with more than 1,900 people.

Source: *Economic and Social Condition of [Interior Columbia Basin] Communities* (USDA-FS 1998).

Appendix Table B-2. Southern Idaho communities with wood products specialization, 1995.

County	Town	Wood SR[1]	City Circle[2]
Ada	Meridian	low	Boise
Adams	New Meadows	very high	Isolated
Bannock	Inkom	med	Pocatello
Bannock	Lava Hot Springs	low	Pocatello
Blaine	Bellevue	very high	Isolated Trade Ctr
Boise	Horseshoe Bend	very high	Boise
Canyon	Nampa	low	Boise
Cassia	Burley	low	Twin Falls
Custer	Challis	low	Isolated
Fremont	Ashton	very high	Rexburg
Fremont	St. Anthony	very high	Rexburg
Gem	Emmett	very high	Boise
Gem	Montour	very high	Boise
Gem	Sweet	high	Boise
Gooding	Bliss	med	Twin Falls
Lemhi	Salmon	very high	Isolated Trade Ctr
Madison	Rexburg	med	Rexburg
Payette	Fruitland	very high	Ontario
Payette	Payette	high	Ontario
Teton	Driggs	very high	Rexburg
Teton	Tetonia	very high	Rexburg
Teton	Victor	very high	Rexburg
Twin Falls	Filer	very high	Twin Falls
Twin Falls	Hansen	med	Twin Falls
Twin Falls	Twin Falls	low	Twin Falls
Valley	Cascade	high	Isolated
Washington	Cambridge	very high	Isolated

[1] Specialization Ratio = percentage of the industry's jobs in community divided by percentage of the industry's jobs in the region.

[2] City Circle means the proximity of the town to a city with a population greater than 20,000 people (within 50 miles if the city is on a freeway or 35 miles if not on a freeway) or a city with 9,000 to 20,000 people within 35 miles. Otherwise the town is "isolated." An "isolated trade center" is an isolated town with more than 1,900 people.

Source: *Economic and Social Condition of [Interior Columbia Basin] Communities* (USDA-FS 1998).

ENDNOTES: LEGAL CITATIONS

1. Pre-emption Act of 1841 (ch. 16, 5 Stat. 453 [repealed 1891]).

2. Homestead Act of 1862 (ch. 75, 12 Stat. 392).

3. Desert Land Act of 1877 (ch. 107, 19 Stat. 377; 43 U.S.C. 321 to 323).

4. Timber and Stone Act of 1878 (ch. 76, 20 Stat. 46; 16 U.S.C. 601, 602).

5. Carey Act of 1894 (ch.301, sec. 4, 28 Stat. 372, 422; 43 U.S.C. 641).

6. Taylor Grazing Act (ch. 865, sec. 1, 48 Stat. 1269 [1934]; 43 U.S.C. 315 to 315n, 315o-1, 485, 1171 note).

7. Yellowstone Park Act (ch. 24, 17 Stat. 32 [1872]).

8. Migratory Bird Treaty Act of 1929 (ch. 257, 45 Stat. 1222; 16 U.S.C. 715 to 715r).

9. National Wildlife Refuge System Improvement Act of 1997 (P.L. 105-57).

10. General Revision Act of 1891 (or the "Forest Reserve Act" or, more frequently, the "Creative Act")(26 Stat. 1103; 16 U.S.C. 471 [repealed 1976]).

11. Federal Land Policy and Management Act of 1976 (or "FLPMA")(P.L. 94-579, sec. 102, 90 Stat. 2744; 43 U.S.C. 270-12 note, 315b, 315c, 315i, 661, 664, 665, 687b-2, 869, 869-1, 913c, 934 to 939, 942-1 to 942-9, 943, 944, 946 to 958, 959, 961 to 970, 1701, 1711, 1722, 1731-1748, 1753, 1761 to 1771, 1781, 1782).

12. Organic Administration Act of 1897 (or the "Forest Management Act" [Gates 1968])(ch. 2, 30 Stat. 34; 16 U.S.C. 473 to 482).

13. Transfer Act of 1905 (ch. 288, 33 Stat. 628; U.S.C. 472, 476, 495, 524, 551, 554, 614b).

14. Disposition of Receipts from National Forests Revenues Act (ch. 2907, 34 Stat. 1256 [1907]; 16 U.S.C. 499 [note]).

15. Agricultural Appropriations Act of March 4, 1907.

16. Yellowstone Park Act (see Note 7 above).

17. Antiquities Act of 1906 (ch. 3060, sec. 2, 34 Stat. 225; 16 U.S.C. 431).

18. National Park Service Act of 1916 (or, "National Park Service Organic Act")(ch. 408, 39 Stat. 535; 16 U.S.C. 1 to 4, 22, 43, 1457).

19. Taylor Grazing Act (see Note 6 above).

20. FLPMA (see Note 11 above).

21. Weeks Act of 1911 (ch. 186, 36 Stat. 961; 16 U.S.C. 480, 500, 513 to 519, 521, 552, 563).

22. Bankhead-Jones Farm Tenant Act of 1937 (ch. 517, sec. 31, 50 Stat. 525; 7 U.S.C. 1000 to 1029).

23. Taylor grazing Act (see Note 6 above).

24. FLPMA (see Note 11 above).

25. Multiple-Use Sustained-Yield Act of 1960 (or "MUSY")(P.L. 86-517, 74 Stat. 215; 16 U.S.C. 528 to 531).

26. National Forest Management Act of 1976 (or "NFMA")(P.L. 94-588, sec. 14, 90 Stat. 2949; 16 U.S.C. 472a, 476 notes, 500, 513 notes, 514 note, 515, 516, 518, 528 note, 576b, 1600, 1601, 1602, 1604, 1606, 1608 to 1614).

27. Federal Water Pollution Control Act (or "Clean Water Act" [1977 amendments])(P.L. 95-217, 91 Stat. 1566; 33 U.S.C. 1251 to 1265, 1281 to 1292, 1311 to 1328, 1341 to 1345, 1361 to 1376).

28. Endangered Species Act of 1973 (P.L. 93-205, 87 Stat. 884; 7 U.S.C. 136, 16 U.S.C. 460k-1, 460l-8, 668dd, 715i, 715s, 1362, 1371, 1372, 1402, 1531 to 1543 [sections 1531 to 1543 are generally referred to as ESA sections 2 to18]).

29. Creative Act (see Note 10 above).

30. Organic Administration Act (see Note 12 above).

31. MUSY (see Note 25 above).

32. Wilderness Act (P.L. 88-577 [1964], sec. 2, 78 Stat. 890; 16 U.S.C. 1131 to 1136).

33. NFMA (see Note 26 above).

34. National Environmental Policy Act of 1969 (or "NEPA")(P.L. 91-190, sec. 2, 83 Stat. 852; 42 U.S.C. 4321, 4331 to 4335, 4341 to 4347).

35. Forest and Rangeland Renewable Resources Planning Act of 1974 (or "RPA")(P.L. 93-378, 88 Stat 476; 16 U.S.C. 581h, 1600 to 1614).

36. Council on Environmental Quality Regulations (43 F.R. 55990 [28 November 1978]).

37. Taylor Grazing Act (see Note 6 above).

38. FLPMA (see Note 8 above).

39. Classification and Multiple Use Act of 1964 (P.L. 88-607, 78 Stat. 987; 43 U.S.C. 1411 to 1418).

40. NEPA (see Note 34 above).

41. *Natural Resources Defense Council, Inc. v. Morton*, 388 F.Supp. 829 (D.D.C. 1974).

42. "Forest Management Act" of 1897 (see Note 12 above), otherwise known as the Organic Administration Act for the forest reserves, which later became the national forests.

43. Creative Act (see Note 10 above).

44. Organic Administration Act (see Note 12 above).

45. Transfer Act (see Note 13 above).

46. Clean Air Act (ch. 360, sec. 1, 69 Stat. 159 [1955]; 42 U.S.C. 7401 to 7642).

47. Clean Water Act (see Note 27 above).

48. Migratory Bird Treaty Act of 1918 (ch. 128, 40 Stat. 755; 16 U.S.C. 703 to 711).

49. Wild Horses and Burros Protection Act of 1971 (P.L. 92-195, 85 Stat. 649; 16 U.S.C. 1331 to 1338, 1338a, 1339, 1340).

50. NEPA (see Note 34 above).

51. ESA sec. 7 (see Note 28 above).

52. Knutson-Vandenberg Act of 1930 (ch. 416, 46 Stat. 527; 16 U.S.C. 576 to 576b).

53. United States Constitution, Article 4, sec. 3(2) (Property Clause).

54. Idaho Constitution, Article 21, sec. 19.

55. Idaho Constitution, Article 7, sec. 4.

56. *Johnson v. M'Intosh*, 21 U.S. (8 Wheat.) 543 (1823).

57. *Martin v. Waddell*, 41 U.S. (16 Pet.) 367 (1842).

58. *Pollard v. Hagen*, 44 U.S. (3 How.) 212 (1845).

59. For example, *Fort Leavenworth RR. v. Lowe*, 114 U.S. 525 (1885).

60. *Fort Leavenworth RR. v. Lowe* (see Note 59 above).

61. *Ventura County v. Gulf Oil Corp.*, 601 F.2d 1080 (9th Cir. 1979); see also *Nevada v. Watkins*, 914 F.2d 1545 (9th Cir. 1990) (siting of nuclear waste facility in violation of state law justified solely on the basis of the property clause).

62. *Wilcox v. McConnel*, 38 U.S. (13 Pet.) 498 (1839).

63. *Wilcox v. McConnel* (see Note 34 above).

64. *Camfield v. United States*, 167 U.S. 518 (1897).

65. *Light v. United States*, 220 U.S. 523 (1911).

66. *Kleppe v. New Mexico*, 426 U.S. 529 (1976).

67. *Minnesota v. Block*, 660 F.2d 1240 (8th Cir. 1982) (prohibition of motorized use of state and private land within a wilderness area).

68. *Illinois Central RR. v. Illinois*, 146 U.S. 387 (1892).

69. *Pollard v. Hagen* (see Note 58 above).

70. *Light v. United States* (see Note 65 above).

71. *Pollard v. Hagen* (see Note 58 above).

72. *Light v. United States* at 537 (see Note 65 above).

73. *Kootenai Envt'l. Alliance v. Panhandle Yacht Club*, 105 Ida. 722, 671 P.2d 1085 (1983).

74. *Light v. United States* (see Note 65 above).

75. Idaho Code sec. 58-104(10) [1996].

76. *Kleppe v. New Mexico*, 426 U.S. 529 (1976).

77. *Granite Rock Co. v. California Coastal Comm'n*, 768 F.2d 1077 (9th Cir. 1985), *rev'd*, 480 U.S. 572 (1987).

78. National Forest Revenues Act of 1908 (or, more frequently, the "Twenty-five Percent Fund")(ch. 192, 35 Stat. 251; 16 U.S.C. 500, 553; 31 U.S.C. 534).

79. Payment in Lieu of Taxes Act of 1976 (or "PILT")(P.L. 94-565, 90 Stat. 2662; 31 U.S.C. 1601 to 1607).

80. PILT (see Note 79 above).

81. Mineral Leasing Act of 1920 (30 U.S.C. 181 to 287).

82. Taylor Grazing Act (see Note 6 above).

83. National Forest Revenues Act (see Note 78 above).

84. Bankhead-Jones Farm Tenant Act (see Note 22 above).

85. Mineral Leasing for Acquired Lands Act (30 U.S.C. 351).

86. Mineral Leasing for Acquired Lands Act (see Note 85 above).

87. *Lawrence County v. Lead-Deadwood School Dist.*, 469 U.S. 256 (1985).

88. Payment in Lieu of Taxes Act of 1994 (P.L. 103-397, 108 Stat. 4156; 31 U.S.C. 6901 to 6907.

89. *Pacific Rivers Council v. Thomas*, 873 F.Supp. 365 (Idaho 1995).

90. *Pacific Rivers Council v. Robertson*, 854 F.Supp. 713 (D.Or. 1993).

91. S.1031, To Transfer the Lands Administered by the Bureau of Land Management To the States in which the Lands are Located, 104th Congress.

92. Idaho Code sec. 58-104(10) [1996].

93. H.R.2413, Tongass Transfer and Transition Act, 104th Congress.

94. S.976, To Transfer Management of the Tishomingo National Wildlife Refuge in Oklahoma to the State of Oklahoma, and for Other Purposes, 104th Congress.

95. H.260, the National Park System Reform Act of 1995, 104th Congress.

96. S.1693, Vision 2020 National Parks System Restoration Act, and H.R.1728, National Park System New Areas Study Act, 105th Congress.

97. S.1254, Federal Lands Management Adjustment Act, 105th Congress.

98. RPA, NFMA, FLPMA (see Notes 35, 26, 11, respectively, above).

99. 39 U.S. (14 Pet.) 526 (1840).

100. Idaho Code sec. 58-310.

101. 43 U.S.C. 1752c.

102. Administrative Dispute Resolution Act of 1990 (or "ADR Act")(P.L. 101-552, 104 Stat. 2736, sec. 571 et seq.; 5 U.S.C. 571).

103. H.R.858, Quincy Library Group Forest Recovery and Economic Stability Act of 1997, 105th Congress.

104. S.1028, Quincy Library Group Forest Recovery and Economic Stability Act of 1997, 105th Congress.

105. H.R.858, S.1028, 105th Congress (see Notes 103, 104 above).

106. *NRDC v. Morton* (see Note 41 above).

107. ADR Act of 1990 (see Note 102 above).

108. *Colorado State Board of Land Commissioners v. Colorado Mined Land Reclamation Board*, 809 P.2d 974 (Col. 1991).

109. *National Parks and Conservation Association v. Board of State Lands* (No. 880022, 24 June 1993, at 17).

110. Arizona-Idaho Conservation Act of 1988 (P.L. 100-696, sec. 201, 102 Stat. 4573; 16 U.S.C. 460yy).

111. S.2057, Strom Thurmond National Defense Authorization Act for Fiscal Year 1999, sec. 2909, 105th Congress.

112. Arizona-Idaho Conservation Act of 1988 (see Note 110 above).

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GLOSSARY

Acquired Lands.— Lands the U.S. acquired from private or state owners by gift, purchase, exchange, or condemnation. In most cases these lands have been "reacquired" (Coggins et al. 1993).

Biodiversity.— The variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems (Quigley and Arbelbide 1997).

Deadlock.— State of affairs in which progress is impossible; complete standstill (*American College Dictionary).*

Ecological Integrity.— [1] Refers to the degree to which the elements of biodiversity and the functions that link them together and sustain the entire system are complete and capable of performing desired functions; the quality of being complete; a sense of wholeness (UCRB-DEIS 1997). [2] "Integrity refers to conditions under little or no influence from human actions" (Angermeier and Karr 1994, Steedman 1994). [3] A state of ecosystem development that is optimized for its geographic location, including energy input, available water, nutrients, and colonization history (Woodley 1993).

Entered.— To go upon land for the purpose of taking possession if it. The entering is preliminary to the taking possession. Under the provisions of the land laws of the United States, the term "entry" denotes the filing at the land-office of the documents required to found a claim for a homestead or preemption right, and as preliminary to the issuing of a patent for the land. *Homestead entry* is for the purpose of acquiring title to a portion of the public domain under the homestead laws, consisting of an affidavit of the claimant's right to enter, a formal application for the land, and payment of the money required (Black 1990).

Entitlement Lands.— Federal lands for which local governments are "entitled" to receive Payment in Lieu of Taxes (PILT).

Entry.— An application to acquire title to public lands (USDI-BLM 1998).

Federalism.— Federalism is a way of organizing a nation's government so that two or more levels of the government have formal authority over the same areas and people (Lineberry et al 1995). For example, the state of Idaho has formal authority over its residents, but the national government also passes laws and establishes policies that govern the people in Idaho.

Federal Land.— All classes of land owned by the Federal Government (USDI-BLM 1998).

Grazing District.— An administrative subdivision of the rangelands under jurisdiction of the Bureau of Land Management established pursuant to Section 3 of the Taylor Grazing Act to facilitate management of rangeland resources (USDI-BLM 1998).

Grazing Permit.— An authorization that permits the grazing of specified number and class of livestock on a designated area of grazing district lands during specified seasons each year (Section 3 of the Taylor Grazing Act (USDI-BLM 1998).

Gridlock.— The inability to resolve conflicts in a decision-making body, such as Congress or the bureaucratic agencies, which results in government inaction in the face of important political problems. There is no consensus as to what to do and therefore no movement in any direction. (Kraft 1995).

Health.— "The capacity of forest, rangeland, and aquatic ecosystems to persist and perform as expected or desired in a particular area" (UCRB-DEIS 1997).

Lease.— [1] The transfer of control to someone other than an owner of some part of the bundle of rights that go with ownership of property for a specified period of time and for agreed-upon uses in exchange for periodic payment (Clawson 1983, Black 1990). [2] An authorization to possess and use public land for a period of time sufficient to amortize capital investments in the land (USDI-BLM 1998).

Multiple Use.— [1] The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people (16 U.S.C. §531(4)(a)). [2] A combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, and wildlife and fish, along with natural scenic, scientific, and historical values (USDI-BLM 1998).

Ownership.— Holding of exclusive, but not absolute, rights. Ownership rights are always limited and conditioned by the overall interests of society and administered by the state or federal governments. Because of their public nature, four important items are never included in the rights of ownership. These are the public right of *taxation*, *taking* for public use, *regulation*, and *escheat* (Barlowe 1978).

Patent.— The instrument by which a state or government grants public lands to an individual (Black 1990).

Pre-emption Right.— The right given to settlers upon the public lands of the United States to purchase them at a limited price in preference to others (Black 1990).

Public Domain.— First used to refer to lands acquired by the United States from other sovereigns, including Indian tribes and other countries. It has also taken on the meaning of lands open to entry and settlement which virtually does not exist any more (Coggins et al. 1993). It can also be described as the original public domain lands that have never left federal ownership; also, lands in Federal ownership that were obtained by the government in exchange for public domain land or for timber on public domain lands. One category of public lands (USDI-BLM 1998).

Public Domain States.— States within the United States' boundaries containing public domain.

Public Land Law.— Those statutes, rules, practices, and common law doctrines that define who has a right to own or use a parcel of federal land or its tangible resources (Coggins et al. 1993).

Public Land States.— Refers to the 30 states that made up the public domain at its greatest extent. These states are Alabama, Alaska, Arizona, Arkansas, California, Colorado, Florida, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Mexico, North Dakota, Ohio, Oklahoma, Oregon, South Dakota, Utah, Washington, Wisconsin, and Wyoming.

Public Lands.— All lands owned by the United States. Or, as defined by Congress in a 1979 statute, all federally-owned lands for limited purposes (Coggins et al. 1993). Also, any land and interest in land owned by the United States that are administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership, except for (1) lands located on the Outer Continental Shelf, and (2) land held for the benefit of Indians, Aleuts, and Eskimos. Includes public domain and acquired lands (USDI-BLM 1998).

Reserved Lands.— Federal lands that are dedicated or set aside for a specific public purpose or program and that are, therefore, generally not subject to disposition under the operation of all the public land laws (USDI-BLM 1998).

Settlement.— Available for settling by a *settler*. A *settler* is a person who, for the purpose of acquiring a pre-emption right, has gone upon a piece of land open for *settlement*, and actually resides there (Black 1990).

Species Diversity.— *Diversity* refers to the of the number of different species and the quantity of each species present in an area. A combination of *richness* and *abundance* (Robinson and Bolen 1984).

Species Richness.— The number of different species present in an area (Robinson and Bolen 1984).

Stakeholder.— Those people who are responsible for problems or issues, those who are affected by them, those whose perspectives or knowledge are needed to develop good solutions or strategies, and those who have the power and resources to block or implement solutions and strategies (Chrislip and Larson 1994, p.65).

Suitable Timberland.— Land to be managed for timber production on a regulated basis, these are national forests lands identified during the development and publication of a national forest land and resource management plan under the National Forest Management Act of 1976.

Sustained Yield.— The achievement and maintenance in perpetuity of a high-level annual, or regular periodic, output of the various renewable resources of the public lands consistent with multiple use (USDI-BLM 1998).

Timberland.— Forest land where timber species make up at least 10 percent stocking (Brown and Chojnacky 1996).

Wilderness.— An area of undeveloped Federal land retaining its primeval character and influence, without permanent improvement or habitation, that is protected and managed so as to preserve its natural conditions and that [1] generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; [2] has outstanding opportunities for solitude or a primitive and unconfined type or recreation; [3] has at least 5,000 acres of land or is of sufficient size as to make practicable its preservations and use in an unimpaired condition; and [4] may also contain ecological, geological, or other fea-tures of scientific, educational, scenic, or historical value (USDI-BLM 1998).

Withdrawal.—An action that restricts the disposition of public lands and that holds them for specific public purposes; also, public lands that have been dedicated to public purposes (USDI-BLM 1998).

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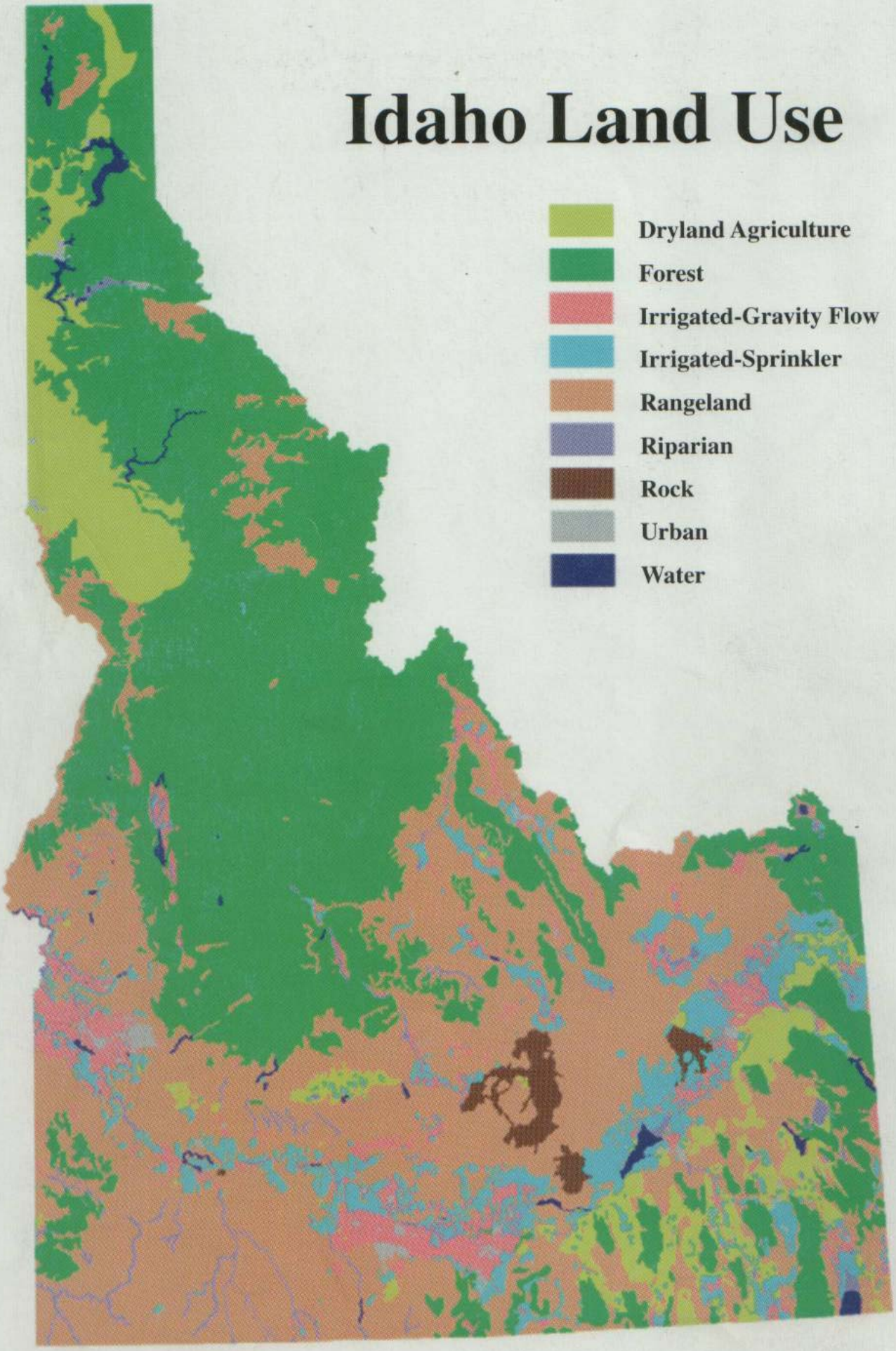
Idaho Land Use