United States
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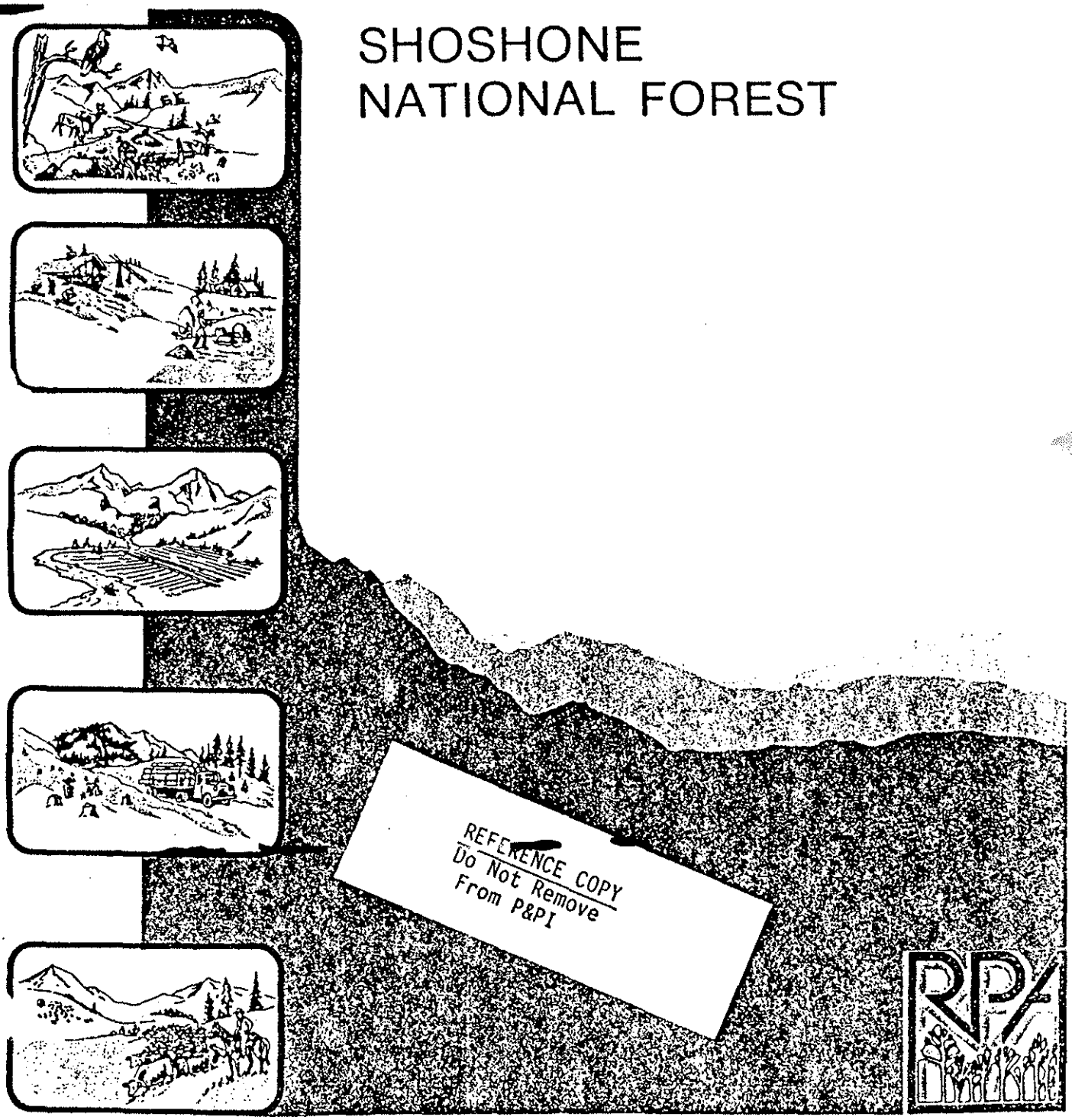
Forest Service

Cody, Wyoming

LAND AND RESOURCE MANAGEMENT PLAN

SHOSHONE NATIONAL FOREST



FINAL ENVIRONMENTAL IMPACT STATEMENT
RECORD OF DECISION

For the

SHOSHONE NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN

Park, Fremont, Sublette, Teton and Hot Springs Counties, Wyoming

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FOR
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I. INTRODUCTION

This Record of Decision documents the approval and rationale for approval of the Land and Resource Management Plan (the Plan) for the Shoshone National Forest (the Forest). Included is a discussion of the issues and concerns which alternative plans were designed to address, a summary of all alternatives, identification of the environmentally preferrable alternative, the most cost efficient alternatives, and comparisons between these and the Plan. These discussions and comparisons provide the rationale used to select the Plan.

The area covered by the Plan is located in northwestern Wyoming and contains 2,433,125 acres of National Forest System land. The Plan is a program for all natural resource management activities and contains specific management actions for the years 1986 to 1995. The Plan period is defined in the planning regulations required by the National Forest Management Act (NFMA) as one decade (36 CFR 219.3), while the law permits a 15 year maximum time between Plan revisions (16 USC 1604(f)(5)). Within the Plan period conditions on the Forest will be reanalyzed and a revised plan developed (36 CFR 219.10(g) and 16 USC 1604(f)(5)).

The final Environmental Impact Statement (EIS) describes a proposed action (the Plan) and alternatives to the proposed action. It also describes the environment to be affected and discloses the potential environmental consequences of implementing the proposed action and alternatives to the proposed action.

This EIS and Plan were developed under the implementing regulations of the NFMA, Title 36, Code of Federal Regulations, Part 219 (36 CFR 219) published in 47 FR 43026 on September 30, 1982; and National Environmental Policy Act (NEPA), Council on Environmental Quality, Title 40, Code of Federal Regulations, Parts 1500-1508 (40 CFR 1500-1508).

Information and comparisons presented in the EIS are used in selecting a preferred alternative. Within the EIS, management actions and levels of goods and services until 2030 are projected for two purposes: (1) To present a long-term estimate of the ability to achieve and maintain in perpetuity a high level of goods and services of the various resources without impairing the productivity of the land (16 USC 531); and (2) The Forest and Rangeland Renewable Resources Planning Act (RPA) five year program for the National Forests requires information for four decades beyond the Plan period (16 USC 1602). The projection of levels of goods and services and activities beyond the Plan period, although required by law, does not legally bind the Forest to action beyond the Plan period since, as noted above, the Forest is required to revise the Plan within 15 years of its development and the revision may establish different long-term goals with different future projections.

The Plan and alternatives were developed through analysis of alternative management strategies for geographically defined areas on the Forest. The intent of each of these strategies is to achieve a specific mix of forest conditions (goals) that when achieved will provide a mix of goods and services necessary to address issues and concerns. Because of the site

specific nature of this analysis, all proposals in the Plan can be accomplished from a physical, biological, economic, and legal perspective. The Standards and Guidelines included in the Forest and Management Area Direction sections (Plan, Chapter III) are key parts of the Plan. They are necessary to guide implementation of practices so that the intended forest conditions will be achieved.

The intended or proposed management activities presented for specific areas of the Forest (Plan, Appendix J) are also key elements of the Plan. They represent the proposed and probable practices that will be applied in the next 10 years. Though I am confident that all of the Plan proposals can be implemented, it is not certain they will be accomplished. First, the levels of goods and services shown in the Plan are projections. For example, the recreation visitor days of developed site capacity is an objective the Forest will strive to attain. Another example is allowable sale quantity of timber. That is the maximum volume of live green sawtimber that can be sold from suitable land over the planning period, not necessarily the volume that will be sold. Most importantly, perhaps, lower funding than indicated would probably scale down actual production.

In promulgating Land and Resource Management Plans the Forest Service is trying to satisfy two somewhat different purposes:

1. Compliance with the statutory mandate of NFMA to develop and maintain a management system so that an "interdisciplinary approach to achieve integrated consideration of physical, biological, economic and other sciences" will be applied to all future decisions (16 USC 1604(b), 1604(f), 1604(g), and 1604(i)).

2. Linkage with the RPA five-year program for the National Forest System and the 50-year assessment through current modeling techniques to make forecasts of the levels of goods and services which could be produced under the Plan and alternatives to the Plan.

The forecasts of goods and services that could be produced under the Plan and alternatives (Final EIS, Chapter II, Table II-5) are useful in making comparisons among the alternatives and the Plan. There is no assurance that the goods and services will actually occur at the projected level. This is because of the limitations of modeling and projection; and because on-the-ground conditions, changes in laws and regulations, National and local economic conditions, and appropriated budgets all affect the actual production. As with the Management Direction, the projected levels of production can be adjusted through rescheduling (amending) or revising.

The approval of this Plan marks the turning point from Plan promulgation to Plan implementation. This does not mean that public involvement is over and that all issues are decided. Public involvement will continue. The context, however, will change. The focus will now be on implementing the Plan. Specific projects and activities will be examined for conformance with the Forest Plan direction. Public involvement will be an important part of resulting environmental analyses.

The Plan can be changed through amendment or revision. The process allows the Plan to be dynamic and meet changing demands and conditions. Public

Involvement in the amendment and revision process allows the public to remain involved in the ongoing system of management of the National Forest.

The Plan provides the Forest Service and interested members of the public with a framework within which to tackle future problems in management of the Forest. As shown by the various points of view represented in Chapter VI of the FEIS, it is unlikely that the Forest Service can reconcile interests in ways satisfactory to all. In fulfilling its public trust to the people of the Nation, the Forest Service will be guided by the principles of multiple use and sustained yield and the greatest good for the greatest number in the long run. A discussion of some of the legislative authorities which apply to National Forest management is in the Preface of the Plan.

Once approved, the Plan replaces all previous resource management plans prepared for the Forest (36 CFR 219.2).

II. ISSUES AND CONCERNS

The Notice of Intent to prepare an EIS for the Plan was first published in the Federal Register on November 14, 1980. Revised Notices of Intent were published in the Federal Register on August 25, 1983, and December 17, 1984. Notices of Availability for the DEIS and proposed Forest Plan appeared in the Federal Register on July 5, 1985. The 90-day public comment period closed on October 3, 1985.

Preliminary public issues were identified during the period of 1978 to 1980 through informal communication networks, formal scoping letters and by reviewing articles from area newspapers. The result was identification of 203 public issues. Preliminary management concerns were identified in 1980 by the Forest Management Team. Over the course of the planning process, additional issues and concerns surfaced. This continuing process is documented on pages VI-1 through VI-6, Volume II of the FEIS. The issues and concerns were consolidated into eleven Planning Problem Statements. The process used to develop them is described in Appendix A of the FEIS. They were presented in the DEIS for review and comment and, based upon the comments received, the Planning Problem Statements did not change. Planning Problem Statements established the scope of the EIS (40 CFR 1501.7 and 1508.25).

The Planning Problem Statements were developed to respond to the major public issues and management concerns considered in the Plan. They address the role of the Forest in providing dispersed recreation and developed recreation, protecting cultural resources, managing wilderness and undeveloped areas, sustaining wildlife and fish populations, livestock grazing, managing vegetation including timber harvesting, water yield and quality, producing minerals, developing and maintaining facilities, managing travel, managing fire, managing grassland, and overall efficiency. The expected future condition of the Forest, as it relates to each Planning Problem Statement, is discussed beginning on page II-33 of the Plan.

The 11 Planning Problem Statements are:

1. Balanced Timber Management for multiple resource needs.

2. Adequate variety, amount, dispersion and quality of recreation opportunites.

3. Adequate level and kind of livestock grazing.

4. Manage wilderness to best satisfy legal requirements and public needs.

5. Adequate level of road and trail system development and maintenance.

6. Adequate levels and quality habitat for wildlife and fish.

7. Manage threatened and endangered species habitat to achieve recovered populations.

8. Adequate quality, quantity and timing of water yields for Forest and non-Forest uses and other downstream uses off-Forest.

9. Adequate and appropriate fire management.

10. Appropriate level of rights-of-way acquisition, land adjustment and special land uses.

11. Mineral exploration, development and extraction.

During the 90-day comment period on the DEIS and Proposed Plan, 135 comment letters were received. Comments and responses to each of them are presented in Chapter VI of the EIS. Five areas of general interest in these comments are:

1. Oil and Gas. The oil and gas industry felt that(1) the Proposed Plan was biased against oil and gas exploration and development in that restrictions on activities were beyond that which is appropriate or provided for by law; (2) the decision to recommend lease denial in Grizzly Bear Situation I is inappropriate if not illegal; (3) too much weight was given in the planning process to local groups who oppose oil and gas activities; (4) trade-off analysis was not executed in earnest; and (5) analysis of opportunity costs of existing wilderness should have been carried out. Another group of respondents felt that oil and gas and other minerals activities should be greatly reduced or eliminated.

2. Greater Yellowstone Area. Many respondents expressed the concern that adequate consideration be given to the role of Shoshone National Forest in the Greater Yellowstone area. These concerns appear to have been prompted by increased public interest in maintaining the vitality of ecosystems in and around Yellowstone National Park. Recent issues concerning maintaining a grizzly bear population in this area, maintaining habitat for other wildlife that migrate from

National Forests to the Park seasonally, providing habitat for other wildlife species that are currently listed as threatened or endangered species such as the bald eagle and peregrine falcon, maintaining opportunities for various forms of recreation, and maintaining the vitality of geothermal areas in the Park have all played a role in increasing public interest.

3. Timber Harvest, Roads, Recreation, and Wildlife. Some respondents felt that harvest levels should be raised to improve viability of existing mills and to help with insect and disease problems. Many respondents felt that harvest and road construction levels should be lowered because of below-cost sales or impacts on wildlife and recreation. Concerns regarding below-cost sales were based upon an erroneous assessment by the public of the models used in analysis.

4. Roadless Area Management. Many respondents felt that all currently roadless areas should remain roadless and that the demand for unroaded recreation currently exceeds, and in the future will far exceed, the demand for roaded recreation. Another group of respondents expressed the view that there is already enough or perhaps too much wilderness on Shoshone National Forest and that roadless areas should be developed.

5. Clarks Fork River. Response was overwhelmingly in favor of preservation of the Clarks Fork River as a candidate for the Wild and Scenic River System. The State of Wyoming emphasized the need to preserve all options regarding management of the river.

Inclusion of the Clarks Fork River into the Wild and Scenic Rivers System has not been regarded as a major issue in the recent past because of the wide public support that recommendation has enjoyed. It has emerged as an issue since the protection period for the River expired in September of 1985.

III. ALTERNATIVES INCLUDING THE PROPOSED ACTION AND ENVIRONMENTALLY PREFERABLE ALTERNATIVES

The alternative formulation process is summarized in Chapter II of the final EIS. The composition of the alternatives changed between the draft and final EIS. The major change is the levels of goods and services (objectives), primarily timber, associated with the various alternatives as a result of public comment and new data. The goals of the alternatives remained the same. More detail on the changes made and areas of major comment are in Chapter I and Chapter IV of the final EIS.

Six alternatives were considered in detail. They were formulated by applying FORPLAN prescriptions listing specific practices for management of geographically specific areas of the Forest. Each alternative considered in detail is based upon achieving a specific set of forest conditions within each area of the Forest. Each forest condition or "Goal" was designed to produce a "multiple use" mix of goods and services. Included within each FORPLAN prescription is a set of management standards and

guidelines to ensure multiple use management and mitigation measures which protect environmental quality. The basic set of management standards and guidelines used is in Chapter III of the Forest Plan. Fewer of the standards and guidelines were needed to achieve some of the alternatives. Table IV-1 in Chapter IV of the EIS displays the relative application, by alternative, of standards and guidelines. Each alternative represents a technically and legally feasible system for managing the Forest. The alternatives address the planning problems differently; all consider anticipated changes in demand for forest resources.

Each alternative provides for management of all lands on the Forest for multiple use. Within wilderness, laws governing management are met in all alternatives. This includes integrating provisions from the Wyoming Wilderness Act of 1984 which calls for specific considerations for the Glacier Addition to the Fitzpatrick Wilderness Area, the Dunoir Special Management Unit and the High Lakes Wilderness Study Area. Based upon this Act, separate analysis of roadless areas was not done. Rather, they were included with adjoining lands in an attempt to identify the most cost efficient way to manage for multiple use to meet demands placed on the Forest.

On September 13, 1982, the President recommended to Congress that a portion of the Clarks Fork River be designated a Wild and Scenic River. The characteristics which led to the recommendation were to be protected for three years or until September 13, 1985. Although the legislative protection of the River expired, included in all alternatives are provisions intended to protect the eligibility of the Clarks Fork River for designation as a Wild and Scenic River pending Congressional action on that proposal.

A summary of the six alternatives considered in detail follows. It is important to review the description of the alternatives in Chapter II of the EIS. The brief description characterizes the alternative in terms of levels of goods and services and assignment of land use prescriptions.

ALTERNATIVE A (CURRENT DIRECTION - NO ACTION)

This alternative is designed to depict the effects of managing the Forest under goals and objectives of existing plans and policies. It is also the no-action alternative, as required by NEPA regulation 40 CFR 1502.14(c), for it depicts what would happen if no action were taken to change the current management direction on the Forest. This alternative would continue production of goods and services at current levels. In this way, it would provide support for existing industries, dependent ranchers, and existing recreation and wildlife use of the Forest. However, there are current controversies regarding the manner in which commodities are being produced on the Forest as well as with the stipulations and operating standards currently used for oil and gas leasing and operations. This alternative does not resolve these controversies because it follows current plans and policies of the Forest. It does continue past coordination efforts aimed at maintaining the vitality of those parts of the Greater Yellowstone Area related to grizzly bears, other threatened and endangered species and migratory wildlife.

ALTERNATIVE B (COMMODITY EMPHASIS)

This alternative is designed to address issues and concerns requesting a high level of production of commodity-oriented goods and services. This includes a high level of timber production, a high level of production of forage for domestic livestock, and high levels of developed recreation opportunities, including lodges and outfitters and guides. Also, to meet the commodity emphasis, stipulations and probable operating standards for oil and gas are set at levels to meet legal minimum standards for soil, water and threatened and endangered species. This alternative continues current efforts for the grizzly bear and other threatened and endangered species; however, habitat for migratory wildlife would be reduced from current levels and there would be some localized detrimental effects on visual quality caused because of the standards guiding production of commodities.

ALTERNATIVE C (NONCOMMODITY EMPHASIS)

This alternative was formulated to address issues and concerns calling for a limitation on commodity production on the Forest. The alternative provides less timber harvest and less grazing of domestic livestock. Stipulations on oil and gas leasing and operations provide protection and mitigation for soil and water, threatened and endangered species, wildlife, visuals, and recreation. These stipulations particularly, ones associated with visuals and recreation, are imposed Forest-wide. Emphases in this alternative include protection of the Greater Yellowstone Area, and protection of visual quality, high quality recreation experiences, soil productivity, water quality, wetlands and wildlife, including threatened and endangered species. Because production of timber and forage for domestic livestock would be reduced, there would be detrimental impacts on sawmills, ranchers and the economic vitality of some local communities.

ALTERNATIVE D (PREFERRED ALTERNATIVE - PROPOSED ACTION)

Issues and concerns, which this alternative was designed to address, include meeting production needs of existing dependent commercial operations including timber, ranching, outfitting, guiding, and recreation based sectors; maintaining the health of ecosystems on the Forest in recognition of their role in the Greater Yellowstone Area; providing low density recreation in areas managed for high visual quality; increasing public access to the Forest; protecting and enhancing soil, air and water resources; improving wildlife habitat; and providing for oil and gas leasing and operations on all lands currently available in a way that will blend these operations with management of physical and biological features of this Forest. Production of timber, forage for livestock, and developed recreation are at or slightly higher than levels of these goods and services produced over the last five years. Standards for this production are imposed to mitigate detrimental impacts on wildlife, visual quality and recreation uses of the Forest. This, plus direct management for

these noncommodity goods and services will result in increased production of noncommodities. This also maintains current efforts for recovery of threatened and endangered species, maintains and in some locations enhances habitat for migratory wildlife and maintains ecosystem vitality of that portion of the Greater Yellowstone Area located on the Forest. Stipulations for oil and gas leasing include protection and mitigation of impacts on soil, water, threatened and endangered species as in all alternatives. In addition, this alternative would impose stipulations to protect and mitigate impacts on visual quality and recreation similar to Alternative C. The difference is that Alternative C imposes these stipulations Forest-wide, while this alternative imposes them on specific areas based upon the management emphasis for each area,

ALTERNATIVE E (REDUCED BUDGET)

Given the budget problems of the Federal government over the last several years, this alternative was created to address the concern regarding what would happen if the budget of the Forest were reduced by 25 percent from its fiscal year 1982 level. This alternative would decrease commodity production resulting in lowered timber harvests, less available forage for domestic livestock, and less road construction. Also, there would be decreases in recreation opportunities provided and a decline in the vitality of ecosystems on the Forest. Some recreation facilities would close, access to the Forest would decrease, as would trails. This would have a detrimental effect on local communities, timber and ranching industries, recreation use and the ability to maintain those portions of the Greater Yellowstone Area located on the Forest. Forage available for wildlife would increase, primarily in summer range, even though there would be a general decline in habitat diversity. Provisions for recovery of threatened and endangered species would be met, but at a reduced level of management. Oil and gas leasing would be done using only those stipulations which protect legal minimums for air, soil, water and threatened and endangered species.

ALTERNATIVE F (RPA)

This alternative is designed to identify the costs and effects of meeting the Forest's share of levels of goods and services disaggregated in the RPA program. Livestock forage and timber production are increased over levels produced in the last five years. Also there is an increase in wildlife habitat improvements. There are also increases in most forms of recreation opportunities provided. There would be positive economic impacts on local communities because of these shifts. Standards and guidelines governing production of commodities do not mitigate short term detrimental impacts on visuals, recreation, and habitat for migratory wildlife. Stipulations for oil and gas leasing and operations meet legal mimimum protection standards for air, soil, water, and threatened and endangered species. Current programs for protecting habitat of threatened and endangered species would continue.

ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The environmentally preferable alternative is the one which promotes the National Environmental Policy as expressed in Section 101 of NEPA. This is the alternative that causes the least damage to the physical and biological environment.

Alternative C is the environmentally preferable alternative. This is based upon the low level of ground disturbance from activities such as vegetation treatment and road building and the resulting effect on the physical and biological resources. Implementation of Alternative C, however, would result in lowered vegetation diversity in some areas, higher incidence and spread of insects and disease, and more frequent and larger wildfires when compared with the Plan (Alternative D).

The Plan contains standards and guidelines to mitigate and minimize short term detrimental effects on the physical and biological environment, protects long term productivity of soil and water resources, and calls for monitoring to provide for correction of unanticipated problems.

IV. DECISION

My decision is to approve the Plan which accompanies the final EIS (Alternative D, the Proposed Action in the final EIS) for management of the Shoshone National Forest. I have reviewed the environmental consequences of the Plan and the alternatives to the Plan which are disclosed in the final EIS. I gave particular attention to public comments on the draft EIS presented in Chapter VI of the final EIS.

The planning actions described in the NFMA regulations (36 CFR 219.12(b - k)) have been completed and are properly documented.

The major aspects of this decision are:

- The Forest will be managed under the management direction in Chapter III of the Plan. All projects and activities will be consistent with requirements in Forest Direction and Management Area Direction.

- The Forest goals in Chapter III of the Plan are the basis for decisions on site-specific projects.

- Implementation of projects or activities is contingent upon funding, including funding for monitoring and mitigation.

- The output objectives for recreation, wilderness, wildlife and fish, range, timber, water, minerals, human and community service, lands, soils, facilities, and protection that are in Chapter III of the Plan on Table III-1 are the basis for budget requests.

- The Allowable Sale Quantity for the Forest (the maximum average annual amount of live green sawtimber that can be sold from land suitable for timber production) is 11.2 million board feet annually.

The Plan schedules sale of 1.23 million board feet of roundwood and fuelwood which does not count toward the Allowable Sale Quantity.

- On unsuitable timber land, there may be some timber harvested. This will be done on an irregular basis as needed to help combat insect and diseases, improve wildlife habitat, improve visual quality or in response to catastrophic events such as salvage cuts following fires. Annual volume from such cuts on unsuitable timber lands will normally be less than .5 million board feet and will not be counted toward the Allowable Sale Quantity. The Plan provides for cutting an average of 90.2 acres of aspen each year. Aspen is not a commercial species, currently. Such cuts will be done to preserve existing aspen stands and decrease encroachment by conifers to benefit vegetation and visual diversity, as well as improve and maintain wildlife habitat.

- The schedule of timber sales through 1995 is described in Appendix A. This schedule is based upon current conditions and information and, if these conditions change or new information becomes available, the timber sales program may be modified. The decision is to prepare this set of sales for advertisement. The exact amount of timber and the site-specific design and effects of these sales will be determined during project planning.

- Proposed and probable management practices are detailed for each analysis area on the Forest in Appendix J of the Plan.

- The Plan presents a process that will be followed for oil and gas lease applications, applications for exploratory wells, and oil and gas field development plans. This process calls for an environmental analysis for each of these activities. Standards and guidelines to be used for reaching decisions in these analyses are presented in Chapter III of the Plan. The process that will be used and stipulations and operating standards by land type and management emphasis are disclosed in Appendix K of the Plan. Decisions on leases, applications for exploratory wells and field development plans are not made in the Plan, but will be made on a case-by-case basis as part of a site-specific analysis.

- The schedule for construction or reconstruction of arterial and collector roads is in Appendix E and shown on the Forest Plan map. The decision is to design these roads and request funds to build these roads. The exact location, design standards, and site-specific effects of the construction will be determined and disclosed during project planning.

- The Plan proposes an increased emphasis on maintenance or improvement of soil, water and air resources, primarily through monitoring and rehabilitation projects.

- The Plan requires periodic range allotment reanalysis. Under the Plan, range is managed to attain good ecological condition as soon as practicable, but not later than the year 2000.

Forest Plan Appendices A, B and C, are schedules of site-specific activities designed to help achieve the goals and objectives of the Forest Plan. My decision, however, is not to implement each and every site-specific action without further environmental analysis. Site-specific considerations, annual budgets, and new issues and concerns can effect choice of what practices will be implemented.

Appropriate opportunities for public participation will be provided and the provisions of the National Environmental Policy Act regulations (40 CFR 1500-1508) will be followed. Site-specific analysis will be tiered to the Forest Plan EIS and will be consistent with the management strategy in the Forest Plan.

V. REASONS FOR THE DECISION

This section describes the basis for my decision. These considerations were derived from the issues, concerns and opportunities identified during the planning process, as well as from public comments on the draft EIS and proposed Plan (Chapter VI of the final EIS).

No single reason determined the decision. I considered public issues, compatibility with other public agency goals, stability of industries needed to produce projected levels of goods and services, social and economic stability, energy efficiency in terms of production and consumption, environmental quality, and economic efficiency in making the decision. All of these factors had a role in my decision.

The Plan provides for production of commodities at or slightly above that produced over the last five years. This provides the Forest's share of maintaining dependent industries including timber, ranching and recreation and has a positive impact in the currently economically depressed communities surrounding the Forest. It calls for this production to be done using standards and guidelines which are designed to benefit noncommodity goods and services where possible and/or mitigate short term detrimental impacts on wildlife habitat, recreation and visual quality.

While maintaining or slightly increasing commodity production, the Plan emphasizes goods and services such as fish and wildlife habitat, low density recreation, high visual quality, air quality, water quality, and soil productivity. This emphasis was chosen based upon the issues and concerns facing management of this Forest. Initial scoping of issues to be dealt with in the Plan indicated that a broad section of the public wasconcerned about management of noncommodity resources on the Forest.

The Forest provides habitat for a wide variety of game and nongame species including a major segment of the largest huntable population of bighorn sheep in North America, a huntable population of mountain goats, habitat for wildlife that migrate from the Forest to Yellowstone National Park, and habitat for a number of threatened and endangered species including bald eagle, peregrine falcon, and grizzly bear. Three travel routes that pass through the Forest provide access to Yellowstone and Grand Teton National Parks. These routes are Nationally recognized for their scenic beauty. All of these features were highlighted during initial scoping.

Subsequently, issues raised concerning other environmental analyses occuring while Forest planning was being done, reinforced the importance to the American public of these features. Further, comments on the Proposed Plan and Congressional hearings on the grizzly bear and the Greater Yellowstone Area not only highlighted these features, but also stressed the role of the Forest in providing for the health of ecosystems in the Greater Yellowstone Area (see Chapter VI in the EIS).

The Plan provides increases in wildlife habitat improvement projects compared with the last five years. Also, the Plan includes standards, guidelines and projects designed to maintain, and where possible improve, visual quality. More access is provided to disperse recreation use; this will lessen impacts caused by overuse and provides the type of recreation experience expected by most users of the Forest.

The assignment of stipulations and operating standards discussed in Chapter III and Appendix K of the Plan are designed to blend oil and gas operations into this multiple use management strategy for the Forest in response to issues and concerns. Currently, there are 934,990 acres on the Forest available for oil and gas leasing and operations (see minerals discussion in Chapter IV of the EIS). The Plan does not call for any of these acres to be withdrawn from mineral activity. Standard stipulations for protection of air, soil, water and threatened and endangered species are included. Further, stipulations and operating standards call for mitigation of possible detrimental impacts on wildlife, visual quality, and recreation opportunities. The procedure outlined in Appendix K of the Plan calls for assignment of stipulations based upon land types (e.g. areas of low, moderate and high hazard to soil and water resources, areas crucial for wildlife habitat, wetlands, etc.), and the management emphasis for an area. Stipulations and operating standards will be recommended based upon a site-specific analysis. This provides a balance between possible oil and gas leasing and operations and the protection of other multiple use values.

Projects, activities, standards and guidelines included in the Plan provide a cost efficient means of meeting the goals and objectives of the Plan. Analysis indicates that the planned timber program will show a positive cash flow if market conditions remain the same as they have been over the last five years. Based upon consideration of all of these factors, including monetary and non-monetary costs and benefits, in my judgment the Plan sets a course which results in the greatest net benefit to the American public.

A. Response to Public Issues

The aspects of this decision that address the Planning Problem Statements are:

- Planning Problem Statement 1 - Balanced timber management for multiple resource needs.

Alternatives C and E produce less timber than has been offered historically on the Forest. This would have a negative impact on the timber industry in the area and could lead to closing some mills. Also, this reduction in timber harvest would lead to greater problems in the future with insects, disease and fires and would lead to a decrease in habitat diversity for wildlife. Alternatives A, B and F produce more timber than has been offered historically on the Forest. This would have a positive economic impact on local mills and communities. Though habitat diversity would increase and problems with insects, disease and fire decrease, standards and guidelines for timber harvest in these alternatives, (A,B,F), would not mitigate short term impacts on wildlife habitat or visual quality as well as Alternative D would. Alternative D produces more timber than alternatives C, E, and F as well as more than has been offered over the last five years. The Plan provides a good balance of timber production while meeting multiple resource needs.

The Forest planning process identified 144,682 acres of National Forest System lands as tentatively suitable for timber production. On the 85,945 acres that are identified as suitable for timber management under the Plan, prescribed silvicultural treatments will produce an average of 10.5 million board feet (MMBF) of sawtimber and an additional 0.68 MMBF of pole timber annually. An average of 1.23 MMBF of fuelwood will be produced. Silvicultural treatments will be designed to reduce risks associated with insects and disease and to combat infestations. The 1976 Timber Management Plan identified 93,500 acres as suited for timber management and called for an average annual timber harvest level of 10.3 MMBF of sawtimber and roundwood. In comparison with the 1976 Timber Plan, then, there is a slight decrease in acres treated with a slight increase in harvest volume. This was achieved through more intensive management on highly productive areas. The harvest volumes noted above will meet the Forest's share of expected demands of local industries and contribute towards maintenance of healthy forested ecosystems. Where the Forest is the sole source for timber for a sawmill, planned harvests will meet expected needs of these mills to keep them operating. The Bridger-Teton National Forest Plan will have to be completed before the supply-demand relationships for mills in the Dubois area, which are only partially dependent on this Forest, can be assessed.

Timber sale design, including road and skid trail layout, is guided by Forest Direction and Management Area Direction in Chapter III of the Plan. There will be a 14 percent increase in area managed under the Preservation Visual Quality Objective and less area under Modification, than with current management. Similarly, timber

harvest will incorporate systems that benefit wildlife where possible and mitigate potential negative impacts in other cases. Through Plan implementation, water and soil monitoring will be conducted to gauge the success of standards and guidelines used to prevent adverse impacts on soil productivity and water quality.

There will be some vegetation treatments on timbered lands other than those identified as suitable for timber management. For example, the Plan schedules treatment of aspen stands to reduce encroachment of conifers, preserve the aspen component of forested ecosystems, to preserve visual diversity and to maintain wildlife habitat. Occasionally, wood products may be offered from unsuitable lands to aid in combating insects and disease, to promote visual and wildlife habitat diversity or as a result of major catastrophies such as a fire. Treatments on unsuited lands, other than treatment of aspen, will occur on an irregular basis and were not scheduled in the Plan.

Planning Problem Statement 2 - Adequate variety, amount, dispersion and quality of recreation opportunites.

All alternatives provide a full range of recreation opportunities and, in general, capacities for recreation use provided within alternatives exceed expected use levels. The one exception to this is developed recreation. Demand for developed recreation areas exceeds current capacity during peak use periods. Under Alternatives B and D, more developed recreation sites will be constructed to handle these peak loads and to disperse use at other times. Under Alternatives C and E, some existing developed recreation areas would be closed. No change in currently offered developed recreation sites would occur under Alternatives A and F.

Through a combination of decreasing the number of sites supporting developed and dispersed recreation and a decreasing roaded access to the Forest, recreation use under Alternatives C and E would be more concentrated than in the last five years. Alternatives A and F would have little effect on current use patterns. Actions in terms of construction and support of new facilities and road management under Alternatives B and D would lead to less concentration and lower density of recreation use across the Forest. Of these two, road management under Alternative D would provide for the greatest dispersion of use. This would lessen recreation impacts on soil, water and wildlife resources while providing the low density recreation commenters on the proposed Plan appear to prefer.

Standards and guidelines related to protecting visual quality in Alternatives C and D, would mean that activities related to production of commodities and possible field development for oil and gas would have a relatively minor detrimental short term impact on visual quality. Visual quality would not be as well protected with other alternatives.

The combination of above considerations indicates that Alternative D provides the mix, dispersion and quality of recreation opportunities

necessary to address issues and concerns better than any other alternative.

Recreation opportunities will be provided to meet expected use levels for all types of recreation. Emphasis is on providing a greater dispersion of use. This includes construction of three new campgrounds as well as increasing access to the Forest for recreation. Along with increases in access, there will be increases in the amount of area managed to provide primitive and semi-primitive nonmotorized recreation opportunites outside wilderness. This includes an increase in support facilities including trailheads and trails.

Areas open to snowmobiling will be about the same under the Plan as under current direction (Alternative A). Off-road vehicle use will be allowed on designated roads and trails. Consumptive and nonconsumptive wildlife and fish use will remain about the same as with current direction. The estimated acreage by ROS class outside of wilderness will be: Primitive - 15,300; Semiprimitive Nonmotorized - 459,000; Semiprimitive Motorized - 301,000; Roaded Natural - 266,000; and Rural - 10,800. The capacity of each of these classes, except rural, is well above the use trend.

Existing developed recreation capacities, Forest-wide, are sufficient to accommodate all but peak demands. The Plan provides for construction of three new developed recreation sites to accomodate peak recreation activity, and to protect undeveloped sites that are receiving considerable use. Standards and guidelines will ensure the maintenance or improvement of facilities and services at developed sites.

Developed private recreation sites will be administered at current levels under the Plan.

- Planning Problem Statement 3 - Adequate level and kind of livestock grazing.

Livestock grazing under Alternatives C and E would be much lower than over the last five years. This would produce a hardship on some dependent ranchers and have a negative impact on some communities. All other alternatives provide the same or more forage for livestock grazing than has been used in the last five years. Of these, Alternative D is the only one that responds to current market trends away from grazing domestic sheep.

Under the Plan, term permitted stocking levels will change from 78,300 cattle AUMs and 35,600 sheep AUMs to 78,000 and 25,400 respectively. Forest-wide, this meets the level of AUMs actually grazed over the last five years and reflects a decline in demand for sheep permits. Also, the Plan changes the location and total number of acres available for use by livestock and the range management systems to provide this level of use while protecting other resources. This includes Forest Direction and Management Area

Standards and Guidelines that protect sensitive soils, riparian areas and areas crucial to wildlife. Monitoring will ensure that adjustments can be made in grazing management to prevent significant adverse impacts on soil and aquatic ecosystems.

- Planning Problem Statement 4 - Manage wilderness to best satisfy legal requirements and public needs.

The Wyoming Wilderness Act of 1984 resolved most questions concerning designation of roadless areas. All alternatives comply with this Act. Under this Act, the Dunoir Special Management Area and High Lakes Wilderness Study Area are managed to protect wilderness characteristics until Congress acts regarding their use and management. The Whiskey Mountain-Glacier addition to the Fitzpatrick Wilderness will be managed to support the needs of the Whiskey Mountain bighorn sheep population.

Wilderness recreation opportunities are provided in each alternative. Capacity for wilderness recreation use exceeds expected use in all alternatives. Alternatives C, E and F increase the number of acres managed for a semiprimitive wilderness opportunity when compared with the current situation. This means that under these alternatives, management would shift toward higher density recreation use in the form of trails, signs and structures. On the other hand, Alternatives B and D increase the number of acres managed for pristine and primitive wilderness opportunities. This means that management under these alternatives would shift toward low density recreation use with fewer trails, signs and structures. Alternative D provides the largest amount of area managed for pristine wilderness recreation opportunities. Issues and concerns dealing with wilderness recreation called for a dispersion of wilderness visitors, not only for wilderness resource protection but to provide the uncrowded recreation opportunities desired by many.

Alternatives B and D respond the best to issues and concerns dealing with the desired mix of wilderness recreation opportunities.

Under the Plan, use of wilderness by outfitters and guides, the National Outdoor Leadership School, and grazing livestock is provided for within constraints. Chapter III of the Plan lists standards and guidelines for all uses in wilderness while maintaining the wilderness characteristics.

- Planning Problem Statement 5 - Adequate level of road and trail system development and maintenance.

All alternatives except Alternative E provide for an increase in roads on the Forest. The net increase in roads is less than .3 percent per year in any alternative and Alternative E reduces road mileage by about 34 percent. All alternatives except Alternative D decrease public access to the Forest. Alternative D increases

access, but places seasonal restrictions on most roads to protect soil, water and wildlife habitat. In terms of responding to issues and concerns regarding public access to the Forest, Alternative D responds the best through this combination of increased access and seasonal road closures.

All alternatives except Alternative E provide slight increases in the trail system to support dispersed recreation. Alternative E decreases the trail system by over 50 percent.

The Plan identifies road and trail construction needs based upon proposals regarding recreation and timber harvest, primarily. Rights-of-way needed to meet Plan objectives will be vigorously pursued.

Systematic road and trail closures (seasonal, temporary or permanent), redesign, reconstruction and relocation are techniques to be used to minimize resource damages and long term maintenance costs. Conditions under which such practices are to be applied are found in Forest Direction and Management Area Direction in the Plan.
During Plan Implementation, about seven miles of new road will be constructed annually, and 10 miles reconstructed each year. About five miles of road will be obliterated each year. Most local roads constructed for timber harvest will be closed to public use. About three miles of trail will be constructed or reconstructed annually.

- <u>Planning Problem Statement 5 - Adequate levels and quality habitat for wildlife and fish.</u>

All alternatives protect habitat for threatened and endangered species. Also, all alternatives protect forage that is crucial to migratory elk, sheep, deer and moose. Standards and guidelines for timber production in Alternatives C and D provide that design of timber harvest blocks have beneficial impact on wildlife habitat. Standards, guidelines and stipulations for oil and gas leasing in Alternatives C and D provide protection of areas crucial for wildlife. This is true to a much lesser extent of Alternative A and not true of Alternatives B, E and F. All alternatives except Alternative E provide for more vegetation treated for wildlife habitat than has been done in the last five years. Alternative E decreases the treatments by about 50 percent.

Taken together, Alternatives C and D provide the protection, maintenance and enhancement of wildlife habitat identified by commenters on issues and concerns, as well as maintaining the vitality of ecosystems in the Greater Yellowstone Area. Of these two alternatives, Alternative D will provide more structural vegetation diversity.

The Plan identifies and protects those areas of the Forest regarded as crucial or necessary habitat components for big game, species of special interest including mountain goats, and threatened and

endangered species. In crucial preferred winter range for deer, elk, moose, and bighorn sheep, motorized activities or access are prohibited seasonally to provide habitat to meet the Wyoming Game and Fish Department 1985 herd unit targets. Available forage is reserved for wildlife in these areas. Fish habitat is protected by adherence to standards and guidelines for water quality maintenance and protection, and by standards and guidelines for riparian area management.

Vegetation management will increase forage for wildlife in sage, aspen and willow vegetation types. Timber harvest will be conducted, where possible, to increase useable forage. Other practices that are intended to increase forage for livestock will benefit wildlife as well.

- Planning Problem Statement 7 - Manage threatened and endangered species habitat to achieve recovered populations.

All alternatives incorporate as direction for management of occupied grizzly bear habitat, "Guidelines for Management Involving Grizzly Bears in the Greater Yellowstone Area." In grizzly bear Situation I habitat outside wilderness, motorized use of roads will be restricted to the public through closure or seasonal restrictions. Recommendation of no lease or consent denial to lease will be made to the BLM for oil and gas operations in Situation I, except for a one half mile strip inside the boundary where leasing will be permitted without surface occupancy. Large group camps will be managed to minimize the risk of grizzly-human conflicts. Protection for and management of habitat for the bear and other threatened and endangered species is provided by Forest Direction and Mangement Area Direction in all alternatives.

- Planning Problem Statement 8 - Adequate quality, quantity and timing of water yields for Forest and non-Forest uses.

All alternatives incorporate the Forest water use inventory and the Big Horn Adjudication decree that grants quantified water rights, including instream flows, to the Forest. Also, all alternatives provide for protection of those water rights and uses. No alternative includes measures designed strictly for water yield or timing improvement because of the high cost and small potential for increases on the Forest. Some water yield improvements will occur coincident with timber harvest and associated road construction in all alternatives except Alternative E. Because of the relatively small amount of vegetation treatment in Alternative E, there is little increase in water production.

The Plan includes implementation of projects and practices to improve watershed conditions. If adverse changes occur, then there will be appropriate changes in management standards and guidelines. The water monitoring program, combined with an ongoing inventory of stream channel and riparian conditions will, over time, allow definition of acceptable levels of management that are watershed

specific. Plan Appendix G provides a guide to watershed rehabilitation and monitoring efforts.

The Plan requires coordinated analysis with appropriate State and Federal agencies for water storage and diversion projects proposed by other agencies or groups that may affect the Forest. Proposals for water development initiated by the Forest will be conducted in cooperation with the Wyoming State Engineer's Office.

- Planning Problem Statement 9 - Adequate and appropriate fire management.

All alternatives provide direction for levels of fire management, commensurate with values at risk, management intent and the role of fire in maintaining the health of forested ecosystems. There is no significant difference between alternatives in the manner in which fire is treated or used as a management tool.

Forest direction, standards and guidelines are the basis for Plan Appendix F, which is a guide to fire management. Appendix F provides a list of fire management strategies by land type within each analysis area on the Forest. Strategies are based upon the lowest net cost of fire protection based upon values at risk and intent of management emphasis. Fire will be used as a tool to maintain the health of ecosystems on the Forest.

Broadcast burning is not expected to be a major tool in fuel reduction or management of the Forest's timber resource. Timber harvest and public firewood gathering can be used to reduce fuels buildup.

Vegetation treatment will create more diversity in vegetation and less continuous fuel loads which will reduce fire risk.

Prescribed fire will continue to be used to treat willow and sagebrush, and occasionally aspen.

- Planning Problem Statement 10 - Appropriate level of rights-of-way acquisition, land adjustments and special land uses.

Each alternative includes a list of rights-of-way needed to carry out the intent of that alternative. There are no significant differences between Alternatives A, B and F. Alternatives C and E require fewer rights-of-way in relation to the decrease in roaded access and lowered intensity of management. Alternative D requires the most rights-of-way in an attempt to address issues and concerns calling for better public access to the Forest.

Acquisition of rights-of-way will be pursued where necessary to implement activities specified by the Plan, primarily recreation and timber sale access. It is expected that some conflict with land owners adjacent to the Forest will occur. Land-line locations,

special uses management and trespass issues will be resolved using Chapter III of the Plan as a guide.

- Planning Problem Statement 11 - Mineral exploration, development and extraction.

A breakdown of acres available for oil and gas leasing is presented on page IV-72 in the EIS. Briefly, out of a total acreage of 2,433,125 acres on the Forest, 934,990 acres are available for leasing. Withdrawls include legislative withdrawls of designated wilderness areas (1,379,048 acres), Research Natural Areas (1,680 acres) and withdrawl of the Beartooth Highway corridor (410 acres). Also there are areas where the Forest Service will recommend no lease to the BLM. These include wilderness study areas (14,700 acres), the Dunoir Special Management Unit (28,987 acres), and the Clarks Fork Wild and Scenic River corridor (6,660 acres). Recommendations of no lease for these areas are in effect until Congress makes a decision on these areas. Beyond this, 66,650 acres of grizzly bear Situation I areas outside of wilderness are currently unavailable for leasing. This decision could change in the future after a cumulative effects analysis for recovery of the grizzly bear is completed or when the grizzly bear population increases to the point where it is no longer a threatened species.

In all alternatives, 934,990 acres are available for leasing. Based upon the level of analysis done as part of Forest planning, all alternatives call for "no-surface occupancy" on about 452,000 acres because of high hazards to soil and water. A major difference between alternatives are the stipulations and operating standards to be applied to the remaining 482,990 acres. All alternatives include stipulations and operating standards which protect air, soil, water and threatened and endangered species. In line with the emphases of Alternatives B, E, and F, these are the only stipulations and operating standards recommended within these alternatives. Alternative A is about the same as these three alternatives and adds protection of some areas crucial to selected herd units of migratory wildlife in line with existing policies and plans. Alternative C adds stipulations and operating standards designed to protect all areas crucial to wildlife as well as to protect visual quality and recreation opportunities.

Alternative D uses the same stipulations and operating standards as Alternative C. However, Alternative D applies these based upon the management area emphasis. For example, only areas managed for semiprimitive recreation would include stipulations and operating standards aimed at maintaining this recreation opportunity in Alternative D while these same stipulations and operating standards are applied Forest-wide in Alternative C regardless of the type of recreation opportunity provided.

Minerals-related issues facing management of the Forest include local, regional and National concern for protecting wildlife, recreation, and visual quality of the Forest and its role in the

Greater Yellowstone Area. Alternatives A, B, E and F do not address these issues in a manner appropriate to the significance of these issues. Alternative C, on the other hand, is more restrictive than needed. Alternative D provides for reasonable protection of wildlife, visual and recreation resources in a way that is not overly restrictive for exploration and development of oil and gas resources. This is particularly important in light of the value of these energy resources to the American public.

The Plan requires that a site-specific analysis of leases, applications for exploratory wells, and field development plans be done to identify operating standards that protect surface values. Standards and guidelines for assignment of stipulations and operating standards are in Chapter III of the Plan. The procedure that will be followed for this analysis, stipulations and sample operating standards are included in Appendix K of the Plan.

B. Compatibility with Other Public Agency Goals

The goals of other public agencies, which could be affected by National Forest System management, were considered early in the planning process and used to develop the alternatives analyzed in the draft and final EISs. Agencies expressed their view on how well the proposed Plan met their goals. (See FEIS, Chapter VI for a list of the public agencies' comments on the draft EIS and proposed Plan.)

The selected alternative is compatible with most stated goals and objectives of the various agencies of the State of Wyoming. In particular, the Plan integrates the recreation opportunities and needs identified by the Wyoming Recreation Commission and meets the herd unit targets established by the Wyoming Game and Fish Department in 1985. The North Fork of the Shoshone elk herd is the only exception; here there is not enough habitat capacity to meet herd unit targets as established by the State.

Prior to initiating any reductions in permitted livestock needed to meet wildlife herd unit targets, we have agreed to jointly inspect allotments with Wyoming Game and Fish personnel and the permittee to determine if there is a need to revise the wildlife herd unit target.

Although other Federal agencies including the National Park Service, Bureau of Land Management and Fish and Wildlife Service, as well as local governmental officials, commented on the Plan, none indicated major conflict with their agency goals. The State's goal for possible development of the Clarks Fork River has not been foreclosed. The Fish and Wildlife Service rendered a "no jeopardy" opinion on the Plan in terms of its effects on threatened and endangered species.

Cooperation with other Federal agencies, the State of Wyoming, local government, and interested publics does not stop with the approval of the Plan. Ongoing involvement by interested parties is critical to successful implementation of the Forest Plan. We encourage

interested parties to participate in implementating and monitoring the Plan.

C. Stability of Industries Needed to Produce Objective Levels of Goods and Services

There is an opposing view to my decision on the allowable sale quantity of timber. Some people and groups including the Wyoming Wildlife Federation, Sierra Club, and Greater Yellowstone Coalition feel that timber harvest is detrimental to wildlife, recreation and visuals and should be reduced below historic levels. I considered that view, but decided not to reduce the allowable sale quantity. Standards and guidelines governing timber harvest call for harvests to be designed to enhance wildlife habitat while protecting and, where possible, enhancing visual quality. Given existing prices for timber, analysis indicates that all timber sales planned will pay for themselves in terms of direct costs and receipts collected. Reducing the allowable sale quantity would hamper this economically efficient means of providing for the vegetation diversity which contributes to high quality wildlife habitat and recreation experiences, and reduces wildfire risk.

There is also an opposing view from individuals employed by the timber industry, the Lander Chamber of Commerce, and some residents of Dubois that the amount of timber to be harvested is too low to effectively combat existing insects and disease and to provide for mill needs on the Wind River and Lander Districts. I decided not to increase the allowable sale quantity above that in the Plan pending future analysis for several reasons. First, the allowable sale quantity on the Wind River District is 37 percent higher than the level offered over the last 10 years. The allowable sale quantity in the Plan also provides the share of timber for sawmills in Dubois that the Forest has historically provided. I realize that this is not enough to satisfy the total demands of those sawmills. Historically, the remainder of volume required by these mills has come from other sources, principally the Bridger-Teton National Forest and the Wind River Indian Reservation. Over the past five years, no timber has been offered by the Reservation and indications are that this will be the situation for the foreseeable future. At this time it is unclear as to what the allowable sale quantity on the Bridger-Teton National Forest will be when that Forest Plan is complete. Depending upon the outcome of that Plan, there may be a need to reanalyze the supply from the two National Forests in light of sawmill requirements and community dependency. Until a reanalysis is indicated and completed, there is no justification for increasing the allowable sale quantity above the economically efficient level.

In response to public comments received calling for an increase in allowable sale quantity on the Lander District, I decided to increase planned harvests by .5 million board feet per year for many reasons. Lander is currently an economically depressed area with a single sawmill which requires about 1 million board feet per year. The

increased supply will bring the allowable sale quantity up to match historic levels and maintain the same level of opportunity for that mill. The additional sales will be uneconomical from a timber cost and benefit standpoint; however, when other benefits, primarily increasing spring-fall forage for wildlife are included, an increase is justified. Timber lands on this District can easily support this level of harvest on a sustained basis. Maintaining an employment opportunity and providing multiple use benefits are good reasons for this increase.

There are opposing views from groups including the Greater Yellowstone Coalition, the Wyoming Wildlife Federation, and the Rocky Mountain Oil and Gas Association regarding recommendations to be made to the Bureau of Land Management on oil and gas leasing, exploration and development presented in the Plan. I have made no decisions regarding stipulations for oil and gas leasing in the Plan. As discussed under Planning Problem Statement 11, decisions will be made on a case-by-case basis following procedures outlined in Chapter III and Appendix K of the Plan.

Oil and gas related industry demands on the Forest for exploration opportunities are increasing. These industries provide a high percent of tax receipts to local governments which, in turn, contributes to community stability. Therefore, stability of the industry is an important factor. The Forest Service multiple use mandate requires that National Forest System lands provide opportunities for exploration. I recognize that other interests such as recreation and wildlife based sectors that promote community stability are in apparent conflict with oil and gas concerns. A considerable amount of public comment indicated that oil and gas activities on Forest lands would unavoidably impact recreation (including hunting) and tourism related businesses that depend on the Forest. Therefore, this Plan provides for analysis of stipulations and operating standards designed to mitigate effects that could damage values necessary to produce other goods and services.

There are opposing views by groups including the Wyoming Wildlife Federation and Sierra Club and individuals such as John Swanson on my decisions regarding the amount of forage available for livestock grazing. Some feel that the amount of forage provided will be detrimental to wildlife. The Plan identifies areas which are crucial to wildlife needs. Grazing is restricted on these areas to provide forage necessary for supporting viable populations of wildlife. Beyond this, in areas of general winter range, grazing is reduced from its maximum capability to provide for expected wildlife use. In fact, all wildlife herd unit targets established in 1985 by the Wyoming Game and Fish Department are met with one exception, as discussed above.

This Plan provides for Forest conditions (wilderness and visual quality for example) that support developed public and private recreation services. It provides for the enhancement of the public facilities themselves and allows maintenance of existing private facilities such as lodges, recreation residences and ski areas. This

contributes stability to tourism and recreation related businesses that are important elements of the economic picture in northwest Wyoming.

There is an opposing view from groups including the Greater Yellowstone Coalition and the Sierra Club on my decision regarding roads available for access to the Forest. These roads are necessary for production of goods and services related to maintaining viability of industries. Some feel that too many roads will be constructed and will result in detrimental impacts on wildlife and recreation. Of new roads to be constructed, about 70 percent will be built for administrative purposes such as access for timber harvest, protection, water monitoring, range, and wildlife habitat improvement. These roads will be closed to public use, thus impacts on wildlife and recreation opportunities are insignificant.

The remaining 30 percent of new roads to be constructed are necessary for a number of reasons. Currently, approximately 15 percent of the Forest is accessible by road. This concentrates motorized recreation use along existing roads. Also, it limits administrative and public access to the Forest. By dispersing recreation use and providing access for management and protection, Forest resources are enhanced. Seasonal closures will mitigate possible detrimental effects on wildlife.

D. Social and Economic Stability

Social and economic stability were important considerations in this decision. Communities surrounding the Forest are all experiencing an economic decline to varying degrees. This appears to be due to declines in off-Forest mineral extraction sectors of the economy including declines in oil and gas production, closing iron ore mines, and declines in mining nuclear materials. These factors favored selection of a Plan which would have high positive economic impacts. All alternatives, except Alternative E, provide enough recreation and wildlife related goods and services to meet expected use levels. This meant that alternatives which produce high amounts of timber and forage for livestock produce higher employment and income to local economies and thereby contributed most to providing for economic stability of local economies.

On the other hand, an analysis of social impacts indicated that alternatives emphasizing commodity production would have a destabilizing effect on local social systems. Social stability factors favored selection of an alternative which emphasized wildlife and recreation values and decreased production levels of timber, grazing and oil and gas operations.

This portion of social impact analysis focused on short range effects with underlying assumptions that economic viability of local communities would remain unchanged among alternatives. This is not the case. Without some positive effects on local economies, social stability of those communities would decline. Long range social

issues favor production of commodities at levels which benefit local economies.

Results of total economic and social impacts was one factor used to guide design of Alternative D as well as a factor in my decision to select this alternative as the Plan. Alternative D has the second highest positive impact on local economies when compared with all other alternatives. This is displayed as employment, increases in personal and property income, and payments to counties in Table II-15 in Chapter II of the EIS. The alternative with greater positive impact is Alternative B which emphasizes production of commodities and de-emphasizes noncommodity goods and services, an emphasis which would have a negative impact on social stability. Conversely, Alternative D balances production of commodities and noncommodities in response to issues and concerns facing management of this Forest. It includes standards and guidelines which are designed to mitigate possible short term detrimental impacts of commodity production and, where possible, to use this production to benefit wildlife habitat and recreation opportunities.

My choice of Alternative D as the Plan is based in part on the social and economic stability it will produce.

E. Energy Efficiency in Terms of Production and Consumption

Energy consumption was considered but did not play an important role in my decision to approve the Plan. In all alternatives the Forest will continue to provide opportunities for energy production from wood-fiber, oil and gas. Energy consumption will remain tied to production of goods and services. The Plan ranks second among all alternatives in energy consumption. Energy consumption, due primarily to increased recreation use, is expected to increase.

F. Environmental Quality

Potential adverse physical and biological impacts normally will be mitigated by the application of Management Direction in Chapter III of the Plan. Effects that cannot be avoided are disclosed in Chapter IV of the EIS.

Management direction in the Plan will maintain air quality within legal limits. Monitoring for acid deposition will continue in the Fitzpatrick and Popo Agie Wildernesses to protect air quality related values.

Water quality will meet or exceed State standards. Actions include monitoring to identify problem areas and implementating restoration measures.

Soil erosion will be minimized. Long term soil productivity will be maintained; management emphasis will be aimed at improving or restoring deteriorated soil conditions.

The Plan meets legal requirements for protecting threatened and endangered species, floodplains and wetlands, and cultural resources. There is no prime farmland, prime rangeland nor prime forestland on the Shoshone National Forest.

Plant and animal diversity will be enhanced. When large acreages of forest cover are uniformly mature, horizontal diversity is limited and only benefits those species which are dependent upon mature forests (see the Vegetation section of Chapter IV of the final EIS). Burning, cutting, or other vegetation treatments will increase vegetation diversity which, in turn, will provide a diversity of wildlife habitats. These treatments will be applied to suited timberlands, sage, willow and aspen areas and may occur in unsuitable timberlands as needed to maintain health of forested ecosystems.

G. Economic Efficiency

The economic efficiency of all alternatives was analyzed. This included analysis of the most economically efficient sets of standards and guidelines designed to meet multiple use management goals. Also, analysis focused on selecting the most efficient mix of practices necessary to achieve desired mixes of goods, services and goals for each alternative. Included were costs of management practices and administrative costs associated with overall management of the Forest. Benefit values included those for priced goods and services such as developed recreation, timber and livestock forage. Dollar values were assigned to goods and services such as dispersed recreation, hunting and fishing. These assigned dollar values were used to represent the value to the American public of noncommodity goods and services.

The economic indicator used to measure economic efficiency in this analysis was Present Net Value (PNV). PNV is defined as the difference between the discounted value of all benefits and the discounted value of all costs. Comparisons of alternatives in terms of PNV, benefits, costs, and net cash flow are displayed in Tables II-9, II-10, II-11, II-12 and II-13 in Chapter II of the EIS.

When compared with other alternatives, the Plan has the third highest PNV and follows Alternatives F and B. Both Alternatives F and B focus on production of commodity goods and services without some of the standards and guidelines which mitigate the detrimental effects. This would have a detrimental effect on local social systems. Additionally, it does not recognize the role of the Forest in meeting regional and National public concerns dealing with management of the recreation and wildlife habitat of the Forest. Also, in my judgment, in terms of addressing local, regional and National issues and concerns, the Plan has a greater positive effect than either of these two alternatives.

The Plan would have a greater positive economic impact than Alternative F. The PNV of the Plan is only 2.3 percent less than the maximum PNV that could be achieved on the Forest and 1.9 percent less than the alternative which has the highest PNV. I feel, therefore,

the value of social and economic stability, the higher quality of goods and services produced such as recreation and wildlife habitat, and maintaining ecosystem vitality are great enough under the Plan to justify this reduction in PNV. I believe that the quality, quantity and mix of multiple use benefits produced in the Plan provides a balanced resolution of issues and concerns.

The ability of the Forest to produce direct revenues to the U.S. Treasury is limited. Only 144,682 acres or about six percent of the Forest is capable of growing commercial crops of trees and of that, 85,945 acres or only three to four percent can produce timber in an economically efficient manner. Only about 17 percent of the Forest is suitable for grazing livestock with about five percent of that occurring in winter range crucial for supporting wildlife. These factors, plus a relatively low demand for developed recreation, mean that total receipts collected for these goods and services cannot and do not cover the entire cost of managing the approximately 2.5 million acres of the Forest.

The entire cost of managing the Forest could be offset by fees from oil and gas operations. Currently, fees collected by the Bureau of Land Management for oil and gas leases on the Forest are estimated to be $1.1 million per year. This is expected to increase during the life of the Plan. If oil and gas are discovered and production begins, fees paid to the U.S. Treasury and State and local governments could increase dramatically, offsetting costs of managing the Forest.

When dollar values for nonrevenue producing benefits are included in analysis, the Plan will provide benefit values over five times greater than costs of management. Further, if measures of quality of goods and services provided -- maintaining and improving ecosystem viability, providing habitat for threatened and endangered species of wildlife, providing clean air and water -- could be valued in economic efficiency terms, the benefits of this Plan would be even greater. With these factors in mind, I believe there are adequate reasons for proposing to spend more money on management of the Forest than would be returned as revenue to the U.S. Treasury.

As a basis for formulating alternatives, there was a need to explore the range of possible production levels for goods and services. This was done using benchmarks. Each benchmark has a single resource objective such as maximizing timber production or production of forage for livestock. Benchmark 4 had the objective of maximizing PNV to identify the greatest economic value to the American public of managing the Forest. This benchmark was not designed to address issues and concerns, but rather to show what mix of goods and services would be produced if economic efficiency of management was maximized.

Comparison of Present Value by Alternative (Millions of 1st Quarter 1982 dollars discounted at 4 percent)

Alternative	Present Value		
	Benefits	Costs	Net(PNV)
Benchmark 4 (Max PNV)	509.20	90.10	419.10
F (RPA)	509.80	90.98	418.92
B (Commodity Emphasis)	512.60	96.00	416.60
D (Preferred)	508.20	98.90	409.30
A (Current Direction)	508.80	101.70	407.10
C (Noncommodity Emphasis)	500.20	93.40	406.80
E (Reduced Budget)	433.90	39.90	394.00

All costs of management were included in this analysis. Also included were market and assigned values for developed recreation, timber, forage for livestock, special uses, water, recreation use including wilderness use, hunting, fishing, and wildlife viewing. Some values important to the American public were not directly included. This includes standards for maintaining high visual quality objectives, reducing risk to soil and water resources, providing habitat for threatened and endangered species, and providing habitat for a bighorn sheep herd which is used annually to supply transplants to other public lands.

Changes In Present Value for the Plan from Benchmark 4 (In Millions of 1982 1st quarter dollars by resource program).

Resource Program	Present Values					
	Benchmark 4		Plan		Change	
	Benefits	Costs	Benefits	Costs	Benefits	Costs
Recreation	469.80	29.84	468.90	30.63	-0.90	+0.79
Wildlife and Fish 2/	-	1.92	-	1.97	-	+0.05
Range	22.78	1.03	21.96	1.13	-0.82	+0.10
Timber	12.61	6.08	13.25	6.44	+0.64	+0.36
Water Yield 1/	3.94	-	4.06	-	+0.12	-
Roads and Facilities 2/	-	21.68	-	24.03	-	+2.35

1/ The priced benefit of increased water yield results from timber harvest and the cost of timber harvest is in the timber program in the Forest Plan budget.

2/ These Programs are not assigned priced benefits; the benefits of these Programs are included within the Programs that have priced benefits.

Benchmark 4 was used as the standard to evaluate the PNV of alternatives considered in detail. In the following paragraphs, it is used to compare differences in costs and benefits to reflect the opportunity costs associated with the emphases, goals, objectives, and quality differences of the Plan. Benchmark 4 and the Plan meet minimum management requirements of law and regulation (36 CFR 219.27). The Plan is designed to favorably address issues and concerns raised during the planning process. This resulted in higher costs than would be required by law and regulation. During Plan implementation, cost efficiency of projects will be considered on a site-specific basis and, when appropriate, costs will be reduced.

The PNV of the Plan is 2.3 percent less than the maximum PNV benchmark. It was formulated to respond to issues and concerns related to production of low density recreation in areas with high

visual quality; high quality wildlife habitat; and low risk to air, soil and water quality. It was formulated to meet historic demand levels of timber, livestock forage, and developed recreation (including outfitting and guiding.) It also allows for oil and gas exploration and development on the maximum amount of land available while blending operations with objectives for recreation, wildlife habitat, watershed and visual resources.

When compared with the maximum PNV benchmark, the Plan produces nearly four percent more timber. This production was made possible by slight increases in roads required for the multiple use management strategies chosen. Production of livestock forage is about one percent less than for the maximum PNV benchmark, but shifts slightly toward more cattle rather than sheep. The combination of shifts for timber and range mean that variable costs for these programs go up; increases in timber benefits are almost identical to decreases in range benefits. Net change then is a slightly lower PNV for these two programs.

In addition to this, are increases in road construction, reconstruction and road maintenance costs. These costs are incurred to provide better access to the Forest in response to issues calling for better access and lower density of recreation users. There are increases in costs for recreation facilities, including trailheads and trails. This addresses issues calling for greater dispersion of recreation users and provision of higher quality recreation experiences.

Conversely, recreation operation and maintenance costs drop because, under the Plan, more acres are to be managed to provide pristine and primitive recreation opportunities. Standards for these two ROS classes call for low amounts of trails and signs to provide a recreation opportunity in an area as devoid of the evidences of man as possible. Again this is an attempt to address issues calling for low density recreation. Because of this shift in recreation opportunities, administration costs go down in response to the lower costs of management.

The forest condition selected as the target for even-age timber management in the Plan includes limiting harvest blocks to 25 to 35 acres in size. Further, adequate dispersion of harvest units and maintenance of wildlife cover surrounding cut blocks are called for. This forest condition was chosen to maximize the beneficial effect of timber harvest on wildlife, provide high quality edge, and provide for visual diversity. From a timber management standpoint, this also provides a mosaic of age classes that will be less susceptible to catastrophic insect and disease attacks. The Plan standards and guidelines increase costs of timber sale preparation and administration for the Forest and costs for loggers are slightly higher. From a quantifiable standpoint, this reduces PNV by less than 0.2 percent.

As stated, the Plan requires more roads than the maximum PNV benchmark. These roads are necessary to provide access to the Forest

for recreation, range management, wildlife habitat management, and timber management. Roads open to the public, particularly in wildlife winter range, at times can be detrimental to wildlife. To mitigate this and meet the intent of the Plan, over 56 percent of these roads will be closed to the public on seasonal basis. These seasonal restrictions will be used to protect wildlife during times when they are on crucial winter ranges and birthing areas. This type of management is slightly more expensive than leaving those roads open and, thus, decreases total PNV slightly.

The Plan provides for leasing, exploration and development of oil and gas on all lands currently available for those operations; there are no additional withdrawls. Tentative decisions included in the Plan regarding stipulations and operating standards for leasing, exploration and development are tailored to blend such operations into the management intent of the Plan. This is done on an area-specific basis, depending upon the management strategy selected and the types of land (crucial preferred winter range, high hazard to soil and water, etc.) within each analysis area. (This is displayed in the minerals discussions in Chapters II and IV of the EIS and Appendices J and K of the Plan.) These stipulations and operating standards will be marginally more expensive to administer which has a slight decrease in PNV. Also, they will make costs of exploration and development higher. A full site-specific analysis of these costs will be made for each lease and proposal for exploration and development operations. (An estimate of the change in PNV in terms of lease bid values using an experimental valuation process is in Appendix D of the EIS.)

In summary, the trade-offs of PNV are primarily to achieve environmental goals and objectives that do not have a priced benefit associated with them, to provide higher quality service to the public, and to respond to issues and concerns raised by the public about management of the Forest.

Expected cash flow is described in Tables II-12 and II-13 in Chapter II of the EIS and Table III-1 in Chapter III of the Plan. These show that the budget is expected to be $4,790,000 annually with returns to the Treasury expected to be $762,000 annually from receipts collected for timber, livestock grazing, developed recreation, and special uses. Beyond this, fees collected by the Bureau of Land Management for existing leases on the Forest are expected to be about $1,100,000 annually. Cash flow of direct costs and receipts for timber production on the Forest shows that receipts will outweigh direct costs by 2 to 1. Receipts from grazing livestock will exceed direct costs of range management by about 2.7 to 1. This indicates that receipt generating programs of timber, range and minerals produce a positive cash flow. However, these programs are not sufficient to cover the costs of managing the almost 2.5 million acres of National Forest system land and to produce nonreceipt generating goods and services. Benefits of the nonreceipt generating goods and services including recreation, hunting, and providing of wildlife habitat are significant. When these benefit values are included in calculating

PNV, the magnitude of benefits provided to the American public from these other nonreceipt goods and services exceed management costs.

VI. IMPLEMENTATION, MONITORING, AND MITIGATION

The purpose of the Monitoring and Evaluation Program presented in Chapter IV of the Plan is to determine whether Forest goals and objectives are being realized and how closely management requirements are being followed. Monitoring actions will be implemented to ensure that environmental safeguards are executed according to the Plan and that necessary adjustments are made to achieve desired environmental effects. The results of monitoring and evaluation will be used to measure the progress of the Plan implementation. These results will also help to update our inventory data, improve future mitigation measures and determine if Plan amendments or revisions are needed

Amendment of the Plan may be done at any time by the Forest Supervisor as needed to carry out the goals and objectives of the Plan and to address new issues and concerns. Revision will normally be done on a 10-year cycle or at least every 15 years. The Plan may also be revised whenever the Forest Supervisor determines conditions in the planning area or other items have changed significantly (36 CFR 219.10(f) and (g)). The Forest will maintain the mailing list of interested persons during implementation and administration of the Plan. This list will be updated periodically and used for public notification of amendments or the revision processes. Readers wishing to be added to the list may do so by contacting the Forest Supervisor's Office, Shoshone National Forest, P.O. Box 2140, Cody, Wyoming 82414.

The Plan will not be implemented sooner than 30 days after the Notice of Availability of the Plan, EIS, and Record of Decision appear in the Federal Register. The time needed to bring all activities into compliance with the Plan will vary depending upon the type of project.

Existing projects, as well as contractual obligations, will continue as originally planned. During implementation, however, the following minimum requirements, subject to valid existing rights, will be met. The Forest Supervisor will assure that (1) annual program proposals and projects are consistent with the Plan; (2) program budget proposals and objectives are consistent with management direction specified in the Plan; and (3) implementation is in compliance with the Rocky Mountain Regional Guide and 36 CFR 219.10(e), 36 CFR 219.11(d), and 36 CFR 219.27. The Forest Supervisor will accompany any decision document with a discussion and finding as to consistency with the Forest Plan. If an action is found not consistent with the Forest Plan it may not be taken unless the Forest Plan is amended. The public will be notified of all amendments.

Implementation is guided by the management requirements contained in the Forest Direction and Management Area Direction in Chapter III of the Plan. These management requirements were developed through an interdisciplinary effort and contain measures necessary to mitigate or eliminate any long term adverse effects. Any unavoidable adverse environmental effects, such as the disruptive effect of timber harvest on recreation or livestock

grazing, will be temporary and will involve only a small percentage of the Forest at any one time. To the best of my knowledge, all practical mitigation measures have been adopted and are included in Chapter III of the Plan, wholly or by reference.

Proposals to use National Forest System lands will be reviewed for consistency with the Plan. Management Area Direction contained in the Plan will be used to analyze any proposal involving use of NFS lands. All permits, contracts, and other instruments for occupancy and use of the NFS lands must be consistent as soon as practicable with the Plan. This is required by 16 USC 1604(i) and 36 CFR 219.10(e).

VI. RIGHT TO ADMINISTRATIVE REVIEW

This decision is subject to appeal pursuant to 36 CFR 211.18. Notice of appeal must be in writing and submitted to:

James F. Torrence, Regional Forester
Rocky Mountain Region
USDA, Forest Service
P.O. Box 25127
Lakewood, Colorado 80225

The appeal notice must be submitted within 45 days from the date of this decision or within 30 days after publication by the Environmental Protection Agency of the Notice of Availability of the Final Environmental Impact Statement accompanying the Plan, whichever date is later. A Statement of Reasons to support the appeal and any request for oral presentation must be filed within the 45-day period for filing a Notice of Appeal.

I encourage anyone who is concerned about one or more provisions of the Plan to check with the Forest Supervisor before submitting their appeal notice to see if their concerns can be resolved.

S H Hanks
for JAMES F. TORRENCE
Regional Forester

Date Feb. 27, 1986

SUMMARY OF FOREST PLAN AMENDMENTS

FOREST: Shoshone

Amendment Number	Date	Content Summary
87-001	4/1/87	Provide information on stipulations that can be attached to mineral leases.
		PROJECT AMENDMENTS

LAND AND RESOURCE MANAGEMENT PLAN
SHOSHONE NATIONAL FOREST

APRIL 1987

Amendment No. 87-001

Page Code	Number of Sheets Superseded	New
Appendix E	9	9
Appendix K	17	15
II-69	Minor Change	

Description and Reason for Amendment:

This amendment changes:

1. The Stipulations for mineral leasing that appear in Appendix E to conform to the stipulations adopted by the Rocky Mountain Region as of May 1986.

2. The tables and text for guiding identification of appropriate stipulations by land type in Appendix K to reflect these revised stipulations.

3. The tables for guiding identification of appropriate stipulations for land identified as crucial preferred winter range for bighorn sheep, and retention visual quality, on page K-3 in response to a site specific environmental analysis for the area surrounding the South Fork of the Shoshone River.

4. The statement on page II-69, last paragraph, first sentence, to read... "Federally-owned leasable minerals include fossil fuels (coal, oil, gas, oil shale, etc.), geothermal resources, potassium, sodium, carbon dioxide, and phosphates. Sulphur is leasable in New Mexico and Louisiana, but not in Wyoming."

Appendix E is intended to provide information on stipulations that can be attached to mineral leases on the National Forest. In May of 1986, the Rocky Mountain Region adopted the use of new lease stipulations. These stipulations, are essentially the same as those in Appendix E of the Land and Resource Management Plan.

The new versions make minor procedural changes and editorial modifications. Replacing the old stipulations is necessary to keep the Plan consistent with the stipulations currently in use in the Region.

Appendix K is intended to provide procedural guidance to District Rangers as to which stipulations may be appropriate for various land types when they are engaged in environmental analyses related to lease proposals. A portion of this guidance is embodied in two tables on pages K-3 and K-4. A change in both tables is necessary for providing guidance consistent with the stipulations currently in use in the Region. Because of these changes in the stipulations there is also the necessity to revise the text associated with these tables.

In February of 1986, an Environmental Assessment was completed for a area surrounding the South Fork of the Shoshone River regarding oil and gas leasing. This type of site-specific analysis is called for within Chapter III, Appendix J and Appendix K of the Forest Plan. The results of this site specific analysis was in conformance with direction provided in the Land and Resource Management Plan with the exception of stipulations related to crucial preferred winter range for bighorn sheep, and also relating to areas with visual quality objectives calssified as "retention." Analysis supporting this EA indicated that for the herd unit of bighorn sheep in the South Fork, there would be a significant impact on these sheep if surface occupancy were allowed on crucial preferred winter range during the development phase of oil and gas operations. The Decision Notice supported by this EA provided for leasing crucial preferred winter range with a stipulation that did not allow for surface occupancy, and for leasing "retention" visual quality areas with stipulations which closely controlled surface occupancy. There is a need to amend the Forest Plan for the areas surrounding the South Fork of the Shoshone River to reflect this analysis and Decision Notice.

Appendix K of the Forest Plan is designed to provide procedural guidance for assigning appropriate stipulations to proposed leases. Given the results of the EA for crucial preferred winter range for bighorn sheep surrounding the South Fork of the Shoshone River, there is a need to refine the guidance within Appendix K for crucial preferred winter range for bighorn sheep forestwide. This does not entail requiring a no surface occupancy stipulation for all such crucial preferred winter range for bighorn sheep. Rather, four questions have been added to the matrix to help guide site specific environmental analyses related to lease proposals for lands classified as crucial preferred winter range for bighorn sheep.

In my view, this amendment does not alter management direction decisions made in the Forest Plan. Changes, as discussed, are necessary to keep direction in the Plan consistent with oil and gas stipulations currently in use within the Rocky Mountain Region. Also, changes are necessary to reflect analysis supporting an EA and its attendant Decision Notice. Management direction is unchanged, as are basic procedures. We have refined leasing prescriptions related to bighorn sheep crucial preferred winter range to assure that the management direction will be appropriately applied.

There is no change to the basic procedures included in the Plan. Nor are there changes in requirements for a site specific environmental analysis of any proposed mineral activities prior to decision making and taking actions on those proposals. Because of these reasons, it is my decision that this amendment is not a significant amendment to the Land and Resource Management Plan for the Shoshone National Forest. (The decision regarding significance of the amendment can be appealed pursuant to 36 CFR 211.18, as revised on November, 19 1986. To initiate an appeal, a written notice of appeal must be submitted to me, Stephen P. Mealey, Shoshone National Forest, P.O. Box 2140, Cody, Wyoming, 82414, within 30 days of the date of this decision.)

Based on the above, there will be no significant effect on the quality of the human environment caused by this amendment. Therefore this action is catagorically excluded from documentation in an environmental assessment or impact statement.

Stephen F. Mealey
Forest Supervisor

3/31/87
Date

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