



Forest Service

Region 4

Ashley

Land and Resource Management Plan for the Ashley NF

FEIS Volume I

[Part A](#)

[Part B](#)

[Part C](#)

FEIS Volume II

[Part A](#)

[Part B](#)

Plan

[Part A](#)

[Part B](#)

FINAL ENVIRONMENTAL IMPACT STATEMENT

Volume I



for

LAND AND RESOURCE MANAGEMENT PLAN

UNITED STATES DEPARTMENT OF AGRICULTURE



FOREST SERVICE

FINAL ENVIRONMENTAL IMPACT STATEMENT

for the

ASHLEY NATIONAL FOREST
LAND AND RESOURCE MANAGEMENT PLAN

Daggett, Duchesne, Summit, Uintah, Utah and Wasatch Counties in Utah
and Sweetwater County in Wyoming

Type of Action: Administrative
Lead Agency: USDA - Forest Service
Responsible Official: J.S. Tixier, Regional Forester
Intermountain Region
Federal Office Building
324 5th Street
Ogden, UT 84401

For Further Information Contact: Duane G. Tucker, Forest Supervisor
Ashley National Forest
Suite 1150, Ashton Energy Center
1680 W. Highway 40
Vernal, UT 84078
Phone (801) 789-1181

Abstract: The Final Environmental Impact Statement (FEIS) for the Ashley National Forest Land and Resource Management Plan displays ten alternatives which were developed and evaluated in the analysis process. The Ashley National Forest includes 1,384,699 acres of National Forest lands in north-eastern Utah and southwestern Wyoming. The alternatives are: (A) Current Program, (B) Coordinated Resources, (C) Market Opportunities, (D) Non-Market Opportunities, (E) RPA 80 Program, (F) Current Budget, (G) Reduced Budget, (H) Livestock-Timber Emphasis, (I) Accelerated Harvest; and (J) Balanced Resource Management.

Alternative J is the Forest Service preferred alternative and is the proposed action used to develop the Forest Land and Resource Management Plan. The Forest Plan will guide the management of the Ashley National Forest for this and the next four decades. The Plan will be revised on a ten year cycle or at least every fifteen years.

The Draft Environmental Impact Statement was made available to Environmental Protection Agency (EPA) and the public on July 16, 1985.

Date FEIS made available: **OCT 09 1986**

Last Date to Exercise Appeal Rights:

NOV 24 1986

SUMMARY

INTRODUCTION

Forest Planning requires two major documents. The first document is the Environmental Impact Statement (EIS) which explores a range of alternatives for management of a National Forest. The second document is the Forest Plan which is the preferred alternative identified in the EIS. The Forest Plan explains in detail the management direction the Ashley National Forest intends to take for the next 10-15 years.

This summary briefly outlines the content of the Environmental Statement. For more detailed analysis and understanding, refer to the desired sections.

A glossary of terms used in the FEIS and Forest Plan is included in Appendix F to aid reviewers in understanding the content of both documents.

The Final Environmental Impact Statement (FEIS) discusses the ten alternatives developed in preparation of the proposed Land and Resource Management Plan (Forest Plan) for the Ashley National Forest. The Forest Plan provides direction for the next 10 years or until revised and it was developed based on analysis using a time period of 150 years. Analysis information has been displayed in the EIS for a 50 year time period the use of the term "planning period" is used interchangeably for the 10, 50, and 150 year time periods as defined in the Glossary. The environment to be affected and the environmental consequences of implementing each alternative are also discussed in the EIS. The EIS was published in draft form for public reviews and comment. Subsequently, a final EIS and Forest Plan which responds to the comments of the public was prepared.

The Ashley National Forest contains a portion of the High Uintas Wilderness which was formally established by the 98th Congress and signed into Law by the President in 1984. Basically the legislation provided for designation of certain lands for inclusion in the National Wilderness Preservation System and for the release of other lands for multiple use management.

CHAPTER I - PURPOSE AND NEED

The Ashley National Forest manages mountain lands located in Northeastern Utah and Southwestern Wyoming that occur in three major geographical areas:

- The eastern portion of the Uinta Mountains.
- The southwest portion of Wyoming in the Green River Basin.
- The Tavaputs Plateau area south of Duchesne, Utah.

Planning is conducted under the authority of the Multiple Use-Sustained Yield Act of 1960, and the Forest and Rangeland Renewable Resources Planning Act (RPA) of 1974, as amended by the National Forest Management Act (NFMA) of 1976. Assessment of the environmental consequences of the alternatives considered in the development of the Forest Plan is done in conformance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations (40 CFR 1500 - 1508).

The scope of the issues and concerns to be addressed in the Forest Plan and FEIS were identified from comments solicited through individual and group contacts, written responses, and from the Forest Service Staff. The comments were analyzed and condensed into 13 planning issues.

The issues are an integral part of the planning process. They are linked to the development and evaluation of the alternatives. All issues are addressed in one or more alternatives. The resolution of planning issues by each alternative is displayed in Chapter II of the FEIS.

CHAPTER II - ALTERNATIVES CONSIDERED

Ten alternatives for managing the lands and resources of the Ashley National Forest were evaluated in detail. Various combinations of prescriptions are used to build and analyze alternatives and more descriptive explanation is included in Chapter II. A brief description of each follows:

Alternative	Alternative Emphasis	Benefit*	Cost*
A Current Mgt. Direction	"No Action" alternative represents a continuation of the current program.	765.9	237.0
B Coordinated Resource	This alternative is designed to salvage and utilize beetle-killed lodgepole and ponderosa pine by accelerating timber harvest during the first two decades; to increase heavy maintenance in developed recreation sites; and to maintain low to moderate wildlife and livestock improvement programs.		819.1 315.5
C Market Opportunities	This alternative emphasizes commodity production such as timber, livestock forage, and developed recreation.	844.1	347.1
D Non Market	This alternative emphasizes nonmarket services such as dispersed recreation, wildlife, and water.	793.8	259.0
E 1980 RPA Program	This alternative is designed to meet RPA 80 output targets.	829.3	307.6

*Present Value Benefit/Cost which is an indication of outputs and cost for resources valued at 4% discount rate for 150 years in MM\$.

Alternative	Alternative Emphasis	Benefit*	Cost*
F Current Budget	This alternative is designed to determine what level of goods and service could be produced based on present level budgets.	645.5	163.2
G Reduced Budget	This alternative is designed to determine the level of goods and services that could be produced if budget levels were reduced 25 percent from the past 10 year average.	657.3	178.8
H Livestock-Timber	This alternative is designed to determine the feasibility of meeting draft RPA 85 Alternative 9 targets for timber and grazing.	847.6	313.7
I Accelerated Harvest	This alternative is designed to accelerate salvage and utilization of beetle killed timber to a higher level than B.	892.4	353.9
J Balanced Resource Management (Preferred Alternative)	This alternative is designed to salvage beetle killed pine where practical while maintaining approximately the recent commodity outputs, giving special emphasis to recreation and wildlife resources. Constraints relating to certain management practices have been applied during the first planning period for such things as restriction of new road construction in various areas.	822.1	285.8

*Present Value Benefit/Cost which is an indication of outputs and cost for resources valued at 4% discount rate for 150 years in MM\$.

CHAPTER III - AFFECTED ENVIRONMENT

This is a summary of the chapter that describes the current condition of each resource and the environment to be created or affected by implementing any of the alternatives. The future demand for forest resources and the ability to supply that demand are summarized. Information in this chapter was drawn primarily from the Analysis of the Management Situation (AMS) prepared in 1982 and amended in 1984.

1. Recreation Overview - Current Situation

The Ashley National Forest is popular for providing opportunities for recreation. In 1980, this forest provided recreational use of about 1,600,000 visitor days.

The Forest is located close to nationally recognized areas such as Dinosaur National Monument and is located on scenic Highway 191 that ties together Yellowstone National Park in Wyoming and several National Parks in Utah. In addition, the Forest contains Flaming Gorge National Recreation Area and a portion of the High Uintas Wilderness. Other areas with existing or proposed formal classifications exist on the Forest such as Sheep Creek Geological Area, Green River Wild and Scenic River, and Little Hole and Fish Creek National Recreation trails. With the complete development of proposed Central Utah Project reservoirs, the Forest will contain more "Flat Water" than any other Forest in the Intermountain Region.

Developed sites on the Forest are an important element in the recreation program because of their importance for visitors wishing to camp as well as their importance as the focal point for discussed uses such as hiking, backpacking, fishing, boating and swimming. At present, the existing developed facilities will be used at capacity sometime between 1990-1995, and possibly sooner.

Dispersed recreation use is considered to be all use outside of developed sites. Driving for pleasure, camping, fishing, hunting, hiking, and gathering fuelwood are among the most popular activities on this Forest. Winter sports activities such as snowmobiling and cross country skiing are gaining in popularity.

The Forest has a current total of about 700 miles of trails with some opportunities to expand the trail system. The existing system is in need of heavy maintenance, trailheads to facilitate trail system users are needed in some areas, and the signing of all trails needs to be updated.

2. Wilderness Overview - Current Situation

The 98th Congress designated the High Uinta Wilderness (containing 460,000 acres) for inclusion in the National Wilderness Preservation system and released National Forest Roadless areas to multiple uses other than Wilderness.

A major portion of this Wilderness is located on the Ashley National Forest and the remainder of the area is on the Wasatch-Cache National Forest.

3. Wildlife and Fish Overview - Current Situation

The Ashley National Forest has a wide diversity of fish and wildlife species, some with special habitat needs. An estimated 437 species of fish, amphibians, reptiles, birds, and mammals inhabit the Ashley National Forest (31 species of fish, 8 species of amphibians, 21 species of reptiles, 289 species of birds, and 88 species of mammals). The Forest contains several distinct habitats that are important to differing groups of wildlife species. Even with many overlaps between habitat and wildlife present, there are specific habitat requirements for most of the groups. Wildlife populations are proportional to the quantity and quality of the habitat.

4. Range Overview - Current Situation

The Ashley National Forest provides grazing for approximately 12,500 cattle and 29,000 sheep for a total of about 75,000 Animal Unit Months (AUM's) each year. Livestock grazing takes place mostly during the summer months (June-September). Some exceptions are found on the South Unit of the Duchesne District and on the Flaming Gorge National Recreation Area (FGNRA). There are now 84 livestock grazing allotments and 5 recreational stock allotments administered by the Forest. Portions of the Flaming Gorge District (all of the NRA in Wyoming and Goslin Mountain Allotment in Utah) are administered by the Bureau of Land Management under cooperative agreements. Currently, Forest Service grazing permits are held by 130 permittees.

At the present time, about 84% of the Ashley's 1,384,699 acres are within permitted livestock allotments. The amount of suitable acres varies with the designated class of livestock. Currently, there are 455,285 acres on the Forest suitable for livestock grazing, but 19,115 of those suitable acres are closed to livestock use to protect other resources. If the Forest permits were converted to cattle only, the number of suitable acres would drop to about 306,000 acres. On the other hand, if the Forest permits were converted to sheep only, the number of suitable acres would rise to about 676,000 acres.

5. Timber Overview - Current Situation

This Forest has 512,578 acres of commercial timber stands comprised of Douglas-fir, ponderosa pine, lodgepole pine, Engelmann spruce, subalpine fir, and aspen.

Lodgepole pine covers about 240,263 acres and its high susceptibility to attack by mountain pine beetle has resulted in an epidemic situation which has left the majority of the lodgepole and ponderosa pine stands dead.

As a consequence, the existing composition of age groups, live and dead etc., has been changed drastically and the Forest capability to produce various products has changed with shifting product demands.

The interest in fuelwood on the Forest has grown rapidly and there has been recent interest in somewhat speculative new uses of wood products. Current direction, as identified in the AMS, is to harvest the old growth, beetle-killed and susceptible lodgepole pine first. There has also been new interest in expanding timber management activities in ponderosa pine to reduce its susceptibility to mountain pine beetle.

6. Water Overview - Current Situation

The entire 1.38 million acres of the Ashley National Forest is available for contributing water to streams, rivers, lakes, and reservoirs. The Ashley delivers approximately one million acre feet of water annually to streamflow and contributes a large, but unmeasured quantity, of water to groundwater aquifers.

Streamflow is transported from the Forest throughout the year by 687 miles of perennial streams that are tributary to the Colorado River System.

The municipal watersheds of the Ashley Valley and other small towns in the Uintah Basin are located on the Forest. In addition, increased demands for water on the Wasatch Front and in the Colorado River Basin will heavily impact the Forest.

Such demands may require a more rapid implementation of watershed improvements or may change priorities. The springs and drainages that produce water will be considered high value and pressures to eliminate all activities that might cause reduction in water quality will be high.

7. Minerals Overview - Current Situation

Minerals exploration and development activities are directly related to the interest generated by the general public and industry. Management of this resource is responsive to these public interests along with industry interest in coordination with various other public agencies and resources. For these reasons, the minerals resource poses programming and scheduling problems that are not common with management of other resources. In accordance with the Federal Land Policy and Management Act (FLPMA) of 1976, the Forest Service must consider that all National Forest system lands are available for mineral exploration and development unless they are withdrawn from mineral entry and leasing. The total area within the Forest boundary is 1,405,609 acres. Approximately 20,910 acres of this area is state and private. This leaves 1,384,699 acres available for leasing, subject to the constraints identified in Chapter IV and Appendix I of the FEIS .

Currently, the BLM has issued 236 oil and gas leases on the Forest, for a total of 517,628 acres, with 72 leases still pending on 250,615 acres. For locatable minerals, there are 140 claimants and 912 claims. There are 7 applications for phosphate prospecting on a total of 32,706 acres. Other leases and lease applications exist for other minerals and energy resources and can be found in more detail in Chapter I.

CHAPTER IV - ENVIRONMENTAL CONSEQUENCES

Direct and Indirect Environmental Effects

This is a summary of the chapter about direct and indirect environmental effects or consequences. Environmental consequences are the anticipated effects of applying management practices to land areas. Consequences vary for each alternative because different mixes of practices produce different levels of resource outputs.

Environmental consequences or "effects" of implementing the alternatives are described in physical, biological, social, and economic terms. These consequences are both direct and indirect. Direct effects occur at the same time and place as the initial management activity or output. Indirect effects often result from the interaction between Forest resources and management activities. They occur either later in time or at a different location, but are nevertheless foreseeable.

What follows is a summary comparison of effects of various alternatives by resource element. For more detailed information, see Chapter II.

1. Recreation Overview - Environmental Effects of Alternatives

Developed recreation facilities, existing or proposed, generally will not adversely affect other resources in any of the alternatives. Concentration of recreation use at developed sites can create environmental problems but with proper design, redesign, construction and reconstruction these problems can be mitigated. The total acres involved in existing and proposed development sites is small compared with the total Forest acreage.

In general, the developed site capacity and outputs do not vary significantly by alternative. Demand is constant throughout the alternatives. The degree that we can mitigate impacts on other resources is directly related to the Forest's ability to finance the recreation program. A large portion of the developed capacity, existing and proposed, is within Flaming Gorge National Recreation Area, which was established by legislation and which includes specific direction that provides primarily for recreation emphasis. In addition, most dispersed activities such as fishing, boating, floating or hiking are directly tied to developed recreation opportunities. For this reason, management of developed sites on this Forest is very important.

More variation occurs for dispersed recreation between alternatives because of the relationship to other coordinated resource activities. Each alternative offers different degrees of management emphasis for dispersed recreation, depending on the combination of prescriptions used in the alternative. Dispersed recreation occurs outside of developed sites and includes such activities as driving for pleasure, hiking, boating, fishing, hunting, gathering forest products, photography and many others. All wilderness use is in the dispersed recreation element. Most dispersed recreation activities are supported by developed sites such as campgrounds, boating sites, and trailheads that provide for overnight accommodations or staging areas for various activities since a large portion of the users come from areas more than 100 miles away.

Dispersed recreation management philosophy remains constant in all alternatives in the Flaming Gorge National Recreation Area. In nearly all situations where conflict exists between recreation and another resource in the NRA, it will be resolved in favor of recreation and scenics, as required by the legislation governing the management of the area.

Dispersed recreation that occurs in the High Uinta Wilderness, will have a recreation use capacity that is constant for all alternatives. With the recent formal designation of the High Uinta Wilderness, previous estimates of demand may prove to be low since Wilderness designation historically increases use. Recreation use will cause impacts on primary access points and along major trails within the wilderness but these impacts can be managed within the limits prescribed in the Plan.

Of all the alternatives, Alternative J has assigned large areas to nondeveloped uses that will not permit certain types of management activities during the first decade. Basically these limitations pertain to timber harvesting and associated roading activities while allowing for many types of dispersed recreation opportunities. Alternative J, the preferred alternative, places the highest emphasis on recreation (dispersed and developed) and wildlife resources.

Alternatives F and G would create a situation where dispersed recreation opportunities may decline because of the loss of development sites and associated support facilities. Unacceptable environmental impacts would result because of reduced recreation management budgets.

All alternatives except for F, G, and J require considerably more roads and will create management challenges. The Forest anticipates that with creative management, good location, and good design of roads and trails along with the Forest Travel Plan, most environmental and social impacts can be mitigated. In general terms, the Forest does not expect any alternative to significantly effect large area closures or restrictions different from current ones. Alternative J, however, places more emphasis on recreation and wildlife than any other alternative. During the first decade in alternative J, the preferred alternative, roading for timber harvest will not occur within various areas identified on the enclosed map of "Area Remained Undeveloped at End of First Planning Period". ORV use and access for valid mineral activities are permitted where these uses can meet management objectives for the various prescriptions assigned to the alternative.

Cultural Resources Overview - Effects of Alternatives: "Cultural Resources" refers interchangeably to archaeological and historic properties. These are considered nonrenewable resources, making it important to maintain their scientific, historic, and social integrity. Governed by legislative mandates such as NFMA and the Antiquities Act (including Paleontological sites), Forest Service policy is "to provide for the identification, protection, interpretation and management of cultural resources".

To fulfill this obligation, the Forest surveys, inventories, describes, and evaluates cultural resources on a project-by-project basis to prevent adverse effects by any undertakings which could affect significant cultural values. Cultural resources are treated the same in each alternative and will be managed to insure protection of the resource by meeting the legislative requirements.

The alternatives that initiate higher commodity production will generate more cultural resource surveys and quite often will accelerate this work in the earlier decades. In the event of significant cultural resource discoveries, other management changes in programming and scheduling may be required.

Visual Resource Overview - Effects of Alternatives: Impact on the visual resource is measured by how a given management activity meets adopted visual quality objectives (VQOs) identified during the planning process described in Chapter I of FEIS. The inventoried VQO's represent an estimate of what visitors would expect to see and what would be acceptable in a forest landscape. The basic objective is not to have contrasting features in the landscape created by management activities that do not meet the adopted VQOs.

The adopted VQO's are tied directly to the management prescriptions selected for a given alternative and each alternative is composed of different combinations of prescriptions. Impacts are the greatest in alternatives with the most roading, timber and development and will require the most work in mitigation for VQO's. Timing and spatial allocations of management activities within the analysis areas are critical in any of the alternatives and require detailed on-site design in order to meet the VQO's identified for each prescription.

2. Wilderness Overview - Effects of Alternatives

The High Uintas Wilderness was formally designated in 1984 and is treated uniformly in all alternatives.

3. Wildlife and Fish Overview - Effects of Alternatives

Three species of birds, one mammal, and one plant which may be found on the Forest are included on the U.S. Department of Interior's list of threatened and endangered species. Federal law specifies that habitat of these species will be protected and this will be done under all alternatives.

The Forest will be managed to maintain vegetative diversity, providing wildlife habitat for a large variety of species. Special emphasis will be given to habitat such as winter range, riparian zones, reproductive areas, aquatic systems, cliffs, talus, snags, and old growth timber.

There will be intensive management of fish and wildlife habitat to maintain viable populations of all existing vertebrate species in the planning area and to maintain and improve habitat of management indicator species under all alternatives. Special emphasis will be given to the protection and management of critical habitat for threatened or

endangered species, and riparian habitat. Plant and animal diversity will be increased by modification of existing plant communities in alternatives B, C, E, H, I, and J. Alternative J, the preferred alternative, also emphasizes wildlife management.

4. Range Overview - Effects of Alternatives

In all alternatives, the Forest will maintain a quality range program, managed to optimize the production and use of forage on all suitable range to the extent it is cost effective and in harmony with other resource uses.

Alternatives A, B, and J would continue at the current level of investment and maintain outputs, with transitory range being available in harvest areas where appropriate prescriptions apply. There would be a slight output increase in alternatives E and I over alternative A. Alternatives C and H would have high investment in forage improvement to reduce non-forage types through treatment. Under these alternatives, transitory range comes into use along with proper class of livestock. Compared to the current situation, alternative D would have decreased investments, AUM's, and range capacity; Alternatives F and G would also have a decrease in AUM's throughout the first 5 decades with no investment. Alternative E would have an increase in AUM's from current levels.

Suitable acreage of primary range open to livestock grazing remains constant for all alternatives.

5. Timber Overview - Effects of Alternatives

Overall, the immediate timber problem in the next decades for the Ashley is the mountain pine beetle epidemic in the predominant tree species, lodgepole and ponderosa pine. How effectively each alternative deals with the dead tree and regeneration problem Forest-wide is reflected in the amount of capable and available lodgepole pine and the percent of this capable and available acreage that is harvested within 30 years.

The timber harvest level for alternative A does not change in the first 2 decades. After the second decade there would be a slight decline in softwood timber sales offered with a compensating increase in hardwood sales. In all alternatives, timber stands would change from predominately mature/old growth to younger age classes and there would be an increased amount of dead/down timber from beetles. Over time, timber productivity would decrease to varying degrees due to low stocking after beetle activity. Under Alternative B timber sales offered would increase from current direction. Mature old growth and dead stands would change to younger age classes and timber cultural practices would increase productivity of wood fiber in harvested areas. An increase over current harvest would take place in Alternative C. Alternative D is about the same as current direction with an increase in the number of unproductive areas because of poor stocking. Timber harvest shows some increase in alternative E, and alternatives F and G show a sharp decrease from current. In alternative F, a limited

investment in Timber Stand Improvement would result in lower productivity than other alternatives. Alternative H is similar to alternative B with sales offered just below B in decade 4 and 5. Alternative I is similar to alternative B after decade 1.

Alternative B, H, and I were formulated as accelerated harvest alternatives to use dead lodgepole, requiring significant amounts of road building. Alternative J was formulated to use dead lodgepole during the first decade with minimal road construction and to place more emphasis on recreation and wildlife resources.

6. Soil and Water Overview - Effects of Alternatives

The three watershed related environmental indicators used in studying effects of alternatives are soil productivity (essentially estimated by on-site soil erosion), sediment yield (a measure of how much of the eroded soil actually gets to the streams), and water quality (a measure of the unacceptable pollutants). Complex processes are involved in all of these indicators.

All alternatives treat soil productivity uniformly since the National Forest Management Act states that the Forest will not impair long term soil productivity. Any management activities that have the potential to impair soil productivity short term will implement mitigating measures to protect the soil resource.

Alternatives F and G would result in less water meeting quality standards (a measurement of sediment yield and water quality) than the other alternatives due to a lack of investment in soil and water resource improvements. All other alternatives would increase water meeting quality standards. All alternatives meet the required minimum State water quality standards in the first decade. Timber harvesting increases water yield, and investment in soil and water improvement increases a proportionate amount of water meeting quality standards. Alternative D would produce the largest increase in water quality the first decade. By the fifth decade alternatives C, E, and I would be producing the largest amount of water meeting quality standards.

In all alternatives, through all decades, there would be an increase in water yield. Alternative D shows the greatest increase in water quantity for the first decade of all alternatives. By the 5th decade alternative C produces the most water with other commodity alternatives also producing a high level of increase. This water may or may not meet State Water Quality Standards and is a measure of total yield over the natural yield.

7. Minerals and Energy Overview - Effects of Alternatives

Before discussing the effects of alternatives upon minerals and energy, it is necessary to understand that the Bureau of Land Management (BLM) is responsible for mineral leasing on Federal lands. By interagency agreement, the BLM refers all applications to lease National Forest lands to the Forest Service for review and recommendation. The Forest

Service then recommends to the BLM whether or not those lands should be leased and, if so, what stipulations are needed to protect surface values and uses. Although the Forest Service does not have the authority to approve certain activities on leases, it does participate in review of all plans of operations and makes recommendations to the Bureau of Land Management.

Activities on permits which do not involve exploratory drilling or development, such as for common variety minerals, are regulated by the Forest Service. The Forest Service is also responsible for management of surface resources on permits which do involve exploration drilling or field development. Through a cooperative agreement, the BLM is responsible for enforcement of surface protection and reclamation requirements recommended by the Forest Service on lease areas.

In accordance with the FLPMA of 1976, the Forest Service must consider that all National Forest system lands are available for mineral exploration and development unless they are withdrawn from mineral entry and leasing. The total area within the Forest boundary is 1,405,609 acres. Approximately 20,910 acres of this area is State and private. This leaves 1,384,699 acres available for leasing subject to requirements such as outstanding or reserved mineral rights, existing withdrawals, and special legislation for specific areas.

In special areas where prescription g (undeveloped emphasis) was applied (see Chapter II for more detailed explanation), and in some other sensitive areas, the Forest Service would recommend no surface occupancy when leases come up for renewal. Special emphasis will be given to coordination of existing and potential mineral activities and other resources for all alternatives.

8. Research Natural Areas Overview: Affects of Alternatives.

Candidate Research Natural Areas

All alternatives treat Research Natural Areas the same since the National Forest Management Act Regulations state that "Forest planning shall provide for the establishment of Research Natural Areas". In accordance with this requirement, the Forest has identified the following areas as Candidate Research Natural Areas, and they will be managed under prescription a.

<u>Area</u>	<u>Acres</u>
Sims Peak Pothole	650
Gates of Birch Creek	240
Pollen Lake	1,025
Ashley Gorge	1,085
Shale Creek (-Uinta River)	2,925
Gilbert Creek Basin	2,545
Timber Canyon-Cow Hollow Ridge	334
Lance Canyon	110

9. Air Quality Overview: Effects of Alternatives.

The entire area encompassing the Ashley National Forest is in a class 2 airshed. All commodity alternatives would have temporary degradation of air quality from road construction, activities associated with timber harvesting, and prescribed burns. No State or Federal air quality standards would be violated over the long term by any of the alternatives.

10. Fire Protection Overview: Effects of Alternative

Under all alternatives fire size and intensity will increase as beetle killed trees fall and create "jackpots" of fuels, with fuel loading decreasing proportionately to acres harvested. Although harvesting in Alternatives B, C, E, H, I, and J will decrease the hazard, associated activity will increase the risk of fire.

11. Land Purchase, Acquisition, and Adjustment Overview: Effects of Alternatives

In general, the land acquisition program is not affected by the alternatives. The Ashley National Forest does not have large or numerous tracts of private or state lands within the Forest boundary. Specific land acquisition and exchange will be analyzed through the Environmental Assessment process on a case-by-case basis. This assessment will be made when cases arise which are advantageous to the Government, facilitate management, are requested by the landowner or are necessary to protect significant features.

12. Facilities Overview: Effects of Alternatives

Roads Overview - Effects of Alternatives

The necessary arterial/collector road system is in place on the Ashley except for two or three areas that are not accessible by road. Each alternative except F and G identifies a need for local road construction or reconstruction. The construction of local roads is directly related to the proposed volume of timber harvest. About half of these proposed roads will be used as short-term or intermittent facilities. In all alternatives, road closures would be used to protect the initial investment and reduce maintenance costs. The alternative totals for road construction vary from a low of 4.2 miles for alternative F to a high of 51.4 miles for alternative I. Alternative J proposes a total of 25.8 miles of road construction and reconstruction per year.

Trails Overview - Effects of Alternatives

Effects upon the building of a new trail system would be minimal in all alternatives. The basic arterial/collector trail system exists except in a few situations, primarily in the High Uinta Wilderness. In some cases the existing trail system needs to be redesigned since existing roads parallel these trails. The original purpose or need for some trails has changed along with public demand for certain types and

locations of trails. For example, in the Wilderness, some trails need to be relocated to reduce damage; in other areas, trails are needed to facilitate better management of the area. Livestock drive trails are not used to the extent that they were 30 years ago, but are being used by recreationist or possibly not all. Heavy maintenance and reconstruction of the existing system is needed. Effects of the various alternatives vary in ability to provide heavy maintenance and reconstruction. More commodity alternatives result in less ability to provide this project work. Alternative J, with its emphasis on recreation and wildlife, calls for doubling the amount of investment in the trail system compared to other alternatives. Many opportunities exist to develop and improve a network of trails within the existing arterial and collector system that meet a broad range of user needs and Alternative J specifically provides for this type of management.

Structures Overview - Effects of Alternatives

These facilities are usually site specific, such as Forest Service administrative developments including guard stations, work centers, or communication sites. The total number or location of these facilities will not change significantly throughout the alternatives. The primary variable related with effects associated with these facilities has to do with intensity of management generated by the alternative. Some alternatives may necessitate slight expansion or retraction of these facilities. For the most part, proper design of these facilities can mitigate any major impacts on various resources.

13. Utility Corridors Overview: Effects of Alternatives

The Ashley National Forest has analyzed existing and projected utility and transportation needs as one of the key elements in the Forest Planning process. These corridors do not vary in the effects between alternatives.

- A. Two planning "windows" are identified. These "windows" are critical segments of terrain through which rights-of-way could pass in traversing the Forest.
- B. Nine exclusion areas are identified. These areas prohibit rights-of-way for lineal facilities or corridor/window designation.
- C. Existing rights-of-way meeting standards for corridor designation are identified. A corridor is defined as a linear strip of land having advantages over other areas for the present or future location of transportation or utility rights-of-way. Note that no new or potential corridors are identified and that existing corridors are limited to present widths or to minor widening.
- D. Avoidance areas are identified. Avoidance areas are defined as areas having environmental, statutory, or technological effects that would be difficult or impossible to mitigate. This category includes all Ashley National Forest lands not identified in A, B, or C above.

14. Insect and Disease Overview: Affects of Alternatives

Forest pests have a direct and significant impact on forest resources, affecting recreation sites, causing tree mortality, and creating volume loss in timber stands. The principal insects and diseases affecting the Ashley National Forest are mountain pine beetle (cause of extensive mortality in lodgepole and ponderosa pine), Ips beetles, commandra rust and dwarf mistletoe. Range insects include grasshoppers, black grass bugs, and Mormon crickets.

Investment in extensive control measures within campgrounds and other development sites will be basically the same for all alternatives except F and G, which would not provide for extensive protection at specific sites.

15. Special Areas Overview: Effects of Alternatives

Approximately 811,552 acres of the Ashley National Forest are subject to special laws, regulations, executive orders, or public land orders and remain constant in all alternatives. These areas have specific management requirements or restrictions which limit the kind and extent of resources management activities within their boundaries. Because the effects remain the same in all Forest activities, the special areas are treated the same in all alternatives. These land areas include:

<u>Area</u>	<u>Acres</u>
Administrative Sites (2)	1,433
Developed Recreation Site (43)	11,213
Bureau of Reclamation Project Withdrawals	28,969
Reservoir Withdrawal for Colorado River Storage Project	228,669
Power Site Classification Projects	73,332
High Uintas Wilderness	273,426
Flaming Gorge National Recreation Area	190,902
Sheep Creek Geological Area	3,608
Existing National Recreation Trails	
Little Hole	7 miles
Fish Creek	6 miles

16. Wild and Scenic Rivers Overview: Effects of Alternatives

The Green River Study completed in 1978, Draft Environmental Statement 1979, and final in 1980, identified the Green River from Flaming Gorge Dam to the southern boundary of the Dinosaur National Monument as an eligible Wild and Scenic River. That portion of the Green River from Flaming Gorge Dam to below Red Creek is within the Ashley National Forest boundary and is approximately 12 miles in length. Rock Creek has also been considered as a candidate but is currently being impacted by the construction of Upper Stillwater dam. This construction will change the character of Rock Creek from the reservoir site down stream so it no longer meets the criteria of free-flowing. Green River and Rock Creek are treated the same in all alternatives.

17. Social/Economic Effects Overview: Effects of Alternatives

The overall socio/economic impacts are insignificant for Ashley activities when the whole economy is considered. Alternative A would help provide for stable workforce, employment, population and returns to the treasury and is used as a basis for comparison of alternatives.

A budget increase will slightly affect the local economy under alternative B since there would be an increase in employment, population, and returns to the counties for two decades - then a drop as harvest is reduced to Non-Declining Sustained Yield. The budget will create indirect effects for the local economy. Changes in Recreation Opportunity Spectrum classes will affect traditional recreation attractiveness and activities. Alternative C would have an increase in employment with an increased commodity output level that does not decline thru the fifth decade. The increased budget would create an increase in the local economic activities. There would be a need for a high incidence of road closures to meet wildlife needs. Alternative D would have a decrease in employment with decreased "commodity" output levels but not significantly. Budget levels would be slightly lower in decades 2-5 but would have no significant effect on local economy. Alternative E is similar to current employment with an increased budget resulting in increased local economic activities. Alternative F would have reduced employment, reduced investments, but would not have a significant effect on the local economy. Access and service roads would be curtailed. Alternative G would have negative changes in investment, commodity output, employment, population and returns to counties, accumulatively the lowest of all alternatives, but still not having a significant impact on the local economy. Alternatives H, I, and J are similar to Alternative B.

Energy Requirements - Overview

The net energy balance (Energy yield minus energy consumption) for the Ashley is positive in all alternatives because of the energy produced by dams on the Green and Colorado Rivers utilizing water originating in the Forest and, to a lesser degree, because of fuelwood extracted from the Forest. Major components of energy consumption are recreation, (principally transportation), and timber harvesting.

Possible Conflicts - Overview

There are several conflicts with RPA 80 direction and targets that are identified in the RPA 80 alternative (E). These targets will be adjusted at the regional level.

There are no known conflicts with plans of other agencies.

Irreversible and Irretrievable Commitment of Resources - Overview

Irreversible commitment of resources refers to resources that are renewable only after a long period of time (such as soil productivity), or to nonrenewable resources (cultural or minerals). Alternatives were

formulated with the understanding that maintenance of future options was an important consideration. Measures to protect those resources that could be irreversibly affected by other resource uses were incorporated in the standards and guidelines in the Forest Plan (Chapter IV).

The differences between alternative output levels and the higher levels that could be produced also represents an irretrievable commitment of resources. For example, a low level of domestic livestock grazing or a low level of water yield could be increased in the future by application of different management prescriptions, but the outputs between now and then would be "lost" or not available for use. Therefore, the maintenance of future options and the current ability to utilize the resources to the fullest tend to conflict with one another. The purpose of Forest planning in all alternatives was to provide a mix of uses now and for future time periods that balance the needs of both the current population and future generations.

Adverse Environmental Effects That Cannot be Avoided - Overview

The alternative formulation process considered a wide range of alternatives, some of which had major adverse environmental effects. Many of these effects were avoided by the criteria established for eliminating alternatives that cannot be implemented. Thus the ten alternatives considered in detail represent a broad range of resource outputs and also a reduction of the adverse environmental effects that cannot be avoided. These effects include:

- An increase in sedimentation resulting from soil disturbance and increased water yield.
- A short-term adverse effect on scenic quality in a few sensitive places because of vegetation management and road construction.
- Foregone timber volumes because of inaccessibility and inoperability of steep land forms.
- Foregone timber volumes because of insect epidemic.
- Short-term reduced air quality because of dust, smoke, and automobile emissions resulting from increased recreation use and vegetative management practices.
- Short-term adverse impacts on wildlife areas resulting from increased timber activity to salvage insect-damaged trees.

Short-term uses of Man's Environment and the Maintenance of Long-Term Productivity

The relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity is complex. Short-term uses are those that generally occur on a yearly basis on some part of the Forest, such as livestock grazing as a use of the forage resource, and recreation and irrigation as a use of water resource. The Forest Plan is a long-range plan to provide direction for the next ten years (or until revised) and incorporates the sustained yield of resource outputs while maintaining productivity of the resources.

Natural or Depletable Resource Requirements

Natural resource requirements for implementing the Proposed Action or any of the other alternatives considered in detail require the use of basic soil and water resources and associated plant and animal communities that comprise the forest and rangeland ecosystems. The various alternatives are composed of combinations of management prescriptions, all of which are designed to maintain or enhance the productivity of renewable resources and to protect the productivity of the basic soil and water resources. Mitigation measures to meet the incorporated in Environmental Assessments.

Urban Quality, Historic and Cultural Resources

Urban quality will be little impacted by implementation of the proposed action any of the alternatives. Most impacts would be related to social and economic factors such as employment and population changes as a direct result of National Forest activities. Changes in population and employment as a result of Forest activities are insignificant due to the low percentage of the total impacted.

All undertakings which could affect significant cultural values, require an archaeological review and inventory prior to implementation. Historic and cultural sites inventoried will be evaluated for significance by a qualified archaeologist in cooperation with the State Historic Preservation Officer (SHPO). Significant sites, if located, will be nominated to the National Register of Historic Places.

TABLE OF CONTENTS

i. Summary	S-1
ii. Table of Contents	ii-1
iii. List of Maps, Tables, and Figures	iii-1
iv. Key to Abbreviations	iv-1

I. PURPOSE AND NEED

A. Introduction	I-1
B. National, Regional, and Forest Planning	I-2
C. Location of the Forest	I-6
D. Issues, Concerns, and Opportunities	I-8
E. Organization of Chapters II, III and IV	I-10
F. Planning Records	I-11

II. ALTERNATIVES, INCLUDING THE PROPOSED ACTION

A. Alternative Development Process	II-1
1. Overview	II-1
2. Role and Use of Benchmarks	II-6
B. Alternatives (Broad Range of Reasonable Alternatives)	II-8
1. Alternatives Considered but Eliminated from Detailed Study	II-9
2. Alternatives Considered in Detail	II-10
Alt. A (Current Management Direction-- No Action)	II-11
Alt. B (Coordinated Resource Alternative)	II-12
Alt. C (Market Opportunities)	II-13
Alt. D (Nonmarket Opportunities)	II-13
Alt. E (1980 RPA Program)	II-14
Alt. F (Current Budget)	II-15
Alt. G (Reduced Budget)	II-15
Alt. H (Livestock - Timber Emphasis)	II-16
Alt. I (Accelerated Harvest)	II-17
Alt. J (Preferred)	II-17
C. Comparison of Alternatives Considered in Detail	II-18

III. AFFECTED ENVIRONMENT

A. Introduction	III-1
B. Physical and Biological Setting	III-1
C. Social and Economic Setting	III-3
1. Primary Zone of Influence	III-3
a. Economic Indicators	III-5
2. Secondary Zone of Influence	III-5
D. Resource Elements	III-6
1. Recreation	III-6
a. Developed Recreation - Public	III-7
b. Developed Recreation - Private	III-8
c. Dispersed Recreation	III-8

d.	Trails	III-12
e.	Cultural Resources	III-12
f.	Research Natural Areas	III-14
g.	Visual Resources	III-16
2.	Wilderness	III-16
3.	Wildlife and Fish	III-17
a.	Forest Species	III-18
b.	Habitat Diversity	III-18
c.	Management Indicator Species	III-19
d.	Forest Species (Sensitive, Threatened, or Endangered)	III-27
e.	State Agency Objectives	III-27
f.	Wildlife Use (Demand)	III-27
g.	Habitat Improvement	III-28
4.	Range	III-29
5.	Timber	III-33
a.	Existing Situation and History	III-33
b.	Future Stands Condition Under Current Management	III-33
c.	Land Suitability by Alternatives	III-34
d.	Demand Analysis	III-34
6.	Water	III-39
a.	Water Quality	III-39
b.	Consumptive Needs	III-40
c.	Nonconsumptive	III-41
d.	Water Quality	III-41
e.	Improvement Needs	III-41
f.	Hazards to Resource	III-41
g.	Riparian Areas	III-42
h.	Flood Prone Areas	III-42
i.	Impoundments	III-43
j.	Demand	III-44
7.	Minerals and Energy	III-45
a.	Availability	III-46
b.	Capability	III-47
c.	Suitability	III-47
d.	Expected Future Condition	III-48
8.	Human and Community Development (Included in C. above)	
E.	Support Elements	
1.	Lands	III-48
a.	Land Ownership and Land Uses	III-48
b.	Special Uses	III-49
2.	Soils	III-52
a.	Productivity	III-52
b.	Improvement	III-53
c.	Monitoring	III-53
d.	Special Conditions	III-53
e.	Soils requiring special attention	III-54
f.	Inventory	III-54
3.	Facilities	III-55
a.	Administrative Sites and Buildings	III-55
b.	Roads (including Forest Highways)	III-56
c.	Trails	III-57
d.	Utility and Transportation Corridors	III-57

4.	Protection	III-57
	a. Fire	III-57
	b. Air Quality	III-59
	c. Insect and Disease	III-60
	d. Law Enforcement	III-65

IV. ENVIRONMENTAL CONSEQUENCES

A.	Introduction	IV-1
B.	Direct and Indirect Environmental Effects	IV-1
	1. Recreation	IV-1
	a. Developed Recreation	IV-1
	b. Dispersed Recreation	IV-3
	c. Wild and Scenic Rivers	IV-5
	d. Cultural Resources	IV-5
	e. Visual Resources	IV-6
	2. Wilderness	IV-7
	3. Fish and Wildlife	IV-10
	Threatened and Endangered Animals	IV-10
	Management Indicator Species	IV-10
	Other Fish and Wildlife	IV-13
	Effects on other Resources	IV-13
	4. Range	IV-14
	Threatened and Endangered Plants	IV-14
	Range Program	IV-14
	Effects on other Resources	IV-15
	Other Effects	IV-17
	5. Timber	IV-17
	Effects on other Resources	IV-20
	6. Watershed	IV-25
	Water	IV-25
	Soil	IV-29
	Effects on other Resources	IV-31
	7. Minerals and Energy	IV-33
	Use of Standard and Supplemental Stipulations	IV-36
	Effects on other Resources	IV-39
	8. Research Natural Areas	IV-41
	9. Air Quality	IV-41
	10. Fire Protection	IV-42
	11. Land Purchase, Acquisition, and Adjustment	IV-42
	12. Facilities	IV-42
	a. Roads	IV-42
	b. Trails	IV-44
	c. Structures	IV-45
	13. Utility Corridors	IV-45
	14. Insect and Disease	IV-47
	15. Special Areas	IV-48
C.	Economic Effects and Social Effects	IV-48
D.	Possible Conflicts	IV-54
	1. Resources Planning Act (RPA) Program Objectives	IV-54

2. Objectives of Other Federal, State, County, and Local Governments	IV-55
E. Energy Requirements	IV-55
F. Irreversible and Irretrievable Commitment of Resources	IV-57
G. Adverse Environmental Effects that Cannot be Avoided	IV-57
H. Short-Term Uses of Man's Environment and the Maintenance of Long-Term Productivity	IV-59
I. Natural or Depletable Resource Requirements	IV-59
J. Urban Quality, Historic and Cultural Resources	IV-60
 V. LIST OF PREPARERS	 V-1
 VI. CONSULTATION AND LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS TO WHOM COPIES OF THE STATEMENT WERE SENT	 VI-1
Overview	VI-1
I. Consultation with others between the Draft and Final EIS	VI-1
A. Summary of Public Participation Activities	VI-1
B. Summary of Comments	VI-2
II. Public Comments and Forest Service Responses	VI-3
A. Ashley Public Content Analysis Summary	VI-3
B. Summary of Response by Major Topic	VI-4
C. General Forest Service Response Statements	VI-9
D. Individual Comments and Forest Service Response	
E. Business Comments and Forest Service Response	
F. Organizations and Comments and Forest Service Response	
G. Government Agencies Comments and Forest Service Response	
III. Mailing List	
 VII. INDEX	 VII-1
 APPENDICES	
A. Issue, Concern, and Opportunity Identification Process	A-1
B. Description of Analysis Process	B-1
C. Roadless Area Re-evaluation	C-1
D. Alternative Maps	D-1
E. FEIS Only - Replaced by Chapter VI	
F. Glossary	F-1
G. References	G-1
H. Transportation and Utility Corridor Analysis	H-1
I. Mineral Stipulations	I-1

TABLES, FIGURES, and MAPS

I. PURPOSE AND NEED

Vicinity Map	I-7
--------------	-----

II. ALTERNATIVES, INCLUDING THE PROPOSED ACTION

Table II-1	Prescription Acres	II-19
	Management Area Prescriptions	II-20
	Comparison of Recreation Outputs	II-34
	Alternative J Recreation Outputs	II-35
	Long Term Sustained Yield Capacity	II-37
	Capable Available and Suitable Acres	II-37
	Logging Methods Applied to Acres	II-38
	Final Harvest and Intermediate Harvest	II-39
	Water Yield Increases	II-41
	Total Water Yield and Water Meeting	
	Quality Standards	II-41
	Sediment Yield	II-42
Table II-2	Long Term Maintenance of Soil Productivity	II-43
Table II-3	Present Net Value at 4% and 7%	
	Discount Rates	II-46
Table II-4	Resource Outputs, Activities, and	
	Benefits by Alternatives	II-47
Table II-5	Changes in Outputs, Activities, Costs	
	and Benefits	II-60
Table II-6	Comparison of Response to Issues,	
	Concerns and Opportunities	II-71
Table II-7	Present Net Value and Priced Outputs	II-78
Table II-8	Present Net Value and Non-priced Outputs	II-79
Table II-9	Present Net Value and Qualitative Effects	II-82

III. AFFECTED ENVIRONMENT

Table III-1	Economic Indicators - Trends and Baseline	III-4
	Projections	
Table III-2	County Receipts	III-4
Table III-3	Developed Recreation Sites by Ranger	III-7
	District	
Table III-4	Special Use Recreation Sites	III-8
Table III-5	Recreation Use From 1971-1980	III-9
Table III-6	Acres, Use, and Capacity by ROS Class	III-10
Table III-7	Recreation Demand	III-11
Table III-8	Research Natural Area Candidates	III-14
Table III-9	ROS Classes in High Uintas Wilderness	III-17
Table III-10	Projected Demand for Wilderness	III-17
Table III-11	Forest Age Classes	III-18
Table III-12	Vegetative Types	III-19
Table III-13	MIS Habitat Relationships	III-21

Table III-14	MIS Populations	III-25
Table III-15	Wildlife Resource Demand	III-27
Table III-16	Projected Wildlife Resource Demands	III-28
Table III-17	Livestock Historical Use	III-31
Table III-18	Comparison of Permitted, Actual and Tentative Livestock Use	III-31
Table III-19	Summary of Range Analysis Data	III-31
Table III-20	Projected Livestock Use	III-32
Table III-21	Commercial Forest Area by Species Type	III-35
Table III-22	Projected Timber Outputs	III-36
Table III-23	Timber Cut - 1941 thru 1981	III-37
Table III-24	Acres Harvested by Cutting Method	III-38
Table III-25	Present and Future Water Use	III-45
Table III-26	Effects of Forest Insects and Diseases	III-63

IV. ENVIRONMENTAL CONSEQUENCES

Table IV-1	Acres Available for Motorized Use	IV-5
Table IV-2	Visual Quality Objectives	IV-9
Table IV-3	Acres of Timber 100 years of Age or Older	IV-12
Table IV-4	Forest Condition Class	IV-21
Table IV-4a	Forest Condition Class	IV-22
Table IV-5	Long Term Soil Productivity	IV-31
Table IV-6	Oil and Gas Potential	IV-34
Table IV-7	Discounted Benefits and Costs - 4%	IV-52
Table IV-8	Discounted Benefits and Costs - 7%	IV-53
Table IV-9	Energy Balance - Billion BTU's/year	IV-56

APPENDIX B

Table B-1	Range/Timber Suitability	B-8
Table B-2	Management Prescription Comparison	B-28
Table B-3	Sawtimber Values and Costs	B-35
Table B-4	Benefit Values for Flaming Gorge NRA	B-37
Table B-5	Benefit Values for Wilderness	B-37
Table B-6	Benefit Values for Balance of Forest	B-38
Table B-7	Summary of Recreation Benefit Values	B-38
Table B-8	FORPLAN Cost Data by Resource	B-40
Table B-9	Projected Population, Employment and Income	B-45
Table B-10	Energy: 2000 Projection./IMPLAN Projections	B-46
Table B-11	Annual Timber Output - Benchmarks	B-55
Table B-12	Annual Water Yield - Benchmarks	B-55
Table B-13	Annual Range Output - Benchmarks	B-56
Table B-14	Annual Fuelwood Potential - Benchmarks	B-56
Table B-15	Annual Developed Recreation - Benchmarks	B-56
Table B-16	Annual Dispersed Recreation - Benchmarks	B-56
Table B-17	Annual Sediment Delivery - Benchmarks	B-57
Table B-18	Long Run Sustained Yield by Benchmarks	B-57
Table B-19	Benchmark Prescription Assignment	B-58
Table B-20	Annual Timber Yield	B-67
Table B-21	Annual Water Yield	B-68

Table B-22	Annual Range Output	B-68
Table B-23	Annual Developed Recreation Output	B-69
Table B-24	Annual Dispersed Recreation Output	B-69
Table B-25	Discounted Benefits, Costs and PNV	B-70
Table B-26	Long Run Sustained Yield	B-70
Table B-27	Alternative Prescription Assignment	B-71
Table B-28	Discounted Costs/Benefits Comparison to Least Cost	B-71
Table B-29	Discounted Costs/Benefits Comparison to Highest PNV	B-72

APPENDIX D

Alternative Maps

APPENDIX H

Table A	Existing Electrical Transmission Line	H-8
Table B	Existing Pipelines	H-9
Table C	Existing Roads and Highways	H-9
Table D	Evaluation Process (Electrical Transmission)	H-13
Table E	Evaluation Process (Pipelines)	H-20
Table F	Evaluation Process (Roads and Highways)	H-24
Table G	Evaluation Process (Window Areas)	H-27
Table H	Summary of Recommended Designations	H-30
Exhibit 1	Approaches for Corridor/Window Selection	H-43
Exhibit 2	Mitigation Measure for Electrical Transmission Lines	H-46
Exhibit 3	Required Procedures for Pipelines	H-52

KEY TO ABBREVIATIONS

Many of the terms used in Forest Planning are often abbreviated in tables and text to conserve space and are listed below.

A	-	Aspen
ASQ	-	Allowable Sale Quantity
AC	-	Acre(s)
AMS	-	Analysis of the Management Situation
APD	-	Application for Permit to Drill
AUM	-	Animal unit month
bd. ft.	-	Board foot
BTU	-	British Thermal Unit
CFR	-	Code of Federal Regulations
Cu. ft.	-	Cubic foot
CUP	-	Central Utah Project
DBH	-	Diameter at Breast Height
DEIS	-	Draft Environmental Impact Statement
DF	-	Douglas fir
DWR	-	Division of Wildlife Resources (Utah DWR)
EIS	-	Environmental Impact Statement
ER	-	Established Report
ES	-	Engelmann Spruce
FEIS	-	Final Environmental Impact Statement
FERC	-	Federal Energy Regulatory Commission
FGNRA	-	Flaming Gorge National Recreation Area
FIL	-	Fire intensity level
FSH	-	Forest Service Handbook
FSM	-	Forest Service Manual
G.A.	-	General Administration
GAWS	-	General Aquatic Wildlife Survey
ICO	-	Issue, Concerns, Opportunities
ID	-	Interdisciplinary team
lb(s)	-	Pounds
IPM	-	Integrated Pest Management
LPP	-	Lodgepole pine
LTSY	-	Long term sustained yield
M	-	Thousand
MAc/ft	-	Thousand Acre Feet
Max	-	Maximum
MCF	-	Thousand cubic feet
MIS	-	Management Indicator Species
MM	-	Million
MMBF	-	Million board feet
MMCF	-	Million cubic feet
MRVD	-	Thousand recreation visitor days
MVP	-	Minimum viable population
NDSY	-	Non-declining Sustained Yield
NEPA	-	National Environmental Policy Act
NFMA	-	National Forest Management Act
NRA	-	National Recreation Area
NPB	-	Net public benefit
NTL	-	Notice To Leasee
NTU	-	Nephelometer Turbidity Units

NUSSTG - Northern Utah Shared Services Timber Group
ORV's - Off-road vehicles
PAOT - People at one time
PNV - Present net value
PP - Ponderosa pine
PVB - Present value of benefits
PVC - Present value of costs
RAMIS - Range Allotment Management Information System
RIM - Recreation Information Management
RPA - Forest and Rangeland Renewable Resource Planning Act
RMOGA - The Rocky Mountain Oil and Gas Association
RN - Roaded Natural
RNA - Research Natural Area
ROS - Recreation opportunity spectrum
RVD's - Recreation visitor days
SAF - Subalpine fir
SHPO - State Historic Preservation Officer
SPM - Semi-primitive motorized
SPMN - Semi-primitive nonmotorized
T&E - Threatened and Endangered
TEP - Trade-off Evaluation Process
TMP - Timber Management Plan
TSI - Timber Stand Improvement
VIS - Visitor Information Services
VQO - Visual quality objective
WFUD's - Wildlife and fish user days
WRENS - Water Resources Evaluation of Non-point Silvicultural Sources

CHAPTER I
PURPOSE AND NEED

I. PURPOSE AND NEED FOR ACTION

A. INTRODUCTION

The Final Environmental Impact Statement (FEIS) for the Ashley National Forest Land and Resource Management Plan describes a proposed action and alternatives to the proposed action for the future management of the land and resources of the Forest. It also describes the affected environment and lists the environmental consequences of implementing the proposed action and alternatives. The preferred alternative, alternative J is one of ten alternatives evaluated in the FEIS.

The proposed action identified in the Environmental Impact Statement serves as the basis for the proposed National Forest Land and Resource Management Plan (Forest Plan) which is detailed in a separate document. For purposes of NEPA disclosure, this EIS and the Forest Plan are treated as a combined document. The Forest Plan covers a 10-year planning period and will be revised as often as necessary but at least every fifteen (15) years.

The goal of the Forest Plan is to fully integrate a mix of management actions that allow use and protection of Forest resources, satisfy guiding legislation, and address local, regional and national issues.

The purpose of this Environmental Impact Statement is to disclose the significant physical, biological, economic, and social effects on the environment of the Forest Service's preferred alternative and a range of alternatives to the proposal. The net public benefits that reflect the long-term value to the Nation, less costs, measured by both quantitative and qualitative criteria are considered. The issues, concerns, and opportunities identified through the public involvement process are addressed in the EIS.

The Ashley National Forest is one of the 154 National Forests ^{1/} involved in the planning process following the same National directives. The total National Forest planning effort is three-tiered:

1. The National Level
2. The Regional Level
3. The Forest Level

The National level deals primarily with National Forest planning, policy making, funding, monitoring, and legislative activities. The Regional role is one of clarifying and interpreting policy, providing additional direction and coordination, as well as providing expertise upon request. Individual Forests are charged with Forest land and resource management, within National and Regional direction, from a local perspective.

^{1/} Some of the Forests are combined for planning purposes resulting in 121 different Forest Plans.

The preparation of an Environmental Impact Statement (EIS) is required by the National Environmental Policy Act (NEPA), the Council of Environmental Quality (CEQ) regulations, and the implementing regulations of the National Forest Management Act (NFMA).

Planning is conducted under the authority of the Multiple-Use Sustained Yield Act of 1960 and the Forest and Rangeland Renewable Resource Planning Act of 1974 (RPA), as amended by the National Forest Management Act (NFMA). An assessment of the Proposed Action's environmental consequences is required by the National Environmental Policy Act (NEPA).

The Forest Plan replaces all previous resource management plans prepared for the Ashley National Forest. After approval of the Forest Plan, all permits, contracts, and other instruments that provide for the use and occupancy of the National Forest System lands must conform with the Forest Plan. The Flaming Gorge National Recreation Area (FGNRA) Management Plan has been incorporated into this Plan. In addition, all subsequent activities affecting the Forest, including budget proposals, will comply with the Forest Plan and will be tiered to this FEIS and the Forest Plan. A glossary of terms used in this FEIS and Forest Plan is included as Appendix F to aid reviewers in understanding the content of both documents.

B. NATIONAL, REGIONAL, and FOREST PLANNING

Forest Planning takes place within the overall planning framework structured by the regulations of RPA. The planning process is based on the 14 planning principles stated in the NFMA regulations (36 CFR 219.1); these are:

1. Establishment of goals and objectives for multiple-use and sustained yield management of renewable resources without impairment of the productivity of the land.
2. Consideration of the relative values of all renewable resources, including the relationship of nonrenewable resources such as minerals, to renewable resources.
3. Recognition that the National Forests are ecosystems, and their management for goods and services requires an awareness and consideration of the interrelationships among plants, animals, soil, water, air, and other environmental factors within such ecosystems.
4. Protection and, where appropriate, improvement of the quality of renewable resources.
5. Preservation of important historic, cultural, and natural aspects of our National heritage.

6. Protection and preservation of the inherent right for freedom of American Indians to believe, express, and exercise their traditional religions.
7. Provisions for the safe use and enjoyment of the Forest resources by the public.
8. Protection, through ecologically compatible means, of all Forest and rangeland resources from depredations by Forest and rangeland pests.
9. Coordination with the land and resource planning efforts of other Federal agencies, State and local governments, and Indian tribes.
10. Use of a systematic, interdisciplinary approach to ensure coordination and integration of planning activities for multiple-use management.
11. Early and frequent public participation.
12. Establishment of quantitative and qualitative standards and guidelines for land and resource planning and management.
13. Management of National Forest System lands in a manner that is sensitive to economic efficiency.
14. Responsive to changing conditions of land and other resources and to changing social and economic demands of the American people.

Forest Service planning is a continuous, iterative process carried out on three levels:

1. National--RPA Assessment and Program.
2. Regional--Regional Guide.
3. Local--Forest Land and Resource Management Plans for the National Forest System lands; Statewide Comprehensive Plans for fish and wildlife management and outdoor recreation; and State Forest Resource Plans that are developed by the States with Forest Service assistance for State and private lands and that provide information that is used at the Regional and National levels.

Management direction becomes increasingly specific as planning progresses from the National to the local level.

NATIONAL RPA ASSESSMENT AND PROGRAM

Every 10 years, a comprehensive, nationwide assessment is made of the Forest and rangeland renewable resources in the United States. Using information generated at the local and Regional levels, this RPA Assessment covers timber, range, minerals, water, wildlife and fish, outdoor recreation, and wilderness. Long-range projections are made of

future supply and demand for each of these resources. The findings are then used to help determine the desired level of resources and to help determine the desired level of future Forest Service programs.

Alternative levels of outputs and associated costs are examined in the RPA Program, which is prepared every 5 years. Based on an analysis of these alternatives and consideration of public views, the Secretary of Agriculture selects a National RPA Recommended Program for the Forest Service. Based on the Program, the nationwide resource objectives are distributed among the nine Regions of the National Forest System. The Recommended Program and a Presidential Statement of Policy are transmitted to Congress, which may accept, reject, or revise the Statement of Policy. The final Statement of Policy and Program together guide the framing of future Forest Service budget proposals. Actual program implementation is directed by annual appropriations.

REGIONAL GUIDES

Regional planning links the RPA Assessment and Program with local Forest and State planning. It plays a dual role by channeling management direction from the National to the local level and information from the local to the National level.

The Regional Guide communicates National and Regional direction for National Forest planning, as well as information pertinent to the development of State Forest Resource Plans and research activities. Specifically, the Regional Guide serves the following purposes:

1. It provides standards and guidelines for various management activities that may be carried out on the National Forests. These standards and guidelines specify the actual criteria to be applied to the management activities.
2. It provides planning direction for developing individual Forest Plans, including those issues or concerns raised at the National or Regional level that can only be assessed or resolved by the Forests. Planning direction essentially defers the final decision on an issue to the individual Forest, within limits established by the Region.
3. It displays the Regional RPA Program and distributes tentative resource targets among the individual National Forests. RPA assigned objectives are used as the basis for one of the alternatives examined in the Forest planning process.
4. It reflects the general coordination of National Forest System programs, State and Private Forestry programs, and research programs.

FOREST PLANS

The National Forest Land and Resource Management Plan considers a broad range of reasonable management alternatives. To the extent practical, Forest Plan Alternatives reflect the full range of major commodity and

environmental resource uses and values that could be produced from the Forest. All alternatives are formulated to provide different ways of addressing the major public issues, management concerns, and resource opportunities identified during the planning process. One alternative is designed to meet the Forest's tentatively assigned share of the 1980 RPA Program; others have resource outputs that are above or below the RPA Program levels. The emphasis in both the RPA Program and National Forest Plan is on the future and how the Forest can best be used and managed to meet people's needs.

FOREST PLANNING PROCESS

Regulations to implement the requirements of the National Forest Management Act (36 CFR 219) were promulgated on September 30, 1982, in Federal Register Volume 47, page 43037. Those regulations outline in detail how the proposed Forest Plan is to be prepared. The actions required by the National Forest planning regulations set forth in 36 CFR 219.12 and used in the planning process are as follows:

1. Identification of purpose and need.
2. Development of planning criteria.
3. Collection of inventory data and information.
4. Analysis of the management situation.
5. Formulation of alternatives.
6. Estimated effects of alternatives.
7. Evaluation of alternatives.
8. Recommendation of a preferred alternative.
9. Approval of Plan.
10. Monitoring and evaluation of Plan.

Forest planning is coordinated within National and Regional planning as required by the laws cited above and the regulations for implementing them. The Regional Guide establishes management standards and guidelines, provides planning guidance for regionally significant issues and concerns, and distributes National goals and targets from the 1980 RPA to individual Forests. The Forest planning process deals with achieving those goals and addressing local issues and concerns.

The Draft EIS was prepared and circulated for comment upon completion of planning actions 1 through 7. Part of step 7 was development of a preferred alternative. The Preferred Alternative (proposed action) is the basis for the proposed Ashley National Forest Land and Resource Management Plan detailed in the accompanying document. The Forest repeated planning actions 1 through 7 as necessary resulting in the FEIS that will be filed with the Environmental Protection Agency, and made

available to the public. The Regional Forester will use the EIS to make a decision under NFMA for approval of the Forest Plan (36 CFR 219.10(c)) documented in the Record of Decision.

The Forest Plan may be revised as needed on a 10-year cycle, but it must be revised at least every 15 years. The Plan may also be revised whenever the Forest Supervisor determines that conditions or demands covered by the Plan have changed significantly or when changes in RPA policies, goals, or objectives would have significant effects on Forest level programs. The Forest Supervisor will review the conditions that might require revision of the Forest Plan at least every 5 years.

C. LOCATION OF THE FOREST

Physical and Biological

The Ashley National Forest contains approximately 1.4 million acres and spans a major portion of the east-west Uinta Mountain Range, the Flaming Gorge portion of the Wyoming Basin, and the South Unit section of the Tavaputs Plateau. Elevations range from 6,000 to 13,500 feet. This difference in elevation affects the climate and vegetative cover of the Forest, which contains features from both the high desert country and the mountainous areas above timberline. Annual precipitation ranges from 8 to 40 inches.

The Ashley National Forest is located in the north eastern part of the State of Utah and the south western part of Wyoming. Portions of seven counties are located in the boundaries of the Forest: Uintah, Utah, Duchesne, Daggett, Summit, and Wasatch counties in the State of Utah, and Sweetwater county in Wyoming. The majority of the Forest lies within Uintah, Duchesne, and Daggett counties. Large portions of the Forest are visible from U.S. Highway 40, U.S. 191 and several state routes.

The Uinta and Ouray Indian Reservation and two other National Forests - the Uinta and Wasatch-Cache National Forests border the Ashley National Forest along with BLM lands, State lands, and private property.

The Forest headquarters and one Ranger District are located in Vernal, Utah. Ranger District offices are also located in Manila, Roosevelt, and Duchesne, Utah.

The planning area covered by the Forest Plan is the administrative unit consisting of the entire Ashley National Forest.

Social and Economic

Daggett, Duchesne, and Uintah counties in Utah and Sweetwater county in Wyoming were identified as the primary socio-economic zone influence for the Ashley National Forest. Main towns include Vernal, Roosevelt, and Duchesne on the south portion of the Forest; Manila, Green River and Rock Springs on the north slope. Duchesne, Roosevelt, and Vernal are accessed by highways U.S. 40 and 191 and Manila by Highway U.S. 191.



ROCK SPRINGS

GREEN RIVER

EVANSTON

WYOMING
UTAH

MANILA

ASHLEY NATIONAL FOREST

VERNAL

JENSEN

ROOSEVELT

TO SALT LAKE CITY

DUCHESNE

ASHLEY NATIONAL FOREST

VICINITY MAP



D. ISSUES, CONCERNS and OPPORTUNITIES

The identification of public issues, and management concerns and opportunities (ICOs) was done through a public involvement process required by the NFMA planning implementation regulations (36 CFR 219.12(b)).

Alternatives for management of the Ashley National Forest's lands and resources address significant ICOs related to Forest management. These ICOs must be addressed in the Plan to provide appropriate and effective management direction for the Forest. The ICOs were also used to establish the scope of the EIS (40 CFR 1501.7).

Forest-wide public issues and management concerns were developed from comments solicited from the general public, taken from past planning records, and from the Forest staff. A detailed discussion of the scoping process used in defining significant ICOs and how they were addressed by the alternatives can be found in the planning records on the Forest. Appendix A of this document also includes a more detailed discussion of the process and the issues.

The ICOs addressed in the FEIS and the proposed Forest Plan are:

<u>ICO #</u>	<u>Resource Group</u>	<u>ICO</u>
1	Transportation	How much and what type of access is needed on the Ashley National Forest?
2	Fuelwood	To what extent does the current Ashley Forest fuelwood program, with both free use and charge permit in designated areas, meet public needs?
3	Watershed	To what extent should the Ashley use vegetative manipulation or other practices to augment water yields?
4	Range	What level of domestic livestock grazing, forage manipulation and range improvements should the Ashley National Forest strive to sustain?
5	Timber	What level of timber harvest and what type of management practices should be used on the Ashley Forest?

<u>ICO #</u>	<u>Resource Group</u>	<u>ICO</u>
6	Wildlife	What level of wildlife management activities should the Ashley Forest emphasize with a wildlife habitat management program?
7	Recreation	Should existing recreation facilities or developments be maintained to a high quality standard and new facilities constructed as needed to meet projected demands? Should more or less area of the Forest be made accessible by vehicle or is the present recreation access suitable?
8	Landownership	Should problems of public access to National Forest lands be resolved through ownership adjustment and should it be a high Forest priority?
9	Fire	To what extent should fire management strategies of less than immediate and aggressive control be applied on the Forest and in what areas?
10	Minerals and Energy	Where and under what conditions can minerals and energy be developed on the Ashley?
11	Off-Road Vehicle	Are existing area and road closures acceptable or should there be more or less closures?
12	Timber (Pine Beetle)	If additional markets for ponderosa and lodgepole timber can be found, what level of harvest should the Ashley attempt to achieve?

<u>ICO #</u>	<u>Resource Group</u>	<u>ICO</u>
13	Wilderness	<p>Which Roadless Areas, or parts thereof, should be recommended for inclusion in the National Wilderness System? (This issue was resolved by the 1984 Utah Wilderness Bill legislation and no further evaluation of released areas is required until the next plan revision. Refer to Appendix A for an expanded discussion of this issue and how it was resolved.)</p> <p>For those areas or portions not included in wilderness, what level of management, development, or vehicle access should be proposed?</p>

E. ORGANIZATION OF CHAPTERS II, III, and IV

The Forest planning process as defined and required by the National Forest Management Act generated a mass of data. A problem was encountered in how to logically document these data (outputs, costs, and effects) and disclose the effects of the various alternatives in an environmental impact statement. The following approach is used to address this problem.

- In Chapter II, "Alternatives including the Proposed Action", are described by showing the outputs, costs, and major effects of meeting the objectives of each alternative. These outputs, costs, and effects are displayed by individual resources which were identified in issues, management concerns, laws, regulations, or Executive Orders.
- In Chapter III, "Affected Environment", the information analyzed in "Alternatives" and "Environmental Consequences" is used to describe the present situation as well as future conditions created by the implementation of each alternative.
- In Chapter IV, "Environmental Consequences", the type and amount of activities are identified which would produce the outputs and create the costs already identified. These activities produce certain environmental consequences, beneficial and adverse; create a relationship between short-term use of man's environment and maintenance and enhancement of long-term productivity; and may or may not irreversibly and irretrievably commit resources to certain uses.

The reader should keep this structure in mind while reviewing the document. The logic for each chapter will be redefined more explicitly at the beginning of each chapter.

F. PLANNING RECORDS

The resource information and analysis procedures developed during the Ashley National Forest's Land and Resource planning process are part of the Forests planning records and are available for review during business hours at the Supervisor's Office, 1680 W. Highway 40, Ashton Energy Center, Vernal, Utah 84078.

These records are incorporated by reference as provided for in the NEPA implementing regulations (40 CFR 1502.210). The intention is to include them in the planning process. Also included in the planning records by reference is the Final EIS on the 1980 Service-wide Assessment and RPA Program filed with the Environmental Protection Agency (EPA) on September 26, 1980.



CHAPTER II

ALTERNATIVES INCLUDING THE PROPOSED ACTION



II. ALTERNATIVES INCLUDING THE PROPOSED ACTION

INTRODUCTION - In the National Forest Management Act (NFMA) planning process, a land management alternative is a plan to guide management of the land and resources of the Forest. National Environmental Policy Act (NEPA) regulations (40 CFR 1502.14) require exploration and objective evaluation of a wide range of reasonable alternatives to the proposed action, including a "no action" alternative. NEPA regulations also require identification and discussion of alternatives eliminated from detailed study.

In Forest planning, each alternative is a particular combination of management prescriptions for each resource use. Each combination emphasizes a different management philosophy. The alternatives considered in this chapter address issues and concerns identified in Chapter I. In addition to representing different combinations of the management prescriptions, each alternative provides for scheduling activities in different locations and produces varying levels of outputs, goods and services. The set of management prescriptions available is the same for all alternatives, except in special situations where they are locked out to achieve the objectives of those alternatives. The combination of prescriptions used and the acres assigned to each prescription will differ by alternative.

A. ALTERNATIVE DEVELOPMENT PROCESS

1. OVERVIEW

The purpose of Forest planning is to identify and select for implementation that plan alternative that most nearly maximizes net public benefits. Net public benefits are defined as:

"...overall long term value to the Nation of all outputs and positive effects (benefits less all associated inputs and negative effects-costs) whether they can be quantitatively valued or not...consistent with the principles of multiple use and sustained yield."

There is no mathematical formula available to define the desired alternative. Indeed, there are differences of opinion about whether particular effects of alternatives are positive or negative. Therefore it is necessary to separately define the major effects of each alternative as the basis for review, judgment, and eventual selection.

NFMA regulations, 36 CFR 219.12(f), establish criteria for guiding the development of alternatives. These criteria are:

"(1) Alternatives shall be distributed between the minimum resource potential and the maximum resource potential to reflect to the extent practicable the full range of major commodity and environmental resource uses and values that could be produced from the forest. Alternatives shall reflect a range of resource outputs and expenditure levels.

(2) Alternatives shall be formulated to facilitate analysis of opportunity costs and of resource use and environmental trade-offs among alternatives and between benchmarks and alternatives.

(3) Alternatives shall be formulated to facilitate evaluation of the effects on present net value, benefits, and costs of achieving various outputs and values that are not assigned monetary values (non-priced benefits), but that are provided at specified levels.

(4) Alternatives shall provide different ways to address and respond to the major public issues, management concerns, and resource opportunities identified during the planning process.

(5) Reasonable alternatives which may require a change in existing law or policy to implement shall be formulated if necessary to address a major public issue, management concern, or resource opportunity identified during the planning process (40 CFR 1501.7, 1502.14(c)).

(6) At least one alternative shall be developed which responds to, and incorporates, the RPA Program tentative resource objectives for each forest displayed in the Regional Guide.

(7) At least one alternative shall reflect the current level of goods and services provided by the unit and the most likely amount of goods and services expected to be provided in the future if current management direction continues. Pursuant to NEPA procedures, this alternative shall be deemed the "no-action" alternative.

(8) Each alternative shall represent to the extent practicable the most cost efficient combination of management prescriptions examined that can meet the objectives established in the alternative.

(9) Each alternative shall state at least:

- I. Condition and uses that will result from long-term application of the alternative.
- II. Goods and services to be produced and the timing and flow of these resource outputs together with associated costs and benefits.
- III. Resource management standards and guidelines.
- IV. Purposes of the management direction proposed."

Attempts were made to use common language throughout the document. In some cases, however, technical language was necessary. Please refer to the Glossary (Appendix F) for assistance with definitions of these terms.

ALTERNATIVE FORMULATION PROCEDURE

PLANNING STEPS - The formulation of alternatives culminated planning actions 1 through 4 of the NFMA planning process described in Chapter I. The following steps summarize how planning actions 1 through 5 were accomplished.

1. Major issues were identified through public involvement, past planning records, and Forest Staff.
2. Criteria were developed by the interdisciplinary team for the collection and use of data.

3. Management prescriptions representing sets of compatible management practices were developed.
4. The Forest was mapped based on the capability to produce. The capability, suitability, and management opportunities of specific areas of Forest were considered in this step.
5. Areas of land such as the Flaming Gorge National Recreation Area, Sheep Creek, and the High Uintas Wilderness were included throughout all alternatives.
6. Resource outputs and their costs and values were developed for each prescription and each area where the prescription was to be applied.
7. Demand was expressed in the public issues and management concerns, and estimates of that demand were made for the various resources.
8. Supply potentials for each resource were determined with the FORPLAN model. Various assumptions, constraints, and objectives were used to establish benchmarks for supply potentials of each resource during the Analysis of the Management Situation (AMS). Benchmarks were established for the minimum level, maximum single resource levels, and maximum present net value. Existing resource supply was compared to supply potentials of each benchmark. Opportunities to resolve issues and management concerns were identified for each resource by comparing existing to potential production levels.
9. Benchmark supply potentials were compared to demand and supply of current direction to evaluate the need and opportunity for change in response to public issues and management concerns.
10. The FORPLAN model was used to estimate the goods and services that could be produced by each alternative. The model is a mathematical process that uses linear programming to select the most cost efficient mix of prescriptions within a given set of constraints designed to achieve the management direction for each alternative. Estimates of outputs were described for Forest-wide assignment of management prescriptions scheduled over time. (Chapter II and Appendix B).
11. The results of the FORPLAN analysis for each alternative were evaluated to assure conformance with laws, policies, and guidelines. Refinements and adjustments were made to insure that each alternative could be achieved. (Chapter II)

The range of alternatives to be considered in detail and those eliminated from detailed study were defined by completing the AMS. This analysis includes identification of ranges of goods, services and uses that are feasible; projections of the potential to resolve issues and concerns; the technical, economic, and environmental feasibility of providing the levels of goods, services, and uses resulting from assigned objectives; and the need to establish or change management direction.

CRITERIA FOR ALTERNATIVE DEVELOPMENT - The process for the formulation of alternatives began in Planning Action 1 with the identification and evaluation of public issues and management concerns and the resource management opportunities available to address these issues and concerns.

Planning criteria were prepared to guide the development of the Alternatives: RPA and NFMA regulations, existing unit plans, and the public issues and management concerns were reference material. The basic criteria used to guide the formulation of the alternatives are listed below:

1. The alternatives would propose combinations of outputs and activities which must be within the resource production capabilities of the National Forest lands presently administered by the Ashley National Forest.
2. The no-action (current direction) alternative would be used for comparing the effects of each of the alternatives. This alternative would represent no change from current management direction.
3. Each alternative would be feasible.
4. Departure from non-declining yield would be examined.
5. The alternatives would address public issues and management concerns.
6. The High Uintas Wilderness, Flaming Gorge NRA and the Sheep Creek Geological Area would be treated the same as required in present direction for all alternatives. Wild and Scenic Rivers, National Recreation Trails and Candidate Research Natural Areas would also be treated the same because there is not a measurable difference and there is no significant effect.
7. Constraints on sediment production to meet State water quality laws were used as a given.
8. Each alternative would provide at least minimum viable populations of indicator species.
9. Each alternative would contain prescription assignments and a schedule for output of goods and services.
10. All alternatives would be analyzed to show their cost effectiveness.
11. One alternative would address the Forest's share of the Region's RPA targets.
12. Each alternative should comply with other legal requirements.

In addition to the above, several assumptions were used in helping to broaden the range of alternatives. These include:

1. Existing policy and directions are not inviolate.
2. Timber harvest levels can be allowed to vary from the Timber Management plan allowable cut figures.
3. Forage produced on the Forest does not automatically have to be assigned to livestock.
4. Minerals and energy development activities will occur throughout all alternatives based on demands in accordance with management direction.

MANAGEMENT PRESCRIPTION - The NFMA regulations (36 CFR 219.3) define management prescriptions as "management practices and intensity levels selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives".

Management prescriptions were written by the interdisciplinary team after reviewing the public issues and concerns, consulting current management direction, and using professional judgement. The complete set of management prescriptions was reviewed and approved by the Forest Management Team. A broad range of management emphasis, intensities, costs, constraints, and outputs was used for both the benchmarks and alternatives. A complete list of prescriptions and constraints used in the FORPLAN Model appear in Appendix B.

FORPLAN COMPUTER MODEL - A large-scale linear programming model, FORPLAN Version 1, was the fundamental analytical tool used by the interdisciplinary team to simultaneously select prescriptions and schedule management practices over time. FORPLAN served two purposes in the Forest planning analysis.

First, it provided an objective basis for the optimal selection and scheduling of management prescriptions for each analysis area. One or more prescriptions were selected for each of the analysis areas in each alternative. The optimal selection and scheduling of management prescriptions on analysis areas depends on the objective function and constraints on outputs and management practices used for each alternative. The maximization of present net value was the objective for all alternatives considered in detail. Alternatives were generated by constraining the model to produce varying amounts of goods and services and to facilitate the tracking of relationships between quantifiable and unquantifiable resource values.

Second, the analysis provided an effective tool to quantify outputs, costs, and acres assigned to management prescriptions.

Based on the land's capability for resource production, prescriptions were applied to various parts of the Forest (Referred to as "Analysis Areas" in FORPLAN) to display appropriate practical ways of managing the Forest. The criteria and rationale for application of prescriptions to analysis areas are in the Forest Planning Records.

2. ROLE AND USE OF BENCHMARKS

During the Analysis of the Management Situation, resource supply potentials were determined, using various objectives, constraints, and assumptions in FORPLAN. Supply potentials for the benchmarks are displayed in Table II-2 and II-4 and objectives, constraints, and assumptions are displayed in Appendix B. Limits in the capability to supply various resources were determined by establishing minimum and maximum production levels for a single resource, and production capabilities were determined for a set of multiple resource outputs that maximize present net value. This analysis established the benchmark levels required by national planning direction. This is in compliance with the minimum management requirements of 36 CFR 219.27.

Seven "Benchmark Levels" were run and incorporated in the Ashley National Forest AMS.

Following the passage of the Utah Wilderness Bill in 1984, all benchmarks were rerun with the incorporation of the Ashley National Forest's portion of the designated High Uintas Wilderness. Because of this legislation, wilderness benchmarks were not required.

None of the seven benchmarks are displayed as an alternative. However, some do establish parameters, or "feasible areas", for single resource yields. Benchmark runs were eliminated from further consideration using the following rationale:

Minimum Level (1)

Specifies the minimum level of management which would be needed to maintain the unit as part of the National Forest System and to manage uncontrollable outputs and uses. This benchmark ignores the transition period that would be required to move from current to minimum level management. It assumes no timber harvest, developed recreation, or fuelwood production. Livestock use is limited to levels necessary to comply with the Secretary of Agriculture's April, 1968, position statement on the Ute Indian Tribe livestock use. Due to the lack of commodity output, this level is assumed to be unrealistic.

Current Situation (2)

This benchmark specifies the management most likely to be implemented in the future if current direction is followed. It assumes: 1) limited investment levels, 2) threatened and endangered (T&E) habitat diversity will not be impaired, and 3) no major changes will occur in current direction.

This level was used to build two alternatives. The "Current Program" alternative extends current outputs through time to get costs. The "Current Budget" alternative extends the current budget through time to obtain outputs. The dissimilarities in computer runs on these two alternatives made it impossible to put the Current Situation benchmark into a separate alternative.

Maximum Present Net Value (PNV) (Market Prices) (3)

This benchmark specifies the management which will maximize the present net value of those outputs that have an established market price. It assumes that no constraints are needed to protect T&E species; markets exist for all market goods produced, costs of non-market outputs must still be covered, but no unit values are assigned. No budget limit is applied. Since no values (benefits) are used for amenity outputs, this benchmark does not display realistic public benefits.

Maximum PNV (Assigned) (4)

This benchmark specifies the management which will maximize the present net value of those outputs that have either an established market price or assigned monetary value.

It has assigned values applied to all outputs and no budget limits are applied. It assumes that T&E species habitat diversity will not be impaired and markets are available for all goods and services. This benchmark is not feasible because of high costs in the first decade.

Maximum Timber (5)

The objective function of this benchmark is to maximize timber. It estimates the maximum capabilities of the Forest to provide commercial timber products. The assumptions used in this benchmark are the same as in 4.

This benchmark and 6 and 7 below are not feasible because they emphasize single resource management.

Maximum Range (6)

The objective function of this benchmark was Maximize Livestock Forage.

Explanation and assumptions are the same as Benchmark 4 and 5.

Maximum Water (7)

The objective function of this benchmark was Maximize Water.

This is an optional Benchmark. Assumptions are the same as Benchmark 5, with the following added: water yield would only be manipulated by vegetative treatment. No weather modification or snow deposition structures are included.

As noted earlier, although not directly usable as alternatives, several of the "Benchmarks" did establish parameters or limits for single resource yields.

Benchmark outputs are to be used as reference points and for comparative purposes only.

Selected benchmarks were used to define the upper and lower limits for the production of each resource. The interdisciplinary team considered demand, supply potential (upper and lower limits), and economic characteristics to establish the range of alternatives. Opportunity costs were determined by comparing alternatives with the maximum PNV benchmark (see Tables II-7, 8, 9 and Appendix B, Tables B-28/B-29).

B. ALTERNATIVES (BROAD RANGE OF REASONABLE ALTERNATIVES)

This section of Chapter II describes the alternatives considered in the planning effort. The intent in alternative formulation was to consider a broad range of alternatives that could be considered viable in light of the land and resource capability as defined by the various benchmarks described earlier.

Uneven-age timber harvest was not treated as an alternative because it is considered to be a harvest method or management prescription to achieve a resource objective. As a harvest method on the Ashley, extensive partial cutting in the past has proven to be generally unsuccessful. This is particularly true with lodgepole pine, which is the dominant commercial tree species on the Forest. Leave trees are a continual source of mistletoe infestation for new stands, fuel loadings are impractical to reduce, windthrow susceptibility is increased, and natural regeneration of new stands is reduced. For these reasons clearcutting harvest systems will be used throughout all alternatives on a forest-wide basis. While shelterwood, single tree, and group selection systems are not precluded, they will primarily be used to remove danger trees from developed sites, within the Flaming Gorge National Recreation Area for aesthetics, and in highly sensitive visual quality zones. Even within the NRA, the use of other systems will be on a limited basis and will generally only be in the ponderosa pine timber stands. Agriculture Handbook No. 445, Silvicultural Systems for the

Major Forest Types of the United States, identifies even-aged management as the preferred silvicultural system for lodgepole pine.

This range of alternatives is discussed below under; 1. Alternatives Considered but Eliminated from Detailed Study; and 2. Alternatives Considered in Detail.

1. ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Several alternatives were developed but eliminated from detailed analysis and inclusion after initial consideration. These are as follows:

(1) Timber Management Plan

This alternative was designed to display the effects of meeting timber output levels in the existing Ashley Forest Timber Management Plan.

The results, were similar to Alternative E, RPA 80.

(2) and (3) Double Timber Harvest and 25 Percent Timber Harvest Increase

Several alternatives were developed in response to the mountain pine beetle epidemic on the Ashley. The above two addressed the results of doubling the harvest and increasing the harvest by 25 percent, respectively. Both were eliminated from detailed study because of high costs in early decades, because the timber outputs fell within the range of outputs generated by Alternatives A and B, and because other scheduled output yields were similar to those of other alternatives.

(4) Recreation Emphasis

The Recreation Emphasis alternative was developed to display results of emphasizing both developed and dispersed recreation outputs. It was eliminated from additional consideration because the resulting output levels and budget costs were very similar to those of Alternative D.

(5) Beetle Kill

The beetle kill alternative was designed to determine if long term timber capability could be retained if early decade harvest levels were increased to utilize the beetle killed timber. This alternative was not considered viable due to costs and environmental effects.

(6) Livestock Emphasis

This alternative was developed to display the effects of placing management emphasis on the production and utilization of forage by livestock. It was not considered in further detail because two other alternatives, Market Opportunities and Livestock-Timber, emphasize high forage production.

(7) Big Game Emphasis

The big game emphasis alternative was designed to determine the effects of designating winter range areas to big game. However, the required Non-Market Opportunities alternative emphasizes the "high wildlife" prescription and produces high investments for habitat manipulation. Therefore, a separate alternative emphasizing big game was not considered necessary.

(8) Undeveloped Dispersed Recreation Emphasis

This alternative was designed to display the effects of designating the analysis areas adjacent to the High Uintas Wilderness Area (1979 RARE II) proposal to undeveloped dispersed recreation if they fit the primitive or semi-primitive Recreation Opportunity Spectrum (ROS) classes. Several other alternatives with reduced amounts of roading designate lands adjacent to the High Uintas Wilderness for undeveloped dispersed recreation. Therefore, this alternative was eliminated from detailed consideration.

(9) Recreation Opportunity Spectrum (ROS) Diversity Emphasis

This alternative was developed to determine the effects of maintaining the existing mix of ROS classes on the Ashley.

It was not carried forward because Alternatives J, F, and G also maintain much of the existing ROS diversity.

(10) Timber Harvest Departure

This alternative was designed to display effects of accelerating timber harvest in the first two decades in order to salvage beetle-killed ponderosa and lodgepole pine. It was eliminated from detailed study because of the extensive adverse effects on visual quality, water quality, and wildlife habitat diversity.

(11) Wilderness Alternatives

A series of additional alternatives evaluating a range of wilderness designations had been formulated for detailed study but were discarded after passage of the Utah Wilderness Act of 1984.

2. ALTERNATIVES CONSIDERED IN DETAIL

Alternatives presented in this chapter reflect different combinations of management prescriptions applied to different analysis areas for the purpose of addressing public issues and management concerns. They represent multi-use management strategies that provide outputs within the given supply levels for each resource discussed in the AMS. The alternatives were designed to provide an integrated mix of resource uses and specifically to increase net public benefits within the imposed limits. Social and economic effects on local populations were considered within each alternative.

Ten alternatives are considered in this section. These alternatives include: A. Current Management Program (No Action), B. Coordinated Resource, C. Market Opportunities, D. Non-Market Opportunities, E. 1980 RPA Program, F. Current Budget, G. Reduced Budget, H. Livestock-Timber, I. Accelerated Harvest, and J. Balanced Resource Management (Preferred Alternative).

Table II-6 shows how the alternatives address the elements of identified issues. Discussion on the descriptions, and comparison or differences between alternatives are addressed in the narratives for each alternative.

In all alternatives sediment delivery to live streams is limited so that State water quality standards are met. Demand for all resources except recreation were considered to be constantly elastic. This assumes that price does not vary with changes in output levels. All resources except recreation did not have any constraints on production other than meeting minimum management requirements. Recreation production of outputs were limited to projected use levels which were tied to projected population growth rates in Utah and Wyoming. Although alternatives vary in the prescribed harvest levels, none of the alternatives would actually slow the mountain pine beetle epidemic^{1/}. Loss of old growth to the epidemic must be considered additive to timber harvest volume. T&E species habitat would be protected as required through consideration and consultation in all alternatives. Access to timbered analysis areas is limited in all alternatives to prevent exceeding sediment delivery thresholds. Research Natural Areas are treated equally in all alternatives.

All alternatives include the High Uintas Wilderness assigned to a wilderness prescription, and all alternatives contain Management Area g (Undeveloped Dispersed Recreation-Unroaded) with acres varying by alternative (see Table II-1). In addition, all alternatives contain various amounts of land that will remain essentially undeveloped at the end of the first decade, although management activities that meet the various management area prescription requirements, such as mineral activities with valid existing rights, etc., will be allowed. Area g, under all alternatives, will be recommended for mineral lease with no surface occupancy. Management of all travel on the Forest, including ORV's will be handled in the Travel Plan that is based on management area prescription direction and specific criteria for travel management contained in the standards and guidelines in the Forest Plan.

ALTERNATIVE A: CURRENT MANAGEMENT DIRECTION (NO ACTION)

OBJECTIVES AND ASSUMPTIONS - Alternative A, or the "no action" alternative, represents a continuation of the current program. The objective is to display the costs, benefits and output levels that would occur if current management were projected through the planning period. It is assumed that no major changes would occur in policy, direction, or

^{1/} During the preparation of this EIS the bark beetle situation changed from an epidemic situation to a post epidemic condition. As a result reference to epidemic conditions vary by alternative depending on when the alternative was developed during the planning process.

public demand and that current programs such as wildlife and range forage production would continue at present levels. This alternative provides the baseline for comparison with other alternatives.

FORPLAN CONSTRAINTS - In Alternative A, the budget is held to one and one half the 10 year average in the first decade, timber yield is limited to the current level, and the High Uinta's Wilderness is assigned to a wilderness prescription.

DISCUSSION - Existing trends would be perpetuated throughout the planning period under Alternative A. Timber harvest would continue below Timber Management Plan (TMP) calculated levels. Recreation facilities would continue to deteriorate but at a slower rate than the current decline. RPA 80 water yield targets would not be met. Wildlife habitat diversity and habitat capability would be maintained at current level during the first decade. Old growth habitat would be maintained by the current timber program alone, but could be greatly reduced by the mountain pine beetle epidemic. Aspen would continue its present deteriorating trend until the third decade. The present range capacity would be maintained. The mountain pine beetle epidemic would continue its present rate of spread. A moderate trail maintenance and construction program would be emphasized.

Table II-4 displays the outputs for alternatives by decade.

ALTERNATIVE B: COORDINATED RESOURCE ALTERNATIVE

OBJECTIVES AND ASSUMPTIONS - Alternative B was formulated to display the costs/benefits and output levels of an accelerated timber harvest emphasis. The reason for accelerating the harvest is to salvage and utilize beetle-killed lodgepole and ponderosa pine. It is assumed that markets are available to utilize the additional timber made available and that budgets would be sufficient to support the accelerated program.

FORPLAN CONSTRAINTS - Under this alternative, no budget constraints are imposed. Timber harvest levels are increased for the first two decades and then returned to near current level for the remainder of the planning period. The recreation funding schedule in FORPLAN model provides for meeting conservative projected demands. Investments in range and wildlife improvements are programmed at current levels, and the High Uintas Wilderness is assigned a wilderness prescription.

DISCUSSION - Implementation of Alternative B would result in conditions similar to the current program by the end of the planning period. However, the rate of change would be over a 20 to 30 year period rather than 50. Timber harvest levels would increase for the first two decades and then decline to 15 percent above the current program. Deterioration of recreation facilities could be eliminated in time. RPA 80 water yield targets would not be met. Although investments in wildlife improvements remain at the current level, habitat capability for big game would decline somewhat by the end of the planning period. Harvest activities alone would not adversely impact mature/old growth habitat by the fifth decade. Aspen management would approach the optimum in terms of mixed age class distribution. Range management investments would be maintained and livestock capacities would increase. A high level trail maintenance and construction program would be emphasized.

Table II-4 displays the outputs for alternatives by decades.

ALTERNATIVE C: MARKET OPPORTUNITIES

OBJECTIVES AND ASSUMPTIONS - The objective of this alternative is to display the output levels, costs, and benefits resulting from management emphasis on commodities such as timber, livestock forage, and developed recreation. It is assumed that there is a demand for all market value outputs.

FORPLAN CONSTRAINTS - The budget is held to one and one half times the 10 year average for the first decade under this alternative. Timber harvest is programmed at a constant high level throughout the planning period. The High Uintas Wilderness is assigned a wilderness prescription. Analysis area access is constrained to meet water/sediment limits. Investments in range improvements are doubled.

Developed recreation investments are set to meet a moderate demand projection. Harvest levels for Douglas fir and ponderosa pine are limited. Harvest would be emphasized in the lodgepole pine.

DISCUSSION - This alternative would result in major changes from the present condition of the Ashley National Forest. Road construction levels would be accelerated with the increased timber harvest levels. The availability of some dispersed recreation activities would decline. Existing recreation facilities would be improved and new facilities would be constructed. Water yields would increase, although RPA 80 targets would not be met and water quality would tend to decline. Wildlife habitat diversity would be maintained but habitat capability for elk and deer would decline from the current situation in the first decade. Aspen habitat would continue the present trend until the third decade when management activity approaches the optimum. Range management would be emphasized and capacities would increase one and one half times the current by the end of the planning period. Although the accelerated timber program would help decrease the level of fuel loading and increase productive acres, the mountain pine beetle would still continue to run its course. Riparian and sagebrush habitat would be reduced. A low trail maintenance and construction program would be emphasized.

II-4 displays the outputs for alternatives by decades.

ALTERNATIVE D: Non-Market Opportunities

OBJECTIVES AND ASSUMPTIONS - Alternative D is designed to display the output levels and costs/benefits that would occur if non-market services such as dispersed recreation, wildlife, and water were emphasized throughout the planning period. It is assumed that demand would utilize all outputs produced and timber harvesting would be required to emphasize the water resource.

FORPLAN CONSTRAINTS - Under this alternative, the budget would be held to one and one half times the 10 year average for decade one. Timber harvest is programmed to be constant at a level below the current. Wilderness is prescribed for the High Uintas Wilderness. Wildlife

habitat improvement investment is set at a high level. Moderate to high investments are prescribed for developed recreation to maintain and increase dispersed recreation use levels.

DISCUSSION - Change in character of the Ashley National Forest would tend to proceed more slowly under this alternative. Approximately 40 percent of the Forest would remain in its existing condition. Road construction levels would be decreased with the lower timber harvest. A high trail maintenance and construction program would be emphasized. Water yield would increase in the first decade and stabilize at or slightly above current levels but RPA 80 targets would not be met. Water quality would be improved from alternatives F and G because of programmed restoration work. Wildlife habitat diversity would be maintained but habitat capability would be improved for elk and deer from the current situation. Old growth habitat would be more than adequate to support existing dependent species. Aspen habitat would continue its present downward trend until the third decade. By the end of the planning period, aspen age classes would be near an optimum mix. Livestock forage production would be considerably below present levels and capacities would decline. Timber harvest levels would be adequate to utilize some of the beetle killed trees but fuel loading would still increase as the epidemic continued.

Table II-4 displays the outputs for alternatives by decade.

ALTERNATIVE E: 1980 RPA Program

OBJECTIVE AND ASSUMPTIONS - The objective of Alternative E is to display the costs and benefits over the planning period if RPA 80 output targets are met. It is assumed for this alternative that demand would utilize all goods and services produced. It is also assumed that stocking of allotments with the proper class of livestock is possible.

FORPLAN CONSTRAINTS - The budget is programmed at one and one half times the 10 year average for the first decade and then limited to RPA 80 levels for the remaining four decades. Timber yield is set to meet RPA 80 targets and is constant through the planning period. Acreage prescribed to wilderness is that of the High Uintas Wilderness.

DISCUSSION - Management under this alternative would result in some acceleration in the present rate of change of the condition of the Forest. As timber harvest levels increase, road construction would increase. Recreation facilities would continue to deteriorate but at a slower than present rate of decline. RPA water yield targets would not be met. Wildlife habitat diversity would be maintained and habitat capability for elk and deer would be similar to current.

Old growth habitat would remain adequate to support existing populations of dependent species. However, additional loss to the mountain pine beetle epidemic could reduce the habitat capability considerably. Aspen habitat would continue its present trend until harvest begins in the third decade. Investments in livestock forage would be increased over the current level and capacities would be increased somewhat. The

mountain pine beetle epidemic would continue but the increased timber harvest would help lower fuel loading. A moderate trail maintenance and construction program would be emphasized.

Table II-4 displays the outputs for alternatives by decade.

ALTERNATIVE F: CURRENT BUDGET

OBJECTIVE AND ASSUMPTIONS - The objective of Alternative F is to determine the level of goods, services and costs/benefits that could be produced if budget levels remain constant at the present level throughout the planning period. It is assumed that demands for outputs will continue and that the Forest will continue to provide a mix of goods and services.

FORPLAN CONSTRAINTS - Under this alternative, the budget is made constant at the current 10 year average over the planning period.

Timber harvest is reduced and held constant. No investments are programmed for wildlife, range, or recreation improvements. Wilderness status is prescribed for the High Uintas Wilderness.

DISCUSSION - Management under Alternative F would produce some outputs but all demands would probably not be met. Timber harvest levels would be greatly reduced from the current. Roads, trails, and other facilities would continue to deteriorate. RPA 80 water yield targets would not be met. Wildlife habitat diversity would be maintained except as influenced by the pine beetle epidemic. Old growth habitat would approach the optimum for old growth dependent species except as influenced by the beetle epidemic. Habitat capability for elk and deer would be slightly improved from current. Aspen habitat would continue to decline until the fifth decade when harvest levels would be greatly increased. Beetle-killed timber would be harvested at much less than current rates, therefore, fuel loading would increase. Range production would decline somewhat. A low trail maintenance and construction program would result.

Table II-4 displays the outputs for alternatives by decade.

ALTERNATIVE G: REDUCED BUDGET

OBJECTIVE AND ASSUMPTIONS - The objective of Alternative G is to determine what level of goods and services could be produced if budget levels were reduced by 25 percent of the current 10 year average. It is assumed that demand for outputs will continue and that some level of commodity production must be maintained if possible. It is also assumed that the present land base will be retained in National Forest system ownership.

FORPLAN CONSTRAINTS - Budget levels would be limited to 75 percent of the present 10 year average for the entire planning period. Timber harvest is reduced from the current and held constant. The Wilderness prescription is assigned for the High Uintas Wilderness. No investments are programmed for range or wildlife improvements, or for recreation maintenance or construction.

DISCUSSION - The character of the Forest under management by Alternative G would remain basically the same as present. Timber harvest levels would be reduced from the current and road construction would be slower than the present rate.

Recreation improvements, roads, trails and other facilities would deteriorate. Water yield levels would stabilize and RPA 80 targets would not be met. Wildlife habitat capability would increase or be maintained for most species, except as influenced by the beetle epidemic. Old growth habitat would be adequate with the largest portion being included in a non-harvest prescription. Aspen rejuvenation would not begin until the third decade, so the present downward trend would continue until then. Livestock capacities would decline without investments. The beetle epidemic would continue to run its course and fuel loading would increase.

Table II-4 displays the outputs for alternatives by decade.

ALTERNATIVE H: LIVESTOCK-TIMBER

OBJECTIVES AND ASSUMPTIONS - The objective of Alternative H is to determine the feasibility and the costs/benefits of meeting the Draft RPA 85 targets for timber production and livestock grazing. It is assumed that the Forest would be obligated to provide some mix of goods and services. It is also assumed that the proper class of livestock would be available for all allotments.

FORPLAN CONSTRAINTS - The budget is limited to one and one half times the ten year average for the first decade in this alternative. Timber yield is increased for the first two decades, reduced to the current level in the third decade and then held constant. High investment is prescribed for range improvements. There are no investments prescribed for recreation maintenance or construction. Wildlife habitat investments are held to the current level. Wilderness is prescribed for the High Uintas Wilderness.

DISCUSSION - Management under Alternative H would result in conditions similar to the current except for the high level of investments in livestock forage production. Timber harvest would increase and then decline to present levels. Road construction would accelerate for the first three decades.

The condition of recreation facilities would continue to decline but at a slower rate than at present. RPA 80 water yield targets would not be met. Wildlife habitat diversity would probably be maintained except as influenced by the pine beetle epidemic. Old growth habitat would probably be reduced below the existing amount by the end of the planning period. Habitat capability for elk and deer would be essentially maintained. Sage grouse habitat capability may be reduced as a result of the high level of investment in livestock forage production. Aspen habitat would continue its present downward trend until harvest begins in the third decade. The increased timber harvest would utilize some beetle killed timber, but the epidemic would continue to run its course. A moderate trail maintenance and construction program would result.

Table II-4 displays the outputs for alternatives by decades.

ALTERNATIVE I: ACCELERATED HARVEST

OBJECTIVES AND ASSUMPTIONS - The objective of this alternative is to display the costs, benefits and outputs of goods and services that would be realized if the salvage and utilization of beetle killed timber were accelerated. It is assumed that markets will be found to utilize the additional timber made available and that budgets will be sufficient to support the program.

FORPLAN CONSTRAINTS - There are no budget limits set in this alternative. Timber harvest levels are pushed to high levels the first two decades and then drop to about 15 percent above the current for the last three decades of the planning period. Recreation maintenance and construction investments are programmed to partially meet projected demands. Investments in wildlife and range improvements are held to current levels through the planning period. Wilderness prescriptions are prescribed for the High Uintas Wilderness.

DISCUSSION - Management under Alternative I would result in an acceleration in the rate of change of the condition of the forest. Road construction would increase concurrent with increased timber harvest. Recreation facilities would continue to deteriorate but at a slower than current rate. RPA 80 water yield targets would not be met. Wildlife habitat would be more than adequate to maintain the present population levels of dependent species except as influenced by the beetle epidemic. Overall habitat diversity would be maintained. The aspen type would continue its present decline until the third decade. The increased timber harvest would result in less fuel loading but the pine beetle epidemic would continue. Range capacities would be increased with the increased forage production resulting from opening timber stands. A high level trail maintenance and construction program would be emphasized.

Table II-4 displays the outputs for alternatives by decades.

ALTERNATIVE J: BALANCED RESOURCE MANAGEMENT (PREFERRED)

OBJECTIVES AND ASSUMPTIONS - The objective of this alternative is to display the outputs and cost/benefits that would occur while salvaging beetle killed lodgepole pine where practical, maintaining existing commodity outputs, and giving special emphasis to recreation and wildlife resources.

FORPLAN CONSTRAINTS - Under this alternative no budget constraints were imposed. The timber harvest levels are limited to 21 MMBF during the first decade. Commercial harvesting in aspen stands and cable logging on 40% plus slopes during decade 1 are constrained. There are high investments proposed for dispersed recreation development sites. Also investments are proposed for livestock and wildlife resources.

DISCUSSION - Management under Alternative J provides for a moderate level of harvest of beetle killed lodgepole while giving emphasis to recreation and wildlife. Area G contains additional acres than Alternative B and acres remaining essentially undeveloped at the end of the first planning period is the second highest of all alternatives (only Alternative G is higher). Management under Alternative J would result in conditions similar to the current situation except for higher levels of investment in recreation and wildlife. Road construction and timber harvest are reduced below the B alternative. The condition of recreation facilities would improve above current level. Old growth habitat would be reduced due to the beetle epidemic but protection of old growth will be emphasized in live conifer vegetative types. Aspen habitat would continue its present downward trend until harvest begins in the third decade except in those areas identified for wildlife habitat improvement. Range capacities would remain near current level. Water yield would increase concurrent with timber harvesting and beetle killed trees, but will not meet RPA 80 water yield targets. This alternative contains the highest investment level of all alternatives in trail construction/reconstruction.

In addition, the Forest may consider an additional 11,000 acres of site preparation per year on stagnated lodgepole stands, (3" in diameter), partial cut areas that do not have enough live trees to recover, and pole size stands (6"-7") that have beetle kill in excess of 80%. These areas will be treated where other resource activities such as wildlife, recreation, watershed, and landscape management can be improved. This may be accomplished by such methods as prescribed burns, timber harvesting, and fuelwood gathering. The NEPA process will be used to fully display the site specific and cumulative effects.

C. COMPARISON OF ALTERNATIVES CONSIDERED IN DETAIL

This section displays the ten alternatives and identifies their similarities and differences using various narrative statements and related tables.

Several types of past and proposed land use decisions remain constant in all alternatives. These include:

Endangered and threatened species	Utility corridors
Cultural resources	Wild and Scenic River
Human and community development	(Green River potential)
Land purchase, acquisition, and adjustment	Central Utah Project
Research Natural Areas	Vernal Municipal Watershed
Sheep Creek Geological Area	High Uintas Wilderness

Each alternative is made up of different mixes or combinations of management prescriptions. The FORPLAN model assigns individual prescriptions to analysis areas based on direction given to it for each alternative. The total acres assigned to each prescription identified for each alternative is shown in Table II-1. With evaluation of various combinations of prescriptions for each alternative it is possible to identify the differences between alternatives. Each prescription is described in a narrative form following Table II-1 to further help with the identification of similarities and differences between the alternatives.

TABLE II-1 ACREAGE ASSIGNMENT BY MANAGEMENT PRESCRIPTION

Management Prescription	FORPLAN Identifiers		Alternatives									
	Emphasis	Intensity	A	B	C	D	E	F	G	H	I	J
a. Candidate Research Natural Areas (or Custodial Management)	Minimum Level	Minimum Level	23,009	1,993	1,993	1,993	21,993	21,993	218,711	1,993	1,993	1,993
b. Moderate Timber	Timber	Moderate	15,674	33,967	119,976	10,101	29,665	---	---	13,876	25,374	11,364
c. Timber High	Timber	High	29,944	---	66,871	32,027	54,916	---	---	32,335	27,063	---
d. High Forage Production and Livestock Utilization	Forage	High	64,258	73,059	125,595	46,480	79,814	2,345	2,345	176,976	66,790	64,567
e. Wildlife Habitat Emphasis	Wildlife	High	20,353	20,353	---	34,885	34,885	28,307	24,595	19,345	21,215	28,605
f. Dispersed Recreation Roaded	Dispersed Recreation	Moderate	67,793	155,356	120,933	60,913	111,859	245,846	109,798	78,919	111,309	155,830
g. Undeveloped Dispersed Recreation Unroaded	Dispersed Recreation	High	159,857	69,401	6,062	145,844	6,983	147,188	180,006	55,820	7,164	83,785
h. Developed Recreation and Forest Administrative Sites	Developed Recreation	Low	---	20,000	20,000	20,000	---	---	---	20,000	20,000	20,000
i. High Uintas Wilderness	Wilderness	Moderate	273,426	273,426	273,426	273,426	273,426	273,426	273,426	273,426	273,426	273,426
k. Maximum Water Yield	Water	High	3,015	3,089	3,015	693	3,015	---	60	2,261	3,015	3,015
l. Optimization of Wildlife Habitat Through Timber Harvest at Moderate Levels	Wildlife/ Timber	Moderate	294	294	294	294	2,210	88,765	43,146	294	294	1,794
n. Range of Resource Uses and Outputs Commodity Production Modified for Amenity Production	Existing Situation	Low	719,302	725,102	647,959	706,559	741,546	523,000	540,764	687,698	820,568	734,668
n ₁ NRA Existing Situation												
p. NRA Timber Emphasis	NRA Timber	High	101	502	450	101	---	---	---	100	102	111
q. NRA Forage Emphasis	NRA Forage	High	---	1,534	885	---	---	---	---	13,949	---	---
r. NRA Wildlife Emphasis	NRA Wildlife	High	16,194	15,144	5,760	59,903	32,918	62,350	381	16,228	14,907	14,661

--- Indicates prescription did not come into solution for that alternative.

**MANAGEMENT AREA PRESCRIPTIONS
FOR ALTERNATIVE DEVELOPMENT**

(See Table II-1 For Acres Assigned to Each Prescription By Alternative)

ACTIVITY	a. - RESEARCH NATURAL AREA CANDIDATES	b. - MODERATE TIMBER PRODUCTION	c. - HIGH TIMBER PRODUCTION
Description of Area	These are areas of minimal management impacts. Various representative ecosystems are being inventoried to be maintained in near natural conditions for future research use. See the candidate areas listed by name, size, and location in the EIS. The prescription is designed for custodial level management.	This occurs on forested lands with commercial timber stands. Although providing the Ashley Forest's highest timber production, there is still only a moderate* level of investment for the timber resources.	This occurs in commercial timbered analysis areas outside of Flaming Gorge NRA, High Uintas Wilderness and other such special areas.
Recreation	Use will not be encouraged and may be discouraged or even limited. Minimal administration. Low investment. VQO's managed as inventoried.	High dispersed use. Development will not be detrimental to the timber resources. May limit use for public safety and/or to protect the investment or resource. Standard service level. VQO's of Maximum Modification or Modification.	Generally will be in roaded natural R.O.S. areas. Recreation management and administration will be at full service level. V.Q.O.'s of minimum modification will be acceptable.
Wildlife	No improvements	Developments will not increase the cost of timber production or decrease timber yield (i.e. no permanent vegetative conversions.)	Improvements permitted if they do not decrease timber yields or increase timber costs. Short term benefits to some species may occur as a result of vegetative management but other species dependant on old growth may be displaced.
Range	Closed to permitted grazing after official designation. Grazing presently not encouraged. No improvements.	Transitory range is available for livestock if it does not interfere with regeneration. Improvements only if they don't decrease the yield or increase the cost of production	Protect cutover areas by fencing or herding where necessary to protect reproduction from grazing.

CONTINUED

<u>Activity</u>	<u>a. - RESEARCH NATURAL AREA CANDIDATES</u>	<u>b. - MODERATE TIMBER PRODUCTION</u>	<u>c. - HIGH TIMBER PRODUCTION</u>
<u>Timber</u>	No harvest	Open to commercial and personal use harvest. Cultural treatments to meet production objectives.	Same as b except that regeneration of harvested stands will generally be by planting instead of natural regeneration. Additional cultural treatment entries will be by planting instead of natural regeneration.
<u>Minerals</u>	Lease with no surface occupancy.	All disturbed sites must be rehabilitated and regenerated.	No restrictions other than what's in the Standards and Guidelines.
<u>Facilities</u>	No utility/transportation corridors. No construction. No trail maintenance.	Construction as needed to meet management objectives. Maintenance as required. Local roads usually closed after fuelwood removal unless needed for resource management activities.	Construction as needed to meet management objectives. Maintenance as required. Local roads usually closed after fuelwood removal unless needed for resource management activities.
<u>Protection</u>	Manage for natural conditions.	Protect timber resources as necessary. Immediate and aggressive control but with a cost consistent with the land management objectives.	Protect timber resources as necessary. Immediate and aggressive control but with a cost consistent with the land management objectives.
<u>Riparian</u>	Protect	Restore and maintain. Special harvesting techniques required.	Restore and maintain.

* Moderate investment = Timber - one precommercial thinning and one or more commercial thinning operations.

Low investment = 40% of area may be treated with precommercial and/or commercial operations.

**MANAGEMENT AREA PRESCRIPTIONS
FOR ALTERNATIVE DEVELOPMENT**

(See Table 11-1 for Acres Assigned to Each Prescription by Alternative)

ACTIVITY	d. - HIGH FORAGE PRODUCTION AND LIVESTOCK UTILIZATION	e. - WILDLIFE HABITAT EMPHASIS	f. - DISPERSED RECREATION ROADED
Description of Area	May occur on forested or non-forested analysis areas scattered throughout the Forest.	Includes portions of: summer and winter ranges, T&E habitat, strutting areas, calving and fawning areas, and spawning areas on timbered and non-timbered analysis areas.	Areas receiving a variety of uses in a variety of landforms and vegetation types located throughout the Forest in a roaded environment.
Recreation	Open to all recreational uses and generally all travel. May limit or discourage use to reduce conflicts with livestock use. Standard service level VQO's variable to meet range resource needs except in highly sensitive areas.	May be closed or restricted in a District Travel Plan during key area use periods. Standard service level. No new developed sites. Road closures may be common in stress seasons for the featured species. VQO's variable to meet wildlife needs.	VQO's at inventoried standards. Dispersed recreation is favored over other resources. Travel plan will be used to protect resources while permitting access. Standard service level.
Wildlife	New wildlife improvements in primary and secondary range will be coordinated closely with range interests and will not be detrimental to livestock. Habitat diversity may be reduced as the result of vegetative manipulation	Key areas protected to maintain their functionability. Priority for wildlife improvement dollars.	Improvements designed to enhance recreation opportunities and optimize species diversity. Key or critical areas will be emphasized.
Range	Secondary range will be aggressively improved. Investments on primary range will be maintained prior to new improvements and prior to development on secondary range.	Forage allocations go first to wildlife needs. All improvements will be designed not to be detrimental to wildlife. Livestock grazing may be limited or excluded.	Travel (or recreation) conflicts may require expensive controls. Forage not required for wildlife will be allocated to permitted livestock.

CONTINUED

<u>ACTIVITY</u>	<u>d. - HIGH FORAGE PRODUCTION AND LIVESTOCK UTILIZATION</u>	<u>e. - WILDLIFE HABITAT EMPHASIS</u>	<u>f. - DISPERSED RECREATION ROADED</u>
<u>Timber</u>	Harvest allowed for increasing forage production and if no interference in grazing management systems. Harvest can be used for permanent vegetative conversions. Similar prescription as MA b but regeneration not encouraged.	Sale activities allowed within forage/cover ratio requirements and to maintain or enhance habitat. Site preparation, regeneration, and TSI work will be designed to meet cover needs/requirements. Some stands may be held beyond normal rotation ages. Retains 5% of area in old growth habitat.	Harvest designed to enhance recreation, wildlife, and visual opportunities. Transitory range allocated to wildlife.
<u>Minerals</u>	Sites on primary and secondary range will be rehabilitated to improve forage production.	May have seasonal restrictions for access or seismic work. No surface occupancy may be applied.	No restrictions other than what's in The Standards and Guidelines.
<u>Facilities</u>	As needed to maintain AMP's. Other construction permitted if conflicts with livestock are mitigated.	Temporary roads for timber harvest. New construction mitigated for wildlife needs.	Construction allowed as needed. Maintenance at high levels (3 or 4) on main roads.
<u>Protection</u>	Prescribed fire to improve forage production and range condition.	Prescribed burning may be commonly used to improve wildlife forage production and conditions.	Prescribed burning used to manage resources but aggressive prevention and suppression to protect resources under heavy use levels.
<u>Riparian</u>	Maintain to protect streambank stability.	Allow activity only to improve wildlife habitat. Protect.	Maintain. Control as needed to protect streambank stability, minimize sedimentation, prevent compaction, and maintain visuals.

**MANAGEMENT AREA PRESCRIPTIONS
FOR ALTERNATIVE DEVELOPMENT**

(See Table 11-1 For Acres Assigned To Each Prescription By Alternative)

ACTIVITY	g. - UNDEVELOPED DISPERSED RECREATION UNROADED	h. - DEVELOPED RECREATION SITES AND FOREST ADMINISTRATIVE SITES	i. - HIGH UINTAS WILDERNESS
Description of Area	A variety of timbered and non-timbered lands between mid and high elevations.	These facilities are located through-out the Forest in other management areas as inclusions.	Management is under the direction of the Utah Wilderness Act of 1984.
Recreation	Travel Plan will be used to resolve conflicting uses. Facilities commonly used for public safety and convenience and for protection of the site. Moderate investment.	Developed recreation emphasized at standard service level.	No developed recreation sites. Entrance permits or other types of management tools may be necessary to prevent over use or user conflicts. VQO is preservation. Standard service level.
Wildlife	Improvements allowed to improve habitat.	Streamside improvements only. Maintain identified wildlife trees.	Habitat manipulation by natural means only.
Range	Structural improvements only if they don't detract from recreational use.	Closed to permitted use. Administrative and recreation horse use in designated areas where livestock can be kept separated from public.	Livestock utilization permitted. Range improvement construction only for the protection of the wilderness resource.
Timber	No harvest. Vegetative manipulation limited to creation of wildlife openings and for enhancement of recreation opportunities.	Harvest only in hazardous situations (to the public or the investments) or to implement vegetative management plans.	No harvest. Dead and down materials can be used for fuelwood for on-site use only.
Minerals	Stipulations will be applied as needed to protect the resources or mitigate impacts. Validation examinations will be required prior to exploration or claim development. Recommend no surface occupancy.	Withdraw from mineral entry or use No Surface Occupancy Stipulation.	Withdraw from mining and mineral entry.
Facilities	No road construction. Facilities may be constructed for public safety, convenience, and protection of the site.	New construction within approved site plans. Traffic controls and gating may be used.	

CONTINUED

ACTIVITY	g. - UNDEVELOPED DISPERSED RECREATION UNROADED	h. - DEVELOPED RECREATION SITES AND FOREST ADMINISTRATIVE SITES	i. - HIGH UINTAS WILDERNESS
<u>Protection</u>	Control only to protect investments. Protect all investments. Prescribed burning may be used to improve forage production and range condition.		Wildfire and rarely prescribed fire may be used to reduce fuel loading and to maintain or enhance the wilderness resource.
<u>Riparian</u>	Protect.	Maintain to protect streambank stability, minimize sedimentation, prevent compaction, and maintain visuals.	

**MANAGEMENT AREA PRESCRIPTIONS
FOR ALTERNATIVE DEVELOPMENT**

(See Table II-1 For Acres Assigned To Each Prescription By Alternative)

ACTIVITY	k. - MAXIMUM WATER YIELD	l. - OPTIMIZATION OF WILDLIFE HABITAT DIVERSITY THROUGH TIMBER HARVEST AT MODERATE LEVELS	n. - RANGE OF RESOURCE USES AND OUTPUTS, COMMODITY PRODUCTION MODIFIED FOR AMENITY PRODUCTION
Description of Area	These areas are in forested stands at mid to high elevations.	This area occurs in timbered analysis areas outside Flaming Gorge NRA and the High Uintas Wilderness.	Resource protection as needed outside of NRA. Low investment.
Recreation	No improvements. Dispersed recreation would be at less than standard service levels. VQO can be Modification or Maximum Modification.	Vehicle access to meet the management objectives controlled in the Travel Plan. VQO's may be reduced from inventoried levels.	Resource protection as needed, covered in Travel Plan. Developed recreation at less than standard service level except in Alternative J where standard service level is used. VQO's as inventoried.
Wildlife	Vegetative manipulation would consider location, shape, size, and orientation of harvesting units.	Optimize species diversity and production. Vegetative manipulation achieved through timber harvest.	Access may be controlled to enhance wildlife habitat. Improvements allowed on a low investment basis. Habitat diversity would remain fairly stable.
Range	Permitted livestock may be used to maintain harvested openings.	Forage not required for wildlife will be allocated to permitted livestock.	Improvements coordinated with wildlife and recreation.
Timber	Small sales with the objective of increasing water yields. Vegetative manipulating would consider location, shape, size, and orientation of harvesting units.	Natural regeneration. Manage timber to retain at least 5% of the area in old growth habitat.	Harvest coordinated with wildlife and recreation. Some old growth retained. Low investment.
Minerals	No restrictions other than what is in the Standards and Guidelines	No restrictions other than what is in the Standards and Guidelines.	No restrictions other than what is in the Standards and Guidelines.
Facilities	Construction as needed to meet management objectives (i.e. protection of water quality.)	Construction as needed to meet management objectives. Maintenance as required.	Construction as needed to meet management objectives. Maintenance as required.

CONTINUED

<u>ACTIVITY</u>	<u>k. - MAXIMUM WATER YIELD</u>	<u>l. - OPTIMIZATION OF WILDLIFE HABITAT DIVERSITY THROUGH TIMBER HARVEST AT MODERATE LEVELS</u>	<u>n. - RANGE OF RESOURCE USES AND OUTPUTS. COMMODITY PRODUCTION MODIFIED FOR AMENITY PRODUCTION</u>
<u>Protection</u>	Control only to protect investments. Prescribed fire may be used to meet the objectives of the Management Area.	Prescribed burning to enhance habitat and reduce conflagration potential.	Prescribed fire allowed.
<u>Riparian</u>	Maintain.	Maintain and restore.	Maintain and restore.

**MANAGEMENT AREA PRESCRIPTIONS
FOR ALTERNATIVE DEVELOPMENT**

(See Table 11-1 For Acres Assigned To Each Prescription By Alternative)

ACTIVITY	n1 - NRA EXISTING SITUATION	p. - NRA TIMBER EMPHASIS	q. - NRA FORAGE EMPHASIS
Description of Area	These are lands in the NRA that have the existing low prescription applied. Activities and practices recognize and emphasize the recreation and wildlife values within the NRA. Standards and guidelines are modified to comply with Public Law 90-540.	These lands are the timbered areas within the Flaming Gorge NRA that are identified as suitable for timber production. Timber production will be optimized while meeting the intent and direction of Public Law 90-540.	These lands are in the NRA that will be managed to optimize livestock forage while recognizing the dominance of recreation and scenics.
Recreation	Dispersed recreation is high and will be managed at standard service level over most of area.	Dispersed recreation opportunities will generally be in the Roded Natural ROS class. Recreation activities managed at standard service level. ORV restrictions used to protect wildlife, recreation, and watershed values. VQO at inventoried level.	Dispersed recreation opportunities will generally be in the Roded Natural ROS class. Recreation activities managed at standard service level. ORV restrictions used to protect wildlife, recreation, and watershed values. VQO at inventoried level.
Wildlife	Wildlife habitat diversity would remain stable. Improvements made on existing herd unit plans where compatible with NRA direction. Access control may be used for wildlife enhancement where compatible with NRA direction.	Transitory forage increases from timber activities will be allocated to wildlife.	Improvements permitted if not in conflict with prescription objective.
Range	Maintain levels of utilization and investment based on allotment management plans where compatible with NRA direction.	Livestock use of available forage will be permitted when wildlife needs have been met. Improvements permitted if compatible with VQO's and recreation opportunities.	Increases in forage above background levels permitted for livestock production. Range improvements permitted where compatible with NRA objectives.

CONTINUED

<u>ACTIVITY</u>	<u>n1 - NRA EXISTING SITUATION</u>	<u>p. - NRA TIMBER EMPHASIS</u>	<u>q. - NRA FORAGE EMPHASIS</u>
<u>Timber</u>	<p>Timber stands will generally be managed on an uneven-aged basis.*</p> <p>Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal.</p>	<p>Timber stands will generally be managed on an uneven-aged basis. Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal.</p>	<p>Harvest allowed for increasing forage production and if no conflict with grazing management systems or recreation. Harvest can be used for conversion. Timber stands will generally be managed on an uneven-aged basis. Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal.</p>
<u>Minerals</u>	<p>Mineral activities permitted when in compliance with P.L. 90-540.</p> <p>Use of stipulations for minerals activities will be applied in accordance with the matrix in Appendix I.</p>	<p>Mineral activities permitted when in compliance with P.L. 90-540.</p>	<p>Mineral activities permitted when in compliance with P.L. 90-540.</p>
<u>Facilities</u>	<p>Transportation system location, design, construction, and maintenance based on NRA legislative objectives.</p> <p>Trail maintenance will usually be to standard levels.</p>	<p>Locate, design, construct, and maintain systems to serve timber management activities and dispersed recreation. Seasonal closures may be used to protect facilities and resource quality. Temporary road density will generally be greater than in timbered areas outside the NRA.</p> <p>Arterial/collector roads generally open to public. Local roads closed after use. Trails will be maintained to meet the needs of recreation users and to a standard service level.</p>	<p>Locate, design construct, and maintain systems to serve timber management activities and dispersed recreation. Seasonal closures may be used to protect facilities and resource quality. Temporary road density will generally be greater than in timbered areas outside the NRA.</p> <p>Arterial/collector roads generally open to public. Local roads closed after use. Trails will be maintained to meet the needs of recreation users and to a standard service level.</p>

*This is interpreted to mean that "stands" will generally contain two or more age classes of trees. This age spread may be attained by harvesting in small units (1/4 acre to 40 acres) and/or single tree removal.

CONTINUED

ACTIVITY	n1 - NRA EXISTING SITUATION	p. - NRA TIMBER EMPHASIS	q. - NRA FORAGE EMPHASIS
<u>Protection</u>	Some vegetative manipulation by prescribed fire where it is in keeping with scenic, wildlife, and recreation purposes as required by NRA legislation. Prescription based on protection of facilities, wildlife, VQO's, and fuels abatement.	Prescribed fire permitted. Prescriptions based on facilities protection, fuels abatement, management objectives, and VQO requirements.	Prescribed fire permitted. Prescriptions based on facilities protection, fuels abatement, management objectives, and VQO requirements.
<u>Riparian</u>	Protect.	Protect.	Maintain to protect streambank stability.

MANAGEMENT AREA PRESCRIPTIONS
FOR ALTERNATIVE DEVELOPMENT

(See Table 11-1 For Acres Assigned To Each Prescription By Alternative)

ACTIVITY **C. - NRA WILDLIFE EMPHASIS**

Description of Area This Management Area consists of those lands identified as having special or critical wildlife capabilities in the Flaming Gorge NRA. objective is to maintain or increase wildlife species diversity and numbers while meeting the direction for protection of recreation and visual resource in Public Law 90-540.

Recreation Dispersed recreation opportunities will generally be in the Roaded Natural ROS class.

Recreation activities managed at standard service level.

ORV restrictions used to protect wildlife, recreation, and watershed values. VOO at inventoried level.

Wildlife Structural and non-structural habitat improvements permitted.

Transitory forage increase resulting from harvest activities would be assigned to wildlife use.

Range Livestock utilization may be curtailed or precluded to enhance or maintain the wildlife resources.

CONTINUED

ACTIVITY **c. - NRA WILDLIFE EMPHASIS**

Timber Timber stands will generally be managed on an uneven-aged basis.

Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal.

Minerals Mineral activities permitted when in compliance with P.L. 90-540.

Facilities Locate, design, construct, and maintain systems to serve timber management activities and dispersed recreation. Seasonal closures may be used to protect facilities and resource quality. Temporary road density will generally be greater than in timbered areas outside the NRA.

Arterial/collector roads generally open to public. Local roads closed after use. Trails will be maintained to meet the needs of recreation users and to a standard service level.

Protection Fire prescriptions based on wildlife needs modified to meet VQO and recreation criteria.

Riparian Protect.

In addition, more information is provided by various resources to further define differences between alternatives or to compare them.

RECREATION AND WILDERNESS

Specific information that compares recreation outputs with projected demand and estimated R.O.S. capacity for each alternative is shown following this introduction. In addition, the preferred alternative (J) outputs in MRVDs for developed sites, dispersed areas, wilderness, including wildlife and fish user days are compared to projected and estimated R.O.S. capacities.

When reviewing the FORPLAN supply of outputs in terms of MRVD's it is obvious that these outputs do not meet demand figures shown in the same table. The FORPLAN building blocks such as yield tables, economic tables, and associated scheduling entries were purposely structured so that the demand figures could not be exceeded. This action was based on initial FORPLAN modeling instructions limiting the recreation resource to non-elastic demands. Even with the slightly lower than demand outputs, the economic program for the FORPLAN model provides for funding of the recreation resource for all alternatives at a level that would allow for meeting recreation demand regardless of outputs shown in these tables. Recreation's contributions to present net worth is several times higher than any of the other resources and subsequently further manipulation or upward adjustments in the FORPLAN outputs would be of little value. The important thing to keep in mind is the relative value of these figures and that it is possible to use these figures to compare the outputs of each alternative and how they relate to estimated demand and capacity.

Even though demand could probably be met for alternatives F and G it would be at a reduced level of service. With Alternatives B, H, I and J, the services would be more in line with the importance and emphasis given to recreation on the Forest. However, Alternative J provides for more variation of recreation opportunities than Alternatives B, H, and I, because of restrictions imposed on roading in the first decade. Improved methods of management using volunteer programs would be used in all alternatives to reduce costs and help to meet public needs.

COMPARISON OF RECREATION OUTPUTS WITH PROJECTED DEMAND AND ESTIMATED CAPACITY FOR EACH ALTERNATIVE BY TIME PERIODS

Alternative	Decades				
	1	2	3	4	5
A	1,771	2,022	2,332	2,644	2,953
B	1,806	2,096	2,403	2,732	3,051
C	1,795	2,076	2,388	2,704	2,995
D	1,794	2,063	2,357	2,679	3,004
E	1,744	1,987	2,287	2,590	2,890
F	1,714	1,871	2,072	2,255	2,503
G	1,639	1,741	1,896	2,033	2,194
H	1,800	2,088	2,397	2,720	3,033
I	1,816	2,105	3,009	3,550	4,069
J	1,827	2,134	2,472	2,813	3,144
AMS Demand MRVDs and time periods	2,005 (1985 to 1994)	2,509 (1995 to 2004)	3,009 (2005 to 2014)	3,550 (2015 to 2024)	4,069 (2025 to 2035)
Inventoried R.O.S. Capacity					
Developed	2,260	2,260	2,260	2,260	2,260
Dispersed	1,815	1,815	1,815	1,815	1,815
Wilderness	<u>360</u>	<u>360</u>	<u>360</u>	<u>360</u>	<u>360</u>
Total	4,435	4,435	4,435	4,435	4,435

Decades	Alt. J. Outputs Supply (FORPLAN) MRVD's			WFUDs	Total	MRVD's AMS Projection Demand Period	
	Developed	Dispersed	Wilderness				
1	809	531 (186 WFUDs)	223 (78 WFUDs) ^{2/}	264	1,827 ^{1/}	2,005	1985 to 1994
2	940	617 (217 WFUDs)	266 (94 WFUDs) ^{2/}	311	2,134 ^{1/}	2,509	1995 to 2004
3	1,119	735 (258 WFUDs)	266 (94 WFUDs) ^{2/}	352	2,472 ^{1/}	3,009	2005 to 2014
4	1,300	853 (300 WFUDs)	266 (94 WFUDs) ^{2/}	394	2,813 ^{1/}	3,550	2015 to 2024
5	1,476	968 (340 WFUDs)	266 (94 WFUDs) ^{2/}	434	3,144 ^{1/}	4,069	2025 to 2035
Developed Capacity 2,260			Wilderness Capacity 360				

Capacity for total Dispersed (including Dispersed, Wilderness and WFUD's)
2,175

^{1/} These total supply figures are slightly less than demand but with improved management methods it is expected that outputs could be increased to meet demand throughout decade 5. In addition even though projected demand is running ahead of reported use starting in decade 1 it is expected that demand and actual use should tend to equalize during the planning horizon.

^{2/} WFUDs shown here are included in total WFUDs column but are shown so that a total dispersed and wilderness supply figures can be determined.

WILDLIFE AND FISH

No action will be taken in any alternative that will adversely affect a Threatened or Endangered species. Under all alternatives, the habitat of Threatened or Endangered species would be managed so that present population levels are maintained or increased.

All alternatives will support at least the minimum viable populations of all species presently inhabiting the forest.

Alternatives D, F, and G would provide for the greatest potential increase in big game populations and fish production. This is directly related to an increased level of habitat improvement with these alternatives. The greatest decrease in big game numbers and fish production would occur in alternative C, because there is considerable habitat disturbance and only modest habitat improvement.

During recent years, approximately \$40,000 (1982 dollars) per year has been invested in structural and non-structural habitat improvements for wildlife and fisheries on the Ashley National Forest. This level of investment will continue in all alternatives except J. Alternative J, the preferred alternative, will provide about \$43,000 (1982 dollars) per year for wildlife and fisheries habitat improvement. However, since over 80% of the winter range for big game species occurs off the Forest, this becomes a major controlling factor in actual big game population levels.

There is only a small amount of variance of wildlife and fish user days (WFUD's) between alternatives. Alternative B, H, I, and J show the largest increase in the first decade, with alternative G having the greatest decline. WFUD's increase in all alternatives in the fifth decade over the first decade current (Alt. A).

Elk and deer are big game Management Indicator Species. Alternatives D, F, and G provide the largest increases in elk habitat capability, whereas Alternative C shows the largest decline. For deer, Alternative D shows the largest increase and C the largest decline. Alternative J, the Preferred Alternative, provides a habitat capability of over 5,800 for elk and 45,200 for deer. This compares favorably with the Utah Division of Wildlife Resources goals of 5,500 elk and 42,000 deer for the Ashley.

RANGE

Tables II-4 and II-5 display the changes that occur in range outputs (Animal Unit Months - AUM) for all alternatives. The largest increase in AUM's occurs under Alternatives C and H. The alternative showing the largest decline is Alternative G in the first decade.

Alternatives H and C have the largest amount of acres assigned to a high forage and livestock utilization. Under these alternatives, the largest amount of transitory range could be assigned to livestock. Alternative F and G have the least amount of land assigned to the livestock prescription and most transitory range would be assigned to wildlife. The other alternatives have moderate amounts of acreage assigned.

Sensitive plant species are maintained under all alternatives.

TIMBER

The long-term sustained yield (LTSY) capacity of all the alternatives

Alternative	LTSY (MMCF/ Decade)	Allowable Sale Quantity per Decade			
		Decade 1	Decade 5	Decade 10	Decade 15
A. Current Program	47.332	38.000	38.000	38.000	47.332
B. Coordinated Resource	68.480	75.000	48.000	48.000	68.480
C. Market Opportunity	87.369	60.000	60.000	60.000	87.369
D. Non-Market Opportunity	48.421	38.306	38.306	38.306	48.421
E. 1980 RPA Program	71.268	53.000	58.000	58.000	58.000
F. Current Budget	72.991	10.136	10.136	39.920	39.920
G. Reduced Budget	43.720	30.817	30.817	30.817	39.964
H. Livestock-Timber Emphasis	57.130	68.000	44.200	44.200	44.200
I. Accelerated Harvest	65.380	110.769	50.000	50.000	53.661
J. Preferred	63.191	53.000	48.000	48.000	48.000

Chapter III and Appendix B contain tables that display the acreage of land suitable for timber management under the existing situation. The acres of timber land available for management activities varies between alternatives as more or less acres are assigned to non-developed prescriptions.

Comparison of capable available and suitable acres by alternative.

Classification	A	B	C	D	E	F	G	H	I	J
1. Non-Forest Land (Includes Water)	536.4 M Acres - All Alternatives									
2. Forest Land	836.8 M Acres - All Alternatives									
3. Forest Land Withdrawn *	147.4 M Acres - All Alternatives									
4. Forest Land Not Capable **	96.7 M Acres - All Alternatives									
5. Forest Land Physically Unsuitable	0 Acres - All Alternatives									
6. Forest Land-Inadequate Inform. ***	61.9 M Acres - All Alternatives									
7. Tentatively Suitable	530.5 M Acres - All alternatives									
8. Forest Land Not Appropriate **** (M Acres)	154.8	29.7	0.9	139.8	0.9	141.1	206.6	49.8	2.5	
9. Unsuitable Forest Land (M Acres)	461.1	336.0	307.2	446.1	307.2	447.7	512.9	356.1	308.8	
10. Total Suitable (M Acres)	375.7	500.8	529.6	390.7	529.6	389.1	323.9	480.7	528.0	
11. Total National Forest Land	1,373.2 M Acres - All Alternatives									

* Forest land included in the High Uintas Wilderness

** Pinyon-Juniper

*** Forested land producing less than 20 cubic feet of wood fiber per acre per year

**** Includes RNA's, Sheep Creek Geological Area and other non-development prescriptions

None of the Forest has been identified as having extreme soil stability or regeneration problems that cannot be overcome with existing technology. It must be noted, however, that some areas of the Forest are sensitive and will require extra precautions on the location, timing and methods of harvest to prevent other resource damage.

Logging methods applied in the various alternatives for 5 decades include tractor logging and cable logging.

<u>Alternative</u>	<u>Tractor - M Acres</u>	<u>Cable - M Acres</u>
A	127.9	43.4
B	156.6	82.9
C	168.3	93.2
D	142.8	38.2
E	161.0	94.5
F	41.4	7.7
G	113.8	22.2
H	186.6	44.8
I	176.2	90.8
J	147.8	62.3

Clear cutting harvest systems will be used throughout all alternatives on a forest-wide basis. While shelterwood, single tree, and group selection systems are not precluded, they will primarily be used to remove danger trees from developed sites, within the Flaming Gorge National Recreation Area for aesthetics, and in highly sensitive visual quality zones. Even within the NRA, the use of other systems will be on a limited basis and will generally only be in the ponderosa pine timber stands.

Extensive partial cutting in the past has proven to be generally unsuccessful on the Forest. This is particularly true with lodgepole pine where leave trees were a continuing source of mistletoe infestation for new stands, where fuel loadings were impractical to reduce, where windthrow susceptibility was increased, and where successful natural regeneration of new stands was reduced.

As shown below, intermediate harvests become increasingly important after six decades in most alternatives. These intermediate harvests are commercial thinning entries to maintain spacing and should not be confused with partial cuts which are regeneration harvests.

Following are displays that compare, by decade, the amount of intermediate and final harvests by alternative over a fifteen decade time period.

FINAL HARVEST - M ACRES

Alternative

Decade	A	B	C	D	E	F	G	H	I	J
1	23.7	44.7	33.3	23.1	33.6	5.6	17.2	38.3	59.4	31.7
2	32.4	55.9	48.8	31.1	47.0	8.8	25.7	50.5	54.4	39.3
3	41.4	47.7	62.3	50.3	60.0	10.1	31.9	54.1	53.0	49.3
4	38.9	47.6	62.3	39.3	60.5	10.0	33.5	46.3	52.1	47.6
5	35.0	43.5	54.9	37.2	54.5	14.5	27.7	42.2	48.1	41.9
6	39.3	45.9	57.5	39.3	53.4	52.7	37.0	45.3	50.0	46.1
7	38.4	41.2	60.9	47.2	58.8	46.4	37.2	47.7	59.7	45.0
8	33.5	47.0	51.0	26.4	49.1	45.3	27.8	38.5	41.9	49.3
9	33.7	36.1	50.6	36.8	49.0	36.3	25.7	39.6	42.7	43.1
10	21.3	32.7	15.7	22.5	27.0	35.7	23.7	24.5	31.3	29.9
11	30.9	35.9	31.3	31.1	29.6	39.9	15.5	37.5	26.8	35.5
12	16.2	32.4	8.9	20.4	15.3	40.2	25.5	23.6	16.7	37.1
13	23.0	21.0	15.0	24.2	23.5	26.3	19.6	29.1	30.9	24.8
14	31.8	34.4	9.7	32.7	17.3	35.0	24.0	33.9	40.4	32.2
15	36.0	24.4	46.6	33.6	43.2	17.1	35.4	23.7	50.1	43.4

Intermediate Harvest - M Acres

1	----	----	----	----	----	----	----	----	----	----
2	----	----	----	----	----	----	----	----	----	----
3	----	----	----	----	----	----	----	----	----	----
4	----	----	----	----	----	----	----	----	----	----
5	----	----	----	----	----	----	----	----	----	----
6	----	----	----	----	----	----	----	----	----	----
7	2.8	29.8	14.7	1.0	21.7	----	----	2.4	2.4	17.7
8	4.0	23.6	33.0	3.4	24.8	7.0	----	3.4	7.5	11.3
9	3.4	39.9	31.5	2.6	11.0	----	0.6	3.4	11.0	9.4
10	7.8	34.2	112.9	3.8	59.1	----	1.2	7.7	37.1	31.9
11	13.7	32.4	62.4	10.1	29.1	----	0.6	17.9	17.0	29.1
12	28.1	21.9	155.3	25.3	86.6	0.1	1.5	33.8	63.9	24.0
13	0.7	21.8	47.6	1.7	6.3	32.6	0.8	1.9	4.8	9.8
14	8.1	9.4	82.6	4.6	15.1	15.0	1.5	10.9	30.2	9.8
15	0.5	1.7	7.7	0.7	0.5	39.3	0.4	1.3	0.7	0.7

Natural regeneration is traditionally used on the Ashley National Forest. The major species component of the commercial timber is lodgepole pine. Lodgepole cones on the Ashley are approximately half (50%) serotinous which results in a ready source of seed that is compatible with the moderately harsh sites found on the Forest. The average time for natural regeneration to reach acceptable stocking levels is from seven to ten years. The technical capability exists to assure satisfactory re-stocking within five years. However, natural regeneration is much less costly and results in eventual over-stocking that requires thinning to maintain growth.

Alternative J includes a concept that specifically proposes to treat a total of 22,000 acres of lodgepole stands that need site preparation treatment to obtain natural regeneration. This area includes 5,000 acres of stagnated stands usually under 3" in diameter, 5,000 acres of partial stands that do not have enough live basal area to recover, and 12,000 acres of larger 6"-7" pole size stands that have 80% plus beetle killed trees. It is proposed to do site preparation work on 11,000 acres of this area during the first decade. Site preparation work will be done by burning, cutting, crushing, or by other suitable methods. This work will be keyed directly to management objectives such as wildlife habitat improvement, meeting adopted VQO's fuel loading break up, and timber stand regeneration. The NEPA process will be used to fully display the site specific and cumulative effects.

WATERSHED

As is common in the arid and semi-arid regions of the West, water quality and quantity are major issues with many of the publics served by the Ashley National Forest.

WATER YIELD

In all alternatives, water yield would be increased as a result of both the beetle epidemic and management activities, primarily timber harvest. Coordinated Resource (B), Market (C), Non-Market (D), RPA (E), Livestock-Timber (H), and Accelerated Harvest (I) alternatives have the greatest increase in water yield; Current Budget (F), and Reduced Budget (G) have the least increase. The Current Program (A), and the Preferred Alternative (J), have moderate increases in water yield. The following two tables display a comparison by alternative of water yield increases over natural, and yield meeting quality standards.

WATER YIELD (M. AC. FT.) INCREASES OVER
NATURAL* AND CHANGE FROM FIRST DECADE CURRENT (ALTERNATIVE A)

Alternative	Time Period									
	86-90		91-00		01-10		11-20		21-30	
	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>
A	5	(0)	13	(8)	24	(19)	33	(28)	39	(34)
B	8	(3)	22	(17)	38	(33)	49	(44)	56	(51)
C	6	(1)	17	(12)	34	(29)	50	(45)	61	(57)
D	16	(11)	24	(19)	37	(32)	48	(43)	55	(50)
E	8	(3)	20	(15)	37	(32)	51	(16)	62	(57)
F	11	(6)	10	(5)	14	(9)	19	(17)	21	(16)
G	4	(-1)	11	(6)	21	(16)	29	(24)	34	(29)
H	8	(3)	22	(17)	38	(33)	50	(45)	55	(50)
I	12	(7)	30	(25)	46	(41)	55	(50)	60	(55)
J	5	(0)	14	(9)	28	(23)	40	(35)	50	(45)
Max Water Benchmark	15	(10)	40	(35)	66	(61)	82	(77)	81	(76)

* Increases include all water increases, and not just water meeting quality goals.

1/ Increase over natural
2/ Change from 1st Decade Current (Alternative A)

TOTAL WATER YIELD (M. AC. FT.)
AND YIELD MEETING QUALITY STANDARDS

Alternative	Time Periods									
	86-90		91-00		01-10		11-20		21-30	
	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>
A	960	(882)	972	(928)	982	(938)	989	(945)	993	(949)
B	963	(885)	981	(937)	996	(952)	1005	(961)	1010	(966)
C	961	(883)	976	(932)	992	(948)	1006	(962)	1016	(972)
D	971	(893)	983	(939)	995	(951)	1004	(969)	1009	(965)
E	963	(885)	979	(935)	995	(951)	1007	(963)	1016	(972)
F	966	(871)	969	(874)	972	(877)	975	(880)	976	(881)
G	959	(864)	970	(875)	979	(884)	985	(890)	988	(893)
H	963	(885)	981	(937)	996	(952)	1006	(962)	1009	(965)
I	967	(889)	989	(945)	1004	(960)	1011	(967)	1014	(970)
J	960	(882)	973	(929)	986	(942)	996	(952)	1002	(958)
Max Water Benchmark	970	(892)	999	(955)	1024	(980)	1038	(994)	1035	(991)

1/ Total Water Yield
2/ Water Yield meeting quality standards

WATER QUALITY

It is important to note in the above table that 9,500 acre feet of water currently does not meet State standards and is not improved in Alternatives F and G because there is no watershed improvement programmed in these alternatives. Alternatives that have investments for watershed restoration bring this figure up to standards by the year 2000. During the first decade, sediment would increase and water quality would decline slightly from current condition in Alternatives B, C, E, I, and J in localized areas. Site-specific problems, such as soil compaction and surface erosion would result from recreation uses and lack of cover improvement work. Water quality would be maintained at near current condition under Alternatives A and D.

The following table displays a comparison of alternatives by sediment yield displaying the changes in tons of sediment delivered to live streams. Note that while several alternatives indicate a significant increase in sediment delivery, all alternatives were constrained in the FORPLAN model to not exceed the 10 Nephelometer Turbidity Units (NTU) increase set as a State of Utah quality standard for turbidity.

SEDIMENT YIELD (M TONS)
AND CHANGE FROM CURRENT FIRST DECADE ().

Alternative	Time Periods									
	86-90		91-00		01-10		11-20		21-30	
	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>	<u>1/</u>	<u>2/</u>
A	32	(0)	33	(1)	35	(3)	38	(6)	36	(4)
B	32	(0)	38	(6)	43	(35)	48	(16)	49	(17)
C	34	(2)	41	(9)	46	(14)	51	(19)	50	(18)
D	32	(0)	33	(1)	34	(2)	38	(6)	35	(3)
E	36	(4)	44	(12)	46	(14)	51	(19)	50	(18)
F	31	(-1)	31	(-1)	31	(-1)	32	(0)	34	(2)
G	32	(0)	32	(0)	33	(1)	34	(2)	36	(4)
H	32	(0)	33	(1)	35	(3)	38	(6)	37	(5)
I	32	(0)	36	(4)	43	(11)	50	(18)	48	(16)
J	32	(0)	36	(4)	41	(9)	48	(16)	48	(16)
Max Water Benchmark	38	(6)	46	(14)	51	(19)	54	(22)	53	(21)

1/ Total Sediment Yield
2/ Change from first decade current Alternative A

Under all alternatives, watershed protection would be coordinated with local, State, and Federal agencies.

SOILS

Soil erosion would increase under all alternatives, but within the threshold soil and water quality constraints established by law and regulations. Water quality and soil productivity monitoring would be most intensive in areas

where land-disturbing management activities take place in all alternatives except F and G. Soil productivity would increase slightly with the present watershed improvement needs being met by the year 2000 in all alternatives except F and G.

All alternatives could result in changes to the environment which may reduce short term soil productivity, or that affect other uses or resources.

Data to accurately evaluate soil productivity relationships are generally not available in Region 4. If current direction is implemented, better data should be available in the future.

The following table displays the percentage of National Forest System land which provides for the long-term maintenance of soils productivity. Figures given are for the end of the decade. Acres not maintaining long term soil productivity are considered to be the sum of:

- (1) Acres identified as part of the soil and water resource improvement backlog.
- (2) Acres permanently taken out of productivity.
- (3) Acres where established soil loss tolerance levels are exceeded.

There are currently 1,817 miles on the inventoried road system, 1,400 acres of administrative sites and approximately 1,000 acres identified as part of the soil and water resource improvement backlog.

TABLE II-2
LAND PROVIDING FOR THE LONG-TERM MAINTENANCE OF SOIL
PRODUCTIVITY (% MAINTAINED AT THE END OF THE FIRST DECADE)

Decade 1	A <u>Current</u>	B	C	D	E
Acres maintained	1,358,372	1,357,064	1,357,640	1,358,654	1,357,430
% maintained	98.9	98.8	98.9	98.9	98.9
Acre loss	14,847	16,155	15,579	14,565	15,789
	F	G	H	I	J
Acres maintained	1,359,560	1,359,940	1,357,346	1,356,872	1,359,159
% maintained	99.0	99.0	98.8	98.8	98.9
Acre loss	13,659	16,273	15,873	16,347	14,060

WATERSHED RESTORATION BACKLOG

Under all alternatives, all soil and water resources are managed through mitigation and coordination with other resources to prevent degradation of the watershed. All alternatives, except F and G, program watershed restoration to complete the backlog by the year 2000. Under alternatives F and G watershed condition would generally remain static Forest-wide, but would decline in some areas where the untreated watershed in the backlog would continue to cause erosion problems. Watershed conditions will improve under alternatives A, B, C, D, E, H, I, and J where restoration work has been complete.

Coordination and mitigation of land use activities on soil and water would be intensified under Alternatives C, E, H, and I, because of increased management activities.

RIPARIAN

The amount of riparian ecosystem would remain essentially the same in all alternatives except C and I where some loss is anticipated. Riparian ecosystem condition would be maintained or improved in alternatives D and J. In alternative H, a decline in condition is anticipated, primarily as a result of increased, or less rigorously managed, livestock grazing in riparian areas. Alternatives C and I would be managed with a timber emphasis on approximately 50% of timbered riparian areas. Alternatives A, B, E, and H would emphasize timber on approximately 20% of timbered riparian areas. Alternatives D and J would emphasize wildlife in riparian areas and timber harvesting would be done to benefit wildlife or other resources. With improved riparian condition in alternatives D and J, recreation use will increase, especially in alternative J. Increased use may result in needed restrictions to maintain the riparian ecosystem. Use of riparian areas in alternatives F and G would increase due to a lack of management causing an overall deterioration of the resource.

FIRE MANAGEMENT

The fire effectiveness index for the alternatives is based on total fire protection costs plus resource values lost divided by the acres protected. Fire effectiveness for areas assigned to wilderness prescriptions was assumed to be constant so only those acres outside the wilderness prescription were used in calculating the figures shown in Table II-4.

Alternatives B, C, H, I, and J are calculated on increased budgets needed because of increased activities (risk). Alternatives F and G are calculated on budgets decreased to meet total alternative budget limitations. Alternatives D and E are calculated on a constant base level budget, and alternative A is calculated on a current budget level.

Fuel treatment acreages are based on timber harvest acres in clearcuts. The alternatives are compared in Table II-4. The comparison base for the alternatives is decade one of alternative A which has approximately 24 thousand acres or 2,400 acres annually.

MINERALS

Minerals activities are typically demand related. National and international issues and activities trigger increases and decreases in the amount of demand that "walks in the door". Projections of demand and activity are beyond the capability of this plan. Therefore, it is assumed that the number of cases will remain the same under all alternatives. How mineral activity will be affected by alternatives is displayed in Chapter IV. Although case numbers are expected to be the same under all alternatives, where the activity will take place varies by alternative. Refer to Chapter IV for restrictions by alternatives. Use of stipulations for mineral activities will be applied in accordance with the matrix and standard and special stipulations in Appendix I. Refer to Chapter III for discussion of areas available for minerals resource activities.

TRANSPORTATION SYSTEM

Basically the long range arterial and collector road system on this Forest is complete. The local road system also is basically in place. Most of the road construction proposed in all alternatives would take place in the form of temporary roads and skid trails associated with timber harvesting activities. Reconstruction of existing roads would take place as roads become deteriorated or no longer function properly. The total miles of road construction/reconstruction proposed for each alternative can be found in Table II-4. The alternative totals for road construction vary from a low of 4.2 miles for alternative F to a high of 51.4 miles for alternative I with the current situation of 18.7 miles per year. Alternative J proposes a total of 25.8 miles of road construction or reconstruction per year.

ECONOMICS

Present net value (PNV) is the measure of economic efficiency used in Forest Planning. It is defined as the difference between the discounted dollar value of all priced outputs and the discounted value of all expenditures for management and investment (the process of discounting expresses all values at a common date). PNV is one important component or effect that is included in net public benefits. PNV is considered along with other public values which have not had values assigned. Some of these benefits pertain to such things as endangered species, visual qualities and desirable spatial arrangement of various management activities. Similarly, differences in PNV may be related to the production of public benefits to which prices have been assigned. Further, differences in PNV may be directly related to the budget restrictions associated with the alternatives.

An important purpose of this section is to define the differences in the production of public benefits among alternatives that lead to the differences in PNV.

Tables II-3, II-7, II-8, II-9 and the Economic Efficiency Analysis in Appendix B summarize the economic information that is used in defining Present Net Value (PNV) and to some extent Net Public Benefits for each alternative and for the Min Level and Max PNV (Assigned) benchmarks. Table II-2 displays the total PNV, Present Value Costs (PVC), and Present Value

Benefits (PVB) under 4% and 7% discount rates for all the alternatives and the two benchmarks. Tables II-7 thru II-9 provide information for PNV and FORPLAN priced outputs, PNV and non priced outputs, and PNV and qualitative effects. More detailed information can be found in Chapter IV, Table IV-7, Table IV-8, and the Economic Efficiency Analysis in Appendix B. (Note: Some combination of cost categories is necessary to support production of any particular priced output on a Forest-wide basis under a system of multiple use or integrated Forest management. Therefore, it would not be correct to assume that there is a one-to-one relationship between the dollar benefits listed under 'contribution of timber, or other priced output, to total discounted benefits' and the costs listed under 'contribution of timber, or other cost category, to total discounted costs.')

Table II-4 displays the undiscounted average annual costs and benefits by alternative for the first five decades of the planning horizon. Table II-5 displays changes in costs and benefits from the first decade Current Program Alternative by each alternative.

TABLE II-3
Present Net Value at 4 and 7% Discount Rates
(1978 MM Dollars Inflated to 1/1/82)

	PNV		PVC		PVB	
	4%	7%	4%	7%	4%	7%
BENCHMARKS						
1. MIN LEVEL	358.6	203.7	69.1	40.1	427.7	243.8
4. Max PNV (Assigned)	598.7	307.3	365.3	229.0	964.0	536.3
(ALTERNATIVES)						
A. Current Program	528.9	270.1	237.0	132.0	765.9	402.1
B. Coordinated Resources	490.1	254.5	315.5	183.0	805.6	437.5
C. Market Opportunity	497.0	249.3	347.1	191.7	844.1	441.0
D. Non-Market	534.8	273.3	259.0	143.7	793.8	417.0
E. 1980 RPA	521.8	258.5	307.6	170.9	829.4	429.4
F. Current Budget	482.3	250.5	163.2	86.5	645.5	337.0
G. Reduced Budget	478.5	251.2	178.8	103.5	657.3	354.7
H. Live Timber Emphasis	534.0	270.7	313.7	180.1	847.7	450.8
I. Accelerated Harvest	539.0	273.1	353.9	211.3	892.9	484.4
J. Preferred	517.2	261.3	286.0	159.2	803.2	420.5

Information for Prices of Outputs included in PNV analysis can be found in Appendix B under Table B-3, B-4, B-5, B-6, and B-7. Costs by resource output are displayed in Table B-8.

Resource Outputs, Activities, Costs, and Benefits by Alternative
and Benchmark on Annual Basis per Decade *

TABLE II-4

Output/Activity	Units	MIH Codes	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNW	Max Timber	Max Range	Max Water
Recreation Developed	MRVDS	W09															
Decade 1			779	798	792	791	765	749	709	794	803	809	0	787	677	757	673
Decade 2			881	920	909	903	862	801	732	916	925	940	0	917	665	843	632
Decade 3			1045	1083	1075	1058	1021	907	814	1080	1092	1119	0	1089	701	952	648
Decade 4			1210	1257	1242	1229	1182	1004	887	1251	1274	1300	0	1262	727	1081	696
Decade 5			1374	1426	1397	1401	1341	1136	972	1417	1444	1476	0	1432	769	1199	754
Dispersed Recreation Other	MRVDS ^{1/}	W-3 W-5 and W-7															
Decade 1																	
R.O.S. (RN)			393	403	400	400	387	378	358	402	406	409	809	398	343	382	340
(SPM)			52	52	52	52	50	49	47	52	53	53	105	52	44	50	44
(SPNM)			66	68	67	67	65	64	60	68	69	69	136	67	58	65	57
Decade 2																	
(RN)			445	465	460	456	435	404	370	463	467	475	725	464	393	426	320
(SPM)			58	60	60	59	57	53	48	60	61	62	94	60	51	55	42
(SPNM)			75	79	77	77	74	68	62	78	79	80	122	78	66	72	53
Decade 3																	
(RN)			528	547	542	535	516	459	411	545	551	566	703	550	354	481	327
(SPM)			69	71	71	70	67	60	54	71	72	74	91	71	46	63	43
(SPNM)			89	92	92	90	87	78	69	92	93	96	119	93	60	81	55
Decade 4																	
(RN)			612	635	627	621	598	507	448	632	644	657	681	638	367	546	352
(SPM)			80	83	82	81	78	66	58	82	84	85	89	83	48	71	46
(SPNM)			103	107	106	105	100	86	76	107	109	111	115	107	62	92	59
Decade 5																	
(RN)			695	721	705	708	878	574	491	715	730	745	660	723	389	606	381
(SPM)			90	94	92	92	88	75	64	93	85	97	86	94	50	79	49
(SPNM)			117	121	119	120	114	97	83	121	123	126	111	122	66	102	64

^{1/} wFUDS must be added to these figures to obtain total recreation use.

* For comparison purposes, decade 1 corresponds to the 1985 and 1986-1990 RPA time periods; decade 2 corresponds to the 1991-2000 RPA time period; decade 3 corresponds to the 2001-2010 RPA time period, decade 4 corresponds to the 2011-2020 RPA time period, and decade 5 corresponds to the 2021-2030 RPA time period.

CONTINUATION OF TABLE II-4

Output/Activity	Units	Alternatives										Benchmarks					
		NIH Codes	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Wilderness	MRVDS ^{1/}																
Decade 1		W-33															
R.O.S. (PRIM)			142														
(SPNM)			80														
(SPM)			.9														
Decade 2																	
(PRIM)			169														
(SPNM)			96														
(SPM)			1														
ALL ALTERNATIVES AND BENCHMARKS MRVDS ARE THE SAME AS ALT. A																	
Decade 3																	
(PRIM)			169														
(SPNM)			96														
(SPM)			1														
Decade 4																	
(PRIM)			169														
(SPNM)			96														
(SPM)			1														
Decade 5																	
(PRIM)			169														
(SPNM)			96														
(SPM)			1														
Wilderness Management	M AC	W-30															
Decade 1			273.4														
Decade 2			273.4														
Decade 3			273.4														
Decade 4			273.4														
Decade 5			273.4														
ALL ALTERNATIVES AND BENCHMARKS ACREAGES ARE THE SAME AS ALTERNATIVE A																	

^{1/} WFUDS must be added to these figures to obtain total recreation use.

CONTINUATION OF TABLE II-4

Output/Activity	Units	MIH Codes	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Wildlife	STRUC	C03															
Structural Habitat Imp.																	
Decade 1			14	14	5	26	26	4	19	14	14	15	0	16	14	0	0
Decade 2			14	14	5	26	24	17	0	14	14	15	0	0	34	0	0
Decade 3			14	14	5	26	22	0	17	14	14	15	0	16	0	0	0
Decade 4			14	14	5	26	17	17	0	14	14	15	0	0	0	0	0
Decade 5			14	14	5	26	14	19	17	14	14	15	0	16	15	0	0
Non-Structural Hab. Im.	AC	C02															
Decade 1			925	925	350	2307	2307	149	1558	925	925	500	0	1148	925	0	0
Decade 2			925	925	350	2307	1974	1321	0	525	925	500	0	0	2307	0	0
Decade 3			925	925	350	2307	1641	0	1201	925	925	500	0	1148	0	0	0
Decade 4			925	925	350	2307	1308	1321	0	925	925	500	0	0	0	0	0
Decade 5			925	925	350	2307	992	1394	1201	925	925	500	0	1148	925	0	0
Wildlife and Fish Use	MWFUD(MRVDS)1/																
Decade 1			258	262	261	261	254	251	242	261	263	264	224	255	234	252	233
Decade 2			297	306	304	302	293	263	305	307	279	311	225	305	273	288	240
Decade 3			335	344	342	338	330	282	345	346	303	352	221	345	255	313	244
Decade 4			373	384	381	377	366	298	382	388	326	394	217	385	261	343	254
Decade 5			411	423	416	417	403	318	421	427	356	434	213	424	271	371	268
Elk*	MANIM																
Decade 1			5.8	5.8	5.3	6.4	5.8	6.3	6.2	5.8	5.8	5.9	8.5	6.5	5.0	4.0	5.0
Decade 2			5.9	6.0	5.4	6.4	5.9	6.3	6.2	5.9	6.0	5.9	8.5	6.5	5.0	4.0	5.0
Decade 3			5.8	6.0	5.6	6.5	6.0	6.3	6.2	6.0	6.0	5.8	8.5	6.5	5.0	4.0	5.0
Decade 4			5.7	5.9	5.4	6.3	6.0	6.3	6.2	5.8	5.9	5.8	8.5	6.5	5.0	4.0	5.0
Decade 5			5.5	5.6	5.4	6.3	5.7	6.2	6.2	5.7	5.6	5.7	8.5	6.5	5.0	4.0	5.0
Deer *	MANIM																
Decade 1			45.2	45.4	40.9	49.6	45.4	49.2	48.1	45.4	45.5	45.3	58.0	46.0	40.0	32.0	40.0
Decade 2			45.9	46.9	42.2	50.3	45.4	49.0	48.1	46.7	47.5	46.7	58.0	46.0	40.0	32.0	40.0
Decade 3			45.7	47.6	43.4	50.8	47.5	48.9	48.1	47.0	48.3	47.6	58.0	46.0	40.0	32.0	40.0
Decade 4			44.7	45.9	43.3	50.2	46.8	48.8	48.2	46.3	46.8	46.9	58.0	46.0	40.0	32.0	40.0
Decade 5			43.0	43.7	41.9	49.2	44.4	48.3	48.3	44.9	43.9	43.6	58.0	46.0	40.0	32.0	40.0

1/ Fish and Wildlife portion of total recreation use.

* It is important to note that these levels are what the Forest can support seasonally (spring, summer, and fall) and that without major improvement of adjacent lands, which comprise over 80% of the big game winter range, these levels can not be maintained. (Only in alternative C do elk numbers fall below State objectives.)

CONTINUATION OF TABLE II-4

Output/Activity	Units	M/H Codes	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Fish Production ^{1/} (Game Fish)	MLBS																
Alpine Lakes			91														
Mid-elevation Lakes			2190	Fish habitat improvement structures will be developed to maintain production levels and to provide slight increases in alternatives A, B, D, E, F, H, I, and J. Improvement structures in alternatives C and G would only maintain production levels.													
Rivers and Streams			39														
Total Annual			2320														
Range	MAUMS																
Decade 1			77	82	95	69	84	63	52	95	83	81	2.5	78	51	115	32
Decade 2			80	85	100	71	87	64	54	101	86	84	2.5	107	60	164	43
Decade 3			82	91	105	72	91	64	57	104	89	91	2.5	97	76	153	56
Decade 4			83	99	109	73	93	64	59	109	92	99	2.5	113	87	171	69
Decade 5			84	108	115	74	95	64	59	112	92	108	2.5	100	101	149	75
Timber Sales Offered	MMCF																
Sawtimber (Softwood)																	
Decade 1			3.3	6.1	5.2	3.3	4.6	.9	2.7	5.9	9.7	4.5	0	10.3	10.8	11.1	11.3
Decade 2			3.3	5.9	5.2	3.3	5.0	.9	2.7	5.9	6.3	4.5	0	8.3	8.0	8.3	8.4
Decade 3			1.9	4.0	4.5	2.4	4.3	.9	2.3	2.9	3.4	3.5	0	5.9	5.6	6.2	5.7
Decade 4			3.3	3.6	4.6	3.0	4.3	.9	2.2	3.4	4.1	3.5	0	4.6	3.4	4.2	4.2
Decade 5			3.6	4.1	5.2	3.2	5.0	0	2.4	3.6	4.4	3.9	0	3.6	3.3 <u>2/</u>	3.7	3.5
Sawtimber (Hardwood)	MMCF																
Decade 1			0	.4	0	0	0	0	0	0	0	0	0	.8	0	.2	0
Decade 2			0	.4	0	0	0	0	0	0	0	0	0	.1	.1	.1	.1
Decade 3			1.4	.2	.7	.9	.7	0	.4	.9	1.0	.7	0	.4	.3	.2	.7
Decade 4			.3	.6	.6	.3	.7	0	.5	.4	.3	.7	0	.1	1.1	.7	.6
Decade 5			0	.1	0	.1	0	.9	.3	.2	0	.3	0	0	.1	0	.1

^{1/} Assumes best management practices with no water quality degradation in all alternatives in all decades.

^{2/} Note that while timber harvest totals for the Max Range and Max Water Benchmarks are higher than for the Max Timber Benchmark in the first five decades, by the end of decade ten, Max Timber exceeds the total harvest for the other Benchmarks.

CONTINUATION OF TABLE II-4

Output/Activity	Units	Alternatives										Benchmarks					
		MIH Codes	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Fuelwood	MMCF		10.1	11.2	10.9	10.0	10.7	10.1	8.9	11.2	13.6	10.4	0	11.3	13.7	16.1	14.6
Decade 1			8.3	9.5	9.6	9.5	11.0	8.5	7.7	10.7	9.6	9.4	0	12.1	13.5	13.3	11.4
Decade 2			8.0	7.2	11.3	7.6	11.5	8.4	6.7	8.2	7.6	9.2	0	7.7	13.5	8.7	8.1
Decade 3			6.5	6.3	9.8	7.0	8.5	7.6	5.8	7.2	7.7	6.8	0	3.1	7.1	5.2	5.0
Decade 4			4.6	6.4	6.8	5.5	7.0	7.8	4.3	4.8	6.1	5.9	0	2.4	5.8	3.0	3.1
Decade 5																	
Roundwood	MMCF		.4	.6	.7	.4	.6	.1	.3	.8	1.2	.6	0	1.4	1.4	1.4	1.4
Decade 1			.4	.8	.7	.4	.6	.1	.3	.8	.8	.6	0	1.1	1.0	1.1	1.1
Decade 2			.4	.5	.7	.4	.6	.1	.3	.5	.6	.5	0	.8	.8	.8	.8
Decade 3			.4	.5	.7	.4	.5	.1	.3	.5	.6	.5	0	.6	.6	.6	.6
Decade 4			.4	.5	.7	.4	.6	.1	.3	.5	.6	.5	0	.4	.4	.5	.4
Decade 5																	
Reforestation	MAC		3.4	5.4	4.4	3.4	4.5	.7	2.5	4.9	7.0	4.2	0	9.1	9.4	9.7	8.7
Decade 1			3.2	5.7	4.9	3.1	4.7	.9	2.6	5.0	5.4	4.1	0	6.7	6.7	6.9	7.7
Decade 2			4.1	4.8	6.2	5.0	6.0	1.0	3.2	5.4	5.3	4.9	0	7.3	7.1	10.3	9.7
Decade 3			3.9	4.8	6.2	3.9	6.0	1.0	3.4	4.6	5.2	4.0	0	5.2	5.4	5.6	5.7
Decade 4			3.5	4.4	5.5	3.7	5.4	1.4	2.8	4.2	4.8	4.0	0	3.7	3.6	3.7	3.7
Decade 5																	
TSI	AC		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Decade 1			20	3130	4267	20	3401	0	0	20	461	1565	0	81	6458	673	0
Decade 2			20	2293	2482	20	20	696	0	20	20	356	0	0	5460	0	0
Decade 3			296	2157	7879	113	3693	128	0	254	1103	254	0	378	13945	9546	6471
Decade 4			386	3406	6242	332	2256	0	0	338	675	2224	0	2438	9851	2789	4825
Decade 5																	
Water																	
Meeting Quality Goals	MAC/FT		882	885	883	893	885	871	864	885	889	882	860	895	885	892	892
Decade 1			928	937	932	939	935	874	875	937	945	929	864	957	905	954	955
Decade 2			938	952	946	951	951	877	884	952	960	942	863	977	960	980	980
Decade 3			945	961	962	969	963	880	890	962	967	952	861	984	972	994	994
Decade 4			949	966	972	965	972	881	893	965	970	958	859	977	973	991	991
Decade 5																	

CONTINUATION OF TABLE II-4

Output/Activity	Units	MIH Codes	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
*Increase over Natural																	
	MAC/FT																
Decade 1			5	8	6	16	8	11	4	8	12	5	0	18	8	15	15
Decade 2			13	22	17	24	20	10	11	22	30	14	0	42	24	39	40
Decade 3			24	38	34	37	37	14	21	38	46	28	0	63	46	66	66
Decade 4			33	49	50	48	51	19	29	50	55	40	0	72	60	82	82
Decade 5			39	56	62	55	62	21	34	55	60	48	0	67	63	81	81
Sediment																	
	TOTAL/MTONS																
Decade 1			32	32	34	32	36	31	32	32	32	32	31	33	40	41	38
Decade 2			33	38	41	33	44	31	32	33	36	36	31	35	48	47	46
Decade 3			35	43	46	34	46	31	33	35	43	41	31	35	48	50	51
Decade 4			38	48	51	38	51	32	34	38	50	48	31	35	52	52	54
Decade 5			36	49	50	35	50	34	36	37	48	48	31	36	53	54	53
Soils																	
	AC																
Resource Improvement																	
Decade 1			57	57	57	57	57	0	0	57	57	57	0	57	57	57	57
Decade 2			57	57	57	57	57	0	0	57	57	57	0	57	57	57	57
Assumes backlog complete by 2000																	
Protection																	
	Fire Mgmt Eff Index \$/MAC																
Decade 1			309	333	333	329	329	531	531	333	333	333	329	333	333	333	333
Decade 2			309	333	333	329	329	531	531	333	333	333	329	333	333	333	333
Decade 3			309	333	333	329	329	531	531	333	335	333	329	333	333	333	333
Decade 4			309	333	333	329	329	531	531	335	333	333	329	333	333	333	333
Decade 5			309	333	333	329	329	531	531	333	333	333	329	333	333	333	333
Fuelbreaks and Fuel Treatment																	
	M ACRES																
Decade 1			2.4	4.5	3.3	2.3	3.4	.6	1.7	3.8	5.9	3.2	0	8.1	8.3	8.6	7.6
Decade 2			3.2	5.6	4.9	3.1	4.7	.9	2.6	5.1	5.4	3.9	0	6.7	6.7	6.9	7.7
Decade 3			4.1	4.8	6.2	5.0	6.0	1.0	3.2	5.4	5.3	4.9	0	7.3	7.1	10.3	9.7
Decade 4			3.9	4.8	6.2	3.9	6.0	1.0	3.4	4.6	5.2	4.8	0	5.2	5.4	5.6	5.7
Decade 5			3.5	4.4	5.5	3.7	5.4	1.4	2.8	4.2	4.8	4.2	0	3.7	3.6	3.7	3.7

*Includes all water increase and not just water meeting quality goals. All water yield increase over current meets State water quality standards. 9500 acre feet currently do not meet State standards. Alternatives that have investments for watershed restoration bring this figure up to standards by the year 2000.

CONTINUATION OF TABLE II-4

Output/Activity	Units	MIH Codes	Alternatives										Benchmarks					
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water	
Minerals																		
Leases and Permits	CASES																	
Decade 1			85	85	85	85	85	85	85	85	85	85	85	30	85	85	85	85
Decade 2			85	85	85	85	85	85	85	85	85	85	85	30	85	85	85	85
Decade 3			85	85	85	85	85	85	85	85	85	85	85	30	85	85	85	85
Decade 4			85	85	85	85	85	85	85	85	85	85	85	30	85	85	85	85
Decade 5			85	85	85	85	85	85	85	85	85	85	85	30	85	85	85	85
HC&D																		
Human Resource Programs	ENRYR		TARGETS RETAINED AT REGIONAL LEVEL															
Lands																		
Land Pur. & Acq.	ACRES		TARGETS RETAINED AT REGIONAL LEVEL															
Facilities																		
Trails Const/Recon	MILES	A10 and A11	30	40	10	40	30	10	0	30	40	80	0	30	40	40	40	
Decade 1			30	40	10	40	30	10	0	30	40	80	0	30	40	40	40	
Decade 2			30	40	10	40	30	10	0	30	40	80	0	30	40	40	40	
Decade 3			30	40	10	40	30	10	0	30	40	80	0	30	40	40	40	
Decade 4			30	40	10	40	30	10	0	30	40	80	0	30	40	40	40	
Decade 5			30	40	10	40	30	10	0	30	40	80	0	30	40	40	40	
Road Const/Reconst																		
Decade 1	MILES		.9	2.7	2.7	1.4	1.8	0	.1	2.0	6.9	2.0	0	1.2	11.5	7.3	11.9	
Decade 2			1.7	3.0	3.4	1.0	6.7	0	0	2.3	2.3	1.5	0	10.9	10.2	11.3	4.6	
Decade 3			1.9	4.1	8.7	0	7.6	0	.2	3.3	2.7	4.6	0	1.6	7.3	1.8	1.0	
Decade 4			0	4.4	5.5	.2	2.4	0	0	5.0	5.0	1.8	0	0	2.1	4.9	3.3	
Decade 5			.3	3.5	3.1	0	3.8	0	0	2.9	2.9	1.8	0	0	3.5	1.3	3.7	
Local Road Const/Recon																		
Decade 1	MILES		17.8	31.4	33.4	17.3	25.2	4.2	12.9	28.7	44.5	23.8	0	60.5	62.3	64.3	57.3	
Decade 2			24.3	41.7	36.6	23.2	35.2	6.6	19.3	37.8	40.8	29.5	0	50.3	50.0	51.6	57.8	
Decade 3			31.1	39.7	46.7	37.8	45.0	7.6	23.9	40.6	39.8	37.0	0	55.1	53.1	77.2	72.4	
Decade 4			29.2	39.0	46.7	29.5	45.4	7.4	25.1	34.7	39.0	35.7	0	39.0	40.7	42.2	43.1	
Decade 5			26.2	35.2	41.2	27.9	40.9	10.9	20.8	31.6	36.1	36.5	0	27.6	27.2	27.6	27.7	

CONTINUATION OF TABLE II-4

Output/Activity	Units	Alternatives										Benchmarks					
		MIH Codes	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNW	Max Timber	Max Range	Max Water
Timber Purch Rd Recon/Const	MILES																
Decade 1			12.4	22.0	23.4	12.1	17.6	3.0	9.0	20.1	31.1	16.7	0	42.4	43.6	45.0	40.1
Decade 2			17.0	29.2	25.6	16.3	24.7	4.6	3.5	26.5	28.6	20.6	0	35.2	35.0	36.1	40.5
Decade 3			21.8	27.8	32.7	26.4	31.5	5.3	16.8	28.3	27.8	25.9	0	38.6	37.1	54.1	50.7
Decade 4			20.4	27.3	32.7	20.6	31.8	5.3	17.6	24.3	27.3	25.0	0	27.3	28.5	29.5	30.2
Decade 5			18.3	24.6	28.8	19.5	28.6	7.6	14.6	22.1	25.2	22.0	0	19.3	19.1	19.3	19.4

Following is a re-calculation of road construction. This re-evaluation is a more realistic portrayal of actual system road development. The original display above is retained for comparison purposes.

	Miles/Year During Decade 1									
	A	B	C	D	E	F	G	H	I	J
Arterial Collector - C	0.4	1.1	1.1	0.6	0.7	0	0	0.8	2.8	0.8
Arterial Collector - RC	0.5	1.6	1.6	0.8	1.1	0	0.1	1.2	4.1	1.2
Subtotal A/C	0.9	2.7	2.7	1.4	1.8	0	0.1	2.0	6.9	2.0
Local - C	1.4	2.5	2.7	1.4	2.0	0.3	1.0	2.3	3.6	1.9
Local - RC	2.2	3.8	4.0	2.1	3.0	0.5	1.6	3.4	5.3	2.9
Subtotal Local	3.6	6.3	6.7	3.5	5.0	0.8	2.6	5.7	8.9	4.8
Total - C	1.8	3.6	3.8	2.0	2.7	0.3	1.0	3.1	6.4	2.7
Total - RC	2.7	5.4	5.6	2.9	4.1	0.5	1.7	4.6	9.4	4.1
Subtotal C/RC	4.5	9.0	9.4	4.9	6.8	0.8	2.7	7.7	15.8	6.8
Temporary roads, skid trails, and landings	14.2	25.1	26.7	13.8	20.2	3.4	10.3	23.0	35.6	19.0
TOTAL	17.8	31.4	33.4	17.3	25.2	4.2	12.9	28.7	44.5	25.8

A/C = Arterial Collector C = Construction RC = Reconstruction

NOTE. Timber purchaser road construction/reconstruction miles are included in the above totals.

CONTINUATION OF TABLE II-4

Output/Activity	Units	Alternatives										Benchmarks					
		MIH Codes	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNW	Max Timber	Max Range	Max Water
BENEFITS (MM 1982 \$ Undiscounted)																	
Recreation																	
Developed	MM\$																
Decade 1			7.7	7.6	7.6	7.7	7.5	7.5	7.2	7.6	8.7	7.6	0	7.7	5.3	7.4	6.9
Decade 2			8.7	8.7	8.6	8.7	8.5	8.2	7.8	8.7	8.7	9.0	0	8.9	7.1	8.3	7.0
Decade 3			9.9	9.8	9.7	9.8	9.5	9.0	8.5	9.8	9.9	9.9	0	10.2	7.5	9.2	7.2
Decade 4			11.1	11.0	11.0	11.0	10.7	9.8	9.1	11.0	11.2	11.2	0	11.5	7.7	10.1	7.6
Decade 5			12.4	12.3	12.1	12.4	12.0	10.9	10.0	12.3	12.5	12.5	0	12.9	8.0	11.1	8.1
Dispersed	MM\$																
Decade 1			5.0	5.0	5.0	5.0	4.9	4.9	4.7	5.0	5.7	5.0	9.3	5.0	3.5	4.9	4.5
Decade 2			6.0	5.7	5.6	5.7	5.5	5.4	5.1	5.7	5.7	5.8	9.1	5.8	4.7	5.5	4.6
Decade 3			6.5	6.4	6.4	6.4	6.3	5.9	5.7	6.5	6.5	6.5	9.0	6.7	4.9	6.0	4.7
Decade 4			7.3	7.2	7.2	7.2	7.0	6.4	6.0	7.2	7.3	7.3	8.9	7.5	5.1	6.7	5.0
Decade 5			8.1	8.1	7.9	8.1	7.9	7.1	6.6	8.1	8.1	8.1	8.8	8.4	5.3	7.1	5.3
Wilderness	MM\$																
Decade 1			1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.6	1.6	1.7	1.4	1.6	1.1	1.5	1.4
Decade 2			1.8	1.8	1.8	1.8	1.8	1.7	1.6	1.8	1.8	1.9	1.4	1.8	1.5	1.7	1.4
Decade 3			2.0	2.0	2.0	2.0	2.0	1.9	1.8	2.0	2.1	2.2	1.3	2.1	1.5	1.9	1.5
Decade 4			2.3	2.3	2.3	2.3	2.2	2.0	1.9	2.3	2.6	2.4	1.3	2.4	1.6	2.1	1.6
Decade 5			2.6	2.6	2.5	2.6	2.5	2.3	2.1	2.6	2.6	2.7	1.3	2.7	1.7	2.3	1.7
Wildlife (WFUD's)	MM\$																
Decade 1			2.4	2.3	2.3	2.3	2.3	2.3	2.2	2.3	2.6	2.3	3.7	2.3	1.6	2.2	2.1
Decade 2			2.6	2.6	2.6	2.6	2.5	2.5	2.3	2.6	2.6	2.7	3.6	2.7	2.2	2.5	2.1
Decade 3			3.0	3.0	3.0	3.0	2.9	2.7	2.6	3.0	3.0	3.0	3.6	3.1	2.3	2.8	2.2
Decade 4			3.3	3.3	3.3	3.3	3.3	3.0	2.8	3.4	3.1	3.4	3.6	3.5	2.3	8.1	2.3
Decade 5			3.8	3.7	3.6	3.5	3.6	3.3	3.0	3.7	3.8	3.8	3.6	3.9	2.4	3.4	2.4

CONTINUATION OF TABLE II-4

Output/Activity	Units	MIH Codes	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Wildlife (Forage)		MM\$															
Decade 1			1.8	1.8	1.7	1.9	1.8	2.0	2.2	1.8	1.8	1.8	2.6	1.9	2.1	1.4	2.2
Decade 2			2.1	2.2	1.8	2.3	2.1	2.2	2.6	2.1	2.1	2.2	2.6	2.3	2.1	1.4	2.2
Decade 3			2.2	2.3	1.9	2.2	2.2	2.4	2.4	2.2	2.2	2.2	2.6	2.1	2.1	1.4	2.2
Decade 4			2.3	2.4	1.9	2.4	2.2	2.4	2.6	2.2	2.2	2.3	2.6	2.6	2.1	1.5	1.5
Decade 5			2.2	2.3	1.9	2.2	2.2	2.5	2.6	2.2	2.2	2.3	2.6	2.2	2.1	1.5	2.2
Range		MM\$															
Decade 1			1.7	1.7	2.0	1.6	1.8	1.1	1.0	2.0	1.8	1.6	.3	2.1	1.2	2.8	1.0
Decade 2			2.2	2.4	2.9	2.0	2.4	1.1	1.1	3.2	2.4	2.1	.3	3.6	1.6	5.0	1.3
Decade 3			2.5	2.7	3.5	2.3	2.8	1.1	1.2	3.3	2.7	2.5	.3	3.4	1.8	4.6	1.6
Decade 4			2.6	2.8	3.6	2.4	3.0	1.1	1.2	3.7	2.9	2.6	.3	3.9	2.1	5.5	1.8
Decade 5			2.7	2.8	3.7	2.5	3.1	1.1	1.2	3.6	3.0	2.6	.3	3.5	2.2	4.9	1.9
Timber		MM\$															
Decade 1			4.2	6.5	6.3	4.2	6.0	1.1	3.5	6.9	10.8	5.3	0	13.4	12.1	12.6	12.5
Decade 2			4.2	6.4	6.0	4.1	5.8	1.0	3.5	6.8	7.2	4.9	0	9.0	8.8	9.0	9.7
Decade 3			2.3	4.3	4.9	3.0	4.7	.9	2.7	3.5	3.7	3.8	0	6.5	6.2	6.8	6.0
Decade 4			3.3	4.9	5.1	3.3	4.9	.9	2.3	3.8	4.9	3.9	0	4.8	3.8	4.1	4.5
Decade 5			3.9	4.6	6.2	3.6	5.8	0	0	4.3	4.9	3.8	0	3.8	3.6	3.8	3.9
Fuelwood		MM\$															
Decade 1			.3	.3	.3	.3	.3	.3	.2	.3	.4	.3	0	.3	.4	.4	.4
Decade 2			.2	.3	.3	.3	.3	.2	.2	.3	.3	.3	0	.3	.4	.4	.3
Decade 3			.2	.2	.3	.2	.3	.2	.2	.2	.2	.3	0	.2	.4	.2	.2
Decade 4			.2	.2	.2	.2	.2	.2	.1	.2	.2	.2	0	.1	.2	.1	.1
Decade 5			.1	.2	.2	.1	.2	.2	.1	.1	.2	.2	0	.1	.1	.1	.1
* Water Yield		MM\$															
Decade 1			.4	.7	.5	1.3	.8	.9	.3	.8	1.0	.4	0	1.5	.7	1.2	1.2
Decade 2			1.1	1.8	1.4	2.0	1.6	.8	.8	1.8	2.5	1.1	0	3.4	2.0	3.2	3.3
Decade 3			2.0	3.1	2.8	3.0	3.0	1.1	1.7	3.1	3.8	2.3	0	5.1	3.8	5.4	5.4
Decade 4			2.7	4.0	4.1	3.9	4.2	1.6	2.4	4.1	4.1	3.3	0	5.7	4.9	6.7	6.7
Decade 5			3.2	4.6	5.1	4.5	5.1	1.7	2.8	4.5	4.9	3.9	0	5.5	5.1	6.6	6.6

*Increases over background water are only valued.

CONTINUATION OF TABLE II-4

Output/Activity	Units	M/H Codes	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
COSTS (M\$ 1982 \$ Undiscounted)																	
Total Forest Budget																	
Decade 1			5.9	7.6	7.6	6.6	6.8	4.8	4.7	7.5	8.8	7.0					
Decade 2			6.8	9.5	10.1	7.7	8.8	5.3	5.1	9.1	7.4	8.1					
Decade 3			7.7	9.2	11.8	8.6	9.3	5.6	5.5	9.5	9.1	9.1					
Decade 4			8.0	9.6	11.4	8.9	9.4	5.8	5.7	10.0	10.1	9.9					
Decade 5			8.4	10.2	11.4	9.4	10.1	5.9	4.8	10.1	10.2	9.9					
Fixed Costs																	
Protection																	
Decades 1-5			.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
G.A. (General Administration)																	
Decades 1-5			1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Variable Costs																	
Investments																	
Total Roads	MM\$																
Decade 1			.7	1.5	1.0	.6	1.0	.1	.4	1.2	2.5	.8	0	2.1	3.2	3.2	3.6
Decade 2			.9	1.8	1.7	1.0	2.2	.3	.7	1.7	1.7	1.0	0	3.3	3.2	3.5	2.6
Decade 3			1.5	1.8	2.5	1.4	2.6	.3	.9	1.8	1.8	1.3	0	2.2	2.6	3.0	2.1
Decade 4			1.0	2.0	2.4	1.3	1.9	.3	.9	2.0	2.0	1.3	0	1.7	1.7	2.0	1.9
Decade 5			.9	1.7	1.8	1.0	2.0	.4	.7	1.7	1.7	1.1	0	1.0	1.2	1.1	1.4
App Roads	MM\$																
Decade 1			.3	.3	.4	.2	.4	0	.1	.5	1.4	.6	0	.7	1.7	1.6	2.2
Decade 2			.3	.3	.8	.4	1.3	.1	.2	.8	.7	.7	0	2.1	2.0	2.2	1.2
Decade 3			.7	.4	1.4	.5	1.5	.1	.3	.9	.8	.7	0	.8	1.2	1.1	.7
Decade 4			.3	.6	1.3	.6	.8	.1	.3	.7	1.1	.7	0	.5	.7	1.0	.9
Decade 5			.3	.5	.8	.3	1.0	.1	.2	.5	.9	.8	0	.3	.5	.4	.7
Purch Crd Rds	MM\$																
Decade 1			.4	1.2	.6	.4	.6	.1	.3	.7	1.1	.2	0	1.4	1.5	1.6	1.4
Decade 2			.6	1.5	.9	.6	.9	.2	.5	.9	1.0	.3	0	1.2	1.2	1.3	1.4
Decade 3			.8	1.4	1.1	.9	1.1	.2	.6	1.0	1.0	.3	0	1.4	1.3	1.9	1.4
Decade 4			.7	1.4	1.1	.7	1.1	.2	.6	.8	.9	.3	0	1.2	1.0	1.0	1.0
Decade 5			.6	1.2	1.0	.7	1.0	.3	.5	.8	.8	.3	0	.7	.7	.7	.7

CONTINUATION OF TABLE II-4

Output/Activity	Units	M/IH Codes	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Range Inv.	MM\$																
Decade 1			.04	.04	.08	.03	.05	0	0	.15	.04	.04	0	.20	.04	.41	0
Decade 2			.04	.04	.08	.03	.05	0	0	.08	.04	.04	0	C	.01	0	.01
Decade 3			.04	.04	.08	.03	.05	0	0	.11	.04	.04	0	.18	.07	.37	.01
Decade 4			.04	.04	.08	.03	.05	0	0	.09	.04	.04	0	0	.01	0	.01
Decade 5			.04	.04	.08	.03	.05	0	0	.11	.04	.04	0	.18	.08	.38	.01
Rec. Inv.	MM\$																
Decade 1			0	.6	.6	.6	0	0	0	.6	.6	.5	0	0	0	0	0
Decade 2			0	.7	.7	.7	0	0	0	.7	.7	.5	0	0	0	0	0
Decade 3			0	.7	.7	.7	0	0	0	.7	.7	.5	0	0	0	0	0
Decade 4			0	.7	.7	.7	0	0	0	.7	.7	.5	0	0	0	0	0
Decade 5			0	.7	.7	.7	0	0	0	.7	.7	.5	0	C	C	0	0
Wildlife Inv.	MM\$																
Decade 1			.04	.04	.01	.1	.1	.01	.07	.04	.04	.04	0	.06	.04	0	0
Decade 2			.04	.04	.01	.1	.08	.06	0	.04	.04	.04	0	0	.17	0	0
Decade 3			.04	.04	.01	.1	.07	0	.06	.04	.04	.04	0	.06	0	0	0
Decade 4			.04	.04	.01	.1	.06	.06	0	.04	.04	.04	0	0	0	0	0
Decade 5			.04	.04	.02	.1	.04	.08	.06	.04	.04	.04	0	.06	.05	0	0
Timber Inv.	MM\$																
Decade 1			.09	.18	.46	.09	.31	.02	.07	.12	.11	.16	0	.28	.06	.23	.08
Decade 2			.12	.71	1.08	.10	.45	.03	.10	.14	.12	.42	0	.47	.17	1.50	.24
Decade 3			.07	.38	1.30	.14	.13	.12	.11	.10	.11	.18	0	.23	.05	.37	.34
Decade 4			.17	.31	.72	.14	.36	.05	.10	.14	.21	.21	0	2.40	.08	1.24	.85
Decade 5			.17	.37	.79	.17	.43	0	0	.16	.22	.52	0	3.90	2.00	.45	.68
Operation	MM\$																
Decade 1			3.63	3.84	4.05	3.78	3.94	3.27	2.76	3.99	5.81	4.06	1.4	3.5	7.9	8.6	6.9
Decade 2			4.33	4.81	5.13	4.77	5.09	3.51	2.9	5.04	3.4	4.7	1.3	8.6	9.4	9.4	6.0
Decade 3			4.65	4.84	5.81	4.83	5.05	3.7	3.03	5.35	5.01	5.64	1.3	8.1	9.0	9.7	6.1
Decade 4			5.35	5.11	6.09	5.23	6.19	3.99	3.3	5.63	5.71	6.41	1.2	7.8	7.3	10.4	6.4
Decade 5			5.85	5.75	6.61	6.0	6.18	4.02	2.64	5.99	5.8	6.3	1.2	8.6	6.4	8.9	5.7

CONTINUATION OF TABLE II-4

Output/Activity	MIH Units Codes	Alternatives										Benchmarks				
		Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Non Forest Service																
Cost excluding Rds. MM\$																
Decade 1		3.0	4.5	4.6	3.0	4.3	.9	2.6	5.0	7.8	3.7	0	8.0	8.9	9.4	9.2
Decade 2		2.8	4.3	4.3	2.7	4.2	.6	2.3	4.6	4.9	2.7	0	6.1	6.6	6.4	6.8
Decade 3		1.0	3.8	2.9	1.3	2.5	.5	1.5	1.6	2.9	2.9	0	3.7	3.9	3.4	2.8
Decade 4		1.9	2.3	3.1	1.8	2.9	.5	1.1	2.1	3.4	2.6	0	2.7	2.1	2.4	2.7
Decade 5		2.5	2.6	4.1	2.2	3.9	0	0	2.6	3.3	2.3	0	2.8	2.3	2.5	2.6
Returns to Treasury MM\$																
Decade 1		1565	2238	1085	1550	1613	900	1348	2179	3160	1959	381	3378	2672	3077	3317
Decade 2		1858	2078	1837	1850	1864	1208	1646	2329	2207	1706	381	3156	2309	2705	3190
Decade 3		2327	2421	2934	2324	2758	1199	1354	2546	2423	2499	381	2753	2829	3099	2457
Decade 4		3661	3721	4138	3651	3882	1224	1551	4008	3909	4134	381	4258	4067	4318	4030
Decade 5		7898	8118	8379	8035	8111	1029	1603	8024	7959	8111	381	7455	7949	8082	7878

Resource Outputs, Activities, Costs, and Benefits by Alternative
and Benchmark Measured from First Decade Output
in Current Direction on an Annual Basis per Decade

TABLE 11-5

Output/Activity	Units	1st Decade Current	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Recreation	MRVDS	799															
Developed																	
Decade 1			0	19	13	-8	-14	16	-70	15	24	30	-779	8	-102	-22	-106
Decade 2			102	141	130	124	83	22	-47	137	146	161	-779	138	-114	64	-147
Decade 3			266	304	296	279	242	128	35	301	313	340	-779	310	-78	173	-131
Decade 4			431	478	463	450	403	225	108	472	495	521	-779	483	-52	302	-83
Decade 5			595	647	618	622	562	357	193	638	665	697	-779	653	-10	340	-25
Dispersed Recreation Other MRVDS (Not Including WFUD's) ^{1/}																	
Decade 1																	
R.O.S. (RN)		393	0	10	7	7	-6	-15	-35	9	13	16	416	5	-50	-11	-53
(SPM)		52	0	0	0	0	-2	-3	-5	0	1	1	53	0	-8	-2	-8
(SPNM)		66	0	2	1	1	-1	-2	-6	2	3	3	70	1	-8	-1	-9
Decade 2																	
(RN)			52	72	67	63	42	11	-23	70	74	82	332	71	0	33	-73
(SPM)			6	8	8	7	5	1	-4	8	9	10	42	8	-1	3	-10
(SPNM)			9	13	11	3	8	2	-4	12	13	14	56	12	0	6	-13
Decade 3																	
(RN)			135	154	149	142	123	66	18	152	158	173	10	157	-39	88	-66
(SPM)			17	19	19	18	15	8	2	19	20	22	39	19	-6	11	-9
(SPNM)			23	26	26	34	21	12	3	26	27	30	53	27	-6	15	-11
Decade 4																	
(RN)			219	242	234	228	205	114	55	239	251	264	288	245	-26	153	-41
(SPM)			28	31	30	29	26	14	6	30	32	33	37	31	-4	19	-6
(SPNM)			37	41	40	39	34	20	10	41	43	45	49	41	-4	26	-7
Decade 5																	
(RN)			302	328	312	315	465	181	98	322	357	352	267	330	-4	213	-12
(SPM)			38	42	40	40	36	23	12	41	33	45	34	42	-2	27	-3
(SPNM)			51	55	53	54	48	31	17	55	57	60	45	56	0	36	-2

^{1/} WFUDS must be added to these figures to obtain total recreation use.

CONTINUATION OF TABLE II-5

Output/Activity	Units	Alternatives										Benchmarks					
		1st Decade Current	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PIV	Max Timber	Max Range	Max Water
Wilderness (Not Including WFUD's)																	
Decade 1																	
R.O.S. (RN)		142	0														
(SPM)		80	0														
(SPNM)		.9	0														
Decade 2																	
(PRIM)			27														
(SPNM)			16														
(SPM)			.1														
All Alternatives and Benchmarks MRVDS are the same as Alternative A																	
Decade 3																	
(PRIM)			27														
(SPNM)			16														
(SPM)			.1														
Decade 4																	
(PRIM)			27														
(SPNM)			16														
(SPM)			.1														
Decade 5																	
(PRIM)			27														
(SPNM)			16														
(SPM)			.1														
Wilderness Management	MAC		273														
Decade 1			0														
Decade 2			0														
Decade 3			0														
Decade 4			0														
Decade 5			0														
All Alternatives and Benchmarks acreages are the same as Alternative A.																	

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks					
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water	
Wildlife																		
Structural Habitat Imp.	STRUC	14																
Decade 1			0	0	-9	12	12	-10	5	0	0	1	-14	2	-13	-14	-14	
Decade 2			0	0	-9	12	10	3	-14	0	0	1	-14	-14	-14	-14	-14	
Decade 3			0	0	-9	12	8	-14	3	0	0	1	-14	2	-13	-14	-14	
Decade 4			0	0	-9	12	3	3	-14	0	0	1	-14	-14	-10	-14	-14	
Decade 5			0	0	-9	12	0	5	3	0	0	1	-14	2	-12	-14	-14	
Non-Structural Hab. Im.	MAC	925																
Decade 1			0	0	-575	1382	1382	-776	633	0	0	-500	-925	223	-905	-925	-925	
Decade 2			0	0	-575	1382	1049	396	-925	0	0	-500	-925	-925	-925	-925	-925	
Decade 3			0	0	-575	1382	716	-925	276	0	0	-500	-925	223	-694	-925	-925	
Decade 4			0	0	-575	1382	383	396	-925	0	0	-500	-925	-925	-731	-925	-925	
Decade 5			0	0	-57	1382	67	469	276	0	0	-500	-925	223	-874	-925	-925	
Wildlife and Fish Use	MWFUG MRVDS1/	258																
Decade 1			0	4	3	2	-4	-7	-16	3	5	6	-34	1	-24	-6	-25	
Decade 2			39	48	46	44	35	5	47	49	21	53	-33	47	15	30	-18	
Decade 3			77	86	84	80	72	24	85	88	45	94	-37	87	-3	55	-14	
Decade 4			115	126	123	119	108	40	124	130	68	136	-41	127	3	85	-4	
Decade 5			153	165	158	159	145	60	163	169	98	176	-45	166	13	113	10	
Elk*	MANIM	5.8																
Decade 1			0	0	-.5	.6	0	.5	.4	0	0	.1	2.7	.7	-.8	-1.8	-.8	
Decade 2			.1	.2	-.4	.6	.1	.5	.4	.1	.2	.1	2.7	.7	-.8	-1.8	-.8	
Decade 3			0	.2	-.2	.7	.2	.5	.4	.2	.2	0	2.7	.7	-.8	-1.8	-.8	
Decade 4			-.1	.1	-.4	.6	.2	.5	.4	0	.1	0	2.7	.7	-.8	-1.8	-.8	
Decade 5			-.3	-.2	-.4	.5	-.1	.4	.4	-.1	-.2	-.2	2.7	.7	-.8	-1.8	-.8	
Deer *	MANIM	45.2																
Decade 1			0	.2	-4.3	4.4	0	4.0	2.9	-.1	.3	.1	12.8	.8	-5.2	-13.2	-5.2	
Decade 2			.7	1.7	-3.0	5.1	0	3.8	2.9	1.5	2.3	1.5	12.8	.8	-5.2	-13.2	-5.2	
Decade 3			.5	2.4	-2.0	5.6	2.3	3.7	2.9	1.8	3.1	2.4	12.8	.8	-5.2	-13.2	-5.2	
Decade 4			-.5	.7	-1.9	5.0	1.6	3.6	3.0	1.1	1.6	1.7	12.8	.8	-5.2	-13.2	-5.2	
Decade 5			-2.2	-1.5	-3.3	4.0	-.8	3.1	3.1	-.3	-1.3	-1.6	12.8	.8	-5.2	-13.2	-5.2	

* It is important to note that these levels are what the Forest can support seasonally (spring, summer, and fall) and that without major improvement of adjacent lands, which comprise over 80% of the big game winter range, these levels can not be maintained. Only under alternative C do elk numbers fall below State objectives

1/ Fish and Wildlife portion of total recreation use.

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Range	MAUMS	77															
Decade 1			0	5	18	-8	-7	-14	-25	18	6	4	-74.5	1	-26	38	-45
Decade 2			3	8	23	-6	10	-13	-23	24	9	7	-74.5	30	-17	87	-34
Decade 3			5	14	28	-5	14	-13	-20	27	12	14	-74.5	20	-1	76	-21
Decade 4			6	22	32	-4	16	-13	-18	32	15	22	-74.5	36	10	94	-8
Decade 5			7	31	38	-3	18	-13	-18	35	15	31	-74.5	23	24	72	-2
Timber Sales Offered	MMCF	3.3															
Sawtimber (Softwood)																	
Decade 1			0	2.8	1.9	0	1.3	-2.4	-.6	2.6	6.4	1.2	-3.3	7.0	7.5	7.8	8.0
Decade 2			0	2.6	1.9	0	1.7	-2.4	-.6	2.6	3	1.2	-3.3	5.0	4.7	5.2	5.1
Decade 3			-1.4	.7	1.2	.9	1.0	-2.4	-1	.4	.1	.2	-3.3	2.6	2.5	3.0	2.4
Decade 4			-.4	.3	1.3	-.3	1.0	-2.4	-1.1	-.1	.8	.2	-3.3	1.3	.1	.9	.9
Decade 5			-.1	.8	1.9	-.1	1.7	-3.3	-.9	.3	1.1	.6	-3.3	.3	0	1.4	1.2
Sawtimber (Hardwood)	MMCF	0															
Decade 1			0	.4	0	0	0	0	0	0	0	0	0	.8	0	.2	0
Decade 2			0	.4	0	0	0	0	0	0	0	0	0	.1	.1	.1	.1
Decade 3			1.4	.2	.7	.9	.7	0	.4	.9	1.0	.7	0	.4	.3	.2	.7
Decade 4			.3	.6	.6	.3	.7	0	.5	.4	.3	.7	0	.1	1.1	.7	.6
Decade 5			0	.1	0	.1	0	.9	.3	.2	0	.3	0	0	.1	0	.1
Fuelwood	MMCF	10.1															
Decade 1			0	1.1	.8	-.1	.6	0	-1.2	1.1	3.5	.3	-10.1	1.2	3.6	6.0	4.5
Decade 2			-1.8	.6	-.5	-.6	.9	-1.6	-2.4	.6	-.5	-.7	-10.1	2.0	3.4	3.2	1.3
Decade 3			-2.1	-2.9	1.2	-2.5	1.4	-1.5	-3.4	-2.1	-2.5	-.3	-10.1	-2.4	3.4	-1.4	-2
Decade 4			-3.6	-3.8	-.3	-3.1	-1.8	-2.5	-4.3	-2.9	-2.4	-3.3	-10.1	-7	-3	-4.9	-5.1
Decade 5			-5.5	-3.7	-3.3	-4.6	-3.1	-2.3	-5.8	-5.3	-4.0	-4.2	-10.1	-7.7	-4.6	-7.1	-7
Roundwood	MMCF	.4															
Decade 1			0	.4	.3	0	.2	0	.1	.4	.8	.2	-.4	1	1.0	1	1
Decade 2			0	.4	.3	0	.2	0	.1	.4	.4	.2	-.4	.7	.6	.7	.7
Decade 3			0	.1	.3	0	.2	0	.1	.1	.2	.1	-.4	.4	.4	.4	.4
Decade 4			0	.1	.3	0	.1	0	.1	.1	.2	.1	-.4	.2	.2	.2	.2
Decade 5			0	.1	.3	0	.2	0	.1	.1	.2	.1	-.4	0	0	.1	0

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks					
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water	
Reforestation	MAC	3.4																
Decade 1			0	2.0	1.0	0	1.1	-2.7	-.9	1.5	3.6	.8	-3.4	5.7	5.0	6.3	5.3	
Decade 2			-.2	2.3	1.5	-.3	1.3	-2.6	-.8	1.6	2.0	.7	-3.4	3.3	3.3	3.5	4.3	
Decade 3			.7	1.4	2.8	1.9	2.1	-2.4	-.2	2.0	1.9	1.5	-3.4	3.9	3.7	6.9	6.3	
Decade 4			.5	1.4	2.8	.5	2.1	-2.4	0	1.2	1.8	.6	-3.4	1.8	2.0	2.2	2.3	
Decade 5			.1	1.0	2.1	.3	2.0	-2	-.6	.8	1.4	.6	-3.4	.3	.2	.3	.3	
TSI	AC	0																
Decade 1			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Decade 2			20	3136	4267	20	3401	0	0	20	461	1565	0	81	6458	673	0	
Decade 3			20	2293	2482	20	20	696	0	20	20	356	0	0	5460	0	0	
Decade 4			296	2152	7879	113	3693	128	0	254	1103	254	0	378	13945	9546	6471	
Decade 5			386	3406	5242	332	2256	0	0	338	675	2224	0	2438	9851	2789	4825	
Water	MAC/FT																	
Meeting Quality Goals		882																
Decade 1			0	3	1	11	3	-11	-18	3	7	0	-22	13	13	10	10	
Decade 2			46	55	50	57	53	-8	-7	55	63	47	-10	75	23	72	73	
Decade 3			56	70	66	69	69	-5	2	70	78	60	-19	95	78	98	98	
Decade 4			63	79	80	78	81	-2	8	80	85	70	-21	102	90	112	112	
Decade 5			67	84	90	83	90	-1	11	83	88	76	-23	95	91	109	109	
Increase over Natural 1/	MAC/FT	5																
Decade 1			0	3	1	11	3	6	-1	3	7	0	-5	13	3	10	10	
Decade 2			8	17	12	19	15	5	6	17	25	9	-5	37	19	34	35	
Decade 3			19	33	29	32	32	9	16	33	41	23	-5	58	41	61	61	
Decade 4			28	44	45	43	46	14	24	45	50	35	-5	67	55	77	77	
Decade 5			34	51	57	50	57	16	29	50	55	45	-5	62	58	76	76	
Sediment	TOTAL/T	32																
Decade 1			0	0	2	0	4	-1	0	0	0	0	-1	1	8	9	6	
Decade 2			1	6	9	1	12	-1	0	1	4	4	-1	3	16	15	14	
Decade 3			3	12	14	2	14	-1	1	3	11	9	-1	3	16	18	19	
Decade 4			6	16	19	6	19	0	2	6	18	16	-1	3	20	20	22	
Decade 5			4	17	18	3	18	2	4	5	16	16	-1	4	21	22	21	

1/ Includes all increase - Not just meeting quality goals.
 *Includes all water increase and not just water meeting quality goals. All water yield increase over current meets State water quality standards. 9500 acre feet currently do not meet State standards. Alternatives that have investments for watershed restoration bring this figure up to standards by the year 2000.

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Soils	AC	57															
Resource Improvement																	
Decade 1			0	0	0	0	0	-57	-57	0	0	0	-57	0	0	0	0
Decade 2			0	0	0	0	0	-57	-57	0	0	0	-57	0	0	0	0
			Assumes backlog complete by 2000														
Protection																	
Fire Mgmt Eff Index	\$/MAC	309															
Decade 1			0	24	24	20	20	222	222	24	24	24	20	24	24	24	24
Decade 2			0	24	24	20	20	222	222	24	24	24	20	24	24	24	24
Decade 3			0	24	24	20	20	222	222	24	24	24	20	24	24	24	24
Decade 4			0	24	24	20	20	222	222	24	24	24	20	24	24	24	24
Decade 5			0	24	24	20	20	222	222	24	24	24	20	24	24	24	24
Fuelbreaks and Fuel M ACRES	2.4																
Treatment																	
Decade 1			0	2.1	.9	-.1	1.0	-1.8	-.7	1.4	3.5	.8	-2.4	5.7	5.9	6.2	5.2
Decade 2			.8	3.2	2.5	.7	2.3	-1.5	.2	2.7	3.0	1.5	-2.4	4.3	4.3	4.5	5.3
Decade 3			1.7	2.4	3.8	2.6	3.6	-1.4	.8	3.0	2.9	2.5	-2.4	4.9	4.7	7.9	7.3
Decade 4			1.5	2.4	3.8	1.5	3.6	-1.4	1.0	2.2	2.8	2.4	-2.4	2.8	3.0	3.2	3.3
Decade 5			1.1	2.0	3.1	1.3	3.0	-1.0	.4	1.8	2.4	1.8	-2.4	1.3	1.2	1.3	1.3
Minerals	CASES	85															
Leases and Permits																	
Decade 1			0	0	0	0	0	0	0	0	0	0	-55	0	0	0	0
Decade 2			0	0	0	0	0	0	0	0	0	0	-55	0	0	0	0
Decade 3			0	0	0	0	0	0	0	0	0	0	-55	0	0	0	0
Decade 4			0	0	0	0	0	0	0	0	0	0	-55	0	0	0	0
Decade 5			0	0	0	0	0	0	0	0	0	0	-55	0	0	0	0
HC&D																	
Human Resource Programs	ENRYR		TARGETS RETAINED AT REGIONAL LEVEL														
Lands	ACRES																
Land Pur. & Acq.			TARGETS RETAINED AT REGIONAL LEVEL														

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Facilities																	
Trails Const/Recon	MILES		30														
Decade 1			0	10	-20	10	0	-20	-30	10	-30	50	0	10	10	10	10
Decade 2			0	10	-20	10	0	-20	-30	10	-30	50	0	10	10	10	10
Decade 3			0	10	-20	10	0	-20	-30	10	-30	50	0	10	10	10	10
Decade 4			0	10	-20	10	0	-20	-30	10	-30	50	0	10	10	10	10
Decade 5			0	10	-20	10	0	-20	-30	10	-30	50	0	10	10	10	10
Road Const/Reconst	MILES	9															
Decade 1			0	1.8	1.8	.5	.9	-.9	-.8	1.1	6	1.1	-.9	.3	10.6	6.4	11.0
Decade 2			.8	2.1	2.5	.1	5.8	-.9	-.9	1.4	1.4	.6	-.9	10.0	9.3	10.4	3.7
Decade 3			1.0	3.2	7.8	-.9	6.7	-.9	-.7	2.4	1.8	3.7	-.9	.7	6.4	.9	.1
Decade 4			-.9	3.5	4.6	-.7	1.5	-.9	-.9	4.1	4.1	.9	-.9	-.9	1.2	4.0	2.4
Decade 5			-.6	2.6	2.2	-.9	2.9	-.9	-.9	2.0	2.0	.9	-.9	-.9	2.6	.4	2.8
Local Road Const/Recon	MILES	17.8															
Decade 1			0	11.4	15.6	-.5	7.4	-13.6	-4.9	10.9	26.7	6	-17.8	42.7	44.5	46.5	39.6
Decade 2			6.5	23.9	18.8	5.4	17.4	-11.2	1.5	20.0	23.0	11.7	-17.8	32.5	32.2	33.8	40.0
Decade 3			13.3	21.9	28.9	20.0	27.2	-10.2	6.1	22.8	22.0	19.2	-17.8	37.3	35.3	59.4	54.6
Decade 4			11.4	21.2	28.9	11.7	27.6	-10.4	9.3	16.9	21.2	17.9	-17.8	21.2	22.9	24.4	25.3
Decade 5			8.4	17.4	23.4	10.1	23.1	-6.9	3.0	13.8	18.3	16.7	-17.8	9.8	9.4	9.8	9.9
Timber Purch Rd Const	MILES		Included below														
Timber Purch Rd Reconst/Const	MILES	12.4															
Decade 1			0	9.6	11.0	.3	5.2	-9.4	-3.4	7.7	18.7	4.3	-12.4	130.0	31.2	-12.4	27.7
Decade 2			4.6	16.8	13.2	3.9	12.3	-7.8	1.1	14.1	16.2	8.2	-12.4	22.8	22.6	23.7	28.1
Decade 3			9.4	15.4	20.3	14.0	19.1	-7.1	4.4	15.9	15.4	13.5	-12.4	26.2	24.7	41.7	38.3
Decade 4			8.0	14.9	20.3	8.2	19.4	-7.1	5.2	11.9	14.9	12.6	-12.4	14.9	16.1	17.1	17.8
Decade 5			5.9	12.2	16.4	7.1	16.2	-4.8	2.2	9.7	12.8	9.6	-12.4	6.9	6.7	6.9	7.0
BENEFITS																	
Recreation Developed	\$MM	7.7															
Decade 1			0	-.1	-.1	0	-.2	-.2	-.5	-.1	1.0	-.1	-7.7	0	-2.4	-.3	-.8
Decade 2			1.0	1.0	.9	1.0	.8	.5	.1	1.0	1.0	1.3	-7.7	1.2	-.6	.6	-.7
Decade 3			2.2	2.1	2.0	2.1	1.8	1.3	.8	2.1	2.2	2.2	-7.7	2.5	-.2	1.5	-.5
Decade 4			3.4	3.3	3.3	3.3	3.0	2.1	1.4	3.3	3.5	3.5	-7.7	3.8	0	2.4	-.1
Decade 5			4.7	4.6	4.4	4.7	4.3	3.2	2.3	4.6	4.8	4.8	-7.7	5.2	.3	3.4	.4

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks					
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water	
Dispersed	MM\$	5.0																
Decade 1			0	0	0	0	-.1	-.1	-.3	0	.7	0	4.3	0	-1.5	-.1	-.5	
Decade 2			1.0	.7	.6	.7	.5	.4	.1	.7	.7	.8	4.4	.8	-.3	.5	-.4	
Decade 3			1.3	1.4	1.4	1.4	1.3	.9	.7	1.5	1.5	1.5	4.0	1.7	-.1	1.0	-.3	
Decade 4			2.3	2.2	2.2	2.2	2.0	1.4	1.0	7.2	2.3	3.3	3.9	2.5	.1	1.7	0	
Decade 5			3.1	3.1	2.9	3.1	2.9	2.1	1.6	3.1	3.1	3.1	3.8	3.4	.3	2.1	.3	
Wilderness	MM\$	1.5																
Decade 1			0	.1	.1	.1	.1	0	0	.1	-.1	.2	-.1	.1	-.4	0	-.1	
Decade 2			.3	.3	.3	.3	.3	.2	.1	.3	.3	.4	-.1	.3	0	.2	-.1	
Decade 3			.5	.5	.5	.5	.5	.4	.3	.5	.6	.7	-.2	.6	0	.4	0	
Decade 4			.8	.8	.8	.8	.7	.5	.4	.8	1.1	.9	-.2	.9	.1	.6	1.1	
Decade 5			1.1	1.1	1.0	1.1	1.0	.8	.6	1.1	1.1	1.2	-.2	1.2	.2	.8	1.2	
Wildlife (WFUD's)	MM\$	2.4																
Decade 1			0	-.1	.8	1.2	1.1	1.2	1.4	.9	.9	-.1	2.1	1.5	.5	2.2	.4	
Decade 2			.2	.2	2.6	1.6	1.4	1.4	1.5	1.4	1.4	.3	2.1	1.9	.9	.9	.5	
Decade 3			.6	.6	3.3	1.9	1.8	1.8	1.8	1.8	1.8	.6	1.9	2.2	1.2	1.2	.8	
Decade 4			.9	.9	2.1	2.3	2.3	1.9	1.9	2.2	2.3	1.0	1.9	2.5	1.5	1.6	.9	
Decade 5			1.4	1.3	2.6	2.8	2.8	2.3	2.1	2.6	2.8	1.4	1.8	2.2	1.5	2.1	1.2	
Wildlife (Forage)	MM\$	1.8																
Decade 1			0	0	-.1	.1	0	.2	.4	0	0	0	.8	.1	.3	-.4	.4	
Decade 2			.3	.4	0	.5	.3	.4	.8	.3	.3	.4	.8	.5	.3	-.4	.4	
Decade 3			.4	.5	.1	.4	.4	.6	.6	.4	.4	.4	.8	.3	.3	-.4	.4	
Decade 4			.5	.6	.1	.6	.4	.6	.8	.4	.5	.4	.8	.5	.3	-.3	.4	
Decade 5				.4	.5	.1	.4	.4	.7	.8	.4	.5	.8	.4	.3	-.3	.4	
Range	MM\$	1.7																
Decade 1			0	0	.3	-.1	.1	-.6	-.7	.3	.1	-.1	-1.4	1.4	-.5	1.1	-.7	
Decade 2			.5	.7	1.2	.3	.7	-.6	-.6	1.5	.7	.4	-1.4	1.9	-.1	3.3	-.4	
Decade 3			.8	1.0	1.7	.6	1.1	-.6	-.5	1.6	1.0	.5	-1.4	1.7	.1	2.9	-.1	
Decade 4			.9	1.1	1.9	.7	1.3	-.6	-.5	2.0	1.2	.6	-1.4	2.2	.4	3.8	.1	
Decade 5			1.0	1.1	2.0	.8	1.4	-.6	-.5	1.9	1.3	.6	-1.4	1.8	.5	3.2	.2	

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks				
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water
Timber	MM\$	4.2															
Decade 1			0	2.9	2.1	0	1.8	-3.1	-.7	2.7	6.6	1.1	-4.2	9.2	7.9	8.4	8.3
Decade 2			0	1.4	1.8	-.1	1.6	-3.2	-.7	2.6	3.0	.7	-4.2	4.8	4.6	4.8	5.5
Decade 3			-1.9	0	.7	-1.2	.5	-3.3	-1.5	-.7	-.5	-.4	-4.2	2.3	2.0	2.6	1.8
Decade 4			-.9	.7	.9	-.9	.7	-3.3	-1.9	-.4	.7	-.3	-4.2	.6	-.4	-.1	.3
Decade 5			-.3	.4	2.0	-.6	1.6	-4.2	-4.2	.1	.7	-.4	-4.2	-.4	-.6	-.4	-.3
Fuelwood	MM\$.3															
Decade 1			0	0	0	0	0	0	-.1	0	.1	0	-.3	0	.1	.1	.1
Decade 2			-.1	0	0	0	0	-.1	-.1	0	0	0	-.3	0	.1	.1	0
Decade 3			-.1	-.1	0	-.1	0	-.1	-.1	-.1	-.1	0	-.3	-.1	.1	-.1	-.1
Decade 4			-.1	-.1	-.1	-.1	-.1	-.1	-.2	-.1	-.1	-.1	-.3	-.2	-.1	-.2	-.2
Decade 5			-.2	-.1	-.1	-.2	-.1	-.1	-.2	-.2	-.1	-.1	-.3	-.2	-.2	-.2	-.2
Water Yield *	MM\$.3															
Decade 1			0	.1	.1	.7	.2	.4	0	.2	.4	0	-.3	.7	.2	.6	.6
Decade 2			.7	1.2	.9	1.3	1.1	.5	.6	1.2	1.7	.7	-.3	2.4	1.3	2.2	2.3
Decade 3			1.3	2.1	1.9	2.1	2.1	.7	1.1	2.1	2.6	1.9	-.3	3.5	2.6	3.7	3.8
Decade 4			1.3	2.6	2.7	2.6	2.8	.9	1.5	2.7	3.0	2.9	-.3	4.1	3.3	4.5	4.6
Decade 5			1.9	2.9	3.3	2.9	3.3	1.0	1.7	2.9	3.2	3.5	-.3	4.1	3.3	4.4	4.4

Costs (MM 1982 \$ Undiscounted)

Total Forest Budget

Fixed Costs - There are no changes from current for fixed costs between alternatives or decades.

Variable Costs

Investments

Total Roads	MM\$.7															
Decade 1			0	.8	.3	-.1	.3	-.6	-.3	.5	1.8	.1	-.7	1.4	2.5	2.5	2.9
Decade 2			.2	1.1	1.0	.3	1.5	-.4	0	1.0	1.0	.3	-.7	1.6	2.5	2.8	1.9
Decade 3			.8	1.1	1.8	.7	1.9	-.4	.2	1.1	1.1	.6	-.7	1.5	1.9	2.3	1.4
Decade 4			.3	1.3	1.7	.6	1.2	-.4	.2	1.3	1.3	.6	-.7	1.0	1.0	1.3	1.2
Decade 5			.2	1.0	1.1	.3	1.3	-.3	0	1.0	1.0	.4	-.7	.3	.5	.4	.7

*Values for increases over natural only

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks					
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water	
App Roads	MM\$.3																
Decade 1			0	0	.1	-.1	.1	-.3	-.2	.2	1.1	.3	-.3	.4	1.4	1.3	1.1	
Decade 2			0	0	.5	.1	1.0	-.2	-.1	.5	.4	.4	-.3	1.8	1.7	1.9	1.1	
Decade 3			.4	.1	1.1	.2	1.2	-.2	0	.6	.5	.4	-.3	.5	.9	.8	1.1	
Decade 4			0	.3	1.0	.3	.5	-.2	0	.4	.8	.4	-.3	.2	.4	.7	.7	
Decade 5			0	.2	.5	0	.7	-.2	-.1	.2	.6	.5	-.3	0	.2	.4	.4	
Purch Crd Rds	MM\$.4																
Decade 1			0	.8	.2	0	1.2	-.3	-.1	.3	.7	-.2	-.4	1.0	1.1	1.2	1.0	
Decade 2			.2	1.1	.5	.2	.5	-.2	.1	.5	.6	-.1	-.4	.8	.8	.9	1.0	
Decade 3			.4	1.0	.7	.5	.7	-.2	.2	.6	.6	-.1	-.4	1.0	.9	1.5	1.0	
Decade 4			.3	1.0	.7	.3	.7	-.2	.2	.4	.5	-.1	-.4	.8	.6	.6	.6	
Decade 5			.2	.8	.6	.3	.6	-.1	.1	.4	.4	-.1	-.4	.3	.3	.3	.3	
Range Investment	MM\$.04																
Decade 1			0	0	.04	-.01	.01	-.04	0	.15	0	0	-.04	.16	0	.37	-.04	
Decade 2			0	0	.04	-.01	.01	-.04	0	.04	0	0	-.04	-.04	-.03	-.04	-.03	
Decade 3			0	0	.04	-.01	.01	-.04	0	.07	0	0	-.04	.14	.03	.33	-.03	
Decade 4			0	0	.04	-.01	.01	-.04	0	.05	0	0	-.04	-.04	-.03	-.04	-.03	
Decade 5			0	0	.04	-.01	.01	-.04	0	.07	0	0	-.04	.14	.04	.34	-.03	
Rec. Investment	MM\$	0																
Decade 1			0	.6	.6	.6	0	0	0	.6	.6	.5	0	0	0	0	0	
Decade 2			0	.7	.7	.7	0	0	0	.7	.7	.5	0	0	0	0	0	
Decade 3			0	.7	.7	.7	0	0	0	.7	.7	.5	0	0	0	0	0	
Decade 4			0	.7	.7	.7	0	0	0	.7	.7	.5	0	0	0	0	0	
Decade 5			0	.7	.7	.7	0	0	0	.7	.7	.5	0	0	0	0	0	

CONTINUATION OF TABLE II-5

Output/Activity	Units	1st Dec Current	Alternatives										Benchmarks					
			Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J	Min Level	Max PNV	Max Timber	Max Range	Max Water	
Wildlife Invest- ment	MMS	.04																
Decade 1			0	0	-.03	.06	.06	-.03	.03	0	0	.05	-.04	.02	0	-.04	-.04	
Decade 2			0	0	-.03	.06	.04	.02	-.04	0	0	.05	-.04	-.04	.13	-.04	-.04	
Decade 3			0	0	-.03	.06	.03	-.04	.02	0	0	.05	-.04	.02	-.04	-.04	-.04	
Decade 4			0	0	-.03	.06	.02	.02	-.04	0	0	.05	-.04	-.04	-.04	-.04	-.04	
Decade 5			0	0	-.03	.06	0	.04	.02	0	0	.05	-.04	.02	.01	-.04	-.04	
Timber Inv.	MMS	.09																
Decade 1			0	.09	.37	0	.22	-.07	-.02	.03	.02	.7	-.09	.21	-.03	.14	-.01	
Decade 2			.03	.62	.99	.01	.36	-.06	.01	.05	.03	.33	-.09	.38	.08	1.41	.15	
Decade 3			-.02	.29	1.21	.05	.04	.03	.02	.01	.02	.9	-.09	.14	-.04	.28	.25	
Decade 4			.08	.22	.63	.05	.27	-.04	.01	.05	.12	.12	-.09	2.31	-.01	1.15	.76	
Decade 5			.08	.28	.70	.08	.34	-.09	-.09	.07	.13	.43	-.09	3.81	1.91	.36	.59	
Operational	MMS	3.63																
Decade 1			0	.21	.42	.15	.31	-.36	-.87	.36	2.18	-.53	-1.96	-.13	4.27	4.97	3.27	
Decade 2			1.2	1.18	1.5	1.14	1.46	-.12	-.73	1.41	.23	-.43	-2.33	4.97	5.77	5.77	2.37	
Decade 3			.7	1.21	2.21	1.2	1.42	.07	-.6	1.72	1.38	-.43	-2.33	4.47	5.37	6.07	2.47	
Decade 4			1.72	1.48	2.46	1.6	2.56	.36	-.33	2.0	2.08	-.33	-2.43	4.17	3.67	6.77	2.77	
Decade 5			2.22	2.12	2.98	2.37	2.55	.39	-.99	2.36	2.17	-.33	-2.43	4.97	2.77	5.27	2.07	
Non Forest Service Cost excluding Roads	MMS	3.6																
Decade 1			0	.9	1.0	-.6	.7	-2.7	-1.0	1.4	4.2	.4	-3.6	4.4	5.3	5.8	5.6	
Decade 2			-.8	.7	.7	-.9	.6	-3.0	-1.3	1.0	1.3	1.1	-3.6	2.5	3.0	2.8	3.2	
Decade 3			-2.6	.2	-.7	-2.3	-1.1	-3.1	-2.1	-2.0	-1.7	2.0	-3.6	.1	.3	-.2	-.8	
Decade 4			-1.7	-1.3	-.5	-1.8	-1.7	-3.1	-2.5	-1.5	-.2	2.8	-3.6	-.9	-1.5	-1.2	-.9	
Decade 5			-1.1	-1.0	.5	-1.4	.3	-3.6	-3.6	-1.0	-.3	2.7	-3.6	-.8	-1.3	-1.1	-1.0	
Returns to Treasury	M\$	1565																
Decade 1			0	673	480	-15	248	-665	-217	614	1595	394	-1184	1813	1307	1512	1752	
Decade 2			293	513	272	285	299	-357	81	764	642	141	-1184	1591	744	1140	1625	
Decade 3			762	856	1369	759	1193	-366	-211	981	858	934	-1184	1188	1264	1534	892	
Decade 4			2096	2156	2573	2066	2317	-341	-14	2443	2144	2569	-1184	2693	2502	2753	2465	
Decade 5			6333	6553	6814	6470	6546	-536	38	6459	6394	6546	-1184	5390	6384	6517	6313	

TABLE II-6
Comparison of Response to Issues, Concerns and Opportunities

Table II-6, which follows, compares the responsiveness of each alternative to some of the issues and concerns that have been identified for the Ashley National Forest. To the extent possible issues and concerns are compared in this Table II-6 using percentages or quantities to give a picture of issue resolution.

Issue Element Alternatives A through I: All Decades

1. Transportation - "How much and what type of access is needed on the Ashley National Forest?"

The publics expressing interest in this issue were divided between those desiring more and easier access and those wanting limited or less access to National Forest lands. In general, the access question was related to road access, therefore those alternatives with the most miles of road construction and reconstruction (B, C, E, H, and I) would be most responsive to those publics desiring more and easier access and the alternatives with the least road construction and re-construction (A, D, F, G, and J) would most nearly satisfy the publics desiring less access.

Issue Element	Comparison Units	Decade	Percent of Current direction Alternative A First Decade									
			A	B	C	D	E	F	G	H	I	J
2. Fuelwood <u>Available</u> MMCF per year		1	100	110	107	99	105	100	88	110	134	100
		2	82	94	95	94	108	84	76	105	95	100
		3	79	71	111	75	113	83	66	81	75	100
		4	64	62	97	69	84	75	57	71	76	66
		5	45	63	67	54	69	77	42	47	60	66

Fuelwood availability is a major issue with the local publics using the Ashley National Forest. The figures shown above display how each decade of each alternative compares to the amount of fuelwood available in decade 1 of Alternative A. Current demand equals approximately 2.1 MMCF and Alternative A, decade 1, shows 10.0 MMCF available. Note that even Alternative G decade five, which has the lowest percentage (42%) of fuelwood available, still exceeds present demand by over half a million cubic feet.

CONTINUATION OF TABLE II-6

Issue Element	Comparison Units	Decade	Percent of Current direction Alternative A First Decade									
			A	B	C	D	E	F	G	H	I	J
3. Water Quality	M Tons of Sediment per year	1	100	100	106	100	112	97	100	100	100	100
		2	103	118	128	103	137	97	100	106	112	113
		3	109	134	143	106	143	97	103	109	134	128
		4	118	150	159	118	159	100	106	118	156	150
		5	112	153	156	109	156	106	112	115	150	150

Sediment delivered to live streams is a rough indication of one water quality factor, turbidity. The above percentages display a comparison to a background level for this factor of 32 thousand tons annually. While some alternatives and some decades show apparently significant percentage increases, it should be recognized that practices such as road construction logging and grazing were limited in all alternatives to levels that would not exceed the 10 NTU increase listed as a Utah State Standard.

Issue Element	Comparison Units	Decade	Percent of Current direction Alternative A First Decade									
			A	B	C	D	E	F	G	H	I	J
3. Water Quantity	M Ac Ft Yield per year	1	100	100	100	101	100	98	97	100	100	100
		2	105	106	105	106	106	99	99	106	107	105
		3	106	107	107	107	107	99	100	107	108	106
		4	107	108	109	109	109	99	100	109	109	107
		5	107	109	110	109	110	99	101	109	109	108

The water yield percentages shown above are comparisons to decade one, Alternative A, background level calculations. While all the percentages are relatively close, even a one percent increase in water is important for down stream uses such as irrigation. Note that water quantities are directly influenced by and influence sediment yields shown in the previous set of figures.

CONTINUATION OF TABLE II-6

Issue Element	Comparison Units	Decade	Percent of Current direction					Alternative A First Decade				
			A	B	C	D	E	F	G	H	I	J
4. Range Management	M Dollars	1	100	100	200	75	125	0	0	375	100	100
	Invested	2	100	100	200	75	125	0	0	205	100	100
	per year	3	100	100	200	75	125	0	0	286	100	100
		4	100	100	200	75	125	0	0	232	100	100
		5	100	100	200	75	125	0	0	286	100	100

Range improvement investment levels are displayed above as they compare to an average of past investment levels. This average was \$28,000 in 1978 dollars or the equivalent of \$40,000 in 1982 dollars. Alternative H shows the highest total investment in all decades.

Issue Element	Comparison Units	Decade	Percent of Current direction					Alternative A First Decade				
			A	B	C	D	E	F	G	H	I	J
M AUMs Produced per year		1	100	106	123	90	109	82	68	123	108	105
		2	105	110	130	92	113	83	70	131	112	109
		3	108	118	136	94	118	83	74	135	116	118
		4	110	129	142	95	121	83	77	142	119	129
		5	112	140	149	96	123	83	77	146	119	140

The livestock use or thousands of AUMs produced are of primary importance to that segment of the public involved in the ranching/livestock business. While large increases in AUMs produced may be relatively insignificant due to lack of demand, small decreases in production such as those shown for Alternatives D, F and G can be critical for local ranchers dependent upon National Forest allotments to round out their grazing seasons. The percentage figures are comparisons to decade 1 of Alternative A at a level of 77,000 AUMs.

Issue Element	Comparison Units	Decade	Percent of Current direction					Alternative A First Decade				
			A	B	C	D	E	F	G	H	I	J
5. & 12. Timber Management	MMCF per year	1	100	184	157	100	139	27	81	178	293	155
		2	100	178	157	100	151	27	81	178	190	155
		3	57	121	136	72	130	27	69	87	103	142
		4	100	109	139	100	130	27	66	103	124	142
		5	109	124	157	96	151	0	72	109	133	142

The volume of timber harvest is an issue of significance to that portion of the local economy that is timber related. In addition to the economic significance, the on-going mountain pine beetle epidemic has created a high level of concern both locally and regionally. Dead

CONTINUATION OF TABLE II-6

and dying lodgepole and ponderosa pine stands are both an aesthetic and a fire protection concern to knowledgeable publics. The above figures compare each decade of each alternative to a harvest level of 3.3 MMCF per year shown as 100% in Alternative A, decade one. Note that alternatives A, C, D, E, F, G, and J show basically even-flow harvest programs at differing levels. Alternatives B, H, and I harvest levels would accelerate harvest for decades one and two and then stabilize at levels slightly higher than current. Alternatives F and G could adversely impact timber industry based employment and income.

Issue Element	Comparison Units	Decade	Percent									
			A	B	C	D	E	F	G	H	I	J
Acres Clearcut per year		1	100	187	137	95	141	25	70	158	245	133
		2	133	175	206	129	195	37	108	212	225	163
		3	170	200	258	208	250	41	133	225	220	204
		4	162	200	258	162	250	41	141	191	216	200
		5	145	183	229	154	225	58	116	175	200	175

The acres clearcut or harvested has a direct correlation to the timber volume harvested. The percentage figures shown above are based on a comparison to 2,400 acres per year from first decade of alternative A. Both of the above sets of figures indicate response to timber management level and to the mountain pine beetle concern.

Issue Element	Comparison Units	Decade	Percent									
			A	B	C	D	E	F	G	H	I	J
6. Wildlife Management M Dollars Invested per year		1	100	100	25	250	250	25	175	100	100	100
		2	100	100	25	250	200	150	0	100	100	100
		3	100	100	25	250	175	0	150	100	100	100
		4	100	100	25	250	150	150	0	100	100	100
		5	100	100	50	250	100	150	125	100	100	100

The percentage figures shown for investment in wildlife and fish habitat improvements are a comparison to an average of past investment levels. This average was 28,000 in 1978 dollars or the equivalent of 40,000 in 1982 dollars. The range displayed is from a zero program in Alternatives F and G for some decades where budget limitations were extreme to approximately a 100,000 in 1982 dollars annual program in Alternative D.

CONTINUATION OF TABLE II-6

Issue Element	Comparison Units	Decade	Percent									
			A	B	C	D	E	F	G	H	I	J
Numbers of Elk (Summer)	1	100	100	91	110	100	109	107	100	100	102	
	2	102	103	93	110	101	109	107	102	103	102	
	3	100	103	97	112	103	109	107	103	103	100	
	4	98	102	97	110	103	109	107	100	102	100	
	5	95	97	93	109	98	109	107	98	97	98	
Numbers of Deer (Summer)	1	100	100	90	110	100	109	107	100	101	100	
	2	102	104	93	111	100	108	107	103	105	102	
	3	101	105	96	112	105	108	107	104	107	104	
	4	99	102	96	112	104	108	107	102	104	101	

The figures shown above for elk and deer habitat capability are comparisons to current estimated habitat capability for summer range. As noted in Table II-4, except for elk habitat in Alternative C, the habitat capability on the National Forest equals or exceeds the State Division of Wildlife Resources goals. Comparison figures are 5,800 elk and 45,200 deer in current habitat capability.

Issue Element	Comparison Units	Decade	Percent									
			A	B	C	D	E	F	G	H	I	J
7. Total Recreation Use (Dispersed, Developed and Wilderness)	MRVD's per year	1	100	101	101	101	98	96	92	101	102	103
	2	114	118	117	116	112	105	98	117	118	120	
	3	131	135	134	133	129	117	107	135	136	139	
	4	149	154	152	151	146	127	114	153	156	159	
	5	166	172	169	169	163	141	123	171	174	178	

The percentages for recreation use comparisons, above, are based on the Alternative A, decade one projection of 1,771 MRVD's per year. Alternative G shows the lowest increase in RVDs over the planning horizon. This is due to reduced investments in maintenance and construction of facilities. Lack of maintenance results in older existing facilities deteriorating beyond the point of safe use. This results in a shift from developed site use to dispersed types of use and activities. Alternative J provides for the most outputs since added emphasis is provided to the recreation and wildlife resources.

8. Landownership

"Should problems of public access to National Forest lands be resolved through ownership adjustment and should it be a high Forest priority?"

This issue received limited public interest. The Ashley Forest has only a small amount of private land inholdings and these have historically created little conflict and/or problems. Landownership adjustments will be similar for all alternatives except F and G. In general, alienated lands within the Forest boundary will be obtained as opportunities arise and if budgets are sufficient. Alternatives F and G, having tight budget limitations, would use the same priorities for acquisition or disposal of lands but over a longer time frame.

In addition to regular land adjustment as noted above, the Central Utah Project (CUP), has obtained lands for wildlife habitat mitigation purposes and transferred these lands to the National Forest for administration. This program would not vary by alternative.

9. Fire Management

"To what extent should fire management strategies of less than immediate and aggressive control be applied on the Forest and in what areas?"

This issue and concern is aggravated by the existing mountain pine beetle epidemic which is increasing fuel loading and the potential for catastrophic size fires. Alternatives B, C, E, H and I all have increased timber harvest which will reduce fuel loading by salvaging dead materials and by breaking up the large continuous areas of dead lodgepole and ponderosa pine.

Issue Element	Comparison Units	Decade	Comparison									
			A	B	C	D	E	F	G	H	I	J
10. Area Open to Mineral Exploration	Acres	1-5	See Chapter IV for variations between alternatives.									

11. Off-Road Vehicles

"Are existing area and road closures acceptable or should there be more or less closures?"

This issue did not receive intense public interest. It should be recognized that many road and area closures are, and will continue to be, temporary in nature since they are imposed primarily for resource protection. Examples are closures of areas and roads during big game hunting seasons to provide for escape cover. Basically, total acres involved in areas closed or restricted will be the same for all alternatives. The only variable is that the location of these acres may change slightly with changing management practices.

12. See Item 5

Issue Element	Comparison Units	Decade	Percent									
			A	B	C	D	E	F	G	H	I	J
13. Wilderness	Acres	1-5	100	100	100	100	100	100	100	100	100	100

this issue was resolved with the passage of the Utah Wilderness act of 1984. Wilderness is treated the same in all alternatives.

TABLE II-7
PRESENT NET VALUE (4% DISCOUNT RATE) AND PRICED OUTPUTS
(1982 DOLLARS EXPRESSED IN M\$ FOR PNV, PNC, AND PVB)

	PVB by Resource									PVC by Resource										
	PNV	PVC	PVB	Rec	Wldns	WL/F	WLFor	Rnge	Timber Fuelwod	Water Yield	Protect	GA	Approp Fnd Rd	Purch Cr.Rd	Rec	WL/F	Rang	Timb	Oper	Other
Benchmarks																				
Minimum Level	358	69	428	288.6	34.2	92.3	65.0	7.5	0	0	29.68	6.58	0	0	0	0	0	0	32.8	0
Max PNV(Assgn)	599	365	964	407.7	51.4	74.8	53.3	77.9	202.2	88.0	29.68	6.58	14.81	21.06	0	1.0	2.60	5.95	196.1	87.5
Alternatives																				
A. Current Prg	529	237	766	397.7	50.1	73.0	52.6	55.6	96.2	40.7	29.68	6.58	8.83	14.65	0	0.6	0.60	4.42	120.6	51.0
B. Coord. Res.	504	315	819	370.2	61.2	93.9	52.5	58.6	150.7	58.4	29.68	6.58	18.00	21.40	18.30	0.6	0.60	6.32	136.4	81.3
C. Mar. Opprt.	497	347	844	394.6	49.7	72.4	46.0	72.9	150.6	57.9	29.68	6.58	16.47	18.65	16.79	0.31	1.24	16.41	121.90	119.1
D. NonMarket	535	259	794	398.8	50.2	73.2	64.5	52.3	98.2	66.6	29.68	6.58	10.24	16.03	17.82	1.11	0.44	4.46	124.05	48.5
E. 1980 RPA	522	307	829	398.2	49.0	71.4	51.5	62.3	144.1	61.8	29.68	6.58	17.36	18.72	0	0.81	0.81	8.95	115.86	108.8
F. Current Bgt	482	163	645	371.2	46.7	68.1	57.3	29.3	36.1	36.8	29.68	6.58	5.84	9.39	0	.76	0	4.53	75.74	28.8
G. Reduced Bgt	478	179	657	347.1	43.7	63.9	61.7	28.7	75.9	35.9	29.68	6.58	7.84	13.82	0	0.57	0	4.13	79.96	36.2
H. Lv-Tbr Emp	534	314	847	398.3	50.2	73.1	51.3	74.0	141.2	59.5	29.68	6.58	26.08	20.53	19.69	.83	1.94	5.55	133.74	69.1
I. Acc Harvest	538	354	892	402.0	50.6	73.8	51.5	60.6	182.7	71.2	29.68	6.58	21.92	24.78	20.65	0.63	0.95	7.31	143.90	97.5
J. Preferred	518	286	803	527.3	52.7	73.8	53.8	54.7	120.3		29.8	6.5	7.98	18.71	12.97	.75	.75	6.49	127.24	74.5

TABLE II-8
PRESENT NET VALUE (4% DISCOUNT RATE) AND NON PRICED OUTPUTS
(1982 DOLLARS EXPRESSED IN MM\$ FOR PNv, PVC, AND PVB)

	PNV	PVC	PVB	Deer (MANIM)	Elk (MANIM)	Str.Hab.Impr. (Structures)	Non-Struct. Habit.Impr. (Acres)	Water Quality (Mac/Ft)	Returns to Treasury (M\$. Undiscounted)
Benchmarks									
Minimum Level	358.6	69.1	427.7						
Decade 1				58.0	8.5	0	0	860	381
Decade 2				58.0	8.5	0	0	864	381
Decade 3				58.0	8.5	0	0	863	381
Decade 4				58.0	8.5	0	0	861	381
Decade 5				58.0	8.5	0	0	859	381
Max PNv (Assigned)	598.7	365.3	964.0						
Decade 1				46.0	6.5	16	1148	895	3378
Decade 2				46.0	6.5	0	0	957	3156
Decade 3				46.0	6.5	16	1148	977	2753
Decade 4				46.0	6.5	0	0	984	4258
Decade 5				46.0	6.5	16	1148	977	7495
Alternatives									
A. Current Program	528.9	237.0	765.9						
Decade 1				42.5	5.8	14	925	882	1565
Decade 2				45.9	5.9	14	925	928	1858
Decade 3				45.7	5.8	14	925	938	2327
Decade 4				44.7	5.7	14	925	945	3361
Decade 5				43.0	5.5	14	925	949	7698
B. Coordinated Resources	503.6	315.5	819.1						
Decade 1				45.4	5.8	14	925	885	2238
Decade 2				46.9	6.0	14	925	936	2078
Decade 3				47.6	6.0	14	925	952	2421
Decade 4				45.9	5.9	14	925	961	3721
Decade 5				43.7	5.9	14	925	966	8118

TABLE II-8
PRESENT NET VALUE (4% DISCOUNT RATE) AND NON PRICED OUTPUTS
(1982 DOLLARS EXPRESSED IN MM\$ FOR PNV, PVC, AND PVB)

	PNV	PVC	PVB	Deer (MANIM)	Elk (MANIM)	Str.Hab.Impr. (Structures)	Non-Struct. Habit.impr. (Acres)	Water Quality (Mac/Ft)	Returns to Treasury (M\$. Undiscounted)
C. Market Opportunity	497.0	347.1	844.1						
Decade 1				40.9	5.3	5	350	883	1085
Decade 2				42.2	5.4	5	350	932	1637
Decade 3				43.4	5.6	5	350	948	2934
Decade 4				43.3	5.4	5	350	962	4138
Decade 5				41.9	5.4	5	350	972	8379
D. Non Market	534.8	259.0	793.8						
Decade 1				49.6	6.4	26	2307	893	1550
Decade 2				50.3	6.4	26	2307	939	1850
Decade 3				50.8	6.5	26	2307	951	2324
Decade 4				50.2	6.3	26	2307	969	3651
Decade 5				49.2	6.3	26	2307	965	8035
E. 1980 RPA	521.7	307.6	829.3						
Decade 1				45.4	5.8	26	2307	885	1813
Decade 2				45.4	5.9	24	1974	935	1864
Decade 3				47.5	6.0	22	1641	951	2758
Decade 4				46.8	6.0	17	1308	963	3882
Decade 5				44.4	5.7	14	992	972	6111
F. Current Budget	482.3	163.2	645.5						
Decade 1				49.2	6.3	4	149	871	900
Decade 2				49.0	6.3	17	1321	874	1208
Decade 3				48.9	6.3	0	0	877	1199
Decade 4				48.8	6.3	17	1321	880	1224
Decade 5				48.3	6.3	19	1394	881	1029
G. Reduced Budget	478.5	178.8	657.3						
Decade 1				48.1	6.2	19	1558	864	1348
Decade 2				48.1	6.2	0	0	875	1646
Decade 3				48.1	6.2	17	1201	884	1354
Decade 4				48.2	6.2	0	0	890	1551
Decade 5				48.3	6.2	17	1201	893	1603

TABLE II-8
 PRESENT NET VALUE (4% DISCOUNT RATE) AND NON PRICED OUTPUTS
 (1982 DOLLARS EXPRESSED IN MM\$ FOR PNV, PVC, AND PVB)

	PNV	PVC	PVB	Deer (MANIM)	Elk (MANIM)	Str.Hab.Impr. (Structures)	Non-Struct. Habit.Impr. (Acres)	Water Quality (Mac/Ft)	Returns to Treasury (MM\$. Undiscounted)
H. Livs-Timber Emphasis	533.9	313.7	847.6						
Decade 1				45.4	5.8	14	925	885	2179
Decade 2				46.7	5.9	14	925	937	2329
Decade 3				47.0	6.0	14	925	952	2546
Decade 4				46.3	5.8	14	925	962	4008
Decade 5				44.9	5.7	14	925	965	8024
I. Accelerated Harvest	538.5	353.9	892.4						
Decade 1				45.5	5.8	14	925	829	3160
Decade 2				47.5	6.0	14	925	945	2207
Decade 3				48.3	6.0	14	925	960	2423
Decade 4				46.8	5.9	14	925	967	3609
Decade 5				43.9	5.6	14	925	970	7959
J. Preferred	518	286	803						
Decade 1				45.3	5.9	15	500	882	1959
Decade 2				46.7	5.9	15	500	929	1706
Decade 4				47.6	5.8	15	500	942	2499
Decade 4				46.9	5.8	15	500	952	4134
Decade 5				43.6	5.7	15	500	958	8111

TABLE II-9
PRESENT NET VALUE (4% DISCOUNT RATE) AND QUALITATIVE EFFECTS
(1982 DOLLARS EXPRESSED IN MM\$ OVER 150 YEARS FOR PN, PVC, AND PVB)

	PNV	PVC	PVB	Narrative
Benchmarks				
Minimum Level	358.6	69.1	427.7	This benchmark is based on a custodial management philosophy. Only natural or uncontrollable outputs would be managed except for livestock use identified in a USDA position statement on the Ute Indian Tribe livestock use. It has the lowest PVC and PN in comparison to all the alternatives and benchmarks. Due to the management philosophy of this benchmark it would have less of a response to issues and concerns, opportunities (ICO) than would the current program alternative. Visual quality would be as inventoried - budgeting in a custodial situation would not provide for management of this resource.
Max PN (Assigned)	598.7	365.3	964.0	The purpose of this benchmark is to maximize the PN of all the resources assigned values in the FORPLAN model. It has the highest PN and PVC in comparison to all the alternatives. For most issues, this benchmark exceeds alternative A. Costs involved in road construction, range and wildlife investments are also higher. A large number of acres have been assigned to a prescription that could allow variation from the inventoried VQO.
Alternatives				
A. Current Program	528.9	237.0	765.9	The "No Action" alternative is the continuation of current management outputs and activities through the planning period. This alternative is responsive to most ICO's in relation to Forest outputs assuming current demand for goods and services remains constant over time. It is ranked fourth lowest in PVC and this is due to low resource investments and road costs. It is also ranked fifth highest in PN and this is due to lower costs particularly in timber and road construction in comparison to other alternatives. Resource management activities would create a situation with moderate deviation from inventoried VQO's.
B. Coordinated Resources	503.6	315.5	819.1	This alternative is developed to respond to the beetle epidemic issue (Issue 5 and 12) while maintaining other resource programs under the multiple-use philosophy. In comparison to Alternative A, it is more responsive to issues such as the beetle epidemic fuelwood unavailability and fire management. It is less responsive to a segment of the public in regard to the transportation issue. This alternative is the fourth highest in PVC and this is primarily due to the high costs in timber management and road construction/reconstruction in the first two decades. It is the fourth lowest PN which primarily due to the high costs involved with this alternative. Resource management activities would create a situation with moderate deviation from inventoried VQO's.

TABLE II-9
PRESENT NET VALUE (4% DISCOUNT RATE) AND QUALITATIVE EFFECTS
(1982 DOLLARS EXPRESSED IN MM\$ OVER 150 YEARS FOR PNV, PNC, AND PVB)

	PNV	PVC	PVB	Narrative
C. Market Opportunity	497.0	347.1	844.1	The purpose of this alternative is to give management emphasis on the production of market resources such as timber, livestock forage, and developed recreation. In regard to ICG's, most of the outputs produced under this alternative are higher than the Current Program alternative. Wildlife management would suffer under this alternative. The PVC for this alternative is the third highest among all the alternatives and the two benchmark. It is ranked seventh in highest PNV. Resource management activities would create a situation with a high deviation from inventoried VQO's.
D. Non Market	534.8	259.0	793.8	Management of non-market resources such as dispersed recreation, wildlife, and water would be emphasized under this alternative. It would be more responsive to issues (ICO# 3, 6,7) related to these resource than the current program alternative. This alternative is listed fifth in the least PVC ranking and third in the highest PNV ranking. The costs for managing these resources tend to be less than those for timber and road construction. Dispersed recreation provides a major portion of benefits for all alternatives and benchmarks. Resource management activities would create a situation with a low deviation from inventoried VQO's.
E. 1980 RPA	521.7	307.6	829.3	The objective of this alternative is to meet RPA (1980) resource output targets. This alternative is more responsive to issues (ICO# 2, 5, 6) related to fuelwood, timber and wildlife than alternative A. It is ranked sixth in PVC and in PNV. There is a higher level of investments under this alternative than alternative A particularly for timber, road construction and wildlife. Resource management activities would create a situation with a high deviation from inventoried VQO's.
F. Current Budget	482.3	163.2	645.5	This alternative was designed to manage resource goods and services based on the current budget level for the entire planning period. Due to the budget constraint, this alternative is less responsive to some issues (ICO# 3, 4, 5, 7) and more responsive to others (ICO# 2 and 6) in comparison to alternative A. It is listed second in the least PVC ranking and ninth in the highest PNV ranking. This is due to a low investment level with the result of a low PNV. Resource management activities would create a situation with a low deviation from inventoried VQO's.
G. Reduced Budget	478.5	178.8	657.3	The purpose of this alternative was to demonstrate what level of resource goods and services could be produced under a budget that was 25 percent lower than the current ten year average. Again, this alternative is less responsive to some issues (ICO# 2, 3, 7) in comparison to the current program while for other issues it is consistent with alternative A. It is listed third in the least cost (PVC) ranking and tenth in the highest PNV ranking. The reason for this is similar to alternative F in that low level investments result in low PNV. Resource management activities would create a situation with low deviation from inventoried VQO's.

TABLE II-9
PRESENT NET VALUE (4% DISCOUNT RATE) AND QUALITATIVE EFFECTS
(1982 DOLLARS EXPRESSED IN MM\$ OVER 150 YEARS FOR PNV, PVC, AND PVB)

	PNV	PVC	PVB	Narrative
H. Live-Timber Emphasis	533.9	313.7	847.6	This alternative was designed to allow for management activities to meet the 1985 RPA target levels for this Forest. In regard to issues, it is more responsive than alternative A to fuelwood, range, timber and recreation issues and consistent with alternative A on the remaining issues. It has a higher PVC than the current program alternative (ranked seventh) and has a slightly higher PNV than alternative A (ranked fourth). Resource management activities would create a situation with high deviation from inventoried VQO's.
I Accelerated Harvest	538.5	353.9	892.4	This alternative was designed for the purpose of responding to the beetle epidemic issue and management emphasis is on the salvage and utilization of beetle killed timber. This alternative is more responsive to issues such as fuelwood, timber, recreation and fire management than alternative A but less responsive to such issues as wildlife and water quality. It is ranked tenth for the least PVC and second highest in PNV. The high costs are mostly due to timber management activities and road construction. The high net value is due to greater contribution to PVB by dispersed recreation and by higher timber and water outputs. Resource management activities would create a situation with moderate deviation from inventoried VQO's.
J. Preferred	592.1	265.7	803.2	This alternative was designed to accommodate public responses along with management objectives and it gives more emphasis to recreation and wildlife resources while salvaging beetle killed timber where practical. A large area is being managed in a way that does not allow for timber harvest activities and associated roads during the first decade. Road construction is considerably less than for alternatives B, C, H, and I. The PNV for this alternatives is only exceeded by alternative I. Only 4 of the alternatives have a lower PVC and only 4 alternatives have higher PVB.



CHAPTER III

AFFECTED ENVIRONMENT



III. AFFECTED ENVIRONMENT

A. INTRODUCTION

The purpose of this chapter is to describe the existing environment on the Ashley National Forest. It describes the present condition of each Forest resource and the environment affected by implementing any of the alternatives. Each resource element is discussed in terms of current situation, demand, and opportunity. Information in this chapter was drawn primarily from the revised AMS, completed in March, 1984 ^{1/}, along with recent data developed as a result of 1984 Utah Wilderness legislation. The future environment, as affected by the Proposed Action or the other alternatives, will be discussed in detail in Chapter IV entitled "Environmental Consequences."

Prior to the Utah Wilderness Act of 1984, the Forest planning process had developed an inventory of lands that are essentially unroaded and undeveloped, meeting the minimum definition of wilderness, and qualified for wilderness evaluation per NFMA Regulation 219.17. The inventory contained 13 roadless areas, totalling 717,792 acres Forest-wide. This inventory and description of each area is filed with the Forest's planning records.

The Utah Wilderness Act of 1984 designated 273,426 acres on the Forest and 750,050 acres within the State of Utah as Wilderness. It is estimated that this area will meet the anticipated demand for wilderness during the first planning period. At the end of this period, and during Forest Plan revision, the need for additional wilderness will be evaluated. The total acres that are estimated to be available at that time is shown in Chapter IV.

This land and resource management plan provides for a full range of management prerogatives for the national forest lands involved. This includes some lands which are the subject of ongoing litigation concerning the boundaries of the Uintah Indian Reservation. A recent decision of the United States Court of Appeals for the Tenth Circuit in State of Utah v. Ute Indian Tribe, 773 F.2d 1087, ruled that the 1905 designation of approximately one million acres of national forest did not diminish the boundaries of the Uintah Indian Reservation. The State of Utah is appealing the decision of the court of appeals to the United States Supreme Court which may hear the case. Although the outcome of this case may affect the jurisdiction of the state over persons in the national forest, the Department of Agriculture does not construe the decision as affecting federal administration of the lands and resources pursuant to the laws and regulations governing the national forests. Accordingly, this plan is not affected by the status of the boundaries of the Uintah Indian Reservation.

B. PHYSICAL and BIOLOGICAL SETTING

The Ashley National Forest contains lands located in southwestern Wyoming and eastern Utah. These lands fall within three geographical areas: the Wyoming Basin, the Uinta Mountains, and the Tavaputs

^{1/} The AMS is available for review at the Forest Supervisor's Office.

Plateau. The land characteristics range from high desert country to high subalpine mountain areas. The elevation varies from a low of about 6,000 to a high of 13,528 feet above sea level at the summit of Kings Peak.

The annual precipitation varies from approximately 16 inches in the high desert country to 35 inches or more at the higher elevations as a result of both snowfalls during the winter and summer rains. Moisture evaporation is high because of low humidity, high temperatures, and winds.

Topographical diversity and intensive land management has served to protect the visual quality on the Forest. The existing vegetation patterns and the geological formations further add to the aesthetics.

Acres of outstanding scenic beauty exist within the Forest such as the Sheep Creek Geological Area, the High Uintas Wilderness, and the Flaming Gorge National Recreation Area.

The Forest has other visual assets such as steep canyons and high mountain peaks, glaciated basins, large open meadow areas, as well as a diversity of vegetation and wildlife arrangements. The Uinta Mountain portion of the Forest offers a scenic backdrop for the communities of both the south and north slopes of the Uintas.

The biological life zones vary from the high desert to the high mountains. Grasses and shrubs of the desert grade into pinyon-juniper forests at the lower elevations and grasses and shrubs at higher elevation. Aspen is found at the mid elevations of the Forest, giving way to mixed aspen and conifer followed by conifer forests. These conifer forests are comprised of lodgepole pine with mixture of fir and spruce. At the higher elevations, Krumholtz fir gives way to grasses and forbs above timberline.

The big game species include elk, bear, cougar, moose, mule deer and antelope. Rocky Mountain sheep have recently been introduced. The condition and amount of available winter range off the Forest are critical factors governing the deer and elk populations.

The majority of winter range occurs off the Forest. The available habitat with suitable browse for winter range has decreased in past years because of development, mining, and road construction. The summer range for deer and elk is much less critical for the majority of the Forest. It is, however, a limiting factor on the South Unit of the Tavaputs Plateau because of lack of water in the summer months.

Currently, more management emphasis is being directed towards the non-game and small game animal species. Non-game bird and raptor habitat is also recognized as an important part of the Forest. More management effort is being directed towards this resource.

C. SOCIAL and ECONOMIC SETTING

1. PRIMARY ZONE OF INFLUENCE

The Ashley National Forest is located primarily in northeastern Utah, with some borders penetrating southern Wyoming. Four main counties concerned are: Duchesne, Uintah, and Daggett in Utah, and Sweetwater in Wyoming. There are some influences felt from Utah county and Summit county in Utah as well as visitors from Colorado. However, these influences do not comprise major factors in the primary zone of influence. The total population of the four county area is 75,515 (1980 census). Sweetwater, Wyoming, has the most influence directed from the Green River and Rock Springs area.

The majority of Forest users reside south of the south slopes of the Uintas in Ashley Valley (city of Vernal, Naples and populated centers of Maeser, Jensen, Glines, and Ashley), Roosevelt, Duchesne and numerous small communities in Duchesne and Uintah counties. There are three distinct cultures within the zone of influence; the Ute Indians, longtime residents, and the newcomers to the area. Forest users generally concentrate their efforts on the developed and dispersed recreation facilities and on the scenic drives in and around the Forest.

For Daggett County, the total area is 461,440 acres of which 258,938 acres (50%) are National Forest land. The north slope of the Uinta Mountains is located in this county with the two major population centers being Manila and Dutch John. The major employment sectors are government, tourism, industry, and farming and ranching. The minority population of Daggett County is 1.9%.

Duchesne County has a total area of 2,086,000 acres of which 726,125 acres (35%) are National Forest land. The major population centers are Roosevelt, Duchesne, and Myton, with the major employment sectors being government, mining, retail and wholesale trade and agriculture. The minority population of Duchesne County is 4.5 percent.

Uintah County has a total area of 2,856,320 acres of which 270,430 acres (10%) are National Forest land. The major population centers are Vernal, Maeser and Jensen with the major employment sectors being mining, trade, service, government, and tourism. The minority population of Uintah County is 12.7 percent.

Sweetwater County, which is tied to the Flaming Gorge National Recreation Area, has a total area of 6,706,669 acres of which 126,701 acres (2%) are National Forest land. The major population centers are Green River and Rock Springs, Wyoming with the major employment sectors being mining and energy resource development with related services, construction, and public administration. The minority population of Sweetwater County is 6 percent.

The 1970 and 1980 populations for the counties within the zone of influence of the Forest are shown in Table III-1 (1980 preliminary U.S. Census):

Table III-2 shows county receipts for 1978, 1979, and 1980.

TABLE III-1

ECONOMIC INDICATORS PAST TRENDS AND BASELINE PROJECTIONS (1978 dollars inflated to 1/1/1982)							
	Past Trends				Baseline % Change From 1980		
	1960	1970	1977	1980	1985	1990	1995
Population (M Persons)	37.8	39.0	64.9	75.4	+5.12	+5.12	+9.09
Income (MM\$)	70.2	214.0	1122.1	1166.3	+2.631	+2.631	+4.626
Employment (M Persons)	6.8	18.0	27.3	32.6	+134	+134	+229
Agriculture	2464	2134	2300	2800	+11	+11	+10
Logging and Sawmills	N/A	N/A	100	100	+15	+15	+15
Manufacturing	236	485	N/A	763	---	---	---
Tourism and Retail Trade	1034	2772	2862	6114	+55	+55	+113
Government (Federal, State and Local)	1171	3305	632	4552	---	---	---

TABLE III-2

COUNTY RECEIPTS (\$)				
		1978	1979	1980
Payment in Lieu of Taxes				
	Daggett	36,070	36,070	36,070
	Duchesne	381,137	387,863	378,973
	Uintah	427,913	502,992	516,582
	Sweetwater	No Record	531,479	693,303
Twenty-Five% Fund				
Paid to	Daggett	29,525	19,555	28,285
State from	Duchesne	79,558	52,760	76,312
Forest Service	Uintah	30,835	20,423	29,540
Collections	Sweetwater	10,891	7,271	10,517

The above data indicates that both Uintah and Daggett counties experienced a growth rate higher than that for the state of Utah. Sweetwater County experienced a 126 percent population growth rate for the same ten year period. This information is important in that these three counties are the primary recreation users of the Forest.

There are still some livestock and timber industries dependent on Forest land for economic support. Several sawmills in the Vernal area are active and utilize most of the annual harvest from the Forest. Ranchers use Forest cattle allotments for summer grazing. If these allotments did not exist, it would be difficult to maintain the cattle they now have. There is an economic reliance, particularly in small rural locations, on these industries.

Almost all of the water used for domestic purposes and much of the water used for irrigation in the Uintah Basin originates within the Forest boundaries. Water administration and management policies and practices are particularly important to the Ashley National Forest and adjacent communities. It may be a growing issue or concern for Forest management because of future water needs. There are some development or water issues on the Forest which could cause changes within the county as well as on the Forest.

a. Economic Indicators

As indicated in the population statistics, the Uintah Basin has experienced an average of 66% growth in population during the ten year period from 1970 to 1980. Much of this growth has been tied directly to energy development with the projected growth dependent on developments in the energy related fields. *

2. SECONDARY ZONE OF INFLUENCE

It is difficult to designate where boundary lines should be drawn for the Secondary Zone of Influence because of the active recreational outlets in northeastern Utah which have attracted many national visitors. The Secondary Zone of Influence comprises areas not directly within the Forest boundary or influenced by Forest decisions but still getting impacts from the Forest.

There has been significant impact on the Utah economy due to tourism, and there is an economic reliance in the Basin area towards Secondary Zone of Influence income. Visitors from the Salt Lake/Ogden metropolitan area going to Flaming Gorge (as well as to the Dinosaur National Monument) have affected large economic gains. Since Flaming Gorge is receiving national recognition as a "trophy" fishing site, there are even more national visitors. These impacts must be recognized in Forest planning and management.

- * Information contained in the Social Economical Overview for the primary zone of influence was based on 1980 labor data and projected growth was tied to energy development. Since 1980, changes on a national level have brought changes in the energy related sectors to the local level. Since 1982 a reduction in the energy sector has resulted in a 12.0% unemployment rate as of April, 1986, for the Uintah Basin (Uintah and Duchesne counties) with Uintah County having an 10.9% unemployment rate. There is currently an over abundance of homes on the market as a result of the projected energy related growth rate and an expected influx of people into the area had not been realized. The projections of 1980 have not been realized due to changes in the energy sector. Projections to the year 2000 at this time are difficult to make and growth will be a result of national direction in energy related fields.

Water can be defined as another significant Secondary Zone of Influence issue. Water is obviously critical to the survival of the Uintah Basin, but water from the the Basin is also supporting the Wasatch Front area through the Central Utah Project as well as contributing to states downstream in the Colorado River system. Since growth impacts in the Primary Zone of Influence are tentatively forcing a more active water management policy, both Zones of Influence must be considered.

Obviously the energy industry now located in the Uinta Basin area has national overtones. Concern for the growth of oil and gas exploration is the issue of the 80's, particularly in Utah. The Basin has relied on these industries for a large portion of their income and survival while the rest of the nation relies on all energy sources for survival. As is the case in southern Wyoming, Utah is an energy rich state whose economy is becoming more and more influenced by those industries.

Additional information on the Social Economic Overview is contained in Appendix B and in the A.M.S. in the Forest Supervisor's Office in Vernal, Utah.

D. RESOURCE ELEMENTS

1. RECREATION

The Ashley National Forest is a popular outdoor recreation Forest because of the high quality recreation opportunities. Popular uses range from camping in the summer to snowmobiling in the winter. There is a great deal of fishing on the Forest as well as many opportunities for hunting.

Significant attractions and impacts influencing the recreation situation on this Forest can be placed in two categories. First this Forest includes national recreation attractions such as Flaming Gorge National Recreation Area, High Uinta Wilderness, and it is located adjacent to Dinosaur National Monument. Second, this Forest is situated in the middle of major mineral and energy related development areas of the Uinta Basin and southwestern Wyoming, with expanding populations. Special situations that may have an impact on future recreation management are the deteriorating facilities caused by inadequate investment in facility maintenance, future funding levels, and the present insect epidemic causing losses to the lodgepole pine.

Areas with existing or proposed formal classifications such as Sheep Creek Geological area, Green River Wild and Scenic River, Little Hole and Fish Creek National Recreation Trails add to the recreation attractions of this Forest. With the completion of the Central Utah reservoirs, this Forest will probably contain more acres of "Flat Water", which is a major attraction in the arid west, than any other Forest in the region.

Flaming Gorge Area is unique in many ways but a special situation exists here because of the amount and type of existing capital improvements.

In all probability there are very few if any National Recreation areas in the National Forest System that contain the type of capital investments present here. These investments are expensive to operate and maintain. Visitor information services are an important part of the program. They involve cooperation with other agencies and interpretive associations. The Forest Service has made a commitment to manage special areas and the public generally expects that commitment to be fulfilled, as expressed in the public involvement sessions.

Central Utah Projects and associated recreation features are being constructed on and near this Forest. Recreation development around these reservoirs will be providing many new attractions that will tend to provide a more even distribution of site capacity on the Forest. At present a large part of our developed site capacity exists on the Flaming Gorge District. Stabilization of high lake reservoirs and development of trailhead facilities to compliment dispersed recreation use are also being planned and constructed. In addition, roads and trails are being designed and constructed to facilitate the development sites and dispersed recreation areas. Essential administrative facilities are also being planned.

a. Developed Recreation - Public

Flaming Gorge Ranger District receives a large part of the total Forest recreational use. Recreation use has increased substantially over the last 10 years. The number of major developed facilities, by Ranger Districts, is shown in Table III-3. Most use of developed facilities is during the summer months and the fall hunting season, and facilities adjacent to plowed highways receive some use during the winter months.

TABLE III-3 - MAJOR DEVELOPED SITES BY RANGER DISTRICT

Ranger District	Developed Sites		Capacity PAOT Total
	Public	Private	
D-1 Flaming Gorge	68	8	14,490
D-2 Vernal	9	2	905
D-3 Roosevelt	11	4	1,233
D-4 Duchesne	7	1	830
Total			

In recent years, construction and rehabilitation of recreation facilities has declined because Forest Service budgets have been reduced and human resource programs have been reduced or eliminated. It does not appear that there will be an opportunity for construction of recreational facilities as current funding allows little more than minimum operation and maintenance.

With the present situation carried into the future, the Ashley National Forest will not be able to meet even the most conservative public demands at developed sites beginning about 1990. Many of the existing facilities and related improvements at developed sites have not been maintained to a standard that prevents significant deterioration. Demand continues to increase and most of the developed campground sites are now being used at about 30% of maximum theoretical capacity (For campgrounds 100% occupancy can be expected when use approaches 40% of maximum theoretical capacity). Predicted demand for developed public recreation, is displayed in Table III-7.

b. Developed Recreation - Private

Developed recreation-private includes recreational opportunities provided by private enterprise under special use permit from the Forest Service. The following table summarizes private recreation activities on the Ashley National Forest.

TABLE III-4 Special Use Recreation Sites	
Site	Number
Resorts	5
Marinas	3
Concessions	8
Summer Homes	58

c. Dispersed Recreation

Dispersed Recreation is the use outside of developed sites. These activities include such things as gathering fuelwood, driving for pleasure, camping, fishing, hiking, and hunting. Winter dispersed recreation activities include cross-country skiing and snowmobiling. Actual dispersed use and its impacts are difficult to measure and manage.

Dispersed recreation areas receive intense use on weekends and holidays. Fuelwood cutting and water activities are very popular. Different types of users such as snowmobilers and cross-country skiers often compete for use of a given recreational area.

The capacity of the Forest for dispersed recreation was estimated by using the recreation opportunity spectrum (ROS) survey method. The number of acres in each ROS class was converted to recreation visitor days (RVD's). Table III-5 displays use in RVD's and Table III-6 displays ROS classes in acres.

Capacity for dispersed recreation as inventoried in the R.O.S. survey is directly related to ease of access and availability of support facilities. The easier the access and availability of facilities the more they attract dispersed recreation users. If there is a significant change from present transportation system, then the conversion of the R.O.S. classification from the existing inventory could be expected. A change of the existing R.O.S. capacity could also occur because of the change in the social, managerial, and natural settings originally identified.

Predicted demand for all types of dispersed recreation and developed recreation is displayed in Table III-7.

Flaming Gorge National Recreation Area potential ROS capacity as inventoried for developed sites is 1,776 MRVDs. This would be reached sometime after 2030. The potential ROS capacity for dispersed areas at the NRA is 1,196 MRVDs and would also be reached sometime after 2030. For the remainder of the Forest ROS capacity for developed sites is 484.2 MRVDs and is reached sometime after the year 2000. Dispersed areas ROS capacity is 640.8 and would be reached sometime after the year 2000.

TABLE III-5
Recreation Use (RVDs) 1971 - 1980

<u>Year</u>	<u>Developed</u>	<u>Dispersed</u>	<u>Total</u>
1971	578,700	771,500	1,350,200
1972	619,900	820,000	1,439,900
1973	557,800	835,900	1,393,700
1974	506,800	810,500	1,317,300
1975	492,900	840,500	1,333,400
1976	538,100	886,700	1,424,800
1977	576,200	833,500	1,409,700
1978	616,600	780,000	1,396,600
1979	569,100	791,000	1,360,100
1980	702,400	877,000	1,579,400

TABLE III-6 Acres, Use, and Capacity by ROS Class 4/

ROS Classes	Flaming Gorge MRA		Proposed Wilderness (Ashley) 3/		Acres	ROS Capacity	Coefficient 1/	Present Use	Coefficient 1/	Present Use	ROS Capacity	Coefficient 1/	ROS Capacity
	Acres	Coefficient Factor Use	Coefficient Factor Use	Present Use									
Primitive	---	---	---	---	202,166	---	---	162,000	---	162,000	---	---	202,166
Semi-Primitive Non-Motorized	5,918	1.37	2.0	8,100	111,602	---	---	89,000	---	89,000	---	---	112,000
Semi-Primitive Motorized	---	---	---	---	24,320	---	---	20,000	---	20,000	---	---	24,000
Roaded Natural	184,296	1.76	6.4	323,800	---	---	---	---	---	---	---	---	---
Developed Rec. Use Rural	688	685.0	2,580.0	471,200	1,776,000	---	---	---	---	---	---	---	---
Subtotals for Roaded Natural & Rural	164,984	4.3	16.0	795,000	---	---	---	---	---	---	---	---	---
Totals	190,902	4.20	5.6	803,100	338,088	---	---	271,000	---	271,000	---	---	338,000
Total-Ashley National Forest													
Primitive	---	---	---	---	202,166	---	---	162,000	---	162,000	---	---	202,000
Semi-Primitive Non-Motorized	178,025	.41	1.0	72,800	295,545	---	---	169,900	---	169,900	---	---	302,000
Semi-Primitive Motorized	139,855	.4	1.0	56,000	164,175	---	---	76,000	---	76,000	---	---	164,000
Roaded Natural	537,275	.27	.6	145,300	721,571	---	---	469,100	---	469,100	---	---	1,506,800
Developed Rec. Use Rural	554	417.0	874.0	231,200	1,242	---	---	702,400	---	702,400	---	---	2,260,400
Subtotals for Roaded Natural & Rural	537,829	.7	1.5	376,500	722,813	---	---	1,171,500	---	1,171,500	---	---	3,767,000
Totals	855,709	.59	1.3	505,300	1,384,699	---	---	1,579,400	---	1,579,400	---	---	4,435,000

1/ Coefficient Factor x Acres = Capacity

2/ This lines shows the subtotals for roaded natural and rural and includes developed and dispersed.

3/ The High Uintas Primitive Area which is contained within the proposed wilderness consists of 162,586 acres. This information was compiled prior to passage of the 1984 Wilderness Legislation.

4/ This R.O.S. inventory was completed prior to the roadless area reevaluation and reference to proposed wilderness was the 1979 Administration proposal. Multiplication of co-efficients etc. may not agree exactly with figures shown because of rounding effects.

TABLE III-7 Demand for Wilderness,
Dispersed and Developed Recreation MRVDs ^{1/}

Year	Wilderness	Dispersed	Developed	Total
1980	221.7	641.7	814.7	1,678.1
1985	265.0	767.0	913.8	2,005.8
1990	301.6	873.2	1,108.7	2,283.5
1995	331.6	1,266.3	912.0	2,509.9
2000	360.8	1,044.5	1,326.2	2,731.5
2010	434.3	1,257.3	1,596.3	3,287.9
2020	503.6	1,457.8	1,851.0	3,812.4
2030	572.9	1,658.4	2,105.7	4,337.0

^{1/} Demand table developed during the preparation of the AMS.

Current patterns of use along with the present mix of recreation activities are expected to continue unless the economy changes drastically or certain technical or natural conditions change unexpectedly. Use will generally be most intense on areas served by high standard roads and on weekends and holidays.

Resource deterioration such as soil and vegetation loss will increase if present increase in use continues with current budgets. Increased use of dispersed recreation areas for overflow camping and greater crowding could increase user's dissatisfaction.

Timber sales will add miles of road to the Forest road system. These new roads will tend to change the present R.O.S. classification where the various prescriptions permit. Without good management, increased motor travel off roads and trails, especially during the hunting season and wet periods of the year, will result in increased resource damage.

Demand for fuelwood is expected to increase. Off road use and inadequately designed roads can impact the soil and water resource if not properly managed. However benefits are created with the removal of fuelwood including regeneration of new stands and possible reduction of fuel buildups.

Opportunities for improving the dispersed recreation experience, reducing conflicts between user groups, and reducing resource damage include:

- Developing a program for trailhead construction.
- Encouraging use at remote sites and hardening heavily used sites.
- Developing a program for all types of dispersed winter recreation.
- Providing adequate sanitation for both summer and winter use.
- Determining appropriate management for areas near lakes and reservoirs.

- Restricting certain kinds of use by season or area.
- Encouraging states and counties to provide parking and sanitation facilities, where appropriate, for winter use.
- Developing a program for managing dispersed and overflow camping areas.
- Implementing information and education programs, i.e., Tread Lightly, Leave No Trace.

d. Trails

The Forest has approximately 775 miles of trails. Most trail use is in the summer but winter use is increasing.

The Forest trail system is in fair condition with occasional sections showing deterioration because of lack of maintenance and improper location. Trails that have become unsafe should be closed to protect the public. Private landowners may close additional trails where rights-of-way have not been obtained. Conflicts between types of trail users will increase in number and intensity. The trail system will need to be improved to meet increased demand.

Trails available for motorized use are limited. Most trails were not designed for motor vehicles. Use of motor vehicles on trails is prohibited in the High Uintas Wilderness and in other areas identified in the Forest Travel Plan,

Trail-users' experience and resource protection could be improved by providing better trailhead facilities, improved maintenance, trail signs, trail information, and interpretive facilities. No other agency, public or private, manages land in northeastern Utah so uniquely suited to providing trails with long, continuous stretches of high mountain land.

Many opportunities exist for development and management of trails that could accommodate a wide variety of users. Implementation of these opportunities varies depending on the emphasis of the various alternative and prescriptions assigned, as well as budget allocations.

e. Cultural Resources

A total of 345 historic and prehistoric sites have been recorded on the Forest. There are 266 prehistoric and 79 are historic sites of which 62 of the recorded sites are located on the Duchesne Ranger District, 11 are located on the Roosevelt Ranger District, 46 are located on the Vernal Ranger District, 225 are located on the Flaming Gorge Ranger District, and 1 crosses both the Vernal and Flaming Gorge Ranger Districts.

At the present time, the Ashley National Forest has two sites listed on the National Forest Register, both on the Flaming Gorge Ranger District. The Oscar Swett Homestead located near the junction of State Highways 44 and 260; and the Ute Fire Tower located on Forest Route 005.

Eleven sites located on the Ashley National Forest have been determined by the Forest Archaeologist as potentially eligible for inclusion on the National Register of Historic Places. Two of these sites are on the Vernal Ranger District: the historic mill near East Park Reservoir and the historic flume in Dry Fork. Seven of these sites are located on the Flaming Gorge Ranger District. One is a set of prehistoric petroglyphs located on the Henry's Fork River with the remaining six being prehistoric lithic scatters located in the Manns Bench area. The two other sites consist of the Carter Military Trail and associated features which crosses both the Flaming Gorge and Vernal Ranger Districts, and an historic log cabin at the south end of Lodgepole Lake on the Duchesne Ranger District. Of the remaining sites located on the Forest, 163 have been determined as being not eligible for inclusion on the National Register of Historic Places and 169 have not been evaluated as to their eligibility or non-eligibility for inclusion on the register.

On the Ashley National Forest there are 440 project reports that have been written and 16,664 acres of National Forest land that have had a Cultural Resource Survey.

The Flaming Gorge District has a program for the interpretation of local cultural resources for the public. At Flaming Gorge Dam Visitor Center there are historical displays depicting early American life in the area. A movie entitled "Flaming Gorge: A Story Written In Water" is shown that depicts the human and natural history of the area. The Flaming Gorge Natural History Association, in cooperation with the Forest Service, has published a booklet entitled Flaming Gorge. At Red Canyon Visitor Center there are historical displays depicting various cultural resources in the area. Various books pertaining to local history are sold at both the Flaming Gorge Dam and the Red Canyon Visitor Center.

f. Research Natural Areas

There are presently no formally designed Research Natural Areas currently on the Forest. Table III-8 summarizes the current status of RNA nominations on the Ashley National Forest and gives a description of those candidate and potential candidate areas.

Table III-8
Candidate and Potential Candidacy Status
as of Autumn 1985

RNA Candidate	Acres	Status	
1. Sims Peak Pothole	650	Establishment Report Completed 1984	SAF: Lodgepole pine. PNV: Spruce-fir. Lentic: pond, marsh, bog, wet meadow. Geologic: Metanorctic rocks, lateral moraine, kettles (potholes).
2. Pollen Lake	1025	Reconnaissance Report 1984 ER to be completed 1985	SAF: Spruce-fir. PNV: Spruce-fir, alpine. Other veg.: subalpine herbland, willow: <u>Parrya rydbergii</u> , <u>Penstemon uin-thahensis</u> . Lentic: lake, ponds, marsh, wet meadow. Geologic: metamorphic rocks, moraines, cirque. Scientific: Pollen chronology, limnology.
3. Gates of Birch Creek	240	Reconnaissance Report 1984 ER to be completed 1985	SAF: " Lodgepole pine, Interior Douglas-fir. PNV: Douglas-fir. Geologic: Sedimentary rocks (limestone). Unusual: Disjunct subalpine fir/ <u>Linnaea borealis</u> habitat type.

RNA Candidate	Acres	Status	
4. Ashley Gorge	1085	Reconnaissance Report 1985 ER to be done 1986	SAF: Blue Spruce, aspen, lodgepole pine, ponderosa pine, cottonwood. Other Vet.: Mountain mahogany, serviceberry. Lotic: Type 3 (high gradient perennial) stream, riparian dogwood. Geologic: metamorphic, sedimentary rocks.
5. Shale Creek (Uinta River)	2925	Initial Survey 1985 Reconnaissance report pending ER possible 1986-1987	SAF: Spruce-fir, lodgepole pine. PNV: Spruce-fir, alpine. Other veg.: willows, subalpine herbland. Lentic: lakes, ponds, marsh, wet meadows. Geologic: metamorphic rocks, morains, cirque
6. Gilbert Creek Basin	2545 (or less)	Initial Survey 1985 Reconnaissance report pending ER possible 1986-87	SAF: Spruce-fir. PNV: Spruce-fire, alpine Other veg.: willows, subalpine herblands. Lentic: lakes, marshes, wet meadows. Lotic: Type 2, 3 streams. Geologic: metamorphic rocks, cirque.
7. Timber Canyon - Cow Hollow Ridge	334	Initial Survey 1985 Reconnaissance report pending ER possible 1986-87	SAF: Ponderosa pine, aspen, Douglas-fir. Other Veg.: Mountain brush. Geologic: sedimentary rocks.
8. Lance Canyon	110	Initial survey 1985 Reconnaissance report pending ER possible 1986-87	SAF: Douglas-fir, pinyon-juniper. PNV: Douglas-fir, pinyon-juniper, big sagebrush. Other veg.: Mountain mahogany, salina wildrye. Geologic: sedimenary rocks mass, mass movement.

Potential Candidate Areas (not yet inventoried)

1. Shale Creek (Duchesne River)
2. Painter Basin
3. Oweep Creek
4. East Basin

g. Visual Resources

An inventory of the visual resources on the Forest has been completed, using the visual management system outline in "National Forest Landscape Management--Volume 2."

The present VQO inventory (existing VQOs) showed the following areas in each visual management category:

	<u>Acres</u>
Preservation	338,088
Retention	473,545
Partial Retention	240,485
Modification	316,949
Maximum Modification	<u>15,632</u>
Total acres	1,384,699

These categories are defined in the Glossary.

2. WILDERNESS

The High Uinta Wilderness is located totally within the Ashley and Wasatch National Forests. The Utah Wilderness Act of 1984 designated this area as wilderness, making it a component of the National Wilderness Preservation System.

Prior to the Utah Wilderness Act of 1984 the Forest planning process had developed an inventory of lands that are essentially unroaded and undeveloped, meeting the minimum definition of wilderness and qualified for wilderness evaluation according to NFMA regulations 219.17. The inventory contained 13 roadless areas totalling 715,405 acres Forest wide. This inventory and description of each area is filed with the Forest planning records.

The Utah Wilderness Act of 1984 designated 273,426 acres on the Forest as the High Uinta Wilderness and 186,574 acres on the Wasatch for a total of 460,000 acres. It is estimated that this area, in addition to areas that existed prior to the Act, will meet the anticipated demand for wilderness during the first planning period. At the end of this planning period additional wilderness will be evaluated.

TABLE III-9 R.O.S. CLASSES
IN THE HIGH UINTA WILDERNESS

R.O.S. Class	Percent of Total	Acres
Primitive	73.1	199,875
Semi Primitive NON MOTORIZED	26.6	72,731
Semi Primitive MOTORIZED *	.3	820
Roaded Natural	.0	0
	100.0	273,426

* Area is classed as SP(Motorized) however management within the Wilderness would preclude motorized uses (The R.O.S. Inventory was completed before establishment of the Wilderness Area).

TABLE III-10
Projected demand for Wilderness
AS DETERMINED DURING PREPARATION OF THE AMS

Year	Total MRVD	Total M Acres ^{2/}
1980	221.7	221.7
1985	265.0	265.0
1990	301.6	301.6
1995	331.6	331.6
2000	360.8 ^{1/}	360.8
2010	434.3 ^{1/}	434.3
2020	503.6	503.6
2030	572.9	572.9

^{1/} Estimated capacity of wilderness unless users can be encouraged to use low use areas and new management methods can be implemented to increase capacity.

^{2/} The High Uinta Wilderness Acreage is 273,426.

3. WILDLIFE AND FISH

The Ashley National Forest has a wide diversity of fish and wildlife species, some with special habitat needs. The Forest contains several distinct habitats that are important to differing groups of wildlife species. Even with many overlaps between habitat and wildlife present, there are specific habitat requirements for most of the groups. Wildlife populations will be proportional to the quantity and quality of the habitat, and this is presented in the discussion below. The indicator species will be monitored because they are sensitive to management activities, are of special concern, or their changes indicate effects of management on other species. The A.M.S. provides additional information on fish and wildlife.

a. Forest Species

An estimated 437 species of fish, amphibians, reptiles, birds, and mammals inhabit the Ashley National Forest (31 species of fish, 8 species of amphibians, 21 species of reptiles, 289 species of birds, and 88 species of mammals). Appendices 1 and 2 of the wildlife section of the A.M.S. list the fish and wildlife species that are found on the Forest. This document is available in the Supervisor's Office in Vernal, Utah.

b. Habitat Diversity

The amount of available habitat determines to a large degree the abundance of wildlife on National Forest lands. A reduction in fire frequency during the past 50-80 years due to increased fire suppression has permitted many of the plant communities to reach maturity. This has resulted in widespread successional advances in conifer communities, including heavy fuel build-ups, loss of associated plants, and a reduction in carrying capacity for early successional stage wildlife, while increasing habitat for late successional stage wildlife (Table III-11). Maintaining a variety of wildlife species above minimum viable population levels requires that habitat diversity include all stages of plant development within existing plant communities. Table III-12 provides a breakdown of the Forest by vegetation types and indicates their general condition and trend.

In addition to plant successional stages and distribution of plant communities, seasonal habitats located on lands adjacent to the Forest are important in maintaining wildlife abundance on Forest lands. Big game herd units associated with the Ashley rely on adjacent lands for over 80 percent of their winter range requirements.

Table III-11 Forested communities on the Ashley National Forest by age classes.

Type	Seedlings/ Poles - Acres (%)	Mature Old Growth - Acres (%)	Total
Douglas-fir	5,371 (9)	51,540 (91)	56,911
Lodgepole, Engle- man Spruce, Sub- Alpine Fir	106,759 (22)	380,084 (78)	486,843
Aspen	18,578 (28)	47,773 (72)	66,351
Ponderosa Pine	10,712 (24)	34,203 (76)	44,915
Pinyon-Juniper *	---	96,681	96,681
Non-comm Softwoods *	---	79,865	79,865
Non-comm Hardwoods *	---	5,285	5,285
TOTALS	141,420	695,431	836,851

* Age class estimates are not available.

Table III-12 Breakdown of vegetation types on the Ashley National Forest

<u>Vegetation Type</u>	<u>Acreage</u>	<u>General Condition and Trend</u>
Grassland	50,507	Fair ↑
Shrub/Browse	212,655	Fair →
Meadows	118,920	Good →
Pinon-Juniper	96,681	Fair →
Conifers	668,534	Fair ↓
(Incl. Non-Commercial)		
Aspen	71,636	Fair ↓
(Incl. Non-Commercial)		
Barren/Rock	103,007	Fair →
Aquatic	51,279	Good →
Riparian ^{1/}	69,028	Fair ↓
TOTAL	1,373,219	

^{1/} This is the preliminary acreage estimated for the riparian. This acreage is included in the other vegetation types.

c. Management Indicator Species

The National Forest Management Act of 1976 provides direction for selecting management indicator species (MIS) for Forest planning. MIS are considered to be key species in relation to other wildlife. MIS are the species for which population and habitat objectives will be established; the species which will represent the wildlife and aquatic resources in estimating the effects of management alternatives; and the species which habitat will be monitored following implementation of the Forest Land Management Plan.

The Management Indicator Species (MIS) were selected from those categories outlined below:

- (1) Species on State and Federal lists classified as threatened, endangered, or sensitive;
- (2) Species of some economic value, those that are hunted, fished, or trapped;
- (3) Species with special habitat needs;
- (4) Species whose population changes are believed to indicate effects of management on other species.

Following is the list of selected wildlife species which will be used as the MIS on the Forest. Table III-13 outlines the MIS/habitat relationships for the Ashley National Forest.

Elk
Mule Deer
Goshawk
Golden Eagle
Warbling Vireo
Lincoln's Sparrow

Sage Grouse
White-tailed Ptarmigan
Cutthroat Trout
Macroinvertebrates
Yellow-bellied Sapsucker
Song Sparrow

Rationale for the selection of these species were as follows:

Species of some economic value. Elk and mule deer were selected to represent this category due to their relatively wide distribution, economic importance and the ability to monitor changes in their populations and habitats.

Species with special habitat needs and/or species that indicate effects of management. Species included in this group require specific habitats and/or represent a habitat or habitats which may be influenced to a measurable degree by land uses or management practices.

Aquatic

Cutthroat Trout
Macroinvertebrates

Deciduous Woodlands *

Yellow-bellied Sapsucker
Warbling Vireo

Old Growth Timber

Goshawk

Riparian Shrubs

Lincoln's Sparrow
Song Sparrow

Sagebrush

Sage Grouse

Cliffs/Rock

Golden Eagle

Alpine Meadow

White-tailed Ptarmigan

* Aspen and Riparian Hardwoods

Rationale for not selecting any species on State and Federal lists were that no breeding populations are presently found on the Ashley National Forest. The peregrine falcon and whooping crane are migrants that are only passing through the Forest for a short time in the spring and fall. The black-footed ferret has been seen on adjacent lands, but never on the Forest. The bald eagle winters primarily on the NRA and along the Green River.

Habitat/Species Relationships for the MIS on the Ashley National Forest

MIS	General Condition and Trend MIS Habitat	GRASSLAND	DESERT SHRUB	SAGEBRUSH	MOUNTAIN SHRUB	PINYON/JUNIPER	ASPEN	DRY MEADOW	PONDEROSA PINE	LODGEPOLE PINE	MIXED CONIFER	SUBALPINE	ALPINE MEADOW	CLIFFS & TALUS	RIPARIAN			
															AQUATIC	HARDWOOD	SHRUB	MEADOW
Elk	Fair →	F		F	F	F	R	F	R	R	R	F	F			F	F	F
Mule Deer	Fair →	F	F	F	R	F	R	F	R	R	R	F	F			F	F	F
Goshawk	Good →						F	F	R	R	R	F						F
Golden Eagle	Good →	F	F	F	F	F	F	F	F	F	F	F	F	R		F	F	F
Sage Grouse	Fair →			R													F	F
White-tailed Ptarmigan	Good →												R	R				F
Lincoln's Sparrow	Fair ↓															F		R
Yellow Warbler	Fair ↓						F									F		R
Warbling Vireo	Fair ↓				F		R									R		F
Yellow-bellied Sapsucker	Fair ↓						R									R		F
Macroinvertebrates	Good →															R		F
Cutthroat Trout	Good →															R		F

F = Feeding Habitat

R = Reproduction Habitat

Management Levels for MIS

Population densities of the big game MIS are given at the minimum viable, existing, State objective, and potential levels. For the other MIS, population levels are not known and the State has set no objectives. So for those species, the amount of habitat needed to sustain the populations at the minimum viable, existing and potential levels was determined. See Table III-14.

(1) Mule Deer and Elk (Big Game MIS)

The Ashley National Forest has 1,016,350 acres of big game summer range and 316,900 acres of big game winter range. The Forest primarily provides forage for mule deer and elk during the spring, summer, and fall. In general, the Forest Service lands are in fair ecological condition and the trend is stable for the big game MIS. The predominance of late successional plant stages exceeds cover requirements for big game and often limits the forage production.

The majority of the big game winter range occurs on adjacent BLM, State and private lands. The amount of forage needed to sustain big game numbers at the four management levels was constrained to seven months for mule deer and eight months for elk, due to the lack of significant amounts of winter range on the Forest.

Table III-14 displays minimum viable populations, existing populations, state population objectives, potential populations, and current capability. The A.M.S. document contains a detailed narrative of these populations.

It is important to note that these levels are what the Forest can support seasonally (spring, summer, and fall) and that without major improvement of adjacent lands, which comprise over 80% of the big game winter range, these levels cannot be maintained.

(2) Goshawk (Old Growth Timber)

The goshawk is primarily found in mature and old growth timber with a minimum of 30 percent crown closure. It requires 25 acres of undisturbed conifers for nesting and has a hunting territory of 25,000 to 38,000 acres of mostly thick stands of aspen and conifers.

Due to the predominance of mature timber stands on the Forest, the habitat condition for the goshawk is good. The trend is stable, however, the mountain pine beetle problem will reverse the trend downward.

Table III-14 displays the minimum viable population, existing population, and potential population.

(3) Golden Eagle (Cliffs/Rock)

The golden eagle is primarily a cliff-nester that hunts over a variety of habitats. The golden eagle was chosen as a MIS because of the potential impacts to cliff areas from the CUP, pipelines, and phosphate mining.

Also, the golden eagle is a good indicator of the habitat for other cliff-nesters, such as prairie falcon and osprey. The general condition of the cliff habitat is good and the trend is stable. But the potential impacts could change the situation rapidly.

Table III-14 displays minimum viable population, existing population, and potential population.

(4) Sage Grouse (Sagebrush)

Sage grouse are dependent upon the sagebrush vegetation type for food and cover. As indicated on Table III-13 the sage grouse also makes use of riparian habitat. There are breeding populations on the Flaming Gorge and Vernal Districts and on the South Unit of the Duchesne District. The current condition of the sage grouse habitat is fair and the trend is stable. Vegetative projects have often manipulated sagebrush to increase forage production for livestock and big game. These sagebrush manipulation projects have had positive and negative impacts on sage grouse depending on the size, the shape, and the method of treatment. This is the reason why sage grouse were chosen as a MIS.

Table III-14 displays minimum viable population, existing population and potential population.

(5) White-tailed Ptarmigan (Alpine Meadow)

This species was recently reintroduced in the High Uintas Wilderness. Ptarmigan are associated with high alpine meadows with a willow complex for survival during the winter. The ptarmigan was chosen as a MIS to monitor grazing and recreation impacts on the alpine meadows.

The overall condition of the alpine meadows is good and the trend is stable. The alpine meadow ecosystem is fragile and changes in condition and trend can occur rapidly due to the short growing season.

Table III-14 displays minimum viable population, existing population, and potential population.

(6) Yellow-bellied Sapsucker and Warbling Vireo *(Deciduous Woodlands)

The yellow-bellied sapsucker is a cavity-nester primarily associated with aspen and cottonwoods. A breeding pair requires a 10 acre territory with 16 snags at least 10 feet tall and 10 inches DBH. The warbling vireo is also primarily associated with aspen and riparian deciduous trees. This species nests in the deciduous trees from the pole-sapling to the mature successional stages. These two species were chosen as MIS because of the limited amount of deciduous woodlands on the Forest. The general condition of the deciduous woodlands is fair

*Aspen & Riparian Hardwoods

with a downward trend. The aspen zone is being invaded by conifers on the upper limits and prostrate juniper on the lower limits. The riparian hardwoods have been impacted by roads, recreational uses, fuelwood cutters, and water impoundments.

Table III-14 displays minimum viable population, existing population, and potential population.

(7) Lincoln's Sparrow and Song Sparrow (Riparian Shrub)

The two species are associated with riparian shrubs, primarily willows, on the Forest. The Lincoln's sparrow is found by streams, lakes and meadows in the grass-shrub successional stage from the mid-elevational ranges to the alpine. The song sparrow is found at the lower to mid-elevational ranges and in the shrub-forest successional stage. The overall condition of riparian shrub habitat is fair and the trend is slightly down. Grazing, water impoundments, and recreational activities have had impacts on this habitat type.

Table III-14 displays minimum viable population, existing population, and potential populations.

(8) Cutthroat Trout (Aquatic)

This species was selected as a MIS to help evaluate the Forest aquatic ecosystems for the following reasons:

- a. It is the fish species on the Forest most sensitive to changes in its environment and is indicative of management effects on other fish species.
- b. It typically inhabits key reaches of streams where most management activities are or will be occurring.
- c. It is the only sensitive fish on the Forest that can be recognized as being native. Although most cutthroat trout populations have been exposed to hybridization and are not "pure", they do maintain the appearance of native trout and should be recognized and managed as such.
- d. It reproduces naturally in most Forest streams and is stocked in some lakes on the Forest.

The general condition of the aquatic ecosystem is good and the trend is currently stable. However, impacts due to irrigation diversions, timber and grazing activities have already affected some streams. The CUP has impacted cutthroat trout habitat within the project area and will continue to do so. Recently, utility and irrigation companies have been filing for water from the Forest for hydroelectric power production purposes. Significant impacts to cutthroat habitat could result. Good data on pounds and number of fish are not available at this time. Therefore, the management levels for the aquatic habitat were displayed as miles of streams and surface acres of lakes and reservoirs and are determined based on the levels discussed below.

Minimum Viable Population - Major streams, lakes, and reservoirs managed at a reduced quality and production (50% below the existing habitat condition and population level).

Existing Population - The existing aquatic habitat managed at existing quality and production.

Potential Population - The improvement of existing aquatic habitat plus the construction of some new reservoirs and habitat improvement on some marginal streams to maximum production (50% above the existing habitat condition and population level).

MIS SPECIES

TABLE III-14

MIS	Minimum Viable Population	Existing Population	State Objective	Potential Population	Current* Capability
Elk					
Number of Animals	365	3,300	5,500	10,300	1,300/5,600
Deer					
Number of Animals	1,180	23,600	42,000	61,800	3,100/43,700
Elk					
Pounds of Forage (MM)	1.14	10.3	17.2	32.2	4.1/17.5
Mule Deer					
Pounds of Forage (MM)	1.2	24.0	42.7	62.8	3.2/44.4
Goshawk					
Number of Acres	95,190	380,750	---	653,760	---
Golden Eagle					
Number of Acres	11,828	23,655	---	47,310	---
Sage Grouse					
Number of Acres	24,240	58,175	---	96,960	---
Whitetailed Ptarmigan					
Number of Acres	23,280	37,250	---	93,120	---
Yellow-Bellied Sapsucker and Warbling Vireo					
Number of Acres					
Aspen	27,000	70,700	---	90,900	---
**Riparian Hardwoods	3,300	6,900	---	11,000	---
Lincoln's Sparrow and Song Sparrow					
**Number of Acres					
Riparian Shrub	9,900	20,700	---	33,000	---
Cutthroat Trout					
Miles of Stream	532	730	---	769	---
Surface Acres of Lakes and Reservoirs	44,816	48,347	---	50,241	---

* This level is the number of mule deer and elk the Forest can support on summer and winter range under the current situation. The larger number is the summer range figure and the smaller number is the winter range figure.

** These acreage figures are based on preliminary data and will be firmed up upon completion of the riparian inventory.

(9) Macroinvertebrates (Aquatic)

Mayfly <u>Epeorus sp.</u>	Requires good water quality and good instream habitat. Must have a resident population.
Stonefly <u>Zapada sp.</u>	Depends upon allochthonous leaf litter for nutrients. Relative numbers generally indicate riparian habitat quality or quantity.
Mayfly <u>Ephemera</u> <u>doddsi</u>	Requires good water quality and good instream habitat. Relative numbers can indicate habitat quality.
Mayfly <u>Ephemera</u> <u>inermis</u>	Moderately tolerant to sediment. Good red-flag species when their numbers increase.
Dipteran <u>Chironomidae</u>	Highly tolerant to multiple forms of pollution. Particularly tolerant to sedimentation. Often dominate the community when pollution is severe.

The species in the above list were chosen as MIS for the following reasons:

- a. The wide range of conditions they monitor.
- b. Their relatively large size which facilitates identification.
- c. Their limited mobility restricts them to a particular environment.
- d. They have a lifespan of months or years which allows for response to impacts over time.

The species listed above are but a sample of the species considered when aquatic macroinvertebrate samples are collected for evaluation of the aquatic ecosystem. The Forest has been collecting macroinvertebrate data on most major streams since 1975. Therefore baseline information is available. Macroinvertebrates are not displayed at the various management levels. They will be used to monitor changes in the habitat by comparing to the baseline data. This will involve monitoring changes in species composition and diversity using relative numbers and diversity indices. (See Scale below).

The following scales are based upon aquatic macroinvertebrate community composition which is used to indicate how the quality of an aquatic ecosystem compares to its potential quality.

Scale	DAT Diversity Index	Standing Crop	BCI
Excellent	18 - 26	4.1 - 12.0	above 90
Good	11 - 17	1.6 - 4.0	75 - 90
Fair	6 - 10	0.6 - 1.5	below 75
Poor	0 - 5	0.0 - 0.5	below 75

d. Forest Species (Sensitive, threatened, or endangered)

24 Wildlife and fish species that inhabit the Forest have been classified as sensitive, threatened, or endangered by Federal and State agencies (1 reptile, 1 amphibian, 4 fish, 12 birds, and 6 mammals). A complete list of these species can be found in the A.M.S. document at the Supervisor's Office in Vernal, Utah.

e. State Agency Objectives

See Table III-14

f. Wildlife Use (Demand)

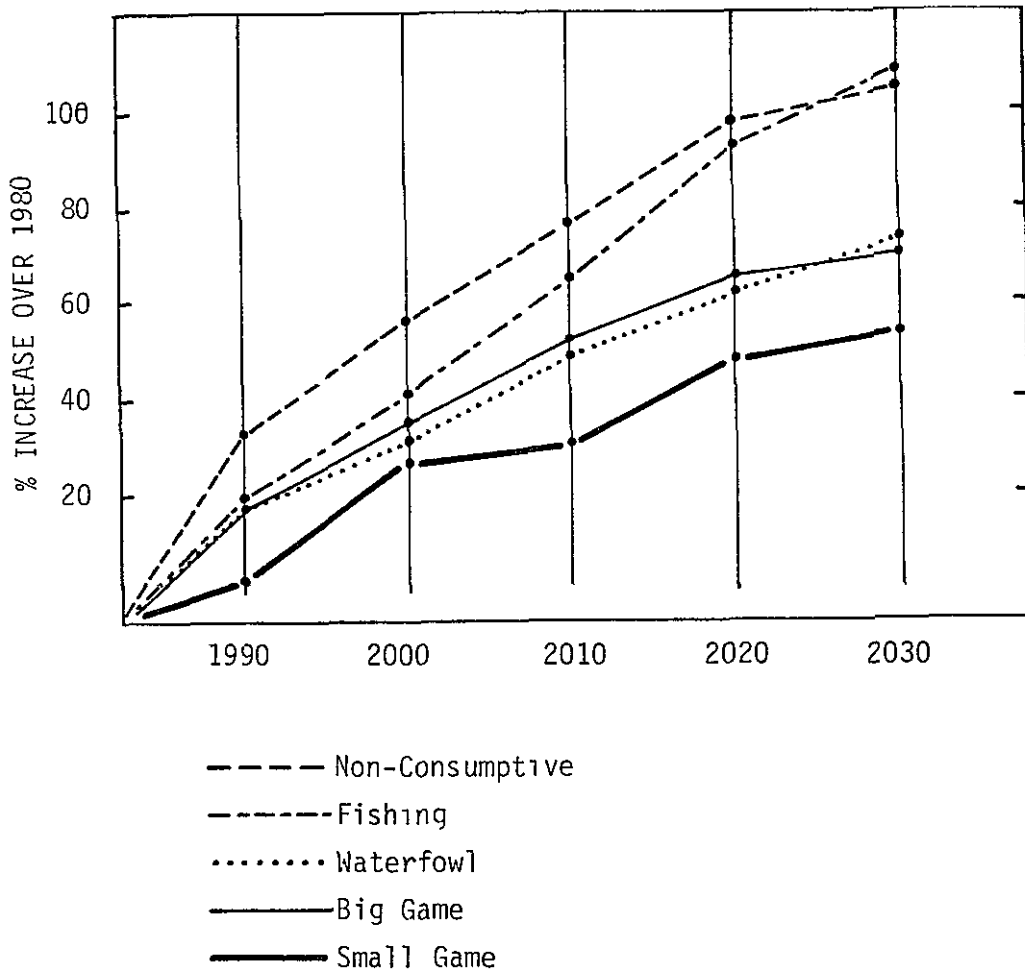
The wildlife resource is a multiproduct output, with food and recreation as the principal products. The demand for hunting and fishing opportunities has increased markedly and is expected to continue. Table III-15 outlines the demand on the wildlife resource for 1977 thru 1981. Given the opportunity for users to participate at an acceptable cost, within a decade there may be a 30 percent increase in wildlife observation, with other uses changing in corresponding fashion. Table III-16 outlines the projected demands for the wildlife resource thru 2030. The output values for wildlife are assumed constant over the planning period and are based on RPA values. They are as follows:

Big game hunting	\$25.20/WFUD
Small game hunting	26.88/WFUD
Waterfowl hunting	32.00/WFUD
Fishing	17.85/WFUD
Nonconsumptive	29.00/WFUD
Wildlife	

TABLE III-15
THE DEMAND ON THE WILDLIFE RESOURCE FOR 5 YEARS ON THE
ASHLEY NATIONAL FOREST
(Based on RIM and Utah DWR data)

<u>Activity</u>	<u>1977</u>	<u>WFUD's</u> <u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
Fishing	148,900	149,400	144,200	151,000	167,900
Big Game	65,200	70,800	73,300	59,600	60,800
Small Game	5,700	6,000	6,400	6,500	6,800
Waterfowl	1,500	1,800	1,500	1,600	2,300
Non-consumptive	20,500	22,000	22,800	23,500	24,300

TABLE III-16
 THE PROJECTED DEMAND THRU 2030 FOR THE WILDLIFE RESOURCE ON THE
 ASHLEY NATIONAL FOREST (Based on RPA Projections)



g. Habitat Improvement

Minimum viable population level - This level would require some habitat improvements during the last two decades to maintain the limited amounts of key habitats such as aspen and riparian.

Existing population level - Habitat improvement is needed not only to maintain forage quality, quantity, and distribution, but also, for the maintenance of existing plant and wildlife diversity. This will require maintenance and enhancement of key plant communities, such as aspen, sagebrush, willow and aquatic. The greatest need for increased habitat improvement is in the aspen vegetation type. The maintenance and perpetuation of existing aspen acres will require an increase in treatment levels over the next several decades.

State objective level - Habitat improvement is required to increase forage quality, quantity, and distribution for the big game MIS (mule deer and elk) to meet this level.

Potential population level - Habitat improvements for this level will depend on which MIS are managed at this level. It is not possible to manage all of the MIS at the potential population levels at the same time.

4. RANGE

The Ashley National Forest provides grazing for approximately 12,500 cattle and 29,000 sheep for a total of about 75,000 AUM's each year. The grazing takes place mostly during the summer months (June-September). Some exceptions are found on the South Unit of the Duchesne District and on the Flaming Gorge NRA. At the present time, there are 84 livestock grazing allotments and 5 recreational stock allotments administered by the Forest. Portions of the Flaming Gorge District (all of the NRA in Wyoming and Goslin Mountain Allotment in Utah) are administered by the Bureau of Land Management under cooperative agreements. Currently, Forest Service grazing permits are held by approximately 130 permittees.

At the present time, about 84% of the Ashley's 1,384,699 acres are within range allotments. The amount of suitable acres varies with the designated class of livestock. Currently, there are 455,285 acres on the Forest suitable for livestock grazing, using the current livestock mix. But 19,115 of those suitable acres are closed to livestock use to protect other resources (Table III-19). If the Forest were converted to cattle only, the number of suitable acres would drop to about 306,000 acres. On the other hand, if the Forest converted to sheep only, the number of suitable acres would rise to about 676,000 acres.

All of the allotments on the Forest, including those administered by BLM, have a complete range analysis. The range analysis determines the vegetation types, range condition and trend, and range suitability for each allotment. Table III-19 summarizes the range analysis data for the Forest. Allotment management plans have been implemented on 74 allotments administered by the Forest. The allotment management plan is prepared in consultation, cooperation and coordination with the permittee and the other resources. The allotment plan contains the following sections: 1) production and management objectives; 2) range and livestock management programs; 3) evaluation procedures; and 4) proper use criteria. There are small portions of Forest lands within six allotments administered by the BLM. None of these allotments have approved management plans, although an EIS covering one allotment has been completed.

Most of the suitable range is in fair to good condition from the resource standpoint and in a stable to upward trend (Table III-19). The

majority of the poor range is located on the South Unit of the Duchesne District and on the Flaming Gorge NRA in Wyoming. Some of these areas are just naturally low forage-producing range and are sensitive to management activities. Many of these areas are in good condition ecologically but poor for resource value. The only solution on these areas is to manage livestock numbers at a level that will maintain the vegetation. There are, also small acreages on other parts of the Forest that could be treated for the benefit of livestock and, in some cases, wildlife.

Stocking for most allotments is considered near capacity and no major reductions or increases are currently planned. There are, however, a few allotments where additional improvements or more intensive management could result in some increase in capacity. Conversely, on a few allotments, there may have to be some modifications in the season or reductions in livestock numbers to maintain or improve range conditions.

In addition to the cattle and sheep grazing, there is some occasional transient or intermittent grazing by wild horses on the Wyoming part of the NRA. These wild horses are from adjacent BLM wild horse and burro territory. The BLM is in the process of rounding up the excess horses that are wandering outside of the territory. There is also some grazing by saddle and pack horses used by recreationists. This use is generally short term and on dispersed type recreation areas, such as the High Uintas. This type of use will probably increase in the future.

The range improvement program on the Forest is primarily intended to facilitate grazing, but, when possible, improvements are made to support a combination of benefits. The Forest has constructed many water developments and fences to improve distribution of livestock and obtain proper utilization of the forage resource. The Forest has revegetated several thousand acres of range that could not be restored through grazing systems alone. Many of these projects have benefited other resources, such as wildlife and watershed. The Forest has been actively involved in the control of noxious farm weeds on Forest Service administered lands in cooperation with State and local weed control organizations.

Grazing on the Ashley is an historic and traditional use of the forage resource. Early settlers grazed livestock on the area long before the establishment of the National Forest. The Forest has only a portion of the livestock use that it had in the late 1800's and early 1900's. During that period much of the range became seriously overgrazed. Since the 1940's, the Forest has made major adjustments in the permitted numbers and season of use, rehabilitated thousands of acres of poor range, and initiated sound grazing management systems based on range analysis. Table III-17 outlines the changes in livestock grazing since 1940. There has been a major decline in sheep numbers and minor fluctuations in cattle numbers. A major factor that contributed to the reduction of sheep numbers has been the conversion of sheep operations to cattle. Past and recent grazing records show that actual use has been 10 to 20 percent below the permitted use (Table III-18).

TABLE III-17. Livestock Historical Use: Permitted livestock use on the Ashley National Forest since 1940.

YEAR	CATTLE	SHEEP	AUM's
1940	9,161	81,947	111,563
1945	9,225	74,234	101,931
1950	8,119	63,468	85,154
1955	12,557	79,192	117,748
1960	12,292	69,671	99,445
1965	10,207	58,758	97,638
1970	10,181	48,932	82,142
1975	11,595	40,356	82,236
1980	12,216	28,886	78,667
1984	12,195	29,365	74,915

TABLE III-18. Permitted livestock use, actual use and tentative capacity.

<u>Permitted Use</u> (AUM's)	<u>Actual Use*</u> (AUM's)	<u>% of*</u> <u>Permitted Use</u>	<u>Range Analysis</u> <u>Tentative</u> <u>Capacity (AUM's)</u>
77,110	64,880	82%	73,194

*Average for the last five years.

TABLE III-19. Summary of the Range Analysis data on the Ashley National Forest.

<u>Suitable acres by Vegetation Type</u>					
<u>Vegetation Types</u>	<u>Acres</u>		<u>%</u>		
Grassland	45,663		10		
Dry Meadow	28,547		6		
Wet Meadow	15,610		4		
Forb	9,946		2		
Sagebrush	98,352		22		
Mountain Brush	33,075		7		
Conifer	97,272		21		
Pinyon-Juniper	9,580		2		
Aspen	67,791		15		
Desert Shrub	49,449		11		
	<u>Total</u>	<u>455,285</u>		<u>100</u>	

<u>Suitable Acres by Condition and Trend</u>					
<u>Condition Class</u>	<u>Acres</u>	<u>%</u>	<u>Trend</u>	<u>Acres</u>	<u>%</u>
Good	154,342	34	Up	113,882	25
Fair	193,951	42.5	Stable	250,406	55
Poor	106,992	23.5	Down	91,057	20
<u>Total</u>	<u>455,285</u>	<u>100</u>	<u>Total</u>	<u>455,285</u>	<u>100</u>

TABLE 19 cont. Suitable Acres By Availability and Livestock Class

<u>Open to Livestock</u>	<u>Acres</u>	<u>Closed to Livestock</u> (Reason for Closure)	<u>Acres</u>
Cattle	251,270	Wildlife	8,820
Sheep	120,820	Watershed	1,400
Common Use	46,730	Recreation	8,895
Horse	17,350		
Total	436,170	Total	19,115

Most of the livestock forage consumed on this Forest is produced on open rangelands classified as suitable for long term livestock use. The timbered areas produce very little livestock forage. The Forest harvests between 1,800 and 2,000 acres of timber each year with the average size of a cutting area is 10 to 40 acres. This does provide some additional forage for a 10 to 15 year period, but the needs of timber regeneration and practicality of herding in those isolated patches must be considered. Therefore, transitory range in the timber harvested areas is not a major factor in the overall livestock forage base on the Forest.

Demand

Production on the Ashley National Forest is assumed to have no significant effect on the price of a unit of grazing and it is assumed that all the grazing capacity produced on the Ashley will be utilized. In terms of 1978 dollar values, the value of an AUM of actual grazing on the Forest is considered to be \$10.17/AUM as determined by a zone economist (Shep Buchanan 1980). Production under current management direction will remain fairly constant over time, but will be less than the amount that can be absorbed by the local market. This assumes that problems now affecting the sheep industry, such as labor, predator control, and economics, will be resolved.

TABLE III-20. Projected current outputs, Regional objective, supply potential and demand

Projected Category	Units	1983	1984	1985	1986-1990	1991-2000	2001-2010	2011-2020	2021-2030
Current	MAUM	77	77	77	78	82	83	85	86
Regional Objective	MAUM	77	78	80	82	85	85	86	87
<u>Supply Potential</u>									
Maximum Unconstrained	MAUM	79	83	87	100	162	151	175	160
Minimum Acceptable Demand	MAUM	2	2	2	2	2	2	2	2
All of the AUM's produced on the Forest will be used.									

5. TIMBER

a. Existing Situation and History

As identified in the Ashley National Forest Timber Management Plan this Forest has 512,578 acres of commercial timber stands. Table III-21 displays the various species by age group. See Chapter II for display of lands suitable for timber management.

Lodgepole pine covers about 240,263 acres, is highly susceptible to attack by mountain pine beetle and at present an epidemic situation is subsiding in a large portion of these stands. The ponderosa pine stands have also been severely damaged, especially on the Flaming Gorge District, by the mountain pine beetle. As a result, the existing composition of various age groups, live and dead etc. is being changed drastically. Consequently, the Forest's capability to produce various products as planned is changing and demands for products are shifting.

The present growing stock inventory on lands suitable for timber harvesting under the preferred alternative is 615.532 MMCF and the projected annual net growth is a minus 8.82 MMCF. The negative net growth results from the existing mountain pine beetle epidemic.

The preferred alternative does not meet the requirement that growth will equal at least 90 percent of the long term sustained yield by the year 2030. This level of growth is not reached until about decade 12 in the preferred alternative (J). This is due to the large loss of growing stock inventory as a result of the mountain pine beetle epidemic.

b. Future Stands Condition Under Current Management

Table III-22 was developed at the time the AMS was assembled and illustrates projected timber output by species and time periods. As can be seen, this is a significant change from historic trends. Since this table was developed the pine beetle epidemic has expanded at a much faster rate than was expected. As a result the ratio between live and dead has created the need for program adjustments to compensate for these problems. To complicate the situation, shifts in demands for various kinds of products has occurred. The interest in fuelwood on this Forest has grown at a rapid rate. Recently there has been some interest expressed in somewhat speculative new uses of wood products from this Forest. Current direction as identified in the AMS is to harvest the old growth beetle susceptible lodgepole pine first with an annual sell program of approximately 14 MMBF, increasing to the current potential yield level of 18.8 MMBF upon demand. Species besides lodgepole pine are currently being sold at the rate of about 3 MMBF per year. Expansion of this discussion can be found in the AMS. Recently there has been new interest in expanding timber management

activities in ponderosa pine to reduce its susceptibility to mountain pine beetle, along with acceleration of all harvest activities if markets can be found.

The price of timber during the last 10 years has been very erratic. Increased costs for road construction, logging, and milling have caused most timber sales to be below cost.

Most sales have occurred on slopes of less than 40% and tractor logging has been the primary yarding method used.

Fuelwood has become a major attraction and this activity represents better than half of the total volume of wood fiber that is removed from this Forest. Presently, compared with marketing of other wood products, fuelwood offers economically attractive situations and provides an opportunity to reduce fuel loading and improve the timber resource.

Table III-23 depicts the historical annual cut for approximately the last 40 years. Table III-24 illustrates a pattern of past harvesting by cutting methods used on this Forest between 1965 and 1981. The local mill capacity during a normal season is approximately 18.3 MMBF, log scale.

c. Land Suitability by Alternatives

See Chapter II. C. for information pertaining to acres in various timber classifications. Review of that information can provide the basic concept about what timber management activities can be expected for each alternative.

d. Demand Analysis

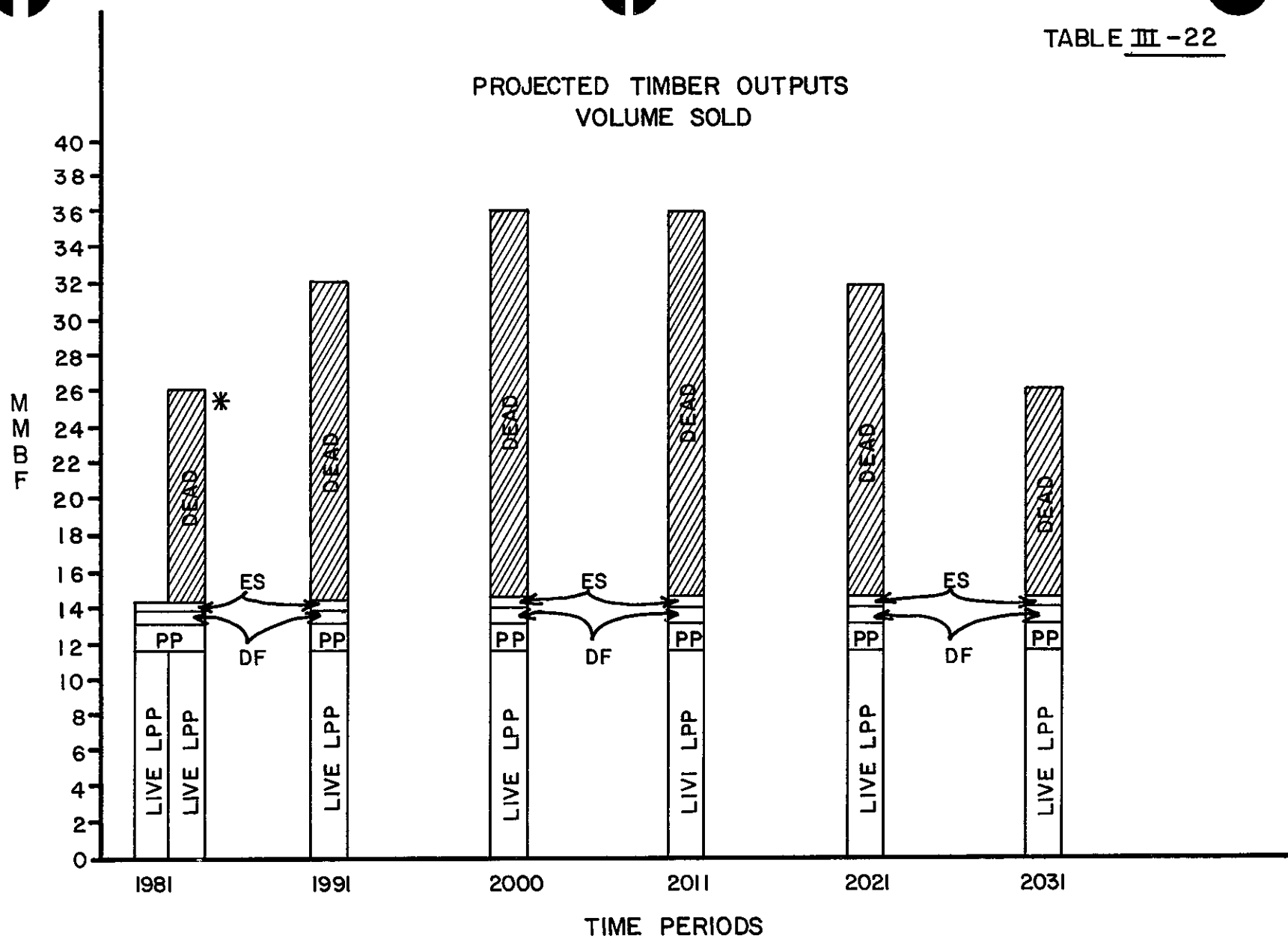
Demand for all timber resource outputs is assumed to be completely elastic. In other words, whatever outputs are theoretically produced in a given alternative or a given time period the FORPLAN model assumes that the various outputs will be sold at constant prices valued in the model. Failure to actually market these timber outputs or any of the other resources can create a major change in present net value and may necessitate a plan revision.

TABLE III-21*
 COMMERCIAL FOREST AREA OF SPECIES TYPE BY AGE GROUP

Age Group	<u>DF</u>	<u>PP</u>	<u>LPP</u>	<u>ES</u>	<u>SAF</u>	<u>A</u>	<u>Total</u>
Non-Stocked	1251	294	10100	--	--	--	11645
1-9	1251	293	4779	--	--	1998	8021
10-19	--	--	1996	--	1145	--	3141
20-29	1134	--	1145	--	--	1132	3411
30-39	--	--	3384	--	--	926	4310
40-49	--	--	--	--	--	2266	2266
50-59	--	--	851	--	--	2306	3157
60-69	4468	2256	3891	1149	--	5682	17446
70-79	9969	1127	12376	--	1111	9105	33688
80-89	6623	2203	32573	--	2138	17076	60613
90-99	4477	2879	23855	1149	7154	5666	45180
100-119	3308	1902	48487	8170	8313	11309	81489
120-139	7537	3329	31032	8484	3016	5629	59027
140-159	8214	2161	23203	9914	2131	1686	47309
160-179	4480	1033	19078	13393	3134	2264	43382
180-199	2795	--	11654	10731	2012	--	27192
200-300	4001	17078	7644	16574	1874	--	47173
300+	--	9915	4213	--	--	--	14128
	<u>59,508</u>	<u>44,470</u>	<u>240,263</u>	<u>69,564</u>	<u>32,028</u>	<u>66,745</u>	<u>512,578</u>

* Table II-21 is based on the Ashley National Forest Timber Management/Plan dated 10/30/78. Forest land within the High Uintas Primitive Area were not included in this Table.

PROJECTED TIMBER OUTPUTS
VOLUME SOLD



* INCLUDES FIREWOOD SALES

TABLE III-23

TIMBER CUT IN MMBF ON THE ASHLEY NATIONAL FOREST 1941-1981

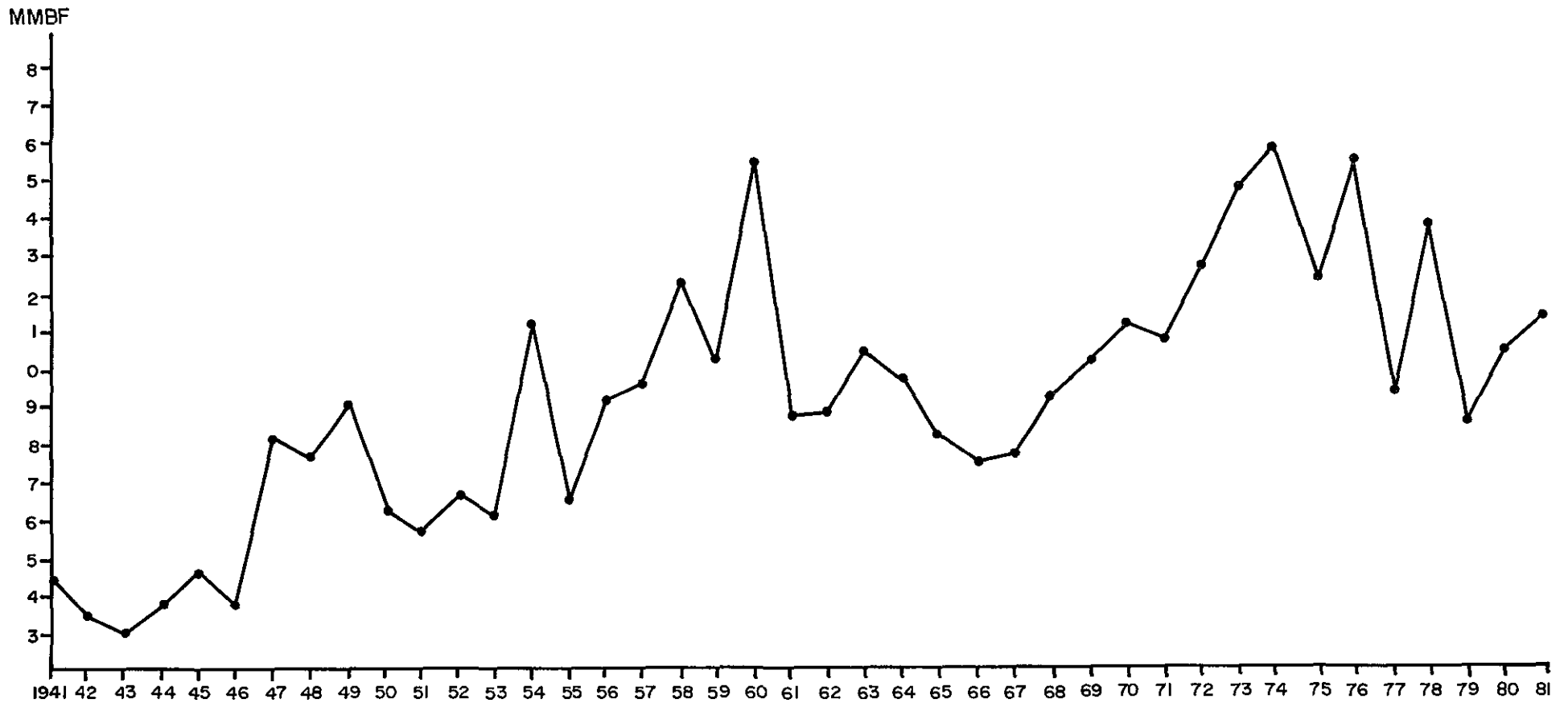
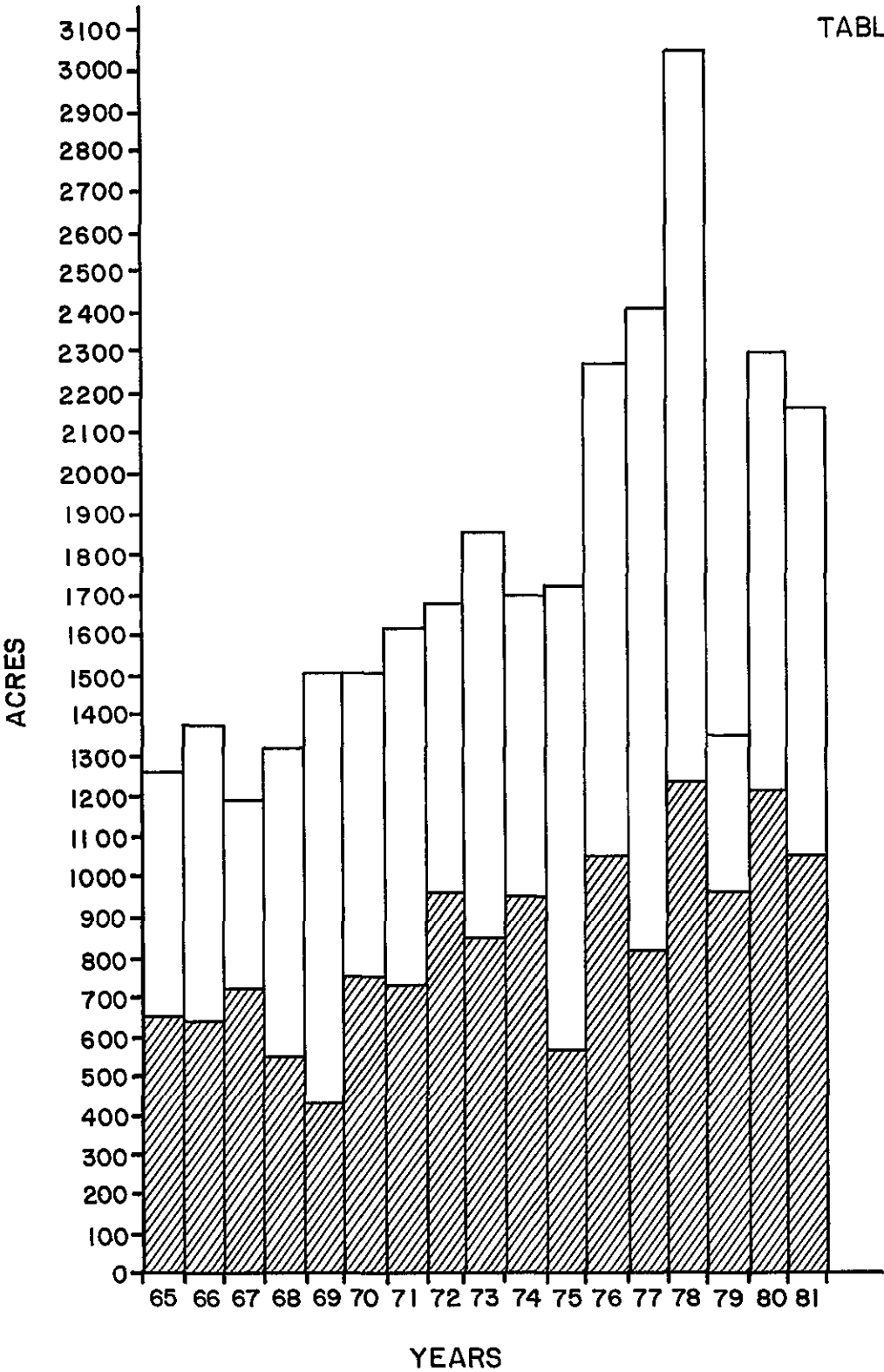




TABLE III - 24



ACREAGE HARVESTED BY CUTTING METHOD
1965 - 1981

 PARTIAL CUT
 CLEARCUT

6. WATER

The entire 1.38 million acres of the Ashley National Forest is available for contributing water to streams, rivers, lakes, and reservoirs. The Ashley delivers approximately one million acre feet of water annually to streamflow and contributes a large but unmeasured quantity of water to groundwater aquifers.

The high quality water produced on the Ashley National Forest serves administrative needs of the Forest Service and is used and enjoyed by the public on and off the Forest for domestic purposes, recreation, and aesthetics, municipal and industrial uses, irrigation, livestock watering, power production, and for fish and wildlife habitat.

Current management efforts are geared to maintenance or improvement of watershed conditions and protection of water resources for on-site use. Recent emphasis has been placed on stabilization of watersheds, stream banks, and low standard roads. Water quality is being monitored at 25-30 stations (depending on the year) on the Forest. The USGS Water Resources Division maintains 13 stations where water quantity is being measured. The Ashley National Forest has an additional 6 stations used to monitor partial flow and 2 precipitation gages. The Soil Conservation Service also maintains 25 snow survey sites and 23 precipitation stations on the Forest.

Streamflow is transported from the Forest throughout the year by 687 miles of perennial streams which contribute to the Green River Basin and the Duchesne and Uinta Sub-basins.

The municipal watershed of the Ashley Valley municipalities and other small towns in the Uintah Basin are located on the Forest. Special land management measures may be required to maintain continued supply of high quality water in amounts needed for municipal and industrial use.

The municipal watershed includes 2 main drainages: Ashley Creek Drainage and Dry Fork Drainage. Dependency of approximately 20,000 residents on this watershed for culinary water dictates a careful review of all management decisions.

Water Quantity

Although the Forest has not been involved in direct practices of increasing water yield, there has been identified the potential for increases through weather modification, snowpack manipulation, and vegetative manipulation.

Currently management is not directed toward increasing the quantity of water from the Forest and current management direction, if continued, will not result in a major change in available water to the year 2030. Some increases in water yield occur as a result of management activities on the Forest. These increases are a result of ongoing management activities and are not done for the purpose of increasing water yield.

Opportunities do exist, however, to increase water yield on the Forest. Primarily this would include increasing the rate of timber harvesting, snow fencing, and weather modification.

The amount of water claimed by the Forest Service will be limited to the amount needed for National Forest purposes.

The period of water uses claimed will be limited to the actual timing of uses. Stockwater, recreation and other water uses occur largely between May 1 and November 1. Administrative and wildlife water use are year around uses.

Consumptive Needs: Downstream water uses include municipal and industrial uses which require a fairly even flow rate year round and agricultural uses which require water between May 1 and October 1.

The Ashley National Forest's current water use inventory identifies 3,197 consumptive water uses amounting to a total volume of 4,213 acre feet.

In summary, there are about 3,197 sources in the Forest Inventory of current and foreseeable consumptive use needs. About 3030 claims have been filed.

Nonconsumptive (instream flow): Current management direction is to maintain instream flows for recreation, fish habitats, wildlife, stockwatering, riparian, vegetation, aesthetics, and channel morphology. Stream reaches where instream flows are needed will be identified as a component of the water uses inventory in time for basin adjudications and quantified as required by the court. Water for instream uses is needed year around for fish habitats, and waterfowl; May through November for other uses; and short duration high flows are needed for channel morphology.

Instream flow determinations have previously been identified for 4 streams on the Forest and 163 streams have been identified as potentially needing quantification.

Since 1900, two major pipelines, 45 dams and 28 canals have been constructed on the Ashley National Forest. Specific information can be found in the AMS at the Supervisor's Office in Vernal, Utah.

There are approximately 500 lakes and reservoirs on the Ashley National Forest, with an estimated storage capacity of 3,900,000 acre feet (including Flaming Gorge Reservoir with about 3,812,000 acre feet of water). The approximate total surface area of lakes and Reservoirs on the Forest is 50,000 acres.

Some opportunities exist on the Forest for enlargement of old or construction of new reservoirs to meet increased demands for water. Some of these opportunities will conflict with maintenance or improvement of fisheries and other resource values of the Forest.

Water Quality

The necessary level of water quality can be met by compliance with Federal and State water quality standards. Numerous water quality investigations on the Ashley National Forest during the past decade have shown the water on and leaving the Forest to be of high quality. It is generally adequate to meet or exceed the needs to identified beneficial use requirements and within the State water quality standards.

The primary sources of water pollution on the Forest include grazing, construction associated with the Central Utah Project, logging, and road construction and maintenance. These activities can influence the bacterial, chemical, and physical (sediment) components of water quality.

Nutrient enrichment in Flaming Gorge Reservoir has been assessed in the southwest Wyoming 208 water quality plan which attributes its origin to phosphorous production outside the National Recreation Area. There is no evidence of onsite or downstream chemical contaminants affecting beneficial uses or exceeding allowable State standards, other than at Flaming Gorge.

Presently, the State water quality standard states, "No water quality degradation is allowable which would interfere with or become injurious to existing instream water uses." The State of Utah has set the turbidity standard for instream aquatic wildlife uses at a 10 NTU (nephelometric Turbidity Units) increase above background turbidity. However the level of suspended sediments that is tolerable or acceptable for different components of the aquatic ecosystem has not been identified. Management activities, particularly road construction, can produce large amounts of sediment.

Soil and Water Resource Improvement Needs: A Soil and Water Resource Improvement Needs Inventory was carried out on the Ashley National Forest to identify areas on the Forest that are in need of soil and water restoration. There are a total of 985 acres identified in past restoration projects.

Currently there are 1,031 acres identified in the Soil and Water Resource Improvement Need Inventory. Under current level funding identified watershed improvements will not be accomplished by the year 2000.

Soil and water personnel will continue the soil and water resource improvement needs inventory, with areas requiring treatment being added annually and acres treated being subtracted. The objective of watershed improvement projects is to improve, maintain, or restore the condition of the watershed.

Special Conditions or Situations Involving Hazards to Resource

Geologic Hazards: The slide area in the Upper Sheep Creek Narrows can be a major problem in maintaining a road or other development due to possible earthslide damming.

Areas of potential stability problems and ground water pollution have been identified in the Land Systems Inventory for the Ashley National Forest. These areas are small, localized units and affect less than 5% of the total Forest.

Riparian Areas: Riparian areas on the Forest include streams and their associated floodplains, lakes, ponds, and wet lands. Wet lands of the Forest include seeps, springs, bogs, wet-meadows, and willow-sedge marshes. The condition of the Forest's riparian areas, with but a few exceptions is generally good.

Riparian areas are used by many National Forest activities. Where the riparian area is an integral part of the activity, the activity creates demand. The activities which have the greatest impact on riparian zones are road construction, recreation and ORV use, timber harvest, and livestock grazing. The increasing demand for water for hydroelectric purposes on the watershed will tend to reduce the quantity of water available for instream flows and may cause a loss of riparian ecosystems. In order to minimize impacts, management activities are reviewed to ensure that "best management practices" are instituted to protect riparian qualities. The limiting criteria for a specific activity is its effect on the riparian area.

Some of the riparian areas will receive timber management. However, it is the policy of this Forest, on a case-by-case basis, that silvicultural prescriptions in riparian areas should limit timber activities to those which enhance other resources.

Management activities within riparian areas must comply with Executive Order 11990 on protection of wetlands.

Riparian areas modify stream flows to reduce peaks and extend low flows. They generally occur over valley fills that have good water infiltration and percolation rates. Thus the volume of the fill can (and does) act as a reservoir to retain water during wet periods and slowly release water to the streams during dry periods. The result is a flow modification. There is approximately 161,000 acres of Riparian area on the Forest. See section under indicator species in Wildlife for riparian monitoring.

Flood Prone Areas: The Uinta Mountains within the Ashley National Forest have a high potential for rain on snow type floods because much of the Forest lies above 9,000 feet and because basic basin orientation tends to hold snow until the warm storm season arrives. This potential becomes highly significant in years when the predicted runoff, based on snow course date, is above average.

Most major flood events on the Uinta's are related to snowmelt events. No summer storm events have accounted for any of the recorded annual peaks. This does not eliminate the summer storm type of event as a possibility. However, intense summer storms have resulted in extensive flood damage, especially in the Sheep Creek drainage.

Almost all recorded peak flow events have occurred between April and June. Eighty percent have occurred between May and June.

The Central Utah Project (CUP), probably the largest federal water resources development ever authorized and funded by the United States Congress, has the primary purpose of diverting for Utah's use a portion of the annual water yield of the Colorado River drainage. Principal uses of the water will be irrigation, municipal and industrial supplies, and hydroelectric power production.

The amount of water to be diverted is limited by the Upper Colorado River Basin Compact of 1948, in which five states - Arizona, Colorado, New Mexico, Utah, and Wyoming allocated among themselves the average annual water supply of the Upper Colorado River drainage. The actual projects required to physically divert the allocated water are authorized by the Colorado River Storage Project Act of 1956. Funding is secured by the Secretary of the Interior, and construction is done by the U.S. Bureau of Reclamation.

Under the 1948 Compact, Utah may divert up to 1,322,000 acre feet per year, or 23% of the average annual yield of the Upper Colorado River drainage. For planning and construction, the Bureau has divided the CUP into six separate units, three of which (the Bonneville, Upalco, and Uinta units) directly impact the Ashley National Forest. The Bonneville Unit will divert Uintah Basin water from the Green River drainage.

Each of the CUP units could be constructed and operated independently of the other units, and the Bureau has to file separate environmental impact statements for each one.

Impoundments, Transmission Facilities, Wells and Man-made Developments:

The Forest Service has little or no control over many of these water uses. Because of this, most of these outservice projects are done with little or no Forest Service input and there is not sufficient time for proper planning.

Demands for facilities to produce hydropower from low flows and low head structures will increase. Such facilities will demand diverting water from streams to the detriment of instream flow uses. Transmission losses through seepage will be overcome by piping and canal lining. These demands will conflict with instream flow uses.

Demands for instream flow amenities for recreation and fish habitats will increase while the population increases.

Impoundments will be needed to regulate flow and provide even flow throughout the year for industrial and municipal uses.

Wells and springs will be preferred to streams as sources of high quality water.

The Bonneville-Jensen and Upalco units of the Central Utah Project are in progress and involve several south slope Uinta Mountain rivers and streams. The implications for Forest Management have already been described.

Demand

For the Vernal, Roosevelt, and Duchesne Districts, the socio-economic section indicated that population will increase with a concurrent demand for municipal and industrial water. Increased municipal and industrial water needs will cause a conversion from agricultural use. Many farm lands may be converted to hobby farms or urban and industrial land uses. Municipalities will look for additional supplies and more efficient collection and distribution systems.

For the Flaming Gorge District only small increases in growth are anticipated. The area is expected to remain rural with the projected demand for water to increase slowly.

The National Forest water needs for recreation, administration, fisheries, wildlife, and riparian will increase. Nevertheless, the amount of water consumptively used by the Forest Service will remain at less than 1% of the supply.

Increased demands for water on the Wasatch Front will heavily impact the Ashley National Forest.

The demand for high quality water for all uses will increase. The cost of water treatment, changes in water use, and technological changes will initiate searching for additional sources of high quality water. There will be a demand for lower sediment loads.

Such demands may require a more rapid implementation of watershed improvements or may change priorities for watershed improvements. The springs and drainages that produce water will be considered high value and pressures to eliminate all activities that might cause pollution will be high.

Upstream watersheds tributary to the Colorado River will become increasingly important in helping to meet the growing demands within the basin and the National obligation to provide water to Mexico.

The Ashley National Forest currently produces about 950,000 acre-feet of water annually. The demand for water is presently less than or equal to supply for most downstream users. Studies of projected future demand in Utah indicate that before the year 2000 the demand for water will approach supply. For the Uintah Basin and Daggett County there is a projected demand of 968,200 acre-feet annually.

TABLE III-25
Present and Future Water Use ^{1/}

Water Used (Consumptive Use)	Present		2000		Increase (Acre-Feet)
	(Acre-Feet)	(% of Total Use)	(Acre-Feet)	(% of Total Use)	
Municipal	2,500	.3	17,700	1.8	15,200
Industrial	4,600	.6	72,800	7.6	68,200
Irrigation & Livestock	393,400	50.2	486,100	50.2	92,700
Wetlands & Evaporation	375,000	47.8	375,000	38.7	0
Public Lands	8,900	1.1	16,600	1.7	7,700
TOTAL	<u>784,400</u>	<u>100.0</u>	<u>968,200</u>	<u>100.0</u>	<u>183,800</u>

^{1/} "State of Utah - 1980" Utah Division of Water Resources

7. MINERALS AND ENERGY

Minerals information relating to the current situation is discussed in detail in the AMS. Additional discussion is contained in the other chapters of this report. Here we have included a very brief summary of the AMS and related information to describe the current condition of the Forest as it relates to minerals management. Minerals exploration and development activities are directly related to the interest generated by the general public and industry. Management of this resource is responsive to these public interests along with industry interest in coordination with various other public agencies and resources. For these reasons, the minerals resource poses programming and scheduling problems that are not common with management of other resources.

Management requirements for minerals are based on statutory and regulatory direction for locatable, leasable, and saleable minerals. Also considered are statutory and other management criteria for surface protection appropriate to the lands involved to prevent or control adverse environmental impacts. The mineral-related management requirements are presented in three categories to cover environmental impacts typically associated with exploration and development operations for the various mineral commodities.

The first category is Mining Law Compliance and Administration for locatable minerals. Access to lands open to operations under the General Mining Laws is a statutory right granted by Congress. The Forest Service reviews proposed plans of operations to ensure that operations will meet Federal environmental protection standards. These standards include those for air and water as prescribed by Federal and State laws and regulations. In addition, the plan of operation must provide for prompt reclamation and restoration of disturbed lands, to the degree practicable, for the planned uses of the area. Mineral activity on mining claims is not expected to vary significantly between alternatives.

The remaining two categories are leasable minerals and saleable minerals. For these two categories, reasonable access to Forest lands

is also guaranteed once the discretionary decision is made to issue a lease, permit, or license allowing surface use and occupancy. Permits are issued by the Forest Service for initial geophysical prospecting (seismic operations for oil and gas, shallow drilling for geothermal temperature gradient measurement, and geologic investigations for solid minerals). Permits are for the land uses only and grant no rights to the permittees to the minerals involved. The Forest Service has total discretion for disposal of common (saleable) varieties of mineral materials. The BLM issues all other leases, licenses, or permits for exploratory drilling and production of leasable minerals.

BLM proposals to issue a license, permit, or lease for leasable minerals in National Forest System lands are forwarded to the Forest Service asking whether or not the lands are available for mineral exploration and development. If the lands are determined by the Forest Service to be available, standard and special stipulations necessary for the management of the surface resources are identified. Management direction for leasable minerals as to availability ("lease" or "no lease"), and surface resource management requirements are identified through the NEPA process by the National Forest.

Recommendations as to availability of lands for mineral leasing are based on whether development activities of the leasable mineral could be implemented on National Forest System land and still meet the management requirements for minerals in the Forest Plan. Those mineral management requirements reflect surface resource protection and restoration needs.

Secondary mineral processing, other than concentration (milling), and energy conversion facilities will be prohibited in wilderness. Special areas, such as research natural areas and cultural resource areas, can only be recommended for leasing without surface occupancy since disturbance of the surface resources would damage the special characteristics of the land for which they were classified.

One of the main directives in the Forest Service Regional Guide for the Intermountain Region (dated January 1984), concerning minerals, is that a maximum land base be provided for minerals/energy prospecting, leasing, and development through conservative use of withdrawal authority, use of overly restrictive surface use stipulations, and constraining management direction.

A formal review of existing withdrawals will be conducted by the Forest between 1985 and 1988.

a. Availability

In accordance with the Federal Land Policy and Management Act of 1976, the Forest Service must consider that all National Forest system lands are available for mineral exploration and development unless they are withdrawn from mineral entry and leasing. The total area within the Forest boundary is 1,405,609 acres. Approximately 20,910 acres of this area is state and private. This leaves 1,384,699 acres available subject to the constraints imposed by the following:

1. Outstanding or Reserved Mineral Rights: There are 22,356 acres of acquired Federal lands within the Forest boundary where all mineral rights are outstanding or reserved. An additional 5,087 acres have the oil and gas rights only outstanding.
2. Existing Withdrawals: 77 areas consisting of 42,145 acres have been formally withdrawn from all forms of appropriation under the public land laws. This includes appropriation of locatable and common variety minerals but does not include mineral leasing.
 - A breakdown of withdrawals includes:
 - Forest Service - 60 areas totaling 12,646 acres;
 - Bureau of Reclamation - 11 areas totaling 28,969 acres;
 - FERC - 2 areas totaling 35 acres;
 - and 4 public water reserves totaling 495 acres.
 - As directed by FLPMA, all withdrawals on the Forest must be reviewed for continuation or revocation prior to 1991.
3. Special Legislation: Approximately 185,645 acres of the Ashley National Forest was withdrawn under P.L. 90-540 when the Flaming Gorge National Recreation Area was established on October 1, 1968.
4. Wilderness Act 1984 includes 273,426 acres.
5. Summary: The National Forest land with the above constraints totals 523,572 acres. This leaves 861,127 acres, which includes outstanding oil and gas rights, considered available for mineral appropriation and entry as follows:

Locatable Minerals	861,127 Acres
Leasable Minerals	1,083,830 Acres
Oil & Gas	1,083,830 Acres

b. Capability

Normally, the Forest Service does not determine which areas are "capable of minerals and energy production." This is largely a function of the private sector. This Forest has a low potential for locatable minerals based on geological reports. Known locatable minerals include copper, gold, silver, iron ore, iron oxide and metalurgical limestone. Leasable minerals of energy include oil and gas, oil shale, coal, uranium, and tar sands. Non-energy includes trona, and phosphate. Mineral materials of stone, sand and gravel are located throughout the Forest.

c. Suitability

The area of the Forest considered available and capable of mineral/energy exploration is also considered suitable for mineral entry and leasing, but not necessarily suitable for development. Major development activity for mineral recovery (by location or

lease) could have significant adverse effects on soil, water, air, scenics, vegetation, wildlife, and wilderness values.

Exploration, prospecting, and production of minerals and energy from available acres may be tempered by protective stipulations, operating procedures, clauses, and requirements necessary for protection of other resources. Forest Service authority to determine suitability of lands for mineral exploration and development is limited. This is particularly true with the Mining Law where damage to surface resources cannot be prevented, only minimized. In the case of leasable and salable minerals, the Forest Service can recommend against leasing or sale if the value of the land and its resources outweighs the foreseeable benefits that would be derived from exploration of the mineral resource and the existing use cannot be adequately protected by stipulations.

d. Expected Future Condition

Future technology, change in economic conditions, new discoveries, and changing needs will determine to a large extent where and which minerals are developed. As these things occur, special stipulations and operating procedures are included on leases and operating plans to coordinate with other resources as required. These stipulations and procedures may exclude surface occupancy, require special provisions, and/or may result in increased operating costs.

E. SUPPORT ELEMENTS

1. LANDS

Landownership Adjustments and Controls. Gross acreage of the NRA is 201,114, which includes 10,212 acres of State and private land and 190,902 acres of Forest lands. A breakdown of alienated lands includes 1,333 acres of State and 8,879 acres in private ownership.

Development of these lands by private interests, mainly for recreational purposes, has occurred on a limited basis. Potential for intensive mining, industrial, and recreational development exists and is being contemplated on many tracts of private land within and immediately outside the NRA. Any major development will create impacts which may not be compatible with the purpose for which the NRA was established.

Private land owners are encouraged to provide more sophisticated recreational services than are available on National Forest lands. Fee title or scenic easement will be purchased only when (a) State law or county zoning ordinances are inadequate to prevent serious conflict between private development and NRA objectives, or (b) when nonconforming and conflicting private land uses occur or are imminent.

There is increasing pressure from private land owners to develop the minerals under land they own or their reserved mineral estate.

Since development of the minerals cannot be accomplished without interfering with or detracting from recreational values the lands should be acquired. Proposed land and/or mineral exchanges would be used to accomplish this were possible.

To date, there has been 1,256 acres acquired in fee purchases. The majority of the remaining acreage, 8,640 acres in fee and 11,500 acres in mineral interests should be acquired by exchange.

A large percentage of the land on the South Slope of the Roosevelt and Duchesne Districts is National Forest. Private inholdings total 3,627 acres in 18 small scattered tracts. There are no State lands within this area. Most of the private lands are located in the major drainage bottoms and went to patent through homestead entry for agricultural uses. Ranching remains the primary use, but resort and recreational residence development increases annually.

Landline location work along the Reservation boundary and private tracts is an acute problem. This work has lagged for several years for lack of funding. There are known or suspected trespasses in several localities.

There are 6,380 acres of privately owned land within the Vernal Ranger District. There is no State land. Chevron Resources is actively mining phosphate from private lands just outside the Forest boundary. These lands are contiguous with lands they own within the southeast portion of the district. Four small tracts are patented mining claims, but there is little mining activity on them. Few problems exist as a result of the mining lands. Chevron is expanding their present operation adjacent to the Forest and could have impacts on the Forest.

The remaining private land is ranch land in Dry Fork and rangeland in Davenport and Lambson Draws. This land is grazed in conjunction with adjoining National Forest lands.

Special Uses

Flaming Gorge: Special uses in the area vary from simple structures, such as corrals and gravel pits, to major gas and power transmission lines and resorts. These land uses are authorized by permit, lease, easement, license, or memorandum of understanding. An increasing number of requests is being made for additional land uses that utilize or affect forage, timber, recreational and scenic values. The reasons for the new demands are increasing population, growing recreation use, popularity of the NRA, the profit motive, improved access, and the desire to expand utility services.

Many existing permits and leases were issued prior to establishment of the NRA. Some are not in accordance with the objectives of the NRA and detract from its value. Some rock and gravel quarries; gas, power, and water transmission lines; and range and recreational developments fall into this category.

Because of the intense public scrutiny and the objectives of the NRA, the administration of permits must be thorough and to a high standard. Special land uses may have to be limited because of manpower and financial restrictions.

The two classes of special use permits for commercial activities within the NRA are: those authorizing concessionaires to provide services to the recreational public and those authorizing utilization and development of nonrecreational resources. This second class covers transmission lines for power, water, and gas; gravel pits; roads; and mineral exploration. Requests for these types of special use permits are increasing.

Special use permits for concessionaires now authorize three marinas; the Dutch John Airport; and two others providing automotive service, food service, raft rentals, and lodging. Expansion will be permitted as public demand for their services increases. Allowance for new concessionaire developments will be permitted only when the present ones can not or will not satisfy the public demand and when the Forest Service determines that such services are needed and are not available on adjoining private lands.

South Slope (Roosevelt and Duchesne Districts)

Land uses on the Roosevelt and Duchesne Districts on the South Slope are many and varied. These include 58 special use permits, 17 memorandums of understanding and 10 right-of-way easements. These uses are dispersed throughout areas, but are most numerous in the more developed canyon bottoms.

Power site withdrawals and Federal Power Commission withdrawals cover 55,030 acres. These withdrawals were filed during the period 1926 to 1933 on Whiterocks River, Uinta River, Yellowstone River, Swift Creek, Lake Fork, Rock Creek, and Granddaddy Basin. While these power site withdrawals do not withdraw the land from mineral entry, they do give priority of use to power sites. However, no known power projects are contemplated and the existence of the withdrawals has not been a major consideration in locating the wilderness boundary.

Special use permits include three (3) resorts, eight (8) recreation residences, seven (7) utility lines, two (2) electronic sites, fifteen (15) water transmission lines (both domestic and agricultural), one (1) mining camp, eight (8) pastures, seven (7) range facilities, and eight (8) outfitter guides. Seventeen (17) memorandums of understanding are granted to other governmental agencies for gaging stations, water diversion, hydro-meteorologic sites, utility lines, roads, and water transmission lines. Right-of-way easements are primarily for roads, but other uses include canals, reservoirs, and water diversion structures.

The major withdrawals within the districts are for phosphate, Bureau of Reclamation, and the Federal Power Commission. The phosphate withdrawals cover about 28,000 acres located along the southern border of the Forest. Reclamation withdrawals cover 26,084 acres. These withdrawals are for the Moon Lake Project and the Central Utah Project and are located mainly in the canyon bottoms.

Vernal

One hundred four special use permits are in effect on the Vernal Ranger District. These permits cover a variety of uses and activities such water impoundments and transmissions, power transmission, two summer home tracts, electronic sites, fences, corrals, pipelines, roads, herder cabins, mineral leases, etc. Water impoundment and transmission, a necessity for this arid country, poses some of the more serious special use problems.

High voltage power lines from Flaming Gorge cross the eastern end of the district. Also, there are two designated communications sites one on Grizzly Ridge and one on Marsh Peak. Visual impacts of these powerlines, roads, electronic sites, and other special uses are detrimental to the scenic quality. Most are located so as to create the least visual impact. The annual inspections and follow-up of special use permits is time consuming and adds significantly to the administrative workload.

Withdrawals: The Federal Land Policy and Management Act directed that all withdrawals be reviewed for continuation or revocation prior to 1992. These areas include; 20 administrative sites (1,433 acres); 43 recreation areas (11,213 acres); 16 reclamation projects related to the C.U.P. (28,969 acres); reservoir withdrawal for Colorado River storage projects (128,669 acres); and Federal Power Commission and 10 power site classification projects (73,332 acres).

Flaming Gorge National Recreation Area: The lands within the NRA subject to valid and existing rights are withdrawn from mineral location or entry and patent under the mining laws by section 5 of P.L. 90-540, October 1, 1968.

Wild and Scenic Rivers: Two rivers on the Ashley Forest were listed in 1980 as eligible for study for possible inclusion in the National Wild and Scenic River System. These are the Green River from the Flaming Gorge Dam to the south boundary of the Dinosaur National Monument and Rock Creek, located on the Duchesne Ranger District.

The Green River was studied by an interagency team in 1978 and a Final Environmental Impact Statement was published in 1980. This statement recommends Scenic status for that portion of the Green River from the Flaming Gorge dam downstream to the Gates of Lodore. No action has been taken on this recommendation, to date.

Rock Creek has been determined to be ineligible for study as a part of the Ashley National Forest planning effort which looked at eligibility of rivers on a forest-wide basis. This determination of ineligibility is based on loss of free-flowing character and low volume of water resulting from the construction of the Upper Stillwater Dam, presently under construction. Rock Creek above the dam is located in the High Uintas Wilderness, hence it needs no further protection.

RNA's: See Research Natural Areas under Recreation in Chapter III.

Lands Available for Disposal: No specific lands have been identified for disposal. In 1966 and 1963 the Forest and Region completed two major land exchanges with the State of Utah, wherein two isolated sections of the Ashley National Forest (Phil Pico -3,200 and Tabby Mountain - 27,522 acres) were exchanged for certain State section lands located within the Ashley, Wasatch, Dixie, Fishlake, and Sawtooth National Forests. This eliminated most of the isolated State sections within the Forest.

See the AMS document in the Supervisor's Office in Vernal, Utah, for a more detailed discussion of Lands.

2. SOILS

The Ashley National Forest has a variety of geographical areas, landscapes, climate, and vegetation. Soils vary accordingly from the high desert areas to the alpine zones above timberland. A variety of processes have been involved in forming the soils on the Forest. The diversity of all of these soils forming factors has produced a mixture of soil patterns with highly productive soils that are interspersed with soils that have low potential for productivity.

Soil Productivity: Soil productivity varies with differences in elevation, precipitation, aspect, texture, depth, internal drainage, content of rock fragments, parent material, slope and vegetative cover. The Ashley National Forest has a wide range of landforms affected by a wide range of environmental parameters. Elevations range from 6,000 feet in the Wyoming Basin to 13,528 feet at the high mountain tops. Soils and soil productivity vary accordingly. Soil erosion is addressed under the special conditions section.

The higher elevation lands in the Bollies (crest of Uinta Mountains elevations above 10,600 feet) are generally of a lower productivity than lands adjacent to this unit. However, productivity is more likely to be affected on this unit by the cold temperatures, high winds, and very short growing season than by the inherent fertility of the soils. These soil are sensitive to disturbance and highly susceptible to activities, especially on a seasonal basis. Surface disturbance has major effects on compaction and erosion, especially in those areas associated with frost. These areas are unique and sensitive ecological units supporting a distinct vegetative type.

The mid elevations of the forest have many soil units associated with high water tables. These soils are sensitive to puddling during the wet times of year and have restricted water infiltration. They occur in association with the majority of timber units on slopes less than 8% on the Vernal Ranger District. Special recognition needs to be given to these areas for timber harvesting especially in the Vernal Municipal Watershed.

Those lower elevation lands receive low precipitation. In the Tavaputs plateau, natural erosion rates are high and much weathering of the limestone and shale goes into solution with the result of little soil formation. Lack of moisture appears to be the primary cause of low productivity in both Wyoming and the South unit.

To maintain or improve inherent soil productivity by management practices, monitoring and the establishment of a data base is needed. Monitoring is addressed in following discussions.

Soil Productivity Improvement:

Current management direction is to eliminate the backlog of the soil and water improvement program. It is estimated that 1,031 acres of land would need to be treated by the year 2000. Current budgets will allow about 75% accomplishment by 2000. Improved range management will also result in increased soil productivity.

The primary means of improving the soil productivity then would be by reducing soil erosion rates so the rate of soil formation will exceed the rate of soil loss, and reducing compaction associated with recreation, grazing, and timber harvesting.

Soil Monitoring:

The need for additional information to analyze opportunities and limitations of the soil resource and to predict the effects of management activities is great.

Soil monitoring provides land managers with a sound soil data base from which to identify and analyze significant production opportunities and limitations of the soil resource.

Special Conditions:

Soil erosion: Areas of excessive soil erosion (both natural and accelerated) involve hazards to soil productivity. Erosion of the uppermost layer of soil greatly reduces the nutrient level, water holding capacity, and infiltration rate and therefore reduces the productivity of the soil.

In those areas where natural erosion is high the tolerance level is adjusted to the natural erosion rates as determined for those units. These lands are predominantly the pinyon juniper lands located in the NRA portion of the Wyoming basin and the Tavaputs plateau region in Utah.

Lands of high natural erosion rates:

- Pinyon-Juniper Basin Lands (19,188 acres).
- Pinyon-Juniper Canyon Basin Lands (50,416 acres).
- Pinyon-Juniper Canyon (14,603 acres).
- Pinyon-Juniper South Face Lands (11,371 acres).

Gullied lands in the Tavaputs plateau region are areas of excessive erosion but no attempt was made to quantify this loss.

Management practices that reduce the ground cover to less than 70% accelerate erosion. One of the most common problem areas identified with accelerated erosion are roads, especially open non-system roads.

Current management direction regarding excessive soil erosion parallels that of the Soil and Water Resource Improvement Needs Inventory. Areas with excessive erosion need to be put into the Soil and Water Resource Improvement Needs Inventory. As projects are identified, the watershed improvement work can be accomplished to reduce the erosion rates and maintain or enhance productivity.

Soils Requiring Special Attention:

The Ashley National Forest has an unusual situation with soils having a seasonally high water table. These are for the most part some of the more productive timber stands on the forest. Although these soils are quite common in depression areas, they are also very prevalent on ridges and slopes up to 10% on the Flaming Gorge and the Vernal Ranger District. These soils need to be recognized as a special situation in road construction, timber sale layout, and any other management practice that involves disturbance to the area.

With timber harvesting being proposed on these areas and an already wet situation, the removal of vegetation adds water to the soil, creating a potential problem for both the timber operator and the Forest Service.

See section of Soil Productivity for additional discussion on sensitive soils.

Special emphasis also needs to be given to soils associated with riparian, especially wet meadows and critical wildlife areas; and also many of the soils associated with aspen, especially near the heads of drainages and side slopes.

Existing Inventory:

Detailed order 2 soil resource inventory has been completed on approximately 192,700 acres (through FY82) on the Forest. An additional 46,000 acres is inventoried annually. There is also a land systems inventory for the Ashley National Forest that has soils as one of its major components. This inventory has not been correlated to meet the standards of an Order 3 Soil Resource Inventory.

The existing Order 3 and Order 4 level soil inventories, which cover the entire Forest, have not been correlated to standards. Both the Order 3 and Order 4 level inventories will require updating including review, correlation, and documentation by the year 2030.

Approximately 175,000 acres on the South Unit of the Tavaputs Plateau has been surveyed at an order 3 with reviews. This survey area is expected to be completed in F.Y.85.

Additional Order 2 soil surveys on the forest are required. By manual (FSM 2552) direction, all vegetation manipulation projects proposed on the Forest will require a completed Order 2 soil survey before the implementation of the project. The need for adequate Order 2 and Order 3 level inventories is expected to exceed the amount that present soils personnel can supply in the near future.

3. FACILITIES

The Ashley National Forest has numerous facilities including roads, bridges, administrative sites, and buildings. They require considerable time and money for operation and maintenance. There have been large investments in these facilities to facilitate the development, protection, and use of forest resources. A detailed description of the facilities on this forest can be found in the AMS.

a. Administrative Sites and Buildings:

Currently the Forest has 147 buildings of which 37 are between 20 and 30 years old; 3 are between 30 and 40 years old; 19 are between 40 and 50 years old and 17 are 50 years old and older. Currently the forest has 40 road bridges and 7 trail bridges.

The buildings on the Forest have been deteriorating due to insufficient funding to maintain them. The maintenance work performed each year has not been keeping up with the needs. To do the maintenance work, we have relied on the limited amount of facilities maintenance money, rental money, and contributed support from SCSEP and YACC programs. A small amount of money has come from projects.

For several years there have been many problems on the Forest with owned buildings. These problems include: excess or seldom used buildings; deterioration of many buildings; lack of sufficient funds to maintain buildings properly; and poor energy efficiency associated with older buildings. Twenty-six percent of the buildings are over 30 years old.

Continuation of past management will perpetuate the deterioration of some buildings. Some buildings have been identified as surplus and will be removed or destroyed. Other buildings will probably be surplus at a later date. Disposal of these buildings will be done in compliance with 36 CFR 800.

b. Roads

The Forest has approximately 1817 miles of inventoried road system. The existing road jurisdiction includes about 1,451 miles of Forest Service Roads, 160 miles of private, 135 miles local service roads and 70 miles of State Highways.

The overall existing road density is approximately 1.11 miles of road per square mile of land, excluding the High Uintas Wilderness.

The Forest is also accessed by a trail system of about 775 miles of inventoried trail. The trail system is discussed under the recreation sections of this report.

Flaming Gorge Reservoir provides a relatively large water way that is also considered as a means of transportation for various recreation activities.

Construction of new roads on the Forest Development System has totaled about 55 miles from 1971-1981, for a yearly addition of 5.5 miles per year. Slightly more than 94 miles of road have been rebuilt for an average of 9.4 miles per year. The numbers of miles of road maintained on the Forest has averaged about 1,160 miles a year from 1974 to 1982. Using these data, the mileage maintained was 2% at level 1, 23% at level 2, 28% at level 3, 35% at level 4, and 12% at level 5. Levels used here relate to a standard of maintenance.

The necessary arterial/collector system is in place except for two or three large unroaded areas. The local road system will have to be extended to provide access to the site specific needs of timber harvest and mineral exploration. Approximately half of these roads will be classified as short-term facilities or intermittent facilities.

Most of the existing roads are adequate for the existing conditions; approximately 20% to 30% need some improvement. New timber and mineral impacts and an increase in general use will require site specific improvements to safely handle the increased use.

Road construction and maintenance funding needs to be improved to meet management direction. Historically, maintenance of all facilities have not been given adequate importance or priority. It is here that initial investments are protected and resource damage minimized.

An increased use of short term facilities, road closures, and traffic management will be used to reduce the costs of initial investment and maintenance.

c. Trails

Discussion of the trails system is included in the recreation portion of this chapter.

d. Utility and Transportation Corridors

Three land management plans have been completed for planning units on the Forest. There were no corridor ROW's formally identified in any of these plans. Presently, request for corridor right-of-ways are processed on a case-by-case basis following the NEPA process. New ROW's are authorized based on a demonstrated need and only after assurance that the use is properly coordinated with other resources and within land capabilities.

Management direction concerning corridor sitings is that the Forest will participate in the location studies, preparation of construction specifications (particularly in reference to surface disturbance and reclamation), and inspection of construction and reclamation procedures. The Forest's policy is to accommodate electrical transmission and pipelines within existing corridors in conjunction with multiple use land management objectives and mitigate, as much as possible, adverse impacts created by the projects.

As part of the Forest planning process existing and potential utility corridors have been studied and discussion pertaining to this analysis can be found in the various chapters of the EIS and in Appendix H.

Existing transportation corridors basically provide the primary access to all areas of the Forest. There has not been major interest expressed on the need for any new primary access roads on the Forest except for the road that would parallel the Green River from Little Hole east to NRA boundary. The county has proposed this location but the Forest Service and Bureau of Land Management have opposed because of the conflict that would be created with the recommendation for inclusion of the Green River in the Wild and Scenic River System.

4. PROTECTION

a. Fire

The current fire management policy requires appropriate suppression response on all wildfires. The kind, amount, and timing of suppression action is based upon fire management direction under current and expected burning conditions. From 1970 through 1979 there was an average of 50 fires per year. About 41% of these fires were human-caused and an average of 680 acres burned each year.

Three fire management areas were approved in 1980 but are currently withdrawn from implementation pending revisions needed to meet recent management policy.

Ultimately a large portion of the Ashley National forest will be covered by modified suppression plans. Until such time as the plans are approved there will not be any prescribed fires as a result of unplanned ignitions.

The Ashley National Forest has a Cooperative agreement with the wildfire control agencies of the Uintah Basin. These Agencies include the Bureau of Indian Affairs, the Bureau of Land Management, Dinosaur National Monument, and the State of Utah Division of Forestry and Fire Control.

Fuel Treatment Policy:

Fuel treatment can be broken down into three separate areas: natural fuels, created fuels, and created fuels carried over.

Natural fuels are accumulating as a result of the bark beetle epidemic, old growth timber stands, and long-term fire protection.

The Ashley National Forest's policy for treating natural fuels is to use fuels as one criteria for priority determination in the selection of sales and their timing. Timber sales then become one method of fuel treatment. The fuels may be removed commercially as timber products or they may be treated (generally machine-piled) as one of the sale activities.

Carry-over slash from earlier sales and from blowdown has been and is continuing to be treated through sales procedures.

Firewood cutting has also been used to treat these same fuels and this opportunity will be used more intensely and with greater effect with the newly implemented charge system..

Other areas that have no opportunity for commercial removal or treatment are programmed for treatment with appropriated funds. The priority is to first treat those areas that will do the most to alleviate a particularly hazardous situation from a rate of spread and resistance to control standpoint. This is correlated with values at stake and project cost. Natural fuels have been treated with prescribed burning with other than fire management funds, primarily for range and wildlife benefits.

The fuel management policy in created fuels is to treat the created fuel in a timely manner with the fuels work being completed at the end of the project. This does not mean that all slash will be physically removed. All created slash will be evaluated and treated as necessary to meet fuels and silvicultural needs as well as the needs of other functions.

There is a large backlog of carry-over slash that is considerably older than the backlog date of 1975. It will be many years before this can be treated and in many cases, will require multi-financed projects such as fire management and site preparation funds to complete specific areas.

Many areas of carry-over slash may never be treated, as prescriptions for these stands may call for an acceptance of the existing situation with treatment deferred until the time of harvest.

Numbers of fires and acreage burned are expected to increase in the future because of increasing recreation, fuelwood cutting, and increasing fuel loading. The North and South slopes of the Uinta Mountains have potential for large and costly fires because of the dense, continuous stands of lodgepole pine that are subject to pine bark beetle kill.

b. Air Quality

There are no Class I or nonattainment areas in the vicinity of the Uinta Basin. The portion of Dinosaur National Monument in Colorado, which does not border the Ashley National Forest, is classified a Class I area by Colorado. The monument in Utah does not carry the same classification. The only nonattainment areas in Utah are along the Wasatch Front.

The air quality on the Forest is generally excellent. At times during the dry summer months vehicular traffic produces dust which temporarily lessens the air quality. The amount of smoke impact from occasional grass, brush and/or conifer fires is slight since most fires are small and burn a short period of time. During the period of March through October, stable atmospheric conditions build only during evening and night. During the daytime, surface heating normally causes the air to become unstable thus dispersing pollutants through a thick layer of the atmosphere and consequently decreasing pollution concentrations to insignificant levels.

The Ashley Forest falls entirely in Class II airshed. Controlled burns are never conducted when the Clearing Index is 500 or below. When the Clearing Index is between 500 and 600, grass, brush, and scattered slash can be burned. Slash piles and fuels which produce a large amount of smoke can be burned when the Clearing Index is 600 or above. Most of the burning in the Forest is done at 8,000 feet or above, with the heavy slash region at about 8,500 feet. Rarely is the Clearing index 600 or below at that elevation. Wildfires which occur during the summer months do not create a large amount of pollution due to the elevation. Clearing Indexes are usually above 600 at the fire elevation. However, nighttime atmospheric conditions and the broad flat basins create ideal conditions for inversions to occur. During the early morning hours, radiation from the sun destroys these

nightly inversions and creates adequate convection to disperse the smoke pollution. Wildfires large enough to create a large amount of smoke occur in July when the only rain shower activity is created by scattered afternoon cumulus buildups which dissipate after dark; therefore, heavy air trapping pollutants from smoke does not create a serious pollution problem.

There is no data available for 1975-1977 prescribed burning particulate emissions.

Acid Deposition:

Potential exists for off-site sources of air pollution to affect Forest resources. For example, recent studies appear to indicate that acid rain is a greater threat to the intermountain west than had previously been thought.

The High Uintas have received recognition as to its possible sensitivity to acid deposition processors, such as sulfur dioxide. Sections of the Forest are especially susceptible to acid rain due to the low buffering capacity of lakes and soils of the quartzitic watersheds. In 1984 and 1985 a scientific team conducted a survey on the high lakes to establish their sensitivity with the following conclusions:

1. All of the sampled lakes are at least sensitive to acid deposition because their alkalinities are less than 200 ueq/l.
2. Twenty-five percent of the sampled lakes are in a very sensitive condition because their alkalinity ranges between 76-100 ueq/l.
3. Sixty-five percent of the sampled lakes are in an ultra-sensitive condition because their alkalinities are less than 75 ueq/l.
4. The lake system in the High Uinta Wilderness, as a whole, appears even more sensitive to acid deposition than the Bridger Wilderness system.
5. Since the High Uinta lakes are located downwind from Salt Lake City, a non-attainable air quality area, the monitoring of acid deposition (wet and dry) and lake alkalinity trends should be encouraged.

c. Insect and Disease:

Forest pests have a direct and significant impact on forest resources affecting recreation sites by causing tree mortality. The principal insects and diseases affecting the Ashley National Forest are mountain pine beetle, ips beetles, commandra rust and dwarf mistletoe.

Mountain pine beetle has caused extensive mortality in lodgepole and ponderosa pine stands for several decades. Epidemic levels of the beetle, recorded since the 1940's, have continued to cycle through the Forest, removing most of the larger diameter trees in infested stands. The most recent outbreak began in the early 1970's around Greendale Junction, and has caused extensive mortality around the Flaming Gorge NRA. The heaviest mortality occurred in 1982 with an estimated 3.5 million trees killed by the beetle. Mortality decreased in 1983 to 1.4 million pine, but is expected to continue until most of the larger diameter trees are killed in infested stands.

The pandora moth caused severe defoliation and some tree mortality on 15,000 acres of lodgepole in 1960-61. This insect has not occurred at epidemic levels since that time.

In 1961, an outbreak of lodgepole pine needle miner caused defoliation on 40,000 acres in the Greendale Junction area. The infestation continued in 1962-63 causing an additional 20,000 acres of defoliation on lodgepole pine.

Dwarf mistletoe causes significant losses in forest stands. Douglas-fir, lodgepole pine and ponderosa pine can have severely retarded growth from dwarf mistletoe infection causing significant volume loss and eventual tree mortality. A roadside survey of the Ashley National Forest in 1978 indicated that 144,000 acres or 58 percent of the lodgepole pine type were infected with dwarf mistletoe. This parasite caused an estimated volume loss of 1,872,000 cubic feet per year in lodgepole pine. The same survey indicated dwarf mistletoe infected 21 percent of the Douglas-fir, 8 percent of the ponderosa pine, and 23 percent of the mixed conifer.

Seventy percent of the infected trees were of sawtimber size with 34% having a DMR (Hawksworth rating) of three or higher. Losses in these mature stands will increase because dwarf mistletoe intensity increases an average of one severity class every 15 years. Natural regeneration under this declining overstory will become infected at a very early age and will sustain heavy losses before rotation age.

Commandra rust is also widespread through the lodgepole pine type on the Ashley National Forest. Infection is sporadic and differs greatly in intensity, depending on host susceptibility, climate, and abundance of alternative host plants. The rust attacks trees of all ages, but girdles seedlings more rapidly than older trees. An epidemic will therefore be obvious in young stands, but may not be noticeable in mature stands for up to 25 years. Sporadic epidemics can be expected to occur throughout the lodgepole pine type.

Root rots caused by Fomes annosus and Armillaria mellea cause mortality and growth loss in localized centers. These fungi survive as saprophytes in stumps and pose a threat to regeneration on infested sites. Infection leads to growth loss and mortality. Root rots greatly reduce the structural stability of infected trees, thereby creating potential hazards in recreation sites.

Damage due to root rots can be expected to increase steadily unless control measures are undertaken.

Broom rusts of subalpine fir and Engelmann spruce are common in spruce-fir forests in the region. They cause top-kill, growth loss and mortality of heavily infected trees. Losses from these diseases can be expected to continue in the future.

The Ashley National Forest has, in the past, been exposed to rangeland insect infestations, but the problems have never been extensive enough to cause great alarm. Localized areas have had sufficient buildup to warrant control programs. These treatments along with natural low population cycles have confined damages to relatively small areas.

Those insects that have had high enough populations to cause concern are: grasshoppers, black grass bugs, and Mormon crickets. Another range pest that has become somewhat visible on occasion is the tent caterpillar. It has occasionally been seen in sufficient numbers in bitterbrush stands to attract the attention of range specialists. Natural control and subsidence has removed any further concern, however, Forest range specialists have worked closely with representatives of the Animal and Plant Health Inspection Service (APHIS) in identifying, monitoring, treating, and follow-up work with range insects. These practices would not change from one alternative to another.

Because of insect and disease population dynamics, weather patterns, and stand conditions, current management has, to date, accomplished little significant change in overall pest conditions.

If current management, which does not regularly consider integrated pest management, is continued for the next 50 years, conditions will be much the same as they are presently. Inventories, examinations, and surveys have identified currently available resource values and form the basis for future projections; thus forest insect and disease effects have already been incorporated into the current and future resource availability.

Management direction for the Ashley National Forest must include an Integrated Pest Management (IPM) program to prevent future impacts from the above-mentioned and other forest pests. The National Forest Management Act defined IPM as "a process in which all aspects of pest-host system are studied and weighted to provide the resource manager with information for decision making. Integrated pest management is, therefore, a part of forest or resource management." A good example of this approach was the coordinated control effort to reduce spruce beetle mortality in 1959 on the Uinta, Wasatch, and Ashley National Forests. Stand hazard rating, monitoring spruce beetle populations in blowdown areas and acres near logging operations and prompt removal of infested trees will prevent future losses from spruce beetle. Douglas-fir beetle can be managed using the same management methods described for spruce beetle.

Element	Forest and Range Insects and Diseases Can Cause:	Which May Result In:
Timber (cont.)	<ul style="list-style-type: none"> - regeneration mortality - reduced growth potential - top kill - seed predation/reduction - stem rots - reduced windfirmness - deformed trees - lower wood quality 	<ul style="list-style-type: none"> - reduced stocking. - increased need for reforestation. - reduced supply of Christmas trees. - longer rotations. - poor tree vigor. - reduced volume. - longer rotations. - poor tree vigor. - lower wood quality (excessive limbing). - understocked stands. - increased need for reforestation. - shortages in nursery stock. - reduced merchantable volume. - windthrow. - predisposition to bark beetle attacks. - windthrow potential - reduced merchantable volume. - reduced timber value.
Water	<ul style="list-style-type: none"> - overstory and regeneration mortality 	<ul style="list-style-type: none"> - change in water yield. - change in water quality.
Protection (Fire)	<ul style="list-style-type: none"> - overstory and regeneration mortality 	<ul style="list-style-type: none"> - standing dead or fallen trees which add to fuel load. - increased potential for lightning caused fires.
Insect and Disease	<ul style="list-style-type: none"> - tree depredations 	<ul style="list-style-type: none"> - increased costs of pest detection, evaluation, and suppression.
Range	<ul style="list-style-type: none"> - reduced forage production 	<ul style="list-style-type: none"> - reduced AUM's. - increased erosion. - increased costs to permittee. - loss of wildlife forage. - costly treatment practices.

d. Law Enforcement:

The Forest Service is responsible for enforcing Federal laws and regulations on the National Forest. This responsibility cannot be delegated to other agencies of local law enforcement entities.

The Forest Service may cooperate with state and local agencies in enforcing certain state laws on National Forest lands. The Sisk Act provides statutory authority to reimburse local and state law enforcement agencies for the protection of persons using National Forest lands and property.

Most employees assigned to recreation and fire prevention receive minimum law enforcement training. This training is not adequate to handle many of the law violations they encounter. Budgeting for law enforcement is also not adequate to carry out an effective law enforcement program.

Employees assigned law enforcement duties are trained to perform such duties with competence and confidence. The Forest presently has the part-time services of one Zone Special Agent and three level four Law Enforcement Officers.

The Forest's major areas of concern and law enforcement activity are man-caused fires, vandalism, theft of government property and forest products, ORV violations, trespass, theft of campground fees, and alcohol and drug related problems associated with large group gatherings. It is anticipated that these types of incidents and other law enforcement problems will increase with the growth of the general population.



CHAPTER IV

ENVIRONMENTAL CONSEQUENCES



IV. ENVIRONMENTAL CONSEQUENCES

A. INTRODUCTION

This chapter forms the scientific and analytical basis for comparison of the alternatives. It describes the consequences of implementing each alternative in terms of production, cost, and environmental changes.

Affects on some activities or programs and associated effects do not change significantly between alternatives. These are:

1. Endangered and threatened species.
2. Cultural resources.
3. Human and community development.
4. Land purchase, acquisition, and adjustment.
5. Utility corridors.
6. RNA's

Direct and indirect effects are discussed for alternatives by each resource. Direct effects are basically caused by the action and occur at the same time and place. Indirect effects which are caused by the action but occur later in time or farther removed in distance.

B. DIRECT and INDIRECT ENVIRONMENTAL EFFECTS

1. RECREATION

It is estimated that demand can be met for all alternatives, although at various levels of service and standards. As mentioned in Chapter II the output figures are slightly less than demand but that demand can be met and the output figures should be considered in light of their relative value when comparing each alternative. Efforts will be made to improve methods of management and make better use of volunteer programs, to improve service to the public and manage the land. Alternative F and G would be managed at a level where services would be lowest for all alternatives. Alternative J would provide for the highest level of public service. For specific details relating to demand, outputs, and capacity refer to Chapter II.

- a. Developed Recreation: Developed recreation facilities, existing or proposed, generally would not adversely affect other resources. Concentration of recreation use at developed sites can create environmental problems, but with proper design, redesign, construction and reconstruction, these problems can be mitigated. The total acres involved in existing and proposed development sites is small compared with the total Forest acreage.

Many of the existing facilities and related improvements at developed sites have not been maintained to a standard that prevents significant deterioration. This condition has resulted in some environmental site deterioration, site closures, and facility failures. Demand continues to increase and most of the developed campground sites are being used at about 30% above maximum theoretical capacity (for campgrounds 100% occupancy can be expected when use approaches 40% of maximum theoretical capacity).

Alternatives B, C, D, H, and I as modeled in FORPLAN were developed using the low level investment program for heavy maintenance and new construction. All other alternatives were programmed at the no investment level, except Alternative J which uses the high investment program for new construction. Those alternatives with the low level investment represent a significant improvement over the current budget situation (Alternative F). The routine maintenance costs that were built into the FORPLAN model varies between all alternatives. Since Alternative J budget for recreation is significantly higher, it offers the opportunity for major improvement in recreation management programs. As a result, conflicts with other resources and the environment within and adjacent to the development sites can be mitigated and managed within acceptable limits providing funds is made available.

The developed site capacity, outputs, and effects, do not vary significantly by alternative and demand is constant throughout. The degree that the Forest can mitigate impacts on other resources is directly related to the ability to finance the recreation program. The FORPLAN model was structured to allow for about a 3% increase in demand, which is very conservative even though it is tied to Wyoming and Utah growth rates. If growth rates increase significantly from 3% annually, and for long periods of time, shortages in development sites can be expected along with the associated environmental impacts at the development sites and adjacent dispersed areas. The financing and demand projection elements are critical, and a significant variation from what is programmed in the FORPLAN model could result in unmanageable environmental impacts that would necessitate a plan revision.

Chapter II shows the minor variations of developed recreation outputs. Based on the 1980 actual use data, the Forest provided 702,400 RVDs for recreation activities within developed sites. A large portion of the existing and proposed

developed capacity, is within FGNRA. This area was established by legislation which included specific direction for providing for recreation. For this reason, management of developed sites on this Forest is very important along with the fact that developed sites are very closely related to, and a functional part of, dispersed recreation activities.

- b. Dispersed Recreation: For the most part, all areas on the Forest will be available for recreation use in varying degrees throughout the planning period. Area closure to vehicles does not vary by alternative, nor is it expected to change significantly from the current situation, (see Table IV-1).

The difference in alternatives is determined by the combination of prescriptions selected for each alternative. All alternatives except D will result in some roading of timbered unroaded areas, excluding the Wilderness area. Alternative J does not allow for roading in several large areas during the first decade. In popular areas, it may be necessary to intensify management of recreation uses to protect investments, such as tree plantings.

Dispersed recreation management in the FGNRA is a little different than the rest of the Ashley Forest. In nearly all situations where conflict exists between recreation and another resource, it will be resolved in favor of recreation scenic values, and wildlife.

Dispersed recreation use will occur in the wilderness and demand is estimated to be the same for all alternatives. Recreation use will cause impacts on primary access points and along major trails but these impacts can be managed within the limits prescribed within the Forest Plan.

The present ROS as inventoried would be changed for all alternatives except F and G from the present mix toward the developed side of the spectrum resulting in a loss of semi-primitive, and semi-primitive motorized ROS acreages. Alternative J reduces this change during the first decade. The loss of semi-primitive and semi-primitive non motorized ROS acres would result in an increase of the roaded-natural ROS classification acres.

Timing of management activities that result in changing of the ROS class is a key factor relating to social and environmental impact. These changes would occur over a 150 year period. In some situations, management activities would occur in areas during the first decade and then the areas would be allowed to revert to a natural state. It is possible that some of these areas could reach the environmental, social, and managerial condition that exists today and have the original ROS classification. In all probability this situation would be an exception rather than the rule but it is

important to point out that over a 150 year period the Forest would not have a static situation. This change in the ROS mix would result in a loss of the opportunity to provide for recreation activities that normally occur in semi-primitive motorized and semi-primitive nonmotorized areas but new opportunities in other ROS areas will be created. To a certain extent, demand for these two ROS classes of semi-primitive motorized and semi-primitive nonmotorized could be met in primitive and roaded natural areas. Needs in excess of this Forest's capacity would have to be met in other areas.

Alternatives F and G would create a situation where dispersed recreation opportunities would decline because of the loss of development sites and associated support facilities. Environmental impacts associated with unregulated use would be created because of reduced recreation management programs associated with low budgets.

Management of motorized travel is the same for all alternatives and would be guided by the criteria found in the Standards and Guidelines in the Forest Plan. In general terms, this procedure involves the use of the Forest Travel Management Plan which is updated annually as needed. This update would require that annually the Forest review all roads and trails to determine if they are still needed to manage the forest, provide access to other public or private inholdings or to provide access to mining claims or special use permits, and to evaluate the need for new roads or trails. In all of these situations seasonal or permanent closures may be implemented to protect the road bed, wildlife habitat, reduce maintenance, provide public safety, prevent soil loss or vegetative damage, and protect streams or other natural ecosystems.

Obliteration of roads or trails could be expected if the road or trail is not needed to meet Forest management objectives or if they are causing resource damage. Damage would include such things as soil displacement, degrading water quality or VQO's, displacing wildlife, excessive noise or dust pollution. Also areas beyond roads and trails could be closed or restricted to protect heavily used area, unique resources, ecosystems, and to provide for a variety of recreational opportunities. Each of these many conditions vary from season to season and year to year. As a result, rather than trying to conceptualize a different static situation for each alternative based on hypothetical conditions criteria has been developed to govern the management of all travel activities as conditions change and it is the same for all alternatives. These criteria are shown in the Forest Plan Chapter IV.

The acres available for motorized use, restricted areas, or closed areas at present is shown in Table IV-1. As mentioned the relationships of these figures is not expected to vary significantly unless conditions set forth in the travel

management criteria can not be met. Management of motorized travel will be based on current conditions using pre-established criteria and this should give National Forest users an idea of what type of management to expect under various conditions.

The average annual dispersed recreation use through year 2030 can be found in Chapter II. Based on the 1980 use data the Forest provided 877,000 RVD's for recreation activities within the dispersed areas.

Table IV-1

Acres Available for Use by Motorized Vehicles by Alternatives and By Categories of Use

Use Category	A	B	C	D	E	F	G	H	I	J
Vehicle Use Permitted Over Most of the Area	878,973	The total acres shown for Alternative A will remain approximately the same for all alternatives. The location of these areas may change slightly by alternative throughout time.								
Vehicle Use Prohibited or Restricted Over Most of the Area	232,200									
Closed	273,426									
Total Forest Acres	1,384,699									

- c. Wild and Scenic Rivers: As noted in Chapter III, the rivers within the boundary of the Ashley National Forest were reviewed for their eligibility as potential additions to the National Wild and Scenic River System. The Green River from Flaming Gorge Dam downstream to the Forest boundary is the only river on the Forest determined to be eligible. The interagency study of the Green River was completed with publication of the Final Environmental Impact Statement in 1980. None of the alternatives considered would adversely impact the potential of the Green River to meet the recommendation included in the FEIS.

The potential classification of the Green River as Wild and Scenic would not adversely impact any of the alternatives.

- d. Cultural Resources: "Cultural Resources" refers interchangeably to prehistoric and historic properties and are considered as a nonrenewable resource, (including paleontological sites) making it imperative to maintain their scientific, historic, and social integrity. Governed by

the National Historic Preservation Act of 1966, the Forest Service policy is "to provide for the identification, protection, interpretation and management of cultural resources".

To fulfill this obligation, the Forest conducts compliance surveys, locates, inventories, describes, and evaluates cultural resources on a project-by-project basis to prevent adverse effects by ground-disturbing activities. Cultural resources, in each alternative would be managed to insure protection of the resource by meeting the legislative requirements, and following established procedures. Scientific study to gain knowledge of past human behavior and interpretation for the public would be important considerations under all alternatives.

All alternatives except F and G initiate higher commodity production that would generate more cultural resource surveys and quite often would accelerate this work in the earlier decades. In the event of significant cultural resource discoveries changes in management programming and scheduling could be required.

Where evaluation shows that sites are insignificant, projects may proceed after coordination with SHPO.

- e. Visual Resource: Impacts on the visual resource are measured by how a given management activity meets adopted visual quality objectives (VQO's). The inventoried VQO's represent an estimate of what visitors would expect to see and what would be acceptable in a forest landscape. The basic objective is not to have contrasting situations created by management activities that do not meet the adopted VQOs.

The adopted VQO's are tied directly to the management prescriptions selected for a given alternative and each alternative is composed of different combinations of prescriptions. Table IV-2 identifies the acres inventoried for each VQO which are the same for all alternatives. Table IV-2 also identifies the acres that are assigned to each prescription which varies by alternative. The adopted VQOs will be as inventoried for all prescriptions except for the moderate timber, high timber, high wildlife and high water prescriptions. Wherever moderate timber, high timber, or high water prescriptions exist, the VQOs provide for modification and maximum modification. Where high range and high wildlife prescriptions are applied, a variable VQO situation exists. These two prescriptions provide for VQO's from the inventoried situation to maximum modification, depending on the range or wildlife program needs. Conflicts between these two prescriptions and inventoried VQO's and resource needs would not be significant. Quite often wildlife and

VQO goals are the same. Timing and spatial allocations of management activities within the analysis areas would be critical in any one of the alternatives and would require detailed site design in order to meet the VQO's identified for each prescription.

Effects on Other Resources - The activities associated with the recreation resource would not create significant impacts on other resources. The differences between alternatives would be minor except for alternatives F and G, where low level budgets may cause closure of some developed sites and would cause users to move into dispersed areas.

In all alternatives there could be minor conflicts between livestock users and the recreationist. In alternatives B, C, D, E, H and I where intensive timber management prescriptions are applied, it may be necessary to invest additional funds to manage recreation use to protect new plantations. Generally these conflicts or potential conflicts, would be manageable. In all alternatives other impacts created by roads, trails, and development sites, could usually be mitigated through proper location and design of such improvements. Recreation use management in the wilderness requires special efforts to maintain and protect the wilderness characteristics.

2. WILDERNESS

The Utah Wilderness Act of 1984 designated 273,426 acres on the Forest as the High Uintas Wilderness and 186,574 acres on the Wasatch for a total of 460,000 acres. It is estimated that this area will meet the anticipated demand for wilderness during the first planning period. At the end of this planning period additional wilderness will be evaluated. It is estimated that the area available for wilderness evaluation at the time of the first scheduled Forest Plan revision is estimated to be approximately 280,000 acres under the preferred alternative (J). Alternatives A, B, D, F, and G would have an approximate 180,000 to 210,000 acres available for wilderness evaluation at the time of the first plan revision. Alternatives C, E, H, and I would have an estimated 150,000 to 160,000 acres available for wilderness evaluation at the time of plan revision. These estimates of acreage available for wilderness evaluation do not include the 273,426 acres included in the High Uintas Wilderness. Acres available for wilderness evaluation under all alternatives could be slightly reduced as a result of minerals activities that are unforeseen at this time.

Most of the present Wilderness use occurs on something less than 10% of the total area. This creates heavy social and physical impacts on some localities. Distribution or restriction of use by management will be necessary to optimize use within the Wilderness.

Trails and trailheads to help with distribution of users are needed. Some heavy use areas are in need of rest, rehabilitation, or different management techniques to prevent unacceptable deterioration.

Management problems that existed prior to designation of the Wilderness will continue and in some cases be amplified without a change in management emphasis. With the Wilderness designation, use is expected to increase beyond previously projected growth rates. Problems such as conflicts between recreationists and permitted livestock, hikers and horse users, and garbage removal will receive special attention.

Continued management at historic levels with increasing use will result in deteriorating facilities and resources. If the choice is not to invest in management of the wilderness resource to a level that provides for maintenance of existing facilities and wilderness characteristics then in the near future we will be faced with making significant changes in the way wilderness has been traditionally managed.

Table IV-2

V.Q.O.s by Alternative and Benchmark

V.Q.O.'s as inventoried and adopted	Acres Inventoried and Programmed to Each Management Prescription									
	A	B	C	D	E	F	G	H	I	J
<u>As Inventoried VQO's</u> ^{1/}										
Preservation	338,088									
Retention	473,545									
P. Retention	240,485	SAME FOR ALL ALTERNATIVES AND BENCHMARKS								
Modification	316,949									
Max Modification	15,632									
TOTAL		1,384,699								
^{1/} Inventory completed prior to passage of Utah Wilderness Act of 1984										
<u>Adopted VQO's by Prescription</u>										
Min. Level (As Inventoried)	23,009	1,993	1,993	1,993	21,993	21,993	218,711	1,993	1,993	1,993
Mod. Timber (M-MM)	15,674	33,967	119,976	10,101	29,665	---	---	13,876	25,374	11,364
High Timber (MM)	29,944	---	66,871	32,027	54,916	---	---	32,335	27,063	---
High Range (Variable)	64,258	73,059	125,595	46,480	79,814	2,345	2,345	176,976	66,790	64,567
High Wildlife (Variable)	20,353	20,353	---	34,885	34,885	28,307	24,595	19,345	21,215	28,605
Mod. Disp. Rec. (As Inventoried)	67,793	155,356	120,933	60,913	111,859	245,846	109,798	78,919	111,309	155,830
High Disp Rec. (As Inventoried)	159,857	69,401	6,062	145,844	6,983	147,341	180,006	55,820	7,164	83,785
Wilderness Mod (Preservation)	273,426	273,426	273,426	273,426	273,426	273,426	273,426	273,426	273,426	273,426
High Wilderness (Preservation)	---	---	---	---	---	---	---	---	---	---
High Water (M-MM)	3,015	3,089	3,015	693	3,015	---	60	2,261	3,015	3,015
Wildlife Timber (As Inventoried)	294	294	294	294	2,210	88,765	43,146	294	294	1,794
Riparian High (As Inventoried)	---	---	---	---	---	---	---	---	---	---
Existing Low (As Inventoried)	719,303	725,102	647,959	706,559	741,546	523,000	540,764	687,698	820,568	734,068
Special Area (As Inventoried)	---	---	---	---	---	---	---	---	---	---
NRA Timber (As Inventoried)	101	502	456	101	---	---	---	100	102	111
NRA Forage (As Inventoried)	---	1,534	885	---	---	---	---	13,949	---	---
NRA Wildlife (As Inventoried)	16,194	15,144	5,760	59,903	32,918	62,350	381	16,228	14,907	14,661
NRA Recreation (As Inventoried)	---	---	---	---	---	---	---	---	---	---
Developed Recreation	---	20,000	20,000	20,000	---	---	---	20,000	20,000	20,000

3. FISH AND WILDLIFE

Threatened and Endangered Animals

Three species of birds and one mammal that may be found on the Forest have been listed as threatened or endangered. The law specifies that the habitat of these species will be protected, and this would be done under all alternatives. These species are: the bald eagle, the whooping crane, the peregrine falcon, and the black-footed ferret.

The endangered bald eagle winters along the Flaming Gorge Reservoir and Green River. Activities which could effect this species would not be anticipated in any alternative.

The winter and spring migration route of the whooping crane may pass over the Forest, although no birds have been observed. There is no action that the Forest could take at this time that would help in the recovery of this species. None of the alternatives considered would have an effect on this species.

The peregrine falcon historically nested on the Forest, but none have been observed in recent years. The Forest Plan includes an objective to cooperate with the Utah Division of Wildlife Resources in identifying potential hack sites (nest sites) for reestablishment of this species. Habitat that appears to be favorable for the black-footed ferret exists in the Wyoming portion of the Flaming Gorge National Recreation Area. To date, no black-footed ferret sightings have been reported. Surveys to identify potential habitat are planned. This data will be used to direct land management in areas occupied by the ferret, if such areas exist.

Management Indicator Species

The AMS provides an extensive discussion of minimum viable populations of MIS. The MIS concept is based on the assumption that if viable populations of these species are maintained, the remainder of the species on the Forest will be maintained as well. The MIS are tied to habitat which includes a diversity of vegetation and vegetative communities.

The golden eagle has been identified as the management indicator species for cliff habitats. Estimated habitat capability is 200% of existing population needs and is considered to be in good condition. Increased human activities and development in alternatives B, C, E, H, I and J could reduce potential capability through disturbance. None of the alternatives would have direct adverse impacts on this habitat. Pipelines, reservoirs or large scale mining operations could reduce habitat capability. Mitigation measures and stipulations would be included in permits and operating plans to reduce the severity of these impacts.

The ptarmigan is the indicator species for the alpine meadow habitat. Estimated habitat capability is 250% of existing population needs and is

considered to be in good condition with a stable trend. Since most of the alpine meadow habitat is now included in the High Uintas Wilderness, none of the alternatives would have adverse effects on habitat potential as a result of man's development activities.

The sage grouse is the management indicator species for sagebrush habitats. Estimated habitat capability is approximately 160% of existing population needs. Alternative C and H would decrease habitat capability as a result of vegetative manipulation to increase forage production for livestock. While mitigation measures such as location and shaping of treatment areas can reduce effects, it is estimated that total habitat capability would be reduced by 20 to 30 per cent in alternatives C and H. Alternatives A, B, D, E, I and J could maintain existing capabilities with proper coordination of location and shaping of livestock forage improvement activities. Wildlife habitat improvement activities under alternatives F and G should maintain or slightly increase habitat capability over existing levels.

The yellow-bellied sapsucker and warbling vireo are management indicator species for mature aspen and riparian deciduous tree habitats.

Potential habitat capability is approximately 125% of existing population needs. It is considered to be in fair condition with a downward trend. The standards and guidelines applied for riparian area protection forestwide should stabilize the trend in the deciduous tree portion of this habitat. The mature to overmature condition of most aspen stands and invasion by coniferous species would continue the downward trend in the aspen habitat. This downward trend may be offset by aspen sprouting in many areas as a result of the mountain pine beetle caused lodgepole mortality. The only alternative which actively begins aspen management in decade one is alternative B. The light aspen harvest program in decades one and two of alternative B should slow or stop the downward condition. All other alternatives postpone active aspen management until decade three.

The Lincoln's sparrow and Song sparrow are indicator species for the riparian shrub habitat. Potential habitat capability is estimated to be 150% of existing population needs and is in fair condition with a slight downward trend. Standards and guidelines applied for riparian area protection would stabilize the downward trend. Alternatives C, E, H and I have the potential to adversely impact this habitat due to development activities. Proper coordination and adherence to standards and guidelines should mitigate impacts on this important habitat.

Cutthroat trout are a management indicator species for aquatic ecosystems. Existing and potential habitat capabilities are very similar for this indicator species. Condition is considered good and trend is stable. None of the alternatives propose development activities such as dams, diversions, or hydroelectric installations that would potentially impact the aquatic ecosystem. However, these developments are not typically a direct result of Forest Service action. Mitigation measures and coordination would be required for such proposals under any alternative. Alternatives B, C, E, H, I, and J will

all result in increased water yields, which could have seasonal impacts on the aquatic ecosystem. Coordination between the Forest Fisheries Biologist and other resource specialists would delineate mitigation measures for on-going projects as well as major developments.

It is estimated that the Goshawk needs 380,750 acres of timber 100 years and older to maintain present population; 95,150 acres of old growth for minimum viable population.

Table IV-3 displays the area of mature to old growth timber that would be remaining after five decades under each of the alternatives. As can be seen from the acreage totals, sufficient total acreage remains after fifty years to provide habitat for goshawk populations exceeding the present level. However, Table IV-3 does not present the spatial arrangement of the area. Alternatives C, E, H, and I will all result in reduced spatial dispersion of mature timber stands as a result of timber harvest activities. Alternatives A, B, D, and J will retain sufficient dispersion and mature aged timber to sustain the present population. Alternatives F and G will retain the potential habitat for increased populations.

TABLE IV-3

Acres of timber 100 years or older remaining at the end of Fifth decade indicates Goshawk habitat.

Alternative	Acres with Harvest Prescriptions but not Harvested	Acres with Non-Harvest Prescription	Total Acres
A	213,900	275,500	489,400
B	277,600	217,900	495,500
C	295,400	123,800	419,200
D	228,900	263,000	491,900
E	301,100	123,700	424,800
F	339,800	261,400	601,200
G	197,200	320,300	517,500
H	264,400	172,100	436,500
I	281,800	125,100	406,900
J	296,500	162,000	458,500

Deer and elk numbers are very similar between alternatives and fluctuate very little from decade to decade. The limiting factor for big game animals in this area is winter range which is, for the most part, off of National Forest System lands. Alternatives A, B, H, I, and J would have big game habitat capability increasing for 2½ decades as timber harvest opens extensive stands. Then it deteriorates as re-entry occurs in the same analysis areas. Under alternative C, increased forage to livestock would displace animals plus reduce capability. Alternative C also would have a reduced level of wildlife improvement investment. Alternative D, shows some increase due to increase in investment and decrease in livestock use. Under this alternative there would be a reduced rate of change in habitat diversity. Alternative E would have an insignificant increase in habitat capability. Under alternative G diversity and

capability would be maintained by investment and assignment of the wildlife-timber prescription. Alternative F would have wildlife habitat investment that would tend to maintain capacity.

Alternatives B, C, E, H, I, and J all include moderate to high levels of road construction and reconstruction. The increased access provided by these roads will result in changes in the type of hunting, particularly where presently unroaded areas are made more accessible to more hunters. This effect can be partially mitigated by imposing and enforcing road closures on a seasonal basis or by permanently closing roads in critical areas.

Other Fish and Wildlife

The Forest would be managed to maintain vegetative diversity, providing wildlife habitat for a large variety of species under Alternatives A, B, E, H, I, and J. Special emphasis would be given to habitat such as winter range, riparian zones, aspen reproductive areas, cliff habitat, talus, caves, snags, aquatic systems, and old growth timber under these alternatives.

Alternative D would provide for intensive management of fish and wildlife habitat to maintain viable populations of all existing vertebrate species in the planning area and to maintain and improve habitat of management indicator species.

All alternatives allow that if a stream channel is destroyed or deteriorated either through natural or man-caused activities, mechanical stream channel improvement will be permitted to accomplish long-term fisheries habitat improvement and increased channel stability. There will be intensive management of fish habitat to maintain viable populations and to improve habitat of management indicator species in all alternatives.

Fish habitat improvement structures are included in all alternatives to maintain or slightly improve capability. Special emphasis will be given to the protection and management of management indicator species, critical habitat for threatened and endangered species, and riparian habitat. Long term plant and animal diversity within the High Uintas Wilderness will be managed the same for all alternatives: Diversity would be increased by modification of existing plant communities on the rest of the Forest.

Effects on Other Resources: Variations in wildlife habitat investments and management from one alternative to another should have no significant impact on other resources. Most impacts would be related to area closures imposed to protect wildlife during stress periods. These types of closures would generally be temporary in nature and would be applied regardless of alternative.

Other effects would primarily relate to timing and location coordination between wildlife and other resource activities. An exception to the

above is Alternative D, (Non-Market Opportunities), which emphasizes wildlife and other amenities over commodity activities. In this alternative, livestock use is reduced or displaced to accentuate wildlife use. This reduction or displacement is more a function of budget limitations than of competition for habitat. Coordination with State Division of Wildlife Resources objectives are displayed in Chapter III.

One additional effect would be temporary air quality reductions from burning activities used to manipulate vegetation and create more diversity.

4. RANGE

Threatened and Endangered Plants

No officially listed Threatened or Endangered plants are known to occur on the Ashley National Forest. The Fishhook Cactus, Sclerocactus glaucus, a threatened plant species, may be located on portions of the South Unit of the Duchesne Ranger District, but so far, none have been found. The Endangered Species Act specifies that the habitat of any threatened or endangered species will be protected. If the Fishhook cactus, or any threatened or endangered species, is found on the Forest, their habitats will be protected under all alternatives.

There are many plants that are endemic to the Uintah Basin, but few of these are known to occur on the Forest. Among those known to occur on the Forest are: Astragalus detritalis, Erigeron untermanii, Penstemon acaulis, P. uintahensis, Parrya rydbegrii, and Townsendia minima. These and other endemic plants, are not expected to be seriously impacted by any of the alternatives of the Forest Plan.

Range Program

The Forest will maintain a quality range program, managed to optimize the production and use of forage on all suitable range to the extent it is cost effective and in harmony with other resource uses.

Alternatives A, B, I, and J would continue at the current level of investment, with a slight increase in forage in B, I, and J over A, because of transitory range available in timber harvest areas. Alternatives C and H would have high investment in forage improvement to reduce non-forage vegetative types through treatment which may have an adverse impact on sage grouse. Under these alternatives transitory range becomes available for use by the proper class of livestock. Alternative D would have decreased investments and AUM's along with decreased range capacity. Alternatives F and G would also have a decrease in AUM's throughout the 5 decades. Alternative E would have an increase in AUM's.

Annual Livestock Investment by Alternative: (1st decade in 1978 dollars)

Alternative	A	B	C	D	E	F	G	H	I	J
M \$	28,000	28,000	56,000	20,000	35,000	0	0	105,000	28,000	28,000
	by <u>Benchmarks</u>									
Minimum Level	Maximum PNV		Maximum Timber			Maximum Range		Maximum Water		
0	114,900		7,300			303,400		5,000		

Suitable acreage of primary range open to livestock grazing remains constant for all alternatives.

Range outputs are increased or decreased by alternative through activities which include structural improvements (fences, water developments, etc.), nonstructural improvement (sagebrush treatment, etc.), and the acres of transitory range available to livestock. The environmental effects change by alternative according to the level of each of these activities.

The outputs of AUM's by alternatives shows that Alternatives C and H have the largest increases, and Alternative G the greatest decline in the first decade. Alternatives B, I, and J show slight increases during the first 10 years, whereas there are decreases in AUM's for Alternatives D, E, and F. In addition there are effects on livestock caused by the various activities associated with the alternatives.

Treating sagebrush removes the shrub overstory stimulating grass production. Grasses are preferred by livestock, especially cattle. These are relatively short-term effects on any particular area.

Construction of fences and water developments improves the distribution of livestock and provides additional grazing use outside the riparian zones. Developments reduce the grazing pressure on areas that have been historically overused. Through rest or rotation grazing systems the vigor and production of forage improves. These effects remain as long as fences and water developments are maintained.

Grazing livestock on transitory ranges (timber-harvested lands) can increase AUM production or provide alternative forage so the primary ranges can be rested.

Effects on Other Resources: Vegetative manipulation, such as spraying, and burning, could have a short-term adverse effect on deer if applied on winter range, since browse utilized by deer during winter months would be killed. Alternative H could reduce the browse component on the Ashley National Forest because areas would be reburned to prevent the reestablishment of these shrubs. Under the other alternatives, much of the browse reinvades within a few years, producing forage for deer use. The increase in grass, following burning or spraying, would have a short term effect on forage available to both livestock and elk. It also provides an excellent fuel for future burning of the invading brush and trees. Noxious weed control does not change by alternative.

In some cases pronghorn antelope and sage grouse habitat could be adversely impacted by the conversion of sagebrush habitat to grassland. Sagebrush is a critical forage species for both antelope and sage grouse. In addition, the structural cover that sagebrush provides is used for fawning and nesting habitat.

Non-game species associated with the shrub community in the rangeland portion of the Ashley Forest could also be adversely impacted by those alternatives which convert large acreages of sagebrush to grass.

Fences have a long-term effect on wildlife. Increased fence construction associated with Alternative G, H, and the maximum range benchmark would make big game movement on the Forest more difficult. Even though the fences would be constructed to minimize adverse impacts; deer, elk, and especially antelope, would be impacted by having to negotiate additional fences.

Riparian habitats would be subject to increased grazing pressure under the higher livestock allocations of Alternatives C and H. Riparian lands are very important to many wildlife species, including birds.

Dense riparian vegetation makes excellent hiding and nesting cover. The lush riparian vegetation provides excellent forage for big game animals and to many of the prey species of predatory animals and birds. Increased grazing would have a long-term adverse effect on wildlife under alternatives C and H. Under the remaining alternatives, including the Proposed Action, riparian areas would be protected by moderate grazing intensities, rest rotation grazing systems, or fencing.

Livestock tend to make maximum use of riparian areas for both grazing and resting because of lush vegetation and nearby water. The use of riparian areas often occurs early in the year. Riparian understory vegetation is opened up by livestock use and habitat for many small animals and birds (prey species) is disturbed or destroyed. The adverse effects of this disturbance lasts as long as livestock continue to graze riparian areas. Some mitigation occurs when livestock ranges are placed under a rest-rotation system of grazing. Riparian areas in rested pastures are not grazed by livestock during all or certain periods of the year and have opportunity to recover.

Social competition between livestock and elk is a problem on some summer ranges. Elk avoid areas of intensive livestock concentration. Alternatives that have high AUM targets (alternatives C and H) would increase livestock concentrations to levels that may cause significant social tolerance conflicts with elk. The remaining alternatives, including the Proposed Action, limit this social conflict through moderate grazing intensities, rotation grazing systems, or fencing.

Areas burned to increase livestock forage can expose bare soil for a short period of time. Should an extreme rainfall pattern occur at this time, soil erosion could occur. However, with competing vegetation removed, grasses rapidly occupy these bare areas and protect the soils.

Soils in riparian areas are susceptible to erosion and compaction in all alternatives. Wet soils can easily be compacted by concentrated use. Streambeds would be subject to erosion because of livestock trampling. These effects are lessened by application of rest or rotation grazing, and construction of fences and new water developments. The effects intensify with the increase in numbers of AUM's grazed under the different alternatives. Site-specific impacts on riparian areas will occur under all alternatives. Allotment Management Plans will identify these impacts and implement mitigating measures. Grazing transitory range and big game winter range should have no adverse effect on soils, as long as enough forage is left on the sites to protect both the plant vigor and the soils.

All alternatives include livestock use of some transitory range. Assuming forage utilization is not excessive and monitoring assures young trees are not damaged, there appears to be no adverse effect of livestock grazing on timber production in all alternatives except C and H. Alternative C and H intensively use transitory range and will adversely effect reforestation success. Livestock use of these areas will result in delayed regeneration and poor stocking levels of trees.

Developed recreation sites located in grazing allotments would be adversely impacted by livestock. Fences, gates, and cattle guards would be necessary to minimize conflicts with recreational use.

Conflicts between dispersed recreation use and livestock are more difficult to mitigate. Where serious problems occur because of overlapping use, mitigation would be done using fences and herders or limiting recreation use.

Other Effects

Air quality is temporarily effected by burning rangeland. Visual quality may be adversely effected through burning programs and range structural improvements. These impacts are generally short-term and localized with the exception of some structural improvements. Range burning programs facilitate protection as natural fuels are periodically treated, reducing fire hazard.

The need for mitigation of long-term effects such as the effect of structural improvements on visual quality will be analyzed through project assessments. Design standards and guidelines can be used to mitigate adverse effects. Range management has no identified effect on minerals and oil and gas exploration or development, however range use can be adversely impacted by these activities.

5. TIMBER

Tables II-4 and II-5 in Chapter II display outputs and changes in outputs from the current direction by alternatives.

Under alternative A there would be no change in the first two decades. After the second decade there would be a slight decline in softwood

timber sales offered with a compensating increase in hardwood sales. Timber stands would change from predominately mature/old growth to younger age classes. There would be an increased amount of dead/down timber and over time, timber productivity would decrease due to low stocking after beetle activity. Under alternative B timber sales offered would increase from current and mature old growth and dead stands would change to younger age classes. Timber cultural practices would increase productivity of wood fiber in harvested areas. Under alternative D there would be a slightly reduced harvest with an increase in the number of unproductive areas because of poor stocking. Timber harvest would show some increase over current in alternative E and C. Alternatives F and G show a sharp decrease from current with limited investment in TSI in alternative F; this would result in more low productivity acres than other alternatives. Alternative H is similar to alternative B with sales offered just slightly above B. Alternative I is similar to alternative B after decade 1.

The volume production for the various alternatives varies as the combination of prescriptions and/or assigned constraints change from one alternative to another. To determine which prescriptions and constraints were used in specific detail will require study of Appendix B and Chapter II of this document.

Aspen stands on the Ashley are mostly composed of mature and older trees. These aspen stands have had very little harvesting except for occasional fuelwood use or as a result of wildlife habitat improvement activities. In general, these stands are in, or approaching, a deteriorating condition due to age.

In Alternative J harvesting of aspen as a commercial species during the first 2 decades is not allowed and harvesting on greater than 40% slopes is not required as part of ASQ. Timber harvest is reduced from Alternative B. Salvage of beetle killed lodgepole pine where practical is a primary objective. Site preparation to obtain natural regeneration is planned for areas of stagnated stands usually under 3" in diameter, in areas of partial cut stands that do not have enough remaining basal area alive to recover, and in pole size stands 6" - 7" that have beetle killed trees in excess of 80%. In total there is an estimated 22,000 acres that need treatment and about 11,000 acres would be considered for treatment during the first decade or planning period.

Treatment methods could involve burning, cutting, crushing or other suitable means. This treatment would be directly linked to wildlife habitat improvement, VQO rehabilitation or enhancement, fuel loading reduction and break-up, and timber stand regeneration. The NEPA process will be used to fully display the site specific and cumulative effects. This alternative sets aside a large area that is not available for timber harvest activities during the first decade which makes it considerably different from other alternatives.

Under alternative A, aspen management would not change from current in the first two decades and there would be no timber sales offered until the third decade. Aspen would continue to decline until that time.

Under alternative B aspen management would approach the optimum in terms of mixed age class distribution with harvesting in the first decade. Under all other alternatives aspen would continue to deteriorate until the third decade when the first entries would be made except for alternative F which would not have entry until the fifth decade.

The acres suitable for timber production reflect the extent of timber activities applied across the Forest by alternatives. Within these areas, timber management cultural practices may be applied where they are compatible with other resource objectives. These cultural practices are designed to manage for an appropriate age class distribution, maintenance of young, healthy, vigorous stands, reduce mortality, increase utilization and higher production levels of this renewable resource. Such cultural practices are applicable to the extent that they remain within acceptable economic bounds. Acres of timber stand improvement by alternative are displayed in Table II-4 in Chapter II.

The Forest plans to harvest timber using primarily clear cutting methods. This does not rule out the option to use shelterwood and single tree or group selection cutting methods where practical and in special areas, but this would be the exception rather than the rule. These practices are consistent throughout all alternatives.

Even age management would be practiced in all species except in special areas where the objectives for management necessitates other management practices. Uneven age management could be applied to portions of stands where practical to improve or maintain diversity.

Tractor yarding is planned in all alternatives but the use of cable systems would come into use as the timber harvest of 40% and steeper slopes becomes more common. The conversion from methods of timber harvesting used by present logging operators would require considerable investment in different types of logging equipment. The ratio of acres in tractor logging compared to cable logging would vary within alternatives as would the scheduling of these practices.

The Ashley has had good success with natural reforestation. At times it has taken slightly more than five years to reach acceptable stocking levels but this natural reforestation is preferable to artificial regeneration because the additional costs normally, are not economical.

As the Forest begins to harvest more in steeper areas, dozer piling would be replaced by broadcast burning or other suitable methods for slash disposal. This could cause increased regeneration difficulty in some areas due to the loss of serotinous cones and create a need to do some artificial regeneration. This situation pertaining to regeneration would be relatively consistent with all alternatives.

At present there are few areas of conflict between reforestation and transitory range use because of the ease of obtaining abundant natural regeneration.

The cumulative effects of harvesting, reforestation, and timber stand improvement are reflected in the volume production for acres assigned to timber harvesting. This measure of management intensity based on a fifty year period as well as outputs by decades is displayed in Table II-4 in Chapter II and compares the alternatives specifically as they relate to timber production.

As described in the Insect and Disease section of Chapter IV, mountain pine beetle and dwarf mistletoe are serious problems on the Ashley. The most immediate problem is mountain pine beetle. How effectively each alternative deals with the problem Forest-wide is reflected in the amount of capable and available lodgepole pine and the percent of this capable and available acreage that would be harvested within 30 years. Alternative I provides the largest lodgepole pine harvest with alternative B, having a moderate increase from the current program. Alternative B was formulated to accelerate lodgepole pine harvest in the first few decades. Alternative B and alternative I provide the highest amount of suitable lodgepole pine harvested within 30 years. See the section on Insect and Disease for a more detailed discussion of the mountain pine beetle.

Effects on Other Resources:

Timber management activities are responsible for the majority of local road construction. The miles of local road construction necessary by alternative are shown in Table II-4, Chapter II. The effects of road construction on the resources are discussed in the "facilities" section of this chapter.

Fire is used as a management tool to reduce "activity-created" fuel such as right-of-way and timber harvest slash. Burning not only reduces fire hazard, but also helps prepare the seedbed for a new crop of trees. The alternatives with the largest timber harvest required the most activity fuel treatment, as displayed in Table II-4, Chapter II. The treatment of slash created by timber harvest is necessary to reduce insect and disease problems and to reduce the possibility of uncontrolled wildfire. As more roads are developed and areas accessed the potential for man-made fires increases; especially with concentrated use such as firewood gathering in areas where activity fuels have not been burned. Treatment of activity fuels over time and increased access will reduce the potential for uncontrolled wildfires.

The creation of activity fuels and their treatment by fire would increase smoke and particulate matter released into the atmosphere. Alternatives which harvest the most acres would generate the most smoke and particulate matter.

Table IV-4 displays the distribution of Forest condition classes by alternative for decades 1, 5, 10, and 15. These figures show the Forest maintaining significant amounts of old growth (at least 30%) under all alternatives, except for alternatives C, B and I in the tenth decade. Alternatives B, C, E, I, and J provide the best distribution of acreage within the seedling-sapling to young growth sawtimber classes, which is needed for diversity.

The condition classes shown in Tables IV-4 and IV-4a, as projected by the FORPLAN model, are fairly simplistic. While the model accurately accounts for vegetation manipulation through human activities, it does not attempt to project catastrophic events such as major wildfire, or insect and disease epidemics.

TABLE IV-4
Forest Condition Class Acreage by Benchmark (M Acres)*

	Decades	Seedling Sapling 0-29	Poles 30-79	Sawtimber 80-120	Old Growth 120 +	Total
Min. Level	1	28.9	93.8	66.3	465.8	655.0
	5	11.2	17.8	93.8	532.1	655.0
	10	11.1	----	17.8	626.9	655.0
	15	11.1	----	----	643.7	655.0
Max PNV	1	12.2	110.3	66.3	465.7	655.0
	5	126.0	174.9	45.4	306.1	654.0
	10	23.5	214.5	163.9	252.4	655.0
	15	9.9	30.8	202.0	411.3	655.0
Max Tim	1	27.3	95.2	66.2	465.7	655.1
	5	124.9	178.5	73.4	277.6	655.0
	10	66.8	220.6	166.5	200.3	655.0
	15	95.3	168.7	132.9	258.2	655.0
Max Range	1	27.3	80.2	66.2	465.7	655.1
	5	159.1	173.4	52.0	259.9	655.1
	10	29.8	253.5	172.4	198.2	655.1
	15	205.2	126.3	217.4	125.1	655.0
Max Water	1	27.3	95.2	66.2	465.7	655.0
	5	153.9	182.3	52.7	265.5	655.1
	10	28.2	243.5	167.6	195.7	655.1
	15	182.5	177.1	139.2	215.2	655.1

* Acreage variations due to data errors in these Benchmarks and rounding.

TABLE IV-4a
Forest Condition Class Acreage by Alternative (M Acres)*

	Decades	Seedling	Poles	Sawtimber	Old Growth	Total
		Sapling 0-29	30-79	80-120	120 +	
Alt. A	1	28.9	93.7	66.3	465.7	655.1
	5	81.0	84.2	92.3	397.2	654.6
	10	67.7	192.8	79.3	314.4	655.1
	15	55.5	135.0	130.1	333.2	655.1
Alt. B	1	27.5	95.4	66.3	465.8	655.0
	5	105.2	126.3	85.3	338.1	654.9
	10	86.3	258.4	114.3	196.1	655.1
	15	71.2	153.4	221.9	208.4	654.9
Alt. C	1	28.8	93.7	66.2	465.7	655.0
	5	124.4	110.9	90.2	328.8	655.1
	10	101.5	297.6	98.9	156.1	655.2
	15	24.5	157.1	226.3	246.2	655.1
Alt. D	1	28.8	93.7	66.2	475.8	665.1
	5	89.7	82.7	78.3	413.6	665.1
	10	63.4	212.9	71.4	326.4	665.1
	15	57.0	137.0	139.5	330.6	665.1
Alt. E	1	27.3	90.2	71.2	455.7	655.1
	5	120.3	109.3	91.0	333.7	655.1
	10	98.1	286.7	97.3	171.8	655.4
	15	40.7	169.9	215.8	226.7	655.1
Alt. F	1	28.8	93.7	66.3	475.8	655.1
	5	29.5	33.8	90.5	510.3	665.1
	10	83.9	140.5	22.7	417.2	665.1
	15	63.5	197.1	84.4	319.0	665.1
Alt. G	1	21.3	59.1	107.3	465.7	655.0
	5	98.4	68.6	87.4	430.0	655.0
	10	56.5	167.0	61.3	369.5	655.0
	15	46.6	117.9	109.2	380.3	655.0
Alt. H	1	28.8	93.7	66.2	465.7	655.0
	5	100.4	117.4	83.2	353.3	665.0
	10	78.1	233.3	105.6	235.1	655.0
	15	62.9	163.5	156.0	271.6	655.0
Alt. I	1	28.8	93.7	66.2	465.7	654.4
	5	105.1	142.4	82.5	324.2	654.9
	10	84.5	262.6	130.4	176.5	655.0
	15	71.3	158.9	188.1	235.7	655.0
Alt. J	1	27.4	88.6	73.0	465.8	655.0
	5	97.2	99.9	73.3	384.6	655.0
	10	92.6	230.1	87.9	245.9	656.6
	15	57.2	195.1	160.2	242.4	654.8

* Acreage variations due to data errors in these alternatives and rounding
IV-22

The major effect of timber harvesting on range is the creation of transitory range. This is described under the Range discussion in this chapter. One adverse effect on range is the removal of natural barriers as a result of timber harvesting. This is mitigated through fence and cattleguard construction as necessary.

Alternative I harvests significantly high levels of forested acres causing adverse impacts (primarily size and spatial relationship and changes in forage cover ratio) to wildlife that could not be mitigated. Application of wildlife standards and guidelines would be difficult to incorporate in this situation.

Alternatives F and G are not expected to create any adverse impacts to wildlife since the overall acreage of timber harvest is low. However the low levels of timber management could reduce vegetative diversity over time. The chance for a catastrophic event such as fire or insect and disease damage, would be increased.

Available elk security cover is an important factor in determining the impact of timber management on wildlife. Alternatives with the highest number of acres harvested would have the largest impact on effective elk security cover. Mitigation measures include road closures and modification of the location and size of timber sales. In addition, the Utah Division of Wildlife Resources could consider adjusting seasons and tightening controls in some localities if elk are found to have insufficient security cover during hunting seasons. Alternatives which have fewer harvested acres should also retain much of the needed security cover.

As shown previously in Table IV-3 wildlife species will have sufficient old growth under all alternatives.

Fish populations are affected by timber harvest primarily in riparian areas. Riparian areas suitable for timber management have the potential for adverse impacts on fisheries. These effects include increased sedimentation as a result of harvesting activities and roading, and increased water temperature as a result of removing riparian cover. Adverse effects would be mitigated in all alternatives by selection harvesting in riparian areas using logging systems as required to minimize soil disturbance. Standards and guidelines for management activities in riparian areas would be applied in all alternatives.

As shown in Tables II-4 and II-5 in Chapter II, water yield increases significantly. The increase in water yield would not affect stream channel morphology as long as increased yields are not concentrated in any drainage. Where limited clearcut sizes are not stipulated, an increase in water yield could alter streamflow regimes and change channel morphology.

Timber activities impact soils from two standpoints: harvesting and road construction. Harvesting and site specific management practices including yarding, dozer piling, burning, and scarification all affect

the soil. In addition, road construction associated with timber harvesting can be the most significant source of soil loss and sedimentation. Soil loss resulting from road construction is discussed in the "Facilities" section of this chapter.

Other impacts associated with timber harvest can create subsoil exposure, organic matter loss, leaching, microsite effects and compaction. Those acres that have dry, shallow, and infertile soils, along with those soils that have become compacted may prove difficult to regenerate. Intensive site preparation, which displaces litter and surface soil, or includes hot burns, may result in decreased soil productivity for a number of years and may increase rotation length.

Alternative I would have the greatest potential for impacting soil productivity and alternatives F and G would have the least potential. Forest-wide standards and guidelines provide for maintaining or improving long-term soil productivity in all alternatives.

Existing recreation settings are changed by developments associated with timber management such as timber harvest and road construction. Recreational opportunities are not eliminated, but rather are changed. For example, big game hunting can take place in all recreation settings, but the experience level is dependent on the setting. Some recreation opportunities, such as seeking solitude, are limited to a certain recreation setting. Changes in recreation setting are usually gradual over time. This change in recreational settings would result in the displacement of some Forest visitors. As the recreational settings shift towards development, there would be changes in the types of dispersed recreational experience. While these changes in recreational experience are linked to increasing commodity production, they are largely unquantifiable. Alternative J offers more opportunity since it has the least amount of change since a considerable area is set aside during the first decade where timber harvest activities are not permitted. However, this will result in increased activities on the lands outside of this area.

In alternatives B, C, E, H and I, where intensive timber management prescriptions are applied, recreation activities may be limited for short periods of time to allow for establishment of seedlings, thinning, and other timber activities. In all alternatives National Recreation Trails will be protected from incompatible timber management activities.

Alternatives D, F, and G would retain large acreages in a natural recreation setting. On acres assigned to timber harvest, however, Alternatives C, H and I would be intensively managed for timber production.

Visual resources can be enhanced, rehabilitated, and maintained through vegetative treatment. The amount of vegetative treatment varies by alternatives, depending on which prescriptions are brought into solution. Visual quality objectives establish the maximum amount of change to the visual resource acceptable by alternative. Alternatives with the larger number of acres in the modification and maximum

modification classes (B, C, E, H and I) would have the potential for the most disruption of the visual resource. Alternative J is the lowest of all alternatives except F and G which have basically no acres assigned to modification or maximum modification.

Timber management activities and road construction have the most significant effect on visual quality. Although the impacts of timber management are generally short-termed, the immediate change to the existing landscape may be undesirable to Forest visitors. The establishment of visual quality objectives provides the method for carrying out timber management while protecting the visual resource. Treatments would be spaced and timed so that adverse visual impacts would be minimized. The mountain pine beetle epidemic and associated timber activities require special treatment to maintain acceptable management of both the visual and the timber resources.

6. WATERSHED

Water

Water yield: Water yields from management activities would increase in all alternatives. The following table displays increased water yields by alternatives.

COMPARISON OF ALTERNATIVES BY WATER YIELD (M. AC. FT.) INCREASES OVER NATURAL*

Time Periods

<u>Alternative</u>	<u>86-90</u>	<u>91-00</u>	<u>01-10</u>	<u>11-20</u>	<u>21-30</u>
A	5	13	24	33	39
B	8	22	38	49	56
C	6	17	34	50	61
D	16	24	37	48	55
E	8	20	37	51	62
F	11	10	14	19	21
G	4	11	21	29	34
H	8	22	38	50	55
I	12	30	46	55	60
J	5	14	28	40	48
Max Water Benchmark	15	40	66	82	81

Demand There is a demand for all the water that can be produced.

* Increases include all water increases, potentials and not just water meeting quality goals.

Overall water yield increases will be minor relative to the total water yield.

Increases in water yield area result of the Mountain Pine Beetle epidemic and management activities (primarily timber harvest). Along with the increases in water yield resulting from pine mortality, the alternatives that increase the number of acres harvested would result in increased water yield until vegetation is reestablished. Increases in water yield will be evaluated on each area proposed for timber harvesting in the Environmental Assessment process to insure that stream channel stability is maintained.

In all alternatives, through all decades, there would be an increase in water yield. Alternative D shows the greatest increase for the first decade of all alternatives. By the 5th decade alternative C produces the most water with other commodity alternatives also producing a high level of increase.

Water Quality

The necessary level of water quality can be met by compliance with Federal and State water quality standards. Numerous water quality investigations on the Ashley National Forest during the past decade have shown the water on and leaving the Forest to be of high quality and generally adequate to meet or exceed the needs of identified beneficial use requirements, and to be within the State water quality standards. (See Table II-4 and II-5 Chapter II).

The primary sources of water pollution on the Forest includes grazing, construction associated with the Central Utah Project, logging, and road construction and maintenance. These activities can influence the bacterial, chemical, and physical (sediment) components of water quality. Effects from livestock grazing should be abated by continuing present mitigation measures. Effects from oil and gas exploration, mineral, and development can continue to be mitigated on a case-by-case basis.

Water quality is affected primarily by road construction. These impacts are usually localized and are anticipated to be restricted to the first 3 years following road construction. Forest-side standards and guidelines would be applied to minimize adverse impacts to water quality.

Alternatives F and G would result in less water meeting quality standards than the other alternatives due to a lack of investment in soil and water resource improvements. All other alternatives would have an increase in water meeting quality standards. Timber harvesting increases water yield and investment in soil and water improvement increases the amount of water meeting quality standards. Alternative D would produce the largest increase meeting quality standards in the first decade. By the fifth decade alternatives C, E, and I would be producing the largest amount of water meeting quality standards.

No violations of State water quality standards are foreseen for any of the alternatives. However, there would be variations in general water quality over time and between alternatives. All of the alternatives would present some degradation of water quality as a result of increased sedimentation by the 2nd decade. This would be due to the need to harvest timber stands on steeper slopes, on more erosive soils, and on more difficult to access areas. Although measures would be taken to minimize erosion, an overall increase in sedimentation would occur, even in those alternatives with high budget levels. In the Non-Market Alternative the increase should be more than offset by reductions in erosion on rangelands, improvement in riparian area condition, and improved streambank stability. This would be accomplished by reductions in livestock numbers and more intensive management of livestock in riparian areas. The Constrained Budget and Current Budget Alternatives would result in increased sediment production from rangelands and riparian areas despite declines in livestock numbers, due to reduced service levels.

It is assumed that the eutrophication problems in Flaming Gorge would be addressed by a coordinated multi-agency rehabilitation program. We assume that this program would be successful in improving or at least arresting the decline in water quality conditions. However, the Constrained Budget Alternative would not allow the Forest Service to sustain a pivotal role in the rehabilitation effort. Consequently, water quality parameters in the lake would improve at a slower pace than in other alternatives.

Sediment

Sediment from management activities has the greatest potential to impact Forest water quality. Accelerated sediment affects spawning and rearing habitats of fish. Sediment begins to have adverse impacts when produced in quantities which exceed a stream's transport capability. All alternatives contain sediment restrictions which would, at a minimum, be compatible with fish habitat quality goals.

There is an increase in sediment delivery in the first decade in alternatives C and E. Alternative F would have reduction in sediment from the first decade current. All other alternatives would be similar to the current situation in the first decade. By the fifth decade alternatives C and E are the highest producers of sediment, alternatives B, I and J are relatively high and alternatives A, D, F, G, and H are relatively low to moderate producers.

The following table displays a comparison of sediment yields by alternatives.

COMPARISON OF ALTERNATIVES BY SEDIMENT YIELD (TONS)

Time Periods

<u>Alternative</u>	<u>86-90</u>	<u>91-00</u>	<u>01-10</u>	<u>11-20</u>	<u>21-30</u>
A	32	33	35	38	36
B	32	38	43	48	49
C	34	41	46	51	50
D	32	33	34	38	35
E	36	44	46	51	50
F	31	31	31	32	34
G	32	32	33	34	36
H	32	33	35	38	37
I	32	36	43	50	48
J	32	36	41	48	48
Max Water Benchmark	38	46	51	54	53

Wilderness areas should remain near current levels due to restrictions on sediment producing management activities. (Does not include the unforeseen occurrence of wild fires.)

Sediment delivery to a stream is related to both onsite soil loss and streambank erosion. Streambank erosion may be affected by road construction, livestock trampling, ORV use and high density recreation use. While onsite soil loss can be reduced through non-structural or structural watershed, range, and wildlife improvement projects; bank erosion can be reduced most effectively through streambank stabilization, riparian fencing, and reduction in grazing and recreation pressures.

Water Uses and Facilities

Most of the dams and water transmission facilities that would be on the Forest by the end of the planning period are probably already in place. This would not change by alternative. There would be some additional diversions on the Forest under all alternatives. These would generally be small in scale and would allow for instream flow needs to maintain fisheries and riparian ecosystems. This would be due to new water diversions where values associated with off-Forest water development would be favored over riparian and fisheries value. All alternatives would allow for correction of the existing erosion problems associated with water transmission facilities.

Consumptive water uses for management purposes would increase slightly in all alternatives. This increase would be greatest in the Market Emphasis Alternative, due to increases in the number of developed recreation sites and in the number of permitted livestock.

Soil

The three watershed related environmental indicators are soil productivity (essentially estimated by on-site soil erosion), sediment yield (a measure of how much of the eroded soil actually gets to the streams), and water quality (a measure of the effect unacceptable pollutants have on the receiving bodies of water and their beneficial uses). Complex processes are involved in all of these indicators. Estimates are subjective to a large degree, and are based on considerable professional judgement.

A basic assumption of planning under NFMA is that resource activities which significantly or permanently impair long-term soil productivity will not be implemented. Consequently, all management activities implemented under a Forest Plan can be assumed to adequately maintain long-term soil productivity. Monitoring during Plan implementation must be initiated to verify that this is indeed the case, since in most instances, data to support the above assumption is lacking.

Disturbance associated with road construction, timber harvest, and site preparation causes widespread soil impacts on the Forest. The degree of duration of these impacts depend on the kind and condition of soils and landscapes, the intensity of the management activity, the mitigation measures applied, and the unpredicted events of high intensity storms or wildfires.

Mining and energy exploration can have major impacts on soil. Short-term effects are usually unavoidable but mechanisms exist to control long-term effects. Livestock grazing is responsible for only localized soil loss and disturbance. Vegetation manipulation is planned so that potential damaging impacts can be avoided. Soils bared by burning, spraying, or chaining are rapidly revegetated and the net effect would be positive for both forage and soil.

The Forest has the potential for wildfires because of natural fuel loading and climatic conditions (drought). Hot wildfires consume both standing vegetation and detritus. A hot fire can expose the soil, destroy natural soil structure, kill micro-organisms, and cause hydrophobic surface soil. These factors increase the potential for surface runoff, erosion, and decrease soil productivity.

The amount of soil loss and stream sediment produced by ORV use is probably small. However, puddling and compaction of wet areas is increasing with increased use. Emphasis on riparian area protection may bring about tighter restrictions on ORV's through the travel plan. Damage from cross-country use of vehicles is generally localized. Area closures for watershed in the future will depend on the amount and type of resource damage occurring.

Watershed condition: Watershed condition is a measure of soil productivity, hydrologic condition and water quality. The condition of the watershed may be rated as maintained, improved, or declining.

Improved watershed condition is the result of watershed improvement projects. Both declining and maintained watershed condition acres may be improved. Watershed improvement projects decrease soil erosion, improve water quality and maintain or improve site productivity.

Declining watershed condition are acres of land that are continuing to decline in watershed condition or soil productivity due to past management activities or natural disaster.

At the start of the planning period for all alternatives there were approximately 1,000 acres that require watershed restriction.

Completion of watershed improvement projects to eliminate the watershed backlog will decrease soil erosion, improve water quality and improve watershed condition. Under all alternatives except F and G the backlog is completed by the year 2000. Completion of the backlog, although programmed, will depend on budgeting.

Municipal watersheds will be protected in coordination with City, County, and State agencies under all alternatives.

Soil productivity

All alternatives could result in changes to the environment which could reduce short or long-term soil productivity or that affect other uses or resources.

Data to accurately evaluate soil productivity relationships are generally not available in Region 4. If current direction is implemented, better data should be available in the future.

Table IV-5 displays the percentage of National Forest System land which provides for the long-term maintenance of soils productivity, (figures given are for the end of the decade). Acres not maintaining long term soil productivity is considered to be the sum of:

- (1) Acres identified as part of the soil and water resource improvement backlog.
- (2) Acres permanently taken out of productivity.
- (3) Acres where established soil loss tolerance levels are exceeded.

There are currently 1817 miles on the inventoried road system, 1400 acres of administrative sites and approximately 1000 acres identified as part of the soil and water resource improvement backlog.

LAND PROVIDING FOR THE LONG-TERM MAINTENANCE OF SOIL
PRODUCTIVITY (% MAINTAINED AT THE END OF THE FIRST DECADE)

Decade 1	A	B	C	D	E
	<u>Current</u>				
Acres maintained	1,358,372	1,357,064	1,357,640	1,358,653	1,357,430
% maintained	98.9	98.8	98.9	98.9	98.9
Acre loss	14,847	16,155	15,579	14,565	15,789
	F	G	H	I	J
Acres maintained	1,359,560	1,359,940	1,357,346	1,356,872	1,357,430
% maintained	99.0	99.0	98.8	98.8	98.9
Acre loss	13,659	16,273	15,873	16,347	14,060

Effects on other Resources

Soil and water restoration is the major project in the soil and water program that would have an effect on other resources. Soil and water restoration projects would have a beneficial effect on other resources such as timber and range from the standpoint of increasing productivity, maintaining soil stability, and decreasing erosion and sedimentation. There would be a beneficial effect on the wildlife and fish resource from the standpoint of improving streambed stability and riparian ecosystem condition. Silt reduction and improved water quality and flow conditions would improve fish spawning habitat.

The amount of beneficial effect would vary by alternative dependant on the programmed soil and water resource improvements.

Watershed support to other resource elements in the environmental analysis and assessment process would have a beneficial effect from the standpoint of resource protection. Except for the Constrained Budget Alternative, the alternatives provide a sufficient amount of watershed management support to the other resources. This could be used to identify mitigating requirements for resource protection.

There are adverse environmental effects of the watershed on other resources. Alternatives F and G do not have programmed restoration work. Under these alternatives the untreated areas would continue to erode until treated. The resulting erosion, sediment, and loss of soil productivity are adverse environmental effects that cannot be avoided.

Under all alternatives some watershed areas will remain in a deteriorated condition or will deteriorate further before rehabilitation practices can be applied. Alternatives with low budgets for soil and watershed will be the worst in this regard. This deterioration will produce additional erosion and sediment. Furthermore, some riparian areas will deteriorate further if not protected. Increased use of ORV's plus deterioration of roads and trails will increase erosion and the production of sediment in streams.

Watershed treatment practices generally involve the removal of existing vegetative cover. The short-term effect on the soils is negative, but the anticipated long-term effect is positive, as improved ground cover should lead to decreased onsite erosion.

Soil and water resource improvement projects would improve long-term productivity by reducing on-site soil erosion and sedimentation, improving streambank stability and improving water quality. Treated areas would be returned to producing resource outputs such as livestock, and wildlife forage of wood fiber.

None of the alternatives totally eliminate soil erosion, nor is this necessarily a desirable goal. Those percentages of the Forest where long term soil productivity is not maintained or onsite erosion is not reduced could be considered an irretrievable loss.

Except for large scale watershed rehabilitation structures, there would be no significant irretrievable and irreversible commitment of resources. Only the structure itself such as rock gabions, etc., would take any lands out of production. Most watershed restoration projects would result in the entire treated area returned to production.

Riparian

Scattered areas of relatively small wetlands, floodplains, and other riparian areas occur throughout the forest. Many of these acres of forest riparian areas are suitable for timber management. Forest-wide Standards and Guidelines, (see Chapter IV of the Forest Plan) give specific management direction for these areas. Forest management activities in any wetland, floodplain, or riparian area will be designed to prevent long- and short-term adverse impacts, in accordance with Executive Orders 11988 and 11990, and the direction outlined in the Forest Service Manual.

The amount of riparian ecosystem would remain essentially the same in all alternatives except C and I where some loss of riparian ecosystem is anticipated. Riparian ecosystem condition would be maintained or improved in alternatives D and J. In alternative H, a decline is anticipated primarily as a result of increased or less rigorously managed livestock grazing in riparian areas. Alternatives C and I would be managed with a timber emphasis on approximately 50% of timbered riparian areas. Alternatives A, B, E, and H would emphasize timber on approximately 20% of timbered riparian areas. Alternatives D and J would emphasize wildlife in riparian areas and timber harvesting would be done to benefit wildlife. With improved riparian condition in alternatives D and J, recreation use will increase, especially in the J alternative. This may result in needed restrictions to maintain the riparian ecosystem. Use of riparian areas in alternatives F and G would increase due to a lack of management, causing an overall deterioration of the resource.

Additional Management Effects of Timber Harvest on Watershed Condition

Most timber management activities involving land disturbance and vegetative manipulation contain some risk of producing adverse watershed impacts. Sediment impacts have been analyzed and discussed previously. Primary additional areas of concern include possibilities of: (1) channel encroachment from roads located in narrow drainageways; (2) channel blockages resulting from windthrow, logging debris, or improperly installed culverts; (3) streambank and channel destabilization resulting from increased water yields; (4) accelerated mass failure from clearcutting on slopes exceeding 60 percent steepness; and, (5) detrimental water temperature change resulting from vegetation loss along streams.

There are no technical methods to remove all risks from alternatives which involve extensive land disturbance or vegetative manipulation. The amount of risk, however, may vary between alternatives based upon where, when, and how activities are conducted, and the level of outputs in relation to the disturbance being produced.

Factors that would tend to compensate for these risks include the Forest-wide Standards and Guidelines which provide direction to prevent, minimize, and mitigate these impacts. Also, the fact that all timber management activities occur on slopes less than 45 percent steepness provide a great amount of flexibility with regards to locating roads away from stream channels or selecting favorable road locations when crossing a stream.

Detrimental Change in Water Temperature

Removal of vegetative cover along waterways can result directly or indirectly from forest management activities. Loss of protective thermal cover can have temporary and spatially limited direct adverse impact on aquatic ecosystems. Affected stream sections can experience measurable extremes. Under most timber harvest related circumstances, recovery normally occurs within 5 to 7 years following vegetation removal. All scheduled harvest in riparian areas are by uneven-age or selection means; therefore the shading or cover effect will remain in the areas scheduled for timber management unless blowdown causes larger openings.

7. MINERALS AND ENERGY

The Bureau of Land Management (BLM) is responsible for mineral leasing on Federal lands. By interagency agreement, the BLM refers all lease applications on National Forest to the Forest Service for review and recommendation. The Forest Service then recommends to the BLM whether or not those lands should be leased and, if so, what stipulations are needed to protect surface values and uses.

Activities for common variety minerals are regulated by the Forest Service. Activities on mineral leases which involve exploration drilling or field development are regulated by the BLM. Through a cooperative agreement, the BLM is responsible for enforcement of surface

protection and reclamation requirements recommended by the Forest Service. Although the Forest Service does not have the authority to approve certain activities on leases, it does participate in review of all permit-to-drill applications, and in on-the-ground administration of all on-going projects in conjunction with the BLM.

Locatable, common variety, and leasable minerals activities take place on most of the available acres of the Forest but the oil and gas commodity with all of its associated activities is somewhat limited. Leasable minerals production, including oil, gas, and phosphate could be affected depending on the alternative selected. Where the area is assigned to management prescription g. (Dispersed Recreation High) oil and gas lease renewal will not be recommended. Most of the Forest available lands are presently leased and or constrained with standard and some special stipulations to protect surface resource values.

An analysis has been made of the effect each alternative has on oil and gas leasing by the geologic potential of the Forest. The results are displayed in Table IV-6. The matrix in the Table IV-6 utilizes the two classifications "geologic potential" and "access restrictions". It is based on the total Forest acres.

TABLE IV-6 Geologic Potential for Oil and Gas with Operating Constraints

Alt.	Access Restrictions**	Geologic Potential*				Total
		High	Medium	Low	Unknown	
A	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	28,282	120,200	311,106	247,471	707,060
	Moderate Restriction	14,700	62,473	161,695	128,621	367,488
	Low Restriction	1,469	6,243	16,159	12,855	36,726
	Total	55,388	235,399	609,268	484,645	1,384,700
B	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	26,309	101,812	289,395	230,200	657,715
	Moderate Restriction	15,893	67,544	174,821	139,062	397,320
	Low Restriction	2,250	9,561	24,745	19,684	56,239
	Total	55,388	235,399	609,268	484,645	1,384,700
C	Total Restriction	10,937	46,482	120,307	95,669	273,426
	High Restriction	23,961	101,836	263,575	209,662	599,035
	Moderate Restriction	11,791	50,113	129,705	103,174	294,784
	Low Restriction	8,698	36,966	95,676	76,106	217,445
	Total	55,388	235,399	609,268	484,645	1,384,700
D	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	29,794	126,626	327,738	260,701	744,860
	Moderate Restriction	14,359	61,025	157,947	125,640	358,971
	Low Restriction	1,898	8,065	20,875	16,605	47,443
	Total	55,388	235,399	609,268	484,645	1,384,700
E	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	23,961	101,836	263,575	209,662	599,035
	Moderate Restriction	15,813	67,206	173,946	138,366	395,332
	Low Restriction	4,676	19,874	51,439	40,917	116,907
	Total	55,388	235,399	609,268	484,645	1,384,700
F	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	28,285	120,211	311,135	250,994	707,125
	Moderate Restriction	16,066	68,281	176,726	140,578	401,651
	Low Restriction	94	399	1,032	821	2,345
	Total	55,388	235,399	609,268	484,645	1,384,700

Table IV-6 - CONTINUED

Alt.	Access Restrictions**	Geologic Potential*				Total
		High	Medium	Low	Unknown	
G	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	29,121	123,763	320,329	254,807	728,020
	Moderate Restriction	15,230	64,729	167,533	133,265	380,756
	Low Restriction	94	399	1,032	821	2,345
	Total	55,388	235,399	609,268	484,645	1,384,700
H	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	25,195	107,077	277,142	220,454	629,869
	Moderate Restriction	14,368	61,063	158,047	125,719	359,197
	Low Restriction	4,888	207,705	53,772	42,773	122,208
	Total	55,388	235,399	609,268	484,645	1,384,700
I	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	23,961	101,836	263,575	209,662	599,035
	Moderate Restriction	17,850	75,864	196,354	156,191	446,260
	Low Restriction	2,639	11,216	29,031	23,093	65,979
	Total	55,388	235,399	609,268	484,645	1,384,700
J	Total Restriction	10,937	46,482	120,307	95,699	273,426
	High Restriction	26,659	113,303	293,255	23,327	666,489
	Moderate Restriction	15,797	67,136	173,763	138,219	394,915
	Low Restriction	1,995	8,478	21,943	17,454	49,870
	Total	55,388	235,399	609,268	484,645	1,384,700

* Geologic Potential

Unknown: This applies to areas where few facts are known on which to make the evaluation, and the true rating may be low, medium or high.

Low: Very few geologic characteristics are present or favorable for the occurrence of a given resource.

Medium: Some geologic characteristics are present that are favorable for the occurrence of a given resource.

High: Areas of known sources or a number of geologic characteristics are present that indicate the presence of a given resource.

** Access Constraints

Totally Restricted: Statutory or discretionary withdrawals with no leasing permitted, or no lease recommended. Lands include wilderness and management area g.

Highly Restricted: Recommendations usually contain no surface occupancy stipulation. These areas include steep slopes, Sheep Creek Geological Area, Flaming Gorge National Recreation Area, Research Natural Areas, and recreation and administrative facility sites. Restrictions are year long.

Moderately Restricted: Leases usually show seasonal stipulations. Short-term impacts permitted if rehabilitated.

Low Restriction: Leasable with access unrestricted by any surface resource. Reasonable surface damage can be tolerated.

Alternative A and G have the largest amount of acres totally restricted due to the land area assigned to management area g; alternative C, E, and I have the least. The low restriction category has the least amount of acres under alternatives F and G and the most under C and H. Low restrictions were tied to commodity production prescriptions.

Some adverse impacts can be expected from minerals exploration, regardless of the alternative implemented but the RPA 80 and High Productivity Alternatives would generate the most disturbed acreage. These impacts may include road or trail construction for access to valid claims, vegetation disturbance during exploration or development, degraded air quality, reduced water quality, and wildlife disturbance. Environmental assessments for specific projects would consider the protection of surface resources and would be tiered to the Plan and EIS.

Use of Standard and Supplemental Stipulations

- a. The Standard Stipulation (Appendix I) is attached to all oil and gas leases and therefore is mandatory.
- b. Supplemental or Special Stipulations should be used to supplement or expand, where necessary the Standard Stipulation (See following table).
- c. Supplemental Stipulations 1 through 10 are designed to address specific conditions. Supplemental Stipulations 11 through 13 are designed to combine several areas of concern in one stipulation. They can be used as substitutes for one or more of the first stipulations.
- d. Supplemental Stipulation 14 is an alternative to many of the other supplemental stipulations. It alerts the lessee/operator to special values or uses within the leasehold which require special handling and may result in higher operating costs. This stipulation may be exclusionary; it allows use and occupancy if the operator can meet the restrictions or standards.
- e. Stipulations 18 through 21 may be used if necessary.
- f. Review of the Standard Stipulation and supplemental stipulation 14 will reveal that most of the common concerns are provided for by these stipulations. The FS/BLM Memorandum of Understanding, (Appendix I) provides for a site-specific evaluation and an opportunity for inclusion of additional necessary stipulations to protect any site-specific values identified at the time the Application for Permit to Drill (APD) is filed.
- g. All of the Special Stipulations were designed for oil and gas leases. However, they can be made applicable to other leasables, subject to revision to adapt them to a leasable mineral. All revisions will be subject to approval by the BLM before attachment to a lease.
- h. Leases that expire will be reviewed and stipulations updated in accordance with current direction prior to being reissued.

Minimum Special Stipulations as a Condition of Mineral Leases

Special stipulations to be recommended to the Bureau of Land Management as a condition of mineral lease (Not all inclusive - subject to site evaluation)

Area/Environmental Condition



No.	Stipulation Summary ^{1/}	Management Area G	Developed Recreation Sites	Administrative Sites	Significant Cultural Area	High Mass Instability Steep Slopes 35% South Unit 40% Rest of Forest	Riparian	Seasonal Wildlife Habitat	T & E Habitat	Special Areas (Sheep Creek, etc.) NRA	Management Area A RNA's	Sensitive Soils (aquic, unstable, high erosion)	Critical Wildlife	All Areas	Retention and Partial Retention
1.	No surface occupancy - entire lease	X									X				
2.	Visual - road, structure, etc.														X
3.	No surface occupancy - legal subdivision				X						X				X
4.	No surface occupancy adjacent to road, river, trail, etc.														X
5.	No drilling or storage near reservoirs, archeological sites, etc.				X		X								
6.	No surface occupancy - steep slopes					X									
7.	No surface occupancy - seasonal							X				X		X	
8.	Prohibit activity - muddy or wet periods													X	
9.	Restricted trail/road													X	
10.	Visual - painting or camouf														X
11.	No surface occupancy - (May replace numbers 1, 2, and 6)		X	X	X	X		X							X

^{1/} See Appendix for complete text of Stipulations

Special stipulations to be recommended to the Bureau of Land Management as a condition of mineral lease (Not all inclusive - subject to site evaluation)

Area/Environmental Condition



No.	Stipulation Summary ^{1/}	Management Area G	Developed Recreation Sites	Administrative Sites	Significant Cultural Area	High Mass Instability Steep Slopes 35% South Unit 40% Rest of Forest	Riparian	Seasonal Wildlife Habitat	T & E Habitat	Special Areas (Sheep Creek, etc.) NRA	Management Area A RNA's	Sensitive Soils (aquic, unstable, high erosion)	Critical Wildlife	All Areas	Retention and Partial Retention
12.	Drilling, storage, surface disturbance next to (May replace numbers 4 and 5)		X	X			X								X
13.	No surface disturbance, exploration, drilling (May replace number 7)							X						X	
14.	Controlled or limited surface use		X	X											
15.	Activity coordination						X	X		X					
16.	Protection of T & E species								X						
17.	Not applicable														
18.	Coordinated Exploration							X		X					
19.	Conditional no surface occupancy														
20.	Unstable soils											X			
21.	Special wildlife and fisheries habitat						X	X						X	

^{1/} See Appendix for complete text of Stipulations

Effects on Other Resources

Oil and gas resource exploration and development involve the construction and use of roads, pipelines, drill pads, and the ancillary facilities necessary for development, production, and transportation. The major on-site physical and biological impacts of these activities are soil erosion, water pollution, and air pollution.

Other mineral and mineral materials exploration, development, and production would also have impacts associated with the construction and use of roads, powerlines, and other necessary ancillary facilities, overburden waste removal and placement for surface or underground mining, and concentrating mills. The major potential on-site physical and biological environmental impacts of these activities would be soil erosion and air and water pollution. Should operations be approved in wilderness, there would be impacts upon the wilderness characteristics of solitude and on the pristine character of the land. The impact of solitude would be limited to the duration of the mineral exploration and development activities. The duration of the impact upon the pristine character of the lands would last until natural vegetation and appearance are restored. The effect would be the same under all alternatives, except a constrained budget would seriously hamper minerals management.

Most mineral or energy developments require an access road and are likely to involve some site excavation. Road construction and the potential for some unwanted travel may cause impacts that cannot be avoided. The impacts of road construction and development excavation cannot be avoided, but most of them can be adequately mitigated. The types of impacts are much the same for all alternatives, but their severity is determined by the amount of activity. The noise, visual impact, and dust of mineral activity cannot be avoided, but in sensitive soils, they may erode and be lost from the site. Most mineral activity requires the clearing of vegetation and removal of soil, loss of livestock forage and wildlife habitat. Impacts to water that cannot be avoided include minor increases in runoff from cleared areas and increased sediment. These cannot be totally mitigated. The likelihood of oil or other pollutants spilling may be reduced in a well-devised spill plan. Most adverse impacts on wildlife and fish habitat can be mitigated or accommodated by the animals' adaptability, but vegetation clearing, sedimentation, and disturbance create some adverse impacts. Usually this impact can be avoided on key wildlife habitats such as elk calving areas.

Impacts of mineral and energy development are usually short-term because adequate technology and planning safeguards exist to return disturbed sites to their former productivity. The mineral extraction process is a short-term activity, however, once removed, minerals cannot be replaced.

Land Ownership and Leasing. Leases are issued for 10 years or a short-term, but mineral claims are long-term commitments and can result in a land patent and transfer of land to private ownership.

Vegetation Resource. Most vegetational cover can be rehabilitated in a short time, but sensitive species with small localized populations may be lost permanently. Removal of sensitive types of vegetation would have a long-term adverse effect, especially in alpine zones.

Soil Resource. If vegetation is removed from a high precipitation area, serious soil erosion may result. Exposure of highly sensitive soils can result in erosion or mass soil movement. This would be a long-term effect because it would take many years to replace the soil.

Hydrology and Water Quality. A minor increase in runoff is expected under any alternative. This runoff may add sediment to the streams, a short-term effect. There is a slight chance of an oil or chemical spill, which could have a long-term effect. Both effects can be held to a minimum if proper procedures are followed.

Cultural Resources. These resources are not expected to be affected unless an unintentional disturbance occurs, in which case damage could be a long-term effect.

Wilderness. Where development is allowed, wilderness values would be lost until such time as natural conditions could be restored. This would be a long-term or permanent effect.

Wildlife and Fish Habitat. Most impacts on wildlife and fish are short-term. Site rehabilitation can usually restore the long-term productivity of these habitats. If cumulative impacts create loss of wildlife or fish habitats, the impact would be long-term.

Recreation: Noise, air pollution, and visual intrusion create short-term impacts that cease to exist following termination of the activity. Impacts on recreation opportunities are generally short-term unless roads remain open which alters the type of recreation opportunities available over the longer-term.

Positive impacts include the fact that local roads are currently being constructed primarily in conjunction with timber resource activities.

These local roads access areas that are compatible with multiple resource and management uses. Roads are also discussed in the *Facilities section of this chapter.*

A federal mining leasing charge is assessed on oil and gas leases. Fifty percent of this money is paid to the State and redistributed to county and local governments. Minerals exploration and development provides primary and secondary employment to the local and regional economy.

Operating plans would include provisions to minimize adverse environmental impacts on surface resources in all alternatives. The requirements for air quality, water quality, solid waste disposal, scenic values, fisheries and wildlife habitat, roads, and reclamation would also be incorporated. Reasonable conditions for surface resource protection would be imposed.

8. RESEARCH NATURAL AREAS:

Candidate Research Natural Areas

The National Forest Management Act Regulations, 36 CFR 219.25, state that "Forest planning shall provide for the establishment of Research Natural Areas". In accordance with this requirement, the Forest has identified the following areas as Candidate and potential Research Natural Areas. Research Natural areas are programmed in all alternatives.

<u>Area</u>	<u>Acres</u>
Sims Peak Pothole	650
Gate of Birch Creek	240
Pollen Lake	1,025
Ashley Gorge	1,085
Shale Creek (Uinta River)	2,925
Gilbert Creek	2,545
Timber Canyon-Cow Ridge	334
Lance Canyon	110

Establishment reports will be prepared as part of plan implementation. If the Establishment Reports determine they should not become Research Natural Areas, they will be managed as part of adjacent management areas. A more detailed description on Research Natural Areas is contained in Chapter 3 and in the AMS Document.

Designation of Research Natural Areas is a long-term commitment, but does not reduce productivity.

Designation of Research Natural Areas is reversible. However, alteration of natural areas by human activities often is not reversible from a scientific perspective. Once natural ecosystems are unnaturally altered, their values as a scientific baseline is diminished.

9. AIR QUALITY:

Alternative A would have temporary degradation from road construction, logging activity and slash disposal. Alternative B would have temporary decrease in air quality due to activities associated with timber harvesting, i.e. more mills and manufacturing plants, road construction, logging, and slash disposal. Activities at moderately high levels over the planning period in alternative C, will increase duration and amount of degradation from such activities as timber harvest, sagebrush spraying and pinyon/juniper burning. Alternatives D and J would be similar to current with the possibility of a large wildfire. Alternative E is similar to C. Alternatives H and I are similar to B.

10. FIRE PROTECTION:

Under alternative A, fire size and intensity would increase as beetle killed trees fall and create increased fuels. Alternative B would have the same results as A except fuel loading would be decreased proportionately to acres harvested. Alternative C would have decreased fuel loading by harvesting. Harvesting will decrease the hazard, however, activity would increase the risk. There would be an increased fuel loading and hazard in alternative D. The risk would be the same as current because of similar activity levels. Alternative E is similar to alternatives B and C. Alternatives F and G would have the potential for high increase in hazard as beetle kill falls and contributes to ground fuel loading. The risk is at reduced level due to few activities. Alternatives H, I, and J are similar to B.

Regardless of the alternative implemented, the risk of fire would increase as the nearby population grows and more people use the Forest for recreation. Reduction of accumulated fuels resulting from management activities in most alternatives throughout the planning period would reduce the fire hazard to a tolerable level.

Fuels would be decreased primarily through commercial sale of insect-infested lodgepole pine and encouraging public cutting of fuelwood in designated areas.

11. LAND PURCHASE, ACQUISITION, AND ADJUSTMENT:

In general, the land acquisition program would not be affected by the alternatives considered. The Ashley National Forest does not have large or numerous tracts of private or state lands within the Forest boundary. Land ownership problems adjacent to the Forest or the need for boundary adjustment is not a problem. As a result this program would not vary significantly among alternatives.

Specific land acquisition and exchange will be analyzed through the Environmental Assessment process on a case-by-case basis. This assessment will be made when cases arise which are advantageous to the Government, facilitate management, are requested by the landowner or are necessary to protect significant features.

12. FACILITIES:

a. Roads

Arterial/collector and local road construction/reconstruction on the Forest varies by alternative as displayed in Table II-4. The amount of access necessary outside the forest boundary is considered constant for all alternatives. Local roads would generally be constructed by timber purchasers, but there is a need in all alternatives to finance construction with appropriated money where current timber values are too low to carry the cost. This is especially true for first entry into a drainage. Road construction has one of the most significant impacts on the Forest, affecting most of the other resources and uses.

The necessary arterial/collector road system is in place except for two or three areas that are not accessible by road. All alternatives identify a need for local road construction or reconstruction. The construction of local roads would be directly related to the proposed volume of timber harvest and these comparisons can be analyzed by review of Table II-4. About half of these proposed roads would be used as short-term facilities or intermittent facilities. In all alternatives, road closures would be used to reduce costs of initial investment and maintenance.

Effects on Other Resources:

Road construction changes the recreation opportunities from primitive, and semi-primitive to a lightly developed motorized setting. This in turn affects the type of recreation activities and user groups. For example, as access impacts wildlife habitat, the quality of hunting experience may change.

Those alternatives which cause the conversion of primitive/semi-primitive areas to roaded areas reduce the opportunity for recreation activities commonly associated with isolation or solitude. However, new activities or opportunities of a different type are presented.

Timing of roading associated with timber harvest and subsequent road closures create a situation where areas are active with resource management activities for a while then completely quiet for a long period of time. The evidence of man's activities may remain, but in some situations, these areas can offer recreation opportunities that provide some people with a satisfying backcountry experience.

Although the areas planned for roading would be developed as needed, many parts of these areas would not be roaded because of natural barriers and the need to protect other resource values. Roading activities are generally located on areas where the respective resource values are relatively high for the types of management requiring roading.

From a pure recreation standpoint, the existing transportation system provides access that offers a balanced recreation situation on the Ashley National Forest except for some road surface conditions.

Effective elk security cover, discussed in the timber section of this chapter, is directly affected by the amount of open roads. Effective elk security cover is calculated from a FORPLAN assessment of the actual amount of tree cover capable of hiding an elk, modified by the density of open roads in the area. Hiding cover effectiveness is reduced by an increase in open road density. To take road closures into account, it is assumed that 75 percent of all local roads constructed would be closed. Therefore, open roads used in elk security cover calculations are a total of all existing miles plus all collector roads miles constructed, plus 25 percent of all local road construction.

The mitigation measure of road closures would be used in all alternatives. Under alternatives with high road construction, other mitigating measures would be necessary. These may include adjustment of seasons and hunter restrictions by the Utah Division of Wildlife Resources.

Road construction through riparian zones adversely affects vegetation, water quality, stream channels, and fisheries. To mitigate these impacts, roads would not be constructed in riparian zones unless necessary for crossings. Stream crossings would be designed to avoid blockage of fish movement.

Roads have only a minor negative effect on range through removing land from production and may have positive effects by improving access for livestock control and maintenance of improvements.

Roads have only a minor negative effect on timber through removing land from production. Roads increase the opportunity for intensive timber management practices, salvage programs, and firewood gathering.

Roads and road construction have the most significant impact of any activity on soil and water. Proper road location, design construction, and installation of drainage structures would mitigate the on-site and off-site impacts of road construction. The construction of roads is a long-term commitment of resource. The magnitude of this commitment is reflected in the total miles of road needed for management displayed in Table II-4.

Burning right-of-way slash and dust from construction activities and road use would have localized adverse effects on air quality. These effects should be short-term and not significant.

Road construction and improved access increase the potential for man-caused fires; however, roads increase initial attack capabilities and provide fuel breaks.

Road construction can affect the basic character of the landscape by removing vegetation and disturbing the soil, thus changing the color, texture, and lines of the landscape. In open areas, roads introduce strong lines into the landscape that can be visible for many miles, depending on topography and vegetation. Cut and fill areas are often highly visible and may alter the landscape for long periods of time. Visual quality objectives establish guidelines for mitigating the impact of road construction on the visual resource.

b. Trails

The basic arterial and collector system exists except in a few situations. As the road system is expanded in all alternatives except F and G, some segments of the existing trail system may be

replaced by roads or at least the need or purpose of these existing trails would be changed. In some situations, these trails would be removed from the trail system. Within the Wilderness, some additional opportunity exists for expansion of arterial and collector trail system to facilitate better management and use of the area. Some heavy maintenance and/or reconstruction of the existing system is needed. These situations, conditions, and needs are basically uniform in all alternatives.

Effects on Other Resources

Impacts from the trail facility on other resources is relatively insignificant.

Trails associated with winter sports activities such as cross-country skiing and snowmobiling would be provided in some situations. In many cases, trails for these activities do not require changes in the landscape commonly associated with trails used for foot and horse traffic. Provisions for providing these facilities are consistent in all alternatives.

Seasonal closures of some trails may be necessary in some situations to provide for public safety and protection of wildlife and other resource values.

c. Structures

These facilities are usually site specific such as Forest Service administrative developments including guard stations, work centers, or communication sites. The total number or location of these facilities would not change significantly throughout the alternatives. The primary variable associated with these facilities has to do with intensity of management generated by the alternative. Some alternatives may necessitate slight expansion or retraction of these facilities. For the most part, proper design of these facilities can mitigate any major impacts on various resources.

13. UTILITY CORRIDORS

The Ashley National Forest has analyzed existing and projected utility and transportation needs as one of the key elements in the Forest Planning process.

This recently completed analysis is available for review in planning records and is appended to this document as Appendix H.

Following is a summary of the most significant points from the above analysis.

- a. Two planning "windows" are identified. These "windows" are critical segments of terrain through which rights-of-way could pass in traversing the Forest. These are Red Mountain to Carter Dugway and in the Sowers Canyon area south of Duchesne.

- b. Six exclusion areas are identified. These are areas having statutory prohibition to rights-of-way for lineal facilities or corridor/window designation. These are:
- (1) Flaming Gorge NRA, south of the Pacific Northwest Pipeline Bridge.
 - (2) High Uintas Wilderness
 - (3) Sheep Creek Geological Area
 - (4) Proposed Research Natural Areas
 - (5) Area recommended for Wild and Scenic River Status on the Green River
 - (6) National Recreation Trail Zones at Little Hole and Fish Creek
- c. Existing rights-of-way meeting standards for corridor designation are identified. A corridor is defined as a linear strip of land having advantages over other areas for the present or future location of transportation or utility rights-of-way. Note that no new or potential corridors are identified. These rights-of-way are listed by name and size in Appendix H.
- d. Avoidance areas are identified. Avoidance areas are defined as areas having environmental, statutory, or technological effects that would be difficult or impossible to mitigate. This category includes all Ashley National Forest lands not identified in A, B, or C above.

Effects on Other Resources

The identification and assignment of corridor or window status to an area will usually have only a limited impact on other resources. This is a result of single-use designation which has the effect of taking land out of production for timber and limiting some uses such as recreation, grazing, or minerals activities. Typically, only a few acres are impacted since rights-of-way are narrow resulting in a "low" acreage per mile of linear facility. An exception to the above statements is the impact on visual resources by imposing a linear facility on the landscape. One other exception is the soil disturbance during construction, maintenance, and operation of the facility. Both of those effects can be partially mitigated by careful design and construction practices.

While the effects on other resources is generally limited in scope, as described above, other resource activities or management priorities can affect the inventoried areas noted above.

All alternatives generally have only slight change in acreage assigned to avoidance or exclusion area categories as a result of the passage of the Utah Wilderness Act.

14. INSECT AND DISEASE:

Forest pests have a direct and significant impact on forest resources affecting recreation sites and causing tree mortality and volume loss in timber stands. The principal insects and diseases affecting the Ashley National Forest are mountain pine beetle, ips beetles, commandra rust and dwarf mistletoe.

Mountain pine beetle has caused extensive mortality in lodgepole and ponderosa pine stands for several decades. Epidemic levels of the beetle, recorded since the 1940's, have continued to cycle through the Forest, removing most of the larger diameter trees in infested stands. The most recent outbreak began in the early 1970's around Greendale Junction, and has caused extensive mortality with the Flaming Gorge NRA and other parts of the Forest. The heaviest mortality occurred in 1982 with an estimated 3.5 million trees killed by the beetle. Mortality decreased in 1983 to 1.4 million, but is expected to continue until most of the larger diameter trees are killed in infested stands.

Mountain pine beetle will continue to have a serious impact on lodgepole and ponderosa pine stands causing heavy mortality in overstocked stands of mature trees. Beetle populations increased rapidly in 1981 on the Forest and will continue to increase for the next several years. Populations will remain at epidemic levels in a stand until about 70 percent of the volume and all the larger diameter trees have been removed. Protecting stands from mountain pine beetle should be accomplished by stand hazard rating to identify high-risk stands, monitoring beetle populations and by thinning stands to reduce the potential for outbreaks. Bark beetles will not be eliminated from pine stands by silvicultural practices. However, in commercial stands, losses can be minimized by reducing the susceptibility to beetle attacks. High value trees in developed sites and administrative sites can be treated with protective sprays.

The Ashley National Forest has, in the past, been exposed to rangeland insect infestations, but the problems have never been extensive enough to cause great alarm. Localized areas have had sufficient buildup to warrant control programs. These treatments along with natural low population cycles have confined damages to relatively small areas.

Those insects that have had high enough populations to cause concern are: grasshoppers, black grass bugs, and Mormon crickets. Another range pest that has become somewhat visible on occasion is the tent caterpillar. It has occasionally been seen in sufficient numbers in bitterbrush stands to attract the attention of range specialists. Natural control and subsidence has removed any further concern. Forest range specialists have worked closely with representatives of the Animal and Plant Health Inspection Service (APHIS) in identifying, monitoring, treating, and follow up work with range insects.

All alternatives except F and G have higher amounts of timber harvest and associated cultural treatments. These alternatives with more harvest in early decades will provide for some control of the mountain

pine beetle. Investments in extensive control measures within campgrounds and other development sites will be basically the same for all alternatives except F and G which would not provide for extensive protection at specific sites.

15. SPECIAL AREAS:

Approximately 600,700 acres of Ashley National Forest are subject to special laws, regulations, executive orders, or public land orders. These areas have specific management requirements or restrictions which limit the kind and extent of resources management activities within their boundaries. These land areas include:

<u>Area</u>	<u>Acres</u>
Administrative Sites (2)	1,433
Recreation Areas (43)	11,213
Bureau of Reclamation	28,969
Reservoir Withdrawal for Colorado	
River Storage Project	228,669
Power Site Classification Projects	73,332
High Uintas Wilderness	273,426
Flaming Gorge National Recreation Area	190,902
Sheep Creek Geological Area	3,608

Existing National Recreation Trails

Little Hole	7 miles
Fish Creek	6 miles

Basically all alternatives treat these areas the same because of special legislation, other laws, and regulations.

Wild and Scenic Rivers

The Green River Study completed in 1978, the Draft Environmental Statement in 1979, and the final EIS in 1980 identified the Green River from Flaming Gorge Dam to the southern boundary of Dinosaur National Monument as a river eligible for Wild and Scenic River status. That portion of the Green River from Flaming Gorge Dam to below the confluence of Red Creek is within the Ashley National Forest boundary and consists of approximately 12 miles.

C. ECONOMIC EFFECTS and SOCIAL EFFECTS

A number of social categories or groups of people living near the Ashley National Forest have been identified as most likely to be affected by the different management philosophies expressed by the alternatives. (See Chapter III). These groups are not mutually exclusive since people can belong to several groups. They are, however, categories readily useful for analysis. Further information is available from the "Social Assessment of the Present Situation and Social Analysis of the No Action Alternative" included in the AMS and the planning records on the Ashley National Forest.

Younger Newcomers

Younger newcomers relate strongly to and benefit from those alternatives which limit the activities related to resource use. Alternatives which prompt spraying, burning, fencing, and grazing are less desirable than those which maintain a natural setting.

They would also prefer less timber harvest and roading. This population segment is likely to grow, regardless of the management philosophy selected, because of the attractive features of the area. Alternatives which limit resource activities would speed the growth and those which promote heavy resource use would tend to slow the immigration of this segment of the public.

Millworkers/Laborers

Millworkers/laborers are deeply interested in use of the Forest resources necessary to maintain the industry in which they are employed. Many are also interested in private consumptive use of the forest - game, fish, gathering forest products, etc. This category of people would be most interested in those alternatives which promote utilization of the resource which creates their personal employment. However, they also desire to maintain the resources they gather themselves.

Alternatives which increase the timber harvest and mining potential of the area would either cause an influx of millworkers and laborers or would attract local people to joining this particular work force. Those alternatives placing little emphasis on timber harvest or mining would likely cause this population segment to remain stable or possibly decline.

Ranchers/Farmers

Ranchers/farmers desire to maintain their traditional lifestyle. Yet, they feel most threatened because of high taxes and overhead costs, and low or unstable prices for livestock and crops. The temptation to sell or subdivide is ever present.

Because of pressure to sell, several non-traditional or absentee owners have bought ranch properties. Reasons for buying are numerous but most prevalent are uses as tax shelter and recreation. Most of these new owners do not depend on the land for livelihood. These individuals may have a completely different orientation to life than the typical old-line rancher. Non-traditional ranchers tend to be more amenity oriented than ranchers typical of the area.

Alternatives which increase the availability of forage for livestock or reduce the owner's cost of managing livestock would be most beneficial to the rancher. Because of the beauty of the area, pressures and real estate prices would remain conducive to the "sell-out and subdivide" trend. However, since ranchers of the area view ranching as the only way of life of real interest to them, activities that increase the potential for livestock production would be viewed as positive and may slow the real estate transactions of ranches.

Loggers

Loggers are concerned about local control and economic and lifestyle stability. In terms of Forest outputs they are dependent upon current or increased timber harvest levels.

Alternatives which promote timber harvest and vigorous growth of new trees would be beneficial to this segment of the population. Those which promote less timber management or fewer acres available for timber harvest would likely be met with strong, localized resistance.

Business People

Business people recognize that population increases and resulting increases in business depend largely on increasing commodity production in the area. Therefore, those alternatives which promote production and use of forage, timber, big game, and recreational opportunities would be of most beneficial to the business community. This diverse group is differentially affected, depending on the member's dependence on amenity or commodity outputs from the Forest. Some business people are benefitted by recreational/amenity-oriented alternatives, while others are positively affected by alternatives which increase commodity outputs.

Miners

Miners approach resources from more of a consumptive approach than from an environmentalist viewpoint. However, though some of their efforts tend to scar mountainsides, they still express concern for maintaining the quality of the environment. They are primarily interested in the freedom to pursue their profession, and yet they are vocal concerning opportunities for recreational pursuits.

On the whole, they would favor resource-oriented alternatives since alternatives reducing resource outputs are seen as a possible threat to their own activities. The stability of this segment of the community is more dependent on the discovery of recoverable ores than on renewable resource direction.

Government Workers/Educators

Government workers/educators generally favor alternatives giving maximum protection to the natural setting in the Forest. This segment is rather stable and would change little, unless a major population change occurs. The groups are likely to retain their views regardless of the management direction applied to the Forest.

Retirees

Generally, retirees prefer alternatives which stress maintaining the Forest in a natural setting. Alternatives which fully promote commodity production to the detriment of amenity values would cause a shift in the retiree population. Many would see the area as a less desirable place to retire.

Regional

The Regional segment of the population is generally more interested in amenity values on the Forest than in resource developments. They are, therefore, more likely to be benefited by alternatives which protect the natural environment and provide recreational opportunities.

National

The main use of the Ashley National Forest by people outside the region is recreational/amenity. These people generally prefer and are benefited by alternatives which enhance the natural environment.

Others

Civil rights and minority groups are not known to be affected any differently as special groups, than they would be as one of the social and geographical segments mentioned above.

The overall socio/economic impacts are insignificant for Ashley activities when the whole economy is considered. Alternative A would provide for a stable workforce, employment, population and returns to the treasury. A budget increase will slightly affect the local economy under alternative B since there would be an increase in employment, population, and returns to counties for two decades - then drop as harvest is reduced to NDSY. The reduction would occur at the same time as projected decreases in energy related sectors. The budget will create indirect effects for the local economy. Changes in ROS classes will affect traditional recreation attractiveness and activities. Alternative C would have an increase in employment with an increased commodity output level that does not decline in the planning period. The increased budget would create an increase in the local economy. There would probably be a need for a high incidence of road closures to meet wildlife needs. Alternative D would have an insignificant decrease in employment with decreased "commodity" output levels. Budget levels would be slightly lower in decades 2-5 but would have no significant effect on local economy. Alternative E is similar to current employment with an increased budget resulting in an increase in local economy. Alternative F would have reduced employment, reduced investments, but less effect on local economy. Access and service roads would be curtailed. Alternative G would have the lowest investment, commodity output, employment, population and returns to counties of all alternatives. The lifestyle would be locked into today's activities. Alternatives H, I, and J are similar to Alternative B.

TABLE IV-7
Discounted Benefits and Costs 4% Discount Rate - 150 Years
(1978 Dollars Inflated to 1/1/82) MM\$

	Min Level Benchmark	Max PNW Benchmark	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	Alt H	Alt I	Alt J
Present Net Value	358.6	598.7	528.9	503.6	497.0	534.8	521.7	482.3	478.5	533.9	538.5	517.5
Present Value of Benefits	427.7	964.0	765.9	819.1	844.1	793.8	829.3	645.5	657.3	847.6	892.4	803.2
Present Value of Costs	69.1	365.3	215.5	315.5	347.1	259.0	307.6	163.2	178.8	313.7	353.9	285.7
PVB by Output												
Recreation												
Developed	0	246.2	240.1	236.4	238.3	240.8	235.0	224.1	209.6	240.5	242.7	242.6
Dispersed	228.6	161.5	157.6	133.8	156.3	158.0	154.2	147.1	137.5	157.8	159.3	158.2
Wilderness	34.2	51.4	50.1	61.2	49.7	50.2	49.0	46.7	43.7	50.2	50.6	52.7
Wildlife WFUDS	92.3	74.8	73.0	93.9	72.4	73.2	71.4	68.1	63.9	73.1	73.8	73.8
Wildlife Forage	65.0	53.3	52.6	52.5	46.0	64.5	51.5	57.3	61.7	51.3	51.5	53.8
Range	7.5	77.9	55.6	58.2	72.9	52.3	62.3	29.3	28.7	74.0	60.6	54.7
Timber	0	206.8	91.0	144.9	144.2	92.8	137.6	30.2	71.8	135.3	176.4	114.5
Fuelwood	0	5.4	5.2	5.8	6.4	5.4	6.5	5.9	4.1	5.9	6.3	5.8
Water Yield	0	88.0	40.7	58.4	57.9	66.6	61.8	36.8	35.9	59.5	71.2	47.2
PVC by Category												
Total Forest Budget	69.0	241.5	186.0	240.3	228.0	210.4	198.8	107.4	142.6	244.6	256.4	211.1
Fixed Costs												
Protection	29.68	29.68	29.68	29.68	29.68	29.68	29.68	29.68	29.68	29.68	29.68	29.8
General Admn.	6.58	6.8	6.58	6.58	6.58	6.58	6.58	6.58	6.58	6.58	6.58	6.5
Variable Costs Investment												
App Funds Roads	0	14.8	8.8	18.0	16.5	10.2	17.4	5.8	7.8	26.1	21.9	15.5
Purch Roads	0	21.1	14.6	21.4	18.7	16.0	18.7	9.4	13.8	20.5	24.8	18.7
Rec Inv	0	0	0	18.3	16.8	17.8	0	0	0	19.7	20.6	12.9
WL Inv	0	1.0	.6	.6	.3	1.1	.8	.8	.6	.8	.6	.7
Liv Inv	0	2.6	.6	.6	1.2	.4	.8	0	0	1.9	.9	.7
Operational and S&W	32.8	202.0	125.0	145.2	138.3	128.5	124.8	82.1	84.1	139.3	151.2	126.3
General Admn	Included above	under Fixed Costs										
Non-Forest Service Costs												
Except Roads	0	27.5	51.0	81.3	119.0	48.5	108.8	28.8	36.2	69.1	97.5	74.6

^{1/} Background Water Values not included

TABLE IV-8
Discounted Benefits and Costs 7% Discount Rate - 150 Years
(1978 Dollars Inflated to 1/1/82) MM \$

	Min Level Benchmark	Max PNV Benchmark	Alt A	Alt B	Alt C	Alt D	Alt E	Alt F	Alt G	Alt H	Alt I	Alt J
Present Net Value	203.7	307.3	270.1	254.5	249.3	273.3	258.5	250.5	251.2	270.7	273.1	261.3
Present Value of Benefits	243.8	536.3	402.1	437.5	441.0	417.0	429.4	337.0	354.7	450.8	484.4	420.5
Present Value of Costs	40.1	229.0	132.0	183.0	191.7	143.7	170.9	36.5	103.5	108.1	211.3	159.2
PVB by Output												
Recreation												
Developed	0	127.0	124.5	122.0	123.5	124.7	121.4	117.6	111.9	124.5	125.3	125.4
Dispersed	130.5	83.3	81.7	69.1	81.1	81.8	79.7	77.2	73.4	81.7	82.2	81.8
Wilderness	19.5	26.5	26.0	31.6	25.8	26.0	25.3	24.5	23.5	26.0	26.1	27.3
Wildlife WFUDS	52.7	38.6	37.8	28.6	37.5	37.9	36.9	35.7	34.0	37.8	38.1	38.2
Wildlife Forage	36.8	29.4	28.0	48.5	25.4	30.0	28.1	31.0	34.0	28.0	28.1	29.3
Range	4.3	40.9	28.9	30.4	37.0	27.4	32.0	16.4	15.6	38.0	31.5	28.5
Timber	0	145.4	55.0	90.7	84.7	55.8	80.8	15.3	45.4	86.2	117.6	68.8
Fuelwood	0	3.8	3.4	3.8	3.9	3.5	4.0	3.6	3.0	3.9	4.2	3.6
^{1/} Water Yield	(95.7)	41.5	16.0	12.8	22.0	29.8	21.2	15.7	14.0	24.7	31.3	17.9
PVC by Category												
Total Forest Budget	40.1	173.7	103.8	136.8	126.3	116.9	110.8	71.6	82.6	140.5	152.9	117.8
Fixed Costs												
Protection	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
General Admin.	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
Variable Costs Investment												
App Funds Roads	0	9.3	4.9	10.2	9.0	5.6	9.6	3.0	4.5	15.0	13.1	8.6
Purch Roads	0	13.3	8.1	12.1	10.2	8.8	10.3	4.8	8.0	11.7	14.8	10.4
Rec Inv	0	0	0	10.4	9.2	9.8	0	0	0	11.3	12.4	7.2
WL Inv	0	.6	.3	.3	.2	.6	.5	.4	.3	.5	.4	.4
Liv Inv	0	1.7	.3	.3	.7	.4	.4	0	0	1.1	.6	.4
Operational and S&W	19.1	127.7	69.2	82.5	76.0	70.8	69.0	42.4	48.7	79.9	90.6	69.9
General Admin	Included above under Fixed Costs											
Non-Forest Service Costs Except Roads	0	23.2	28.2	46.2	65.4	26.7	60.1	14.9	21.0	39.6	58.4	41.3

^{1/} Background water Values not included

Table B-9, in Appendix B displays the effects on employment, income, and state and local Government expenditures by the various alternatives.

D. POSSIBLE CONFLICTS

1. Resource Planning Act (RPA) Objectives

There are several areas of conflict with RPA 80 direction and targets that are identified in Alternative E, RPA 80.

These are:

- a. Water yield does not meet the RPA 80 target of 1,079,000 acre feet per year. This total output was not attainable, even in the maximum water benchmark.
- b. Recreation use (combined developed and dispersed) targets for RPA 80 were exceeded by the mid-1970's. Total use shown for 1985 in the Regional Guide is 560,000 developed and 560,000 dispersed RVD's. Projected use in decade one for the lowest alternative (F or G) exceeds this figure by over half a million RVD's per year.
- c. Range use, in animal unit months, only meets RPA targets in alternatives C and H. Alternative E closely approximates the RPA targets but does not fully meet them. However, it should be noted that demand has been declining for sheep grazing. The figures shown in all alternatives assume that demand exists and that the proper class of livestock can be placed on all allotments.
- d. The Regional Guide includes a goal of providing optimum habitat for socially and economically important fish and wildlife species. Note that Table II-4 indicates a decline in habitat improvement activities for Alternative E. This decline occurs gradually over a five decade time span and is similar to the decline shown in the Regional Guide for acre equivalents of improvements for the Ashley National Forest. Table II-4 also shows a slight increase and then a decrease in deer and elk numbers over the five decade planning horizon. This is a function of the habitat capability changes occurring as a result of development activities such as timber harvest and road construction. Alternative E (RPA 80) habitat capability exceeds state objectives in all decades. Figures shown for elk and deer are indications of theoretical capability for seasonal use. The limiting factor for populations of these species is the availability of winter range. National Forest lands provide only an estimated 20% of the winter range for these species, the other 80% is owned by other agencies or individuals. Major improvements or management changes would need to be made on these other winter range lands to reach the theoretical seasonal populations shown.

2. Objectives of other Federal, State, County and Local Governments

There are no known conflicts with plans of other agencies. Contacts have been made with those agencies listed below through mailing of public involvement items, through open house meetings, and in some instances through on-going personal contacts.

Bureau of Reclamation	Utah Div. of Wildlife Resources
Bureau of Land Management	Utah State Parks and Recreation
National Park Service	Utah Land & Forestry Division
U.S. Fish & Wildlife Service	Sweetwater County, Wyoming
Bureau of Indian Affairs	Daggett County, Utah
Ute Indian Tribe	Duchesne County, Utah
Wyoming Game and Fish Dept.	Uintah County, Utah

No specified conflicts have been identified with plans of the above, however, close contact and coordination must be continuous with the Bureau of Land Management, the Ute Indian Tribe, and the Utah Division of Wildlife Resources to insure understanding and to prevent conflicts in on-going project activities.

E. ENERGY REQUIREMENTS

Energy yield and consumption related to each alternative are shown in Table IV-9, measured in billions of British Thermal Units (BTUs) per year. A BTU is the quantity of heat necessary to raise the temperature of one pound of water one degree Fahrenheit, and a billion BTUs roughly equals the total energy consumption of three U.S. citizens for a year. The net energy balance (Energy yield minus energy consumption) for the Ashley is positive because of the energy produced by dams on the Green and Colorado Rivers utilizing water originating in the Forest, and to a lesser degree, because of fuelwood extracted from the Forest. Major components of energy consumption are recreation (principally transportation), and timber harvesting.

Details of the process used to assess energy requirements are available in the planning records at the Supervisor's Office. 1/

1/ Reference Guide: "Methods for Evaluating Energy Effects of Forest Management Alternatives Volume 1." Gideon Schwarzbart and Patrick L. Schmitz, Management Sciences Staff - USDA Forest Service, Berkeley, California, March, 1982.

TABLE IV-9

ENERGY BALANCE - BILLION BTU's/YEAR

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G	Alt. H	Alt. I	Alt. J
Energy Yield										
Decade 1	1035	1062	1054	1030	1046	1017	1019	1056	1064	1043
Decade 2	1046	1075	1068	1048	1061	1020	1022	1072	1075	1054
Decade 3	1057	1071	1083	1057	1073	1022	1023	1076	1081	1062
Decade 4	1067	1079	1095	1063	1083	1024	1031	1080	1083	1070
Decade 5	1074	1085	1104	1067	1090	1019	1032	1081	1085	1075
Energy Consumption										
Decade 1	250	299	285	245	271	222	238	285	308	285
Decade 2	265	302	295	258	286	230	238	300	312	303
Decade 3	285	292	316	275	303	232	239	297	311	313
Decade 4	297	307	330	284	317	246	241	299	315	331
Decade 5	311	323	342	295	329	244	251	307	323	348
Net Energy Balance										
Decade 1	785	763	769	784	774	795	780	772	757	758
Decade 2	781	773	770	790	775	790	784	772	763	751
Decade 3	772	780	767	782	770	790	784	780	770	749
Decade 4	770	772	765	779	766	778	790	780	768	739
Decade 5	763	762	762	772	761	775	781	774	762	727

F. IRREVERSIBLE and IRRETRIEVABLE COMMITMENT OF RESOURCES

Irreversible commitment of resources refers to resources that are renewable only after a long period of time (such as soil productivity), or to nonrenewable resources, (such as cultural or minerals). Alternatives were formulated with the understanding that maintenance of future options was an important consideration. Measures to protect those resources that could be irreversibly affected by other resource uses were incorporated in the Forest-wide standards and guidelines.

The construction of arterial and collector roads to provide future access to the Forest would be considered an irretrievable action because of the long time needed for a road to revert to natural conditions. Alternatives B, C, E, H, I, J, and the maximum PNV benchmark with the highest resource output levels, have the greatest irreversible commitment of resources based on the associated construction of roads. Alternatives F and G have the fewest irreversible actions and greatest protection of future options.

Production of minerals and energy resources is of vital concern in the United States. The role of the Forest Service is to manage the surface resources to minimize adverse environmental impacts, while encouraging the exploration and development of the mineral resource.

Irretrievable commitment is resource production or use of a renewable resource that would be lost because of allocation decisions. This represents opportunities foregone for the period of time that the resource cannot be used. Timber on steep slopes that would not be economically accessible may represent an irretrievable commitment of resources since mortality would not be salvageable. The commitment would be irretrievable rather than irreversible because future technological advances could make harvest of these areas possible and feasible.

The differences between alternative output levels and the higher levels that could be produced also represents an irretrievable commitment of resources. For example, a low level of livestock grazing or a low level of water yield could be increased in the future by application of different management prescriptions, but the outputs between now and then would be "lost" or not available for use. Therefore, the maintenance of future options and the current ability to utilize the resources to the fullest, tend to conflict with one another. The purpose of Forest planning is to provide a mix of uses now and for future time periods that balance the needs of both the current population and future generations.

G. PROBABLE ADVERSE ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED

Implementation of any of the alternatives of the Proposed Action would result in some adverse environmental effects that cannot be avoided. However, the application of Forest-wide standards and guidelines is intended to limit the extent and duration of these effects.

Management direction is designed to provide outputs, goods, and services within the constraint of maintaining the sustained yield of recreation, water, timber, forage, and wildlife without impairing the long-term productivity of the land.

The alternative formulation process considered a wide range of alternatives, some of which had major adverse environmental effects. Many of these effects were avoided by the criteria established for eliminating alternatives that cannot be implemented. Thus, the ten alternatives considered in detail represent a broad range of resource outputs and also a reduction of the adverse environmental effects that cannot be avoided. These effects include:

- An increase in sedimentation resulting from soil disturbance and increased water yield.
- A short-term adverse effect on scenic quality because of vegetation management and road construction.
- Foregone timber volumes because of inaccessibility and inoperability of steep land forms.
- Foregone timber volumes because of insect epidemic.
- Short-term reduced air quality because of dust, smoke, and automobile emissions resulting from increased recreation use and vegetative management practices.
- Short-term adverse impacts on wildlife areas resulting from increased timber activity to salvage insect-damaged trees.

Mitigation Measures

Mitigation measures are included in this chapter and in the management direction in Chapter IV of the Forest Plan. They are intended to mitigate the adverse effects that cannot be avoided. Some of the more important mitigation measures are summarized below:

1. All activities within riparian areas will be guided by the riparian management area standards and guidelines to insure the quality of riparian areas is maintained.
2. Effects of the accelerated harvest of lodgepole pine on big game habitat will be mitigated by:
 - a. Restricting public access as necessary.
 - b. Requesting State Fish and Game agencies to help mitigate effects on big game through hunting regulations.
3. Effects of development on visual quality will be mitigated by following visual management guidelines.

4. Effects of road construction on water quality and wildlife habitat will be mitigated by implementing road closures as necessary.
5. Effects of oil and gas leasing will be mitigated by inclusion of special stipulations in leases for specified environmental conditions. Refer to Appendix I for standard and special stipulations.

H. SHORT-TERM USE of MAN'S ENVIRONMENT and the MAINTENANCE of LONG-TERM PRODUCTIVITY

The relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity is complex. Short-term uses are those that generally occur on a yearly basis on some part of the Forest, such as livestock grazing as a use of the forage resource, and recreation and irrigation as a use of the water resource.

Long-term refers to longer than the 50-year period analyzed by the Forest Plan. Productivity refers to the capability of the land to provide resource outputs. Soil and water are the primary factors of productivity and represent the relationship between short-term uses and long-term productivity.

Forest management is a long-term venture. Managers of the National Forest think in terms of what many people view as the distant future. Rotations for production of timber, and the associated outputs of water, wildlife, and visual quality range from 10 to 150 years on this Forest. Hydrologic recovery of watersheds for water quality purposes may be 40 years. The Multiple Use-Sustained Yield act of 1960 defined sustained yield as the "achievement and maintenance in perpetuity of a high level annual or periodic output of the various renewable resources of the National Forests without impairment of the productivity of the lands".

Earlier sections of this chapter displayed resource outputs and consequences for the planning period. The Forest Plan is a long-range plan to provide direction for the next 10 years (or until revised) and incorporates the sustained yield of resource outputs while maintaining productivity of the resources.

I. NATURAL or DEPLETABLE RESOURCE REQUIREMENTS

Natural resource requirements for implementing the Proposed Action or any of the other alternatives considered in detail require the basic soil and water resources and associated plant and animal communities that comprise the forest and rangeland ecosystems. The various alternatives are composed of combinations of management prescriptions, all of which are designed to maintain or enhance the productivity of

renewable resources and to protect the productivity of the basic soil and water resources. Mitigation measures to insure protection of the resources are described under the various resource elements in Chapter IV, and in the standards and guidelines included in the Forest Plan.

Depletable resources include minerals and energy resources such as oil and gas. In these cases, the conservation of these resources is keyed directly to the rate of removal. Mitigating measures for protection of the renewable resources while extracting minerals or energy resources will be incorporated in all project activity plans.

One element of natural resources that may be considered as depletable is the plant and animal species that are listed as threatened or endangered. Official recovery plans have been developed for the bald eagle, peregrine falcon, and the black-footed ferret. At this time, the Ashley Forest does not have an assigned role in the recovery action plans. The Forest will continue to work with the Regional Office, U.S. Fish and Wildlife Service, State Game Agencies (both Utah and Wyoming), and Recovery Teams to determine the Ashley role and to plan, schedule, and complete recovery projects.

J. URBAN QUALITY, HISTORIC, and CULTURAL RESOURCES

Urban quality will be little impacted by implementation of the proposed action or any of the alternatives. Most impacts would be related to social and economic factors such as employment and population changes as a direct result of National Forest activities. As noted in Chapters II, IV, and Appendix B, changes in employment and population as a result of Forest activities are insignificant due to the low percentage of the total impacted.

All ground disturbing projects and activities require an archeological review and inventory prior to implementation. Historic and cultural sites inventoried will be evaluated for significance by a qualified archeologist in cooperation with the State Historic Preservation Officer (SHPO). Significant sites, if located, will be nominated to the National Register of Historic Places.

Implementing the Plan would not result in the transfer, sale, demolition, or substantial alteration of eligible or existing National Register properties under Federal jurisdiction. Additionally, the Plan will not effect non-federally owned districts, sites, buildings, structures, and objects of historical, architectural, or archaeological significance.

CHAPTER V
LIST OF PREPARERS

V. LIST OF PREPARERS

This chapter lists those individuals who have been major contributors or participants in the Forest Planning Process. Personnel are listed under one of three "teams" or groups. However, several individuals have functioned as members of more than one team, at least on a temporary assignment basis.

Responsible for directing the planning effort and for decision making.

Floyd Bartlett Range, Wildlife and Watershed Staff	Twenty-four years Forest Service experience including two year as Range, Wildlife and Watershed Staff Officer and fifteen years experience as District Ranger on four districts.
Jerry Davis Area Ranger, Flaming Gorge NRA B.S. Forestry (Wildlife) M.S. Wildlife Management	Twenty-two years of Forest Service experience on five National Forests including six years as District Ranger on three Ranger Districts.
Terry Hopson Recreation, Lands, and Mineral staff B.S. Forest Management	Twenty-nine years of Forest Service experience including nine years as a Forest Staff Officer on the Fishlake and Ashley Forests and four years as a District Ranger.
David Kimbrough Administrative Officer B.S. Forest Management	Twenty-three years of Forest service experience including eight years as an Administrative Officer on the Tongass and Ashley Forests.
Carol Lyle District Ranger, Vernal B.S. General Science B.S. Range Science	Eleven years of Forest Service resource management experience including two years as a District Ranger.
Don Peterson District Ranger, Duchesne B.S. Forest Management B.S. Range Management	Eighteen years of Forest Service experience including eight years as District Ranger on two Ranger Districts.

Bill Price
Timber-Fire Staff Officer
B.S Forest Management

Twenty-six years of Forest Service experience including four years as Forest Staff Officer in the Ashley.

Grant Thorson
District Ranger, Roosevelt
B.S. Forest Management

Twenty-two years of Forest Service experience including sixteen years as District Ranger on three Ranger Districts.

Duane G. Tucker
Forest Supervisor
B.S. Forest Management

Twenty-six years of Forest Service experience including six years as Deputy Forest Supervisor of the Gifford Pinchot Forest, three years as a District Ranger, and two years as Forest Supervisor of the Ashley.

In addition to the above incumbents, several members of the Management Team have moved to other assignments or retired. These individuals are:

Ron Boatner - Former Administrative Officer, now Administrative Officer on the Klamath National Forest, Yreka, California.

James N. Craig - Former Forest Supervisor, now assistant director of Aviation and Fire Management, Pacific Northwest Region, Portland, Oregon.

Joel Frandsen - Former District Ranger at Duchesne, now Range, Wildlife, and Watershed Staff Officer, Manti-Lasal National Forest, Price, Utah.

Norm Hack - Former Range, Wildlife and Watershed Staff Officer-retired.

Dave Keddy - Former District Ranger at Roosevelt, now Supervisory Forester at the Dutch John Unit of the Flaming Gorge Ranger District, Dutch John, Utah.

J. Kirby Lee - Former Forest Engineer, now Forest Engineer on the Boise National Forest in Boise, Idaho.

Bob Meinrod - Former Area Ranger at Flaming Gorge National Recreation Area. Now Range, Wildlife, and Staff Officer, Dixie National Forest.

John Robotcek - Former Timber/Fire Staff Officer, now Timber/Fire Staff Officer on the Sawtooth National Forest in Twin Falls, Idaho.

Dick Snyder - Former Forest Engineer, now assigned to Northern Region in Missoula, Montana.

Responsible for developing the Forest Plan and Environmental Impact Statement.

Alan Baird
Forest Landscape Architect
B.S. Landscape Architecture

Twenty-three years of Forest Service experience on two Forests including nine years of participation in land use and land management planning.

Bob Hurley
Fisheries Biologist
B.S. Fisheries

Ten years of Forest Service experience on two National Forests and three years with U.S. Fish and Wildlife Service.

Darlene Johnson
Soils Scientist
B.S. Botany

Seven years of Forest Service experience on two Forests including four years of land management planning.

Ann Matekjo
Public Affairs Specialist
B.A. English and Education

Ten years of Forest Service experience on three National Forests including serving as a member of the Targhee National Forest Planning Team.

John Rupe
B.S. Civil Engineering
M.S. Transportation Engineering

Nine years of Forest Service experience on two National Forests. Worked on analysis and responses to comments received for Draft EIS.

Jack Watson
Forest Planner
B.S. Forest Management

Thirty years of Forest Service experience in resource management, including fourteen years in land use and land management planning on three Forests.

As with the Management Team, a number of Core Team members have moved, resigned or have been re-assigned to other jobs or other locations.

Charles Borda
Forest Economist
B.A. History/Economics
M.A. Economics

Three years of Forest Service Experience on the Ashley National Forest.

Shepard Buchanon
Zone Economist
B.S. Economics
M.S. Economics

Now with Bonneville Power Administration in Portland, Oregon. Functioned as core team member on the Ashley Forest for the first two years of the planning effort. Also provided economics input for Wasatch-Cache and Uinta National Forest plans.

Mary Sue Fisher
Wildlife Biologist
B.S. Biological Sciences
M.S. Wildlife Science

Assigned temporarily as a Core Team member. Also functioned as a Support Team member providing wildlife data. Four years Forest Service experience as a Wildlife Biologist. Now assigned to the Thunder Basin National Grassland in Wyoming.

Darrell Johnson
Silviculturist
B.S. Forest Management

Twenty years of experience in timber and fire management with the Forest Service. Now assigned as silviculturist for the Northern Utah Shared Service Timber Group. Charter member of the Core Team.

Ed Lindquist
Wildlife Biologist
B.S. Wildlife Management

Twelve years of Forest Service experience in wildlife management and fire control. Served as charter member of the Core Team. Now assigned to the Superior National Forest in Duluth, Minnesota.

Bill Perry
Wildlife Biologist
B.S. Range and Wildlife

Eight years of range and wildlife management experience. Includes one year in range management with the Bureau of Land Management and seven years on three National Forests in range and wildlife. Now assigned to the Nebraska National Forest in Chadron, Nebraska.

Richard Williams
Wildlife Biologist
B.S. Wildlife Science

Ten years experience with the Forest Service, including seven years as a wildlife biologist. Assigned temporarily to the Core Team during the planning process and also provided specialist input for wildlife. Now assigned as a wildlife biologist on the Uinta National Forest in Utah.

The support team provided not only specialized data input but also included critical support such as drafting, typing, editing, and a number of other functions, without which the plan could not have been prepared within the limited time frames available.

Archaeology - Marilyn Mlazovsky
Energy Consumption and Transportation Planning - John Rupe
Facilities and Engineering - Ken Lesh, Guy Goodwin, Merlin Walker, and Larry Allred.
Fire - Ivan Erskine, Gail Herrmann, Helen Frazier, and Mike Bergfeld
Fisheries - Bob Hurley and Brady Green
Hydrology - Tim Burton and Dave Kennell

Lands and Minerals - Dave Black
Range - Gary Laing, Brent Larsen, Doug Prescott, Rod Player, Jim Chard
and Greg Mckenzie
Recreation - Guy Pugmire
Soils - Leon Chamberlain
Timber - Dave Bassler and Dick Rosemier
Wildlife - Rick Brazell
Budget and RPA Linkage - Glenn Parker
Computer Assistance - B. Gay Nelson, Lorrie Canto, and Linda Murray
Drafting - Kim Young, Gina Reese, and Chris Oprandy
Mapping and Acreage Computation - Megan Timoney, Ross Moncrief, Lisa
Richens, and Amy Adams.
Typing - Rene' Creasy

In addition to the support provided by the above listed individuals,
specialist support and critique was provided by Regional Office personnel in
various functional areas.

CHAPTER VI

LIST OF AGENCIES, ORGANIZATIONS,

AND PERSONS TO WHOM COPIES

OF THE STATEMENT ARE SENT

CHAPTER VI

CONSULTATION and LIST of AGENCIES, ORGANIZATIONS and PERSONS to WHOM COPIES of the STATEMENT are SENT

OVERVIEW

This chapter discusses Forest public involvement and consultation with a variety of publics during formulation of the final Plan and final EIS. It also responds to substantive comments received during the public comment period for the proposed Plan and draft EIS.

The first section of this chapter, CONSULTATION WITH OTHERS BETWEEN THE DRAFT AND FINAL EIS, summarizes the public involvement efforts undertaken throughout the planning effort comment period and summarizes the general tone of the responses on the proposed Plan and draft EIS. Prior to publication of the proposed Plan and draft EIS, letters, personal contacts by individual Rangers and Forest staffs, and meetings with various interest groups were used to give people and organizations opportunities to review the resolution of issues and concerns and preliminary alternatives.

The second section, PUBLIC COMMENTS ON THE DRAFT EIS AND PROPOSED FOREST PLAN AND FOREST SERVICE RESPONSES, contains all letters received and Forest Service responses to the substantive comments as well as general responses when a specific concern was addressed by a number of people.

The third section of the chapter, MAILING LIST, lists all those to whom copies of the final statement have been sent. The Ashley National Forest has provided public involvement opportunities throughout the Forest's planning process as directed by the National Environmental Policy Act (NEPA). Federal, State, and local government agencies and elected officials were informed and consulted. Individual Forest users and interest groups also had opportunities to participate.

I. CONSULTATION WITH OTHERS BETWEEN THE DRAFT and FINAL EIS

Summary of Public Participation Activities

The Notice of Intent was published in the Federal Register in 1980, and a revised notice of intent in 1983. The proposed Plan and draft EIS were filed with the Environmental Protection Agency and made available to the public in July, 1985. News releases were also prepared for the media in Provo, Salt Lake, Duchesne, Roosevelt, and Manila, Utah, and in Evanston and Rock Springs, Wyoming. About 475 copies of the DEIS, Forest Plan, and Map Package were distributed to the people and organizations on the Forest Plan mailing list.

The deadline for submission of written comments was October 25, 1985. All written comments received are included in this Chapter.

During the month of August, open houses were held at all Ranger District offices to present the proposed Plan to the public and to answer any questions. Also, several meetings were held in the spring and summer of 1986 with the Governor of Utah, with County Commissioners, with Congressional delegation staffs, with State (both Utah and Wyoming) Wildlife Resource agencies, with Ute Indian tribal officials, with organized groups, and with some individuals to discuss the Plan.

Summary of Comments

The Ashley National Forest received 101 responses from a variety of interested people and organizations. Most comments covered a variety of concerns. All comments were fully considered by the Interdisciplinary and Forest Management Teams. Comments were judged by the issues and substance, not by the number of respondents to a particular concern.

The content analysis presents, in summary form, the major issues raised by respondents about the proposed Forest Plan. The purpose of this overview is to give an idea of what was being said by the public. For more detail, individual comments published later in this document should be reviewed.

II. PUBLIC COMMENTS and FOREST SERVICE RESPONSES

A. ASHLEY PUBLIC CONTENT ANALYSIS SUMMARY

The Ashley distributed 474 copies of the DEIS and Draft Plan to 350 individuals, organizations, businesses and governmental agencies.

The Ashley received 101 responses for a 29% return.

The following specific issues or concerns received 24 or more public comments and are judged as major concerns:

- A. Timber Harvest: 49 (49%) opposed the Preferred Alternative.
1 (1%) favored the harvest level if not below-cost.
- B. Below cost sales: 44 (44%) were in opposition to below cost sales.
- C. Minerals: 44 (44%) wanted more minerals restrictions, more control over minerals development, or more explicit information on where and what can be done.
- D. DEIS/Plan Adequacy: 40 (40%) expressed concern over NEPA and NFMA compliance in the Draft.
- E. Roadless Areas: 33 (33%) expressed a desire for some level of roadless area protection during the planning period.
- F. Roads: 32 (32%) were concerned over the amount of road construction.
- G. ORV's: 29 (29%) identified a need for stronger control, management, and restriction of ORV's.
- H. Special Areas: 24 (24%) identified areas needing special treatment.

B. SUMMARY OF RESPONSES BY MAJOR TOPIC

DEIS/Plan Inadequacy: Respondents considered the Draft Inadequate because: narrow range of alternatives; plan too complex and difficult to understand; timber plan: had too much timber and not a multiple use plan; plan should consider the diversity of all vegetative types, not just timber; an uneven-aged alternative is needed; elasticity problem.

(Key: O=Organizations; B=Businesses; G=Government Agencies and I = Individuals)

Found in letters: O-1, 5, 6, 7, 10, 11, 12
I-1, 4, 5, 6, 9, 16, 19, 20, 21, 26, 27, 29, 33, 34, 35, 36, 39, 40, 42, 44, 46, 47, 48, 50, 52, 53
B-4, 5, 6, 10, 11
G-10, 11

Total = 40

Alternative Selected: Some respondents preferred a different alternative; too much dependence on increased budget; public wants Forest to be "left as is"; MacCleery decision; select non-market with modifications.

Found in letters: O-1, 5, 6, 8, 10, 11, 12, 20, 45, 47
I-43
B-6, 9
G-9, 11, 22

Total = 16

Below Cost Sales: Many respondents are opposed to below cost sales; some wanted harvest only to benefit other resources.

Found in letters: O-1, 3, 5, 6, 7, 8, 11, 12
I-2, 5, 7, 9, 11, 14, 15, 16, 17, 18, 19, 21, 23, 25, 26, 27, 28, 29, 30, 31, 34, 35, 36, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 53, 54

Total = 44

Roads, Construction Management: Many respondents opposed more road construction; some favored closing roads to control access and several noted that more road management is needed.

Found in letters: O-1, 3, 5, 6, 7, 8, 11, 12
I-2, 4, 5, 6, 9, 11, 17, 18, 21, 27, 28, 29, 30, 31, 34, 36,
38, 40, 46, 49
B-6, 9, 11
G-9

Total = 32

Roadless Areas: Many respondents were concerned with "roadless" area management.

Found in letters: O-1, 5, 6, 8, 10, 12
I-3, 4, 6, 9, 11, 14, 16, 19, 20, 23, 26, 27, 28, 29, 34,
35, 36, 40, 42, 44, 46, 47, 48, 52, 53, 54
B-11

Total = 33

Recreation: Several respondents indicated that more emphasis should be placed on the recreation resource; recreation demand in Plan was too conservative; conflicts between types of dispersed recreation; need for trail maintenance, construction, and management.

Found in letters: O-1, 8, 10, 12
I-5, 11, 17, 20, 21, 28, 29, 35, 38, 42, 48
G-9, 10, 22

Total = 18

Timber Harvest: Most respondents opposed the timber harvest level; opposed to logging on 40% plus slopes; opposed to logging in higher elevations, riparian areas, and wildlife habitat (critical); want harvest from existing roads only; don't want harvest of species not susceptible to beetles; concerned about departure. One respondent did favor the harvest level increase if not below cost; remove lands from timber base because of suitability.

Found in letters: O-1, 2, 3, 5, 6, 7, 8, 10, 11, 12
I-2, 4, 5, 6, 7, 9, 11, 14, 15, 16, 17, 18, 19, 21, 23, 25,
26, 27, 28, 29, 30, 31, 35, 36, 39, 40, 42, 43, 44, 45, 46,
47, 48, 49, 50, 53, 54
B-6, 11, B-10

Total = 49 against 1 for

Use Prescribed Fire: Several respondents recommended that fire be used as one method for beetle control.

Found in letters: 0-1, 6, 10, 11, 12
1-2, 43

Total = 7

Fuelwood: Several respondents requested more fuelwood policy discussion and/or modified control/regulation.

Found in letters: B-6, 7, 8, 9, 10
G-1

Total = 6

ORV: Number of respondents noted that ORV's need to be controlled or restricted.

Found in letters: 0-1, 3, 7, 8, 11, 12
1-2, 3, 4, 5, 6, 9, 11, 15, 19, 26, 27, 29, 30, 31, 35, 36,
40, 42, 44, 45, 46, 47
B-11

Total = 29

Wilderness: Several respondents wanted wilderness standards and guidelines specified; need for consistency with Wasatch; control of grazing permittees in wilderness.

Found in letters: 0-1, 5, 7, 8, 10
1-2, 16, 18, 27, 32, 34, 35, 40, 48
G-22
B-11

Total = 16

Minerals: Many respondents expressed concern about minerals; need more restriction on mineral exploration and development; inadequate treatment of minerals; more definitive description of minerals restrictions and location.

Found in letters: 0-1, 3, 5, 7, 8, 10, 11, 12
1-2, 4, 5, 6, 8, 9, 11, 14, 16, 18, 19, 21, 23, 25, 26, 27,
28, 29, 33, 34, 35, 36, 39, 40, 42, 44, 46, 47, 49, 50, 53,
54
G-10
G-2, 5, 11

Total = 44

Specific Area Concerns: Several areas were noted as needing some specific management treatments: high elevation (9,700 feet), Bollies, Lakeshore Basin, Uintah River, Fish Creek, Pole Creek and Chepeta Road, Weyman Park, Dry Fork, west slope of Marsh Peak, riparian areas, and National Natural Landmarks.

Found in letters: O-1, 5, 7, 12
I-2, 6, 9, 11, 25, 26, 27, 28, 29, 35, 36, 39, 40, 42, 44,
47, 52
B-11
G-10, 22

Total = 24

Brown's Park Road: Two respondents opposed the Brown's Park road; five respondents supported the proposal. District communication indicated a number of local publics are opposed but written response was not sent by them.

Found in letters: O-11, 12
G-12, 13, 14, 18
B-9

Total = 7

RNA's: All alternatives should include the RNA's.

Found in letters: O-1, 4, 11, 12

Total = 4

Standard and Guidelines: Two respondents indicated too much flexibility.

Found in letters: I-9
G-9

Total = 2

Predator Control: One respondent was opposed to predator control, one favored predator control as necessary.

Found in letters: O-2, 12

Total = 2

Range Use: Two respondents opposed grazing use on "poor" condition range; one respondent opposed subsidizing grazing; one respondent favored increased sheep allotments, common use, and continuing range improvement program.

Found in letters: O-1, 2, 12

Total = 3

Wildlife: There was an overall concern about lack of wildlife emphasis in the preferred alternative; lack of direction for sensitive species management; opposition to the reintroduction of predator species; concern about increased wildlife population impacts on adjacent landowners; support for reintroduction of T&E species.

Found in letters: O-2, 4

Total = 2

Water: Several respondents expressed concern with increased water yield and the effects on water quality; one respondent favored the preferred alternative because of increased water yield.

Found in letters: O-1, 6, 11, 12
G-15

Total = 5

Land Exchange: A few respondents expressed concern over land ownership and interchange.

Found in letters: I-22
B-9, 10

Total = 3

Mapping: Several respondents requested additional maps as a part of the Forest Plan.

Found in letters: O-1, 12
I-26
G-10
B-2, 5

Total = 6

In addition to the above, one respondent favors managing the Ashley National Forest in its entirety as a classified "reserve" and one respondent recommended Wild and Scenic status for Rock Creek.

C. GENERAL FOREST SERVICE RESPONSE STATEMENTS

The general response statements were put together to answer those comments and concerns that received a significant amount of emphasis. They address concerns by statement number and are referenced to the right side of public letters. When the public concern falls under one of the general statement categories, the response can be found by looking at these general statements. Those comments or concerns not covered by these general responses are answered to the right side of the letter with an individual response. The following 22 general statements cover a majority of the public's concerns.

General Statements (GS)

1. Below Cost Sales
2. Protection of Undeveloped Areas
3. Mineral Restrictions
4. Timber Harvesting: Volume, Beetle Kill, 40% Slopes, Demand, Wildlife
5. Combined with #4
6. Combined with #4
7. ORV Management
8. Combined with #10
9. Road Construction and Reconstruction
10. Array of Alternatives
11. Alternative J - New Proposed Alternative
12. Protection and Enhancement of Wildlife Habitat
13. Management of Bollies
14. Wilderness Management
15. Sustained Yield
16. No #16
17. Prescribed Fire for Dead Lodgepole
18. Browns Park Road
19. Clearcutting
20. Restrict Harvesting to Existing Roads
21. Combined with #12
22. Plan Complexity

General Statement #1
BELOW COST SALES

The question of "below cost sales" has become one of national concern. National policy is stated by the Chief of the Forest Service as follows: "As a general rule, the timber sale program on a National Forest should be managed so that total benefits equal or exceed the costs over time" and further, "The timber sale program should be planned and conducted in an economically efficient manner, consistent with applicable land management plans."

We are in the process of changing some timber sales to an over basis instead of on a value basis. This practice will reduce the preparation and layout costs and therefore will improve economic efficiency.

Many future timber sales on the Ashley Forest will fall into the category of "below cost" as a result of low value species (lodgepole) aggravated by a very high percentage of dead material (lodgepole killed by pine bark beetle epidemic) being included in the sales. Sales will be made in compliance with the Forest Land and Resource Management Plan and will be based on meeting the Chief of the Forest Service's intent that any timber sale program must provide total Forest benefits. Benefits considered include not only the dollar value of the timber sold but also the benefit of regenerating a new timber stand in place of the beetle-killed stand; the benefits to be gained in creating or increasing wildlife habitat diversity over the long term; the benefits of reducing the potential for major and catastrophic fire occurrence by breaking up the continuous fuel bed; the benefits to be gained over the long term by beginning to rehabilitate visual quality where diversity is being reduced by the extensive beetle-kill; and the benefits to be gained by providing some stability in a seriously impacted local economy.

The issue of "below-cost" timber sale needs to be judged on the net effects of all the sales in the program, and not just the individual sales themselves.

General Statement #2
PROTECTION OF UNDEVELOPED AREAS

In accordance with release language contained in the Utah Wilderness Act of 1984, undeveloped areas outside of those designated Wilderness, can be roaded where such activities as timber, recreation, wildlife, energy, range, fire control or oil and gas benefits are needed during the next decade.

The preferred Alternative J significantly reduces road construction associated with timber harvest. No roading for timber harvest is planned on an area in excess of 200,000 acres during the first decade. This is shown on the Map of Undeveloped Areas at the End of the Planning Period, attached to the EIS. Area q is also protected through an undeveloped prescription.

The next planning period will provide the opportunity to reexamine those undeveloped areas for wilderness.

General Statement #3
MINERAL RESTRICTIONS

In addition to the constraints on mineral development shown in Chapter IV of the EIS and Chapter IV of the Plan, area q will be designated no surface occupancy. Beyond this, the Forest Service exercises control over surface resources through recommendation of standard and special lease stipulations on each application received. These stipulations protect riparian, wilderness, wildlife, and other surface resources. Through proper application of the existing stipulations, the surface resources can be protected without wholesale withdrawal and unlawful restriction of mineral exploration and development. Copies of Standard and Special Stipulations are in Appendix I of the EIS and B of the Plan.

General Statement #4

TIMBER HARVESTING: VOLUME, BEETLE EPIDEMIC, 40% SLOPES, DEMAND, WILDLIFE

The preferred alternative has reduced the annual timber sale volume from 27.0 MMBF to 21.0 MMBF. This reduction occurred due to the elimination of scheduled harvesting on slopes exceeding 40%, deleting the harvesting of aspen as sawlogs, deferring some potential harvest areas because of their unroaded characteristics, and deleting some sales that proved not to be the best resource management option at this time. The target of 21.0 MMBF is below the allowable sale quantity (ASQ) of 25.86 MMBF identified in the approved 1978 Timber Management Plan, which will remain in effect until the Ashley Forest Plan is approved.

The market demand in 1985 exceeded the 25.0 MMBF (ASQ) that was offered and sold. We anticipate that this demand will continue at a high level for an extended period of time.

Except in isolated, live, uninfested stands, future harvesting in the lodgepole and ponderosa pine ecosystems will have little or no effect on the mountain pine beetle. The beetle epidemic has peaked and is on the decline, mainly due to the lack of live trees sufficient to support large populations.

The objectives of harvesting the dead material are: 1) To allow people to use some of the material prior to its being burned in a wildfire (The natural way a lodgepole forest regenerates is through large wildfires). Wildfire can cause unacceptable soil losses, flooding, stream and lake pollution, wildlife losses and reduced habitat diversity, air pollution, and reduced visual qualities and recreational opportunities. 2) To accomplish site preparation by providing optimum soil conditions for seeds to grow in, thus obtaining a new stand that will provide wood for future generations. 3) To remove surrounding dead material to help protect new stands from destruction by wildfire. Standing dead trees will fall in 20 - 25 years. If the stand does not burn with the increased fuel loading, any future reforestation or timber stand improvement work will be significantly hampered by the downfall of logs. 4) To remove, with the dead harvest, the live, overtopping, mistletoe-infected trees that spread mistletoe to the developing new stands. 5) To develop stand age diversity, thereby improving wildlife habitat. Typically, lodgepole stands are even aged monocultures. By staggering the cuts over time, we can achieve some variation in stand ages. Wildlife habitat is best when there is a 40/60 cover-forage ratio in lodgepole. Currently, due to the extensive lodgepole stands, the Ashley is excessive in the cover category, and low in the forage. Small clearcuts improve the amount of forage, while providing optimum conditions for the shade intolerant lodgepole to grow. 6) To increase water yields. And 7) to improve the recreational experience for Forest visitors.

Timber sales are being scheduled that are designed for improving wildlife habitat where wildlife management is the objective and the timber is a side benefit.

General Statement #5 - Combined with #4

General Statement #6 - Combined with #4

General Statement #7
GENERAL ORV RESTRICTIONS

Criteria for establishing ORV restrictions are set forth in the Standards and Guidelines section of the Plan. These provide the means of protecting the Forest from damage to the basic soil, water, wildlife, and aesthetic resources while at the same time providing an opportunity for this form of motorized recreation. The monitoring section of the Plan provides the means whereby a further evaluation or change in management direction can be triggered when resource damage occurs, or for other stated reasons. ORV's as well as other travel restrictions will be handled through the Travel Plan which will be reviewed annually and updated as necessary.

General Statement #8 - Combined with #10

General Statement #9
ROAD CONSTRUCTION AND RECONSTRUCTION

The miles of road to be constructed/reconstructed have been reduced from 34.1 miles per year proposed in the Draft Forest Plan to 25.8 miles per year.

A new addition to Table 11-4 better explains our methodology for estimating and displaying road mileage. In our draft plan, we incorrectly led reviewers to assume 3,000 miles of permanent roads would be constructed; the new chart separates construction and reconstruction of permanent roads from temporary roads. Approximately 80 percent of the roads to be constructed are temporary roads, skid trails and landings. Of the remaining 20 percent which would be permanent, 40 percent would be newly constructed and 60 percent reconstructed.

The preferred Alternative J, shows 2.7 miles of system road constructed and 4.1 miles of road reconstructed each year for this decade. In addition, most of the new permanent roads which will be built are local roads; most of them will be gated after initial activities are completed.

Resource management objectives and environmental constraints are considered in planning for new roads. It is not our objective to construct roads for the sake of building roads. Local roads will be located in areas where this Plan allows activities which will require access.

General Statement #10
ARRAY OF ALTERNATIVES

Several respondents have questioned the array of alternatives. The Final EIS includes one additional modified alternative (J) which should answer most of the concerns of people that desired another alternative with more recreation emphasis and/or amenity value emphasis. Alternative J was developed in response to public impact, but overall is still within the framework of the original DEIS and is a modified version of the existing array. The array of alternatives displayed in the Draft EIS did have a considerable range. This range, or variation, is most easily understood by referring to Tables 11-4 and 11-5 in the EIS.

In most instances the reference to the lack of alternatives was tied to timber harvest levels, road construction, and areas available for minerals activities. The amount of timber sales offered in Table 11-4 of the DEIS varied from 1.0 MMCF in Alternative F to 10.9 MMCF per year in Alternative I. At an average conversion of 4 board feet per cubic foot, Alternative F would have an approximate sell volume of 4 million board feet, well under the average sell volume for the recent past, and Alternative I would have an approximate sell volume exceeding 40 million board feet, well in excess of past averages.

The same comparison can be made for road mileage to be constructed or reconstructed. Note that estimated construction/reconstruction in Table 11-4 varies from a low of 4.2 miles in Alternative F to over 50 miles in Alternative I.

Both of the above comparisons are made for the first decade or the first planning period.

The modified preferred alternative, alternative J, reduces the amounts of road mileage and timber harvest considerably from the current alternative.

Concerns over long term roading statistics were answered by "ground truthing" FORPLAN runs to come up with more realistic numbers. Alternative J projects a lower amount of road mileage and timber harvest both short term and long term. The plan will be revised no later than 15 years from now and we can expect changes in roading and timber harvest based upon the changes that 10 to 15 years from now will bring.

It is important to realize that the Forest Service is committed to the principles of multiple use management, and other public recommendations advocating the exclusive use of any given resource or activity at the expense of another on a given area of land, generally can be accommodated only in-so-far as they don't infringe upon or impact the basic ecological and biological needs of the land itself.

General Statement #11
ALTERNATIVE J - MODIFIED PROPOSED ACTION (BALANCED RESOURCE
ALTERNATIVE

Current national concern and Administration direction is toward reducing budgets. In consideration of this direction, which several respondents also recognized, and after analysis of the public response to the Draft EIS and Forest Plan, it was decided to prepare one additional modified alternative for consideration: This is labeled Alternative J. Alternative J is incorporated in the Final EIS with the nine other alternatives displayed in the Draft.

Alternative J makes changes in the following areas considered critical by several respondents:

1. Timber harvest level has been reduced from 27 MMBF in Alternative B to 21 MMBF per year in Alternative J.
2. Road construction and reconstruction was reduced from 34.1 miles per year to 25.8 miles per year in the first planning period. The method of calculating and displaying proposed road construction and reconstruction was also corrected to more realistically depict planned actions. Actual mileage would be 2.7 miles of construction and 4.1 miles of reconstruction per year for system roads.
3. The listing of candidate and potential candidate Research Natural Areas was updated and included in Alternative J.
4. Standard and special stipulations for oil, gas and mineral leasing have been added to the Plan's standards and guidelines. These are the coordinated stipulations agreed to by the BLM and Utah Forests.
5. Wilderness management standards and guidelines have been coordinated with the Wasatch-Cache National Forest for the High Uintas Wilderness and are included in the Plan.
6. Criteria for annually reviewing and revising the Forest Travel Plan are included as standards and guidelines.
7. Four areas identified by several respondents as deserving some level of additional consideration have been added to Management Area q. These areas are: Fish Creek, Upper Uinta River, Lakeshore Basin, and Weyman Park.

8. Management Area q has a standard and guideline that will result in recommending "no surface occupancy" for minerals activities.

9. A map has been added to the Final EIS which displays the areas that will remain undeveloped at the end of the first planning period.

10. The Forest proposes site preparation for natural regeneration on 11,000 acres during the first planning period. This site preparation will be accomplished by several methods including; burning, cutting, or crushing. This proposal is dependent upon budgets. The NEPA process will be used to fully display the site specific and cumulative effects.

General Statement #12

PROTECTION AND ENHANCEMENT OF WILDLIFE HABITAT

All proposed projects are analyzed to determine what the impacts on other resources will be. If any adverse or unacceptable impacts are identified, the project is either modified to eliminate those adverse effects or the project is eliminated. This is especially true with regards to wildlife. If an area is identified as having significant values to wildlife for winter range, critical summer range, fawning and calving areas, riparian zones, etc., then timber harvesting is either scheduled to not conflict with those wildlife uses, or it is deferred.

The preferred alternative J does not allow wildlife habitat reduction in relation to timber harvest. The scheduling portion of the plan provides for completing all projects presently identified for wildlife habitat enhancement. Both big game and fish habitat projects are planned in the Flaming Gorge NRA.

Timber sales are being scheduled that are designed for improving wildlife habitat where wildlife management is the objective and the timber is a side benefit.

General Statement #13
MANAGEMENT OF BOLLIES

Area g has been expanded to include most of the area referred to as the "Bollies". This prescription includes a "no surface occupancy" stipulation for all mineral lease applications.

The decision to allow continued ORV use in portions of the Bollies is based on several factors: the Utah Wilderness Act released this area for other types of uses; there has been, to-date, no evidence of extensive damage in the area; and the area has historically been a favorite for ORV use, particularly by snowmobilers. Therefore, we have determined portions of the "Bollies" as suitable for ORV use.

While ORV use is allowed, it is governed by criteria in the Standards and Guidelines section of the Plan. The monitoring section of the Plan may trigger a further evaluation or change in management direction regarding continued ORV use in the Bollies as well as on the rest of the Forest.

General Statement #14
WILDERNESS MANAGEMENT

The entire section under Standards and Guidelines has been rewritten to strengthen the Wilderness management prescription and to correlate with the Wasatch-Cache National Forest's Management Plan. The monitoring section of the plan assures compliance with the Standards and Guidelines.

General Statement #15
SUSTAINED YIELD

The "sustained yield" concept is applicable to a living, dynamic Forest and has no relationship to dead non-growing stands. Presently on the Ashley a significant percentage of the lodgepole and Ponderosa pine stands are dead, which limits the amount of green material that can be harvested under sustained yield. The small acreages left that are stocked with live trees has significantly reduced the opportunity to provide green volume. We will continue to manage these green stands under the sustained yield concept and add newly established ones as they mature. Approximately 70% of the harvesting scheduled for this planning period is comprised of dead material.

No General Statement #16

General Statement #17
PRESCRIBED BURNS FOR DEAD LODGEPOLE

This year the Ashley is beginning a program of prescribed fire to reduce slash created by sales and for treatment of standing dead lodgepole pine to improve wildlife habitat and reduce the immense areas of unbroken fire fuels.

General Statement #18
BROWN'S PARK ROAD

Daqqett County through funding by the State of Utah is evaluating a route which is commonly referred to as the Brown's Park Road. This route would connect Colorado Highway 318 with Utah Highway 260. At this time we have not been advised of the findings from this evaluation. Informal communication with the Utah Department of Transportation indicates a route is feasible but costs are extremely high. While this route study will deal with location and preliminary costs it is not an analysis that considers environmental consequences. An environmental document must be prepared before any decisions can be made regarding this route compared with other locations, including the existing road through Jesse Ewing Canyon and Clay Basin.

A document, "Final Wild and Scenic River Study and Final Environmental Statement", prepared by the National Park Service, April 1980 was submitted to the Congress by the Secretary of Interior in November, 1983. This document recommends the Green River, in the location of the route currently being evaluated, to be classified as a Wild and Scenic River. It further states that if the subject portion of the Green River is included in the Wild and Scenic Rivers System, road construction within the visual corridor will not be permitted if a feasible and prudent alternative exists.

Until action is taken by the Congress concerning this river's classification, we believe the corridor should be managed in its existing condition so as not to preclude the options of the Congress.

These considerations are the reason for our recommendation in the DEIS, and now in our Final, to oppose any road along the Green River until Congress has made a decision about the Wild and Scenic River status proposal.

General Statement #19
CLEARCUTTING

Clearcutting is the widely accepted practice by experts in the management of lodgepole pine stands. Reasons for clearcutting in lodgepole pine are: (1) Lodgepole pine is shade intolerant and reproduces best when the stand is open; the young trees need intense sunlight. (2) Dwarf mistletoe is prevalent in most old growth stands and quickly reinfects the understory in partial cuttings; mistletoe stunts new growth. (3) Windthrow is common in partially cut stands because of the shallow root structure, and (4) Trees left as growing stock in old growth stands often will not release seeds from their closed cones unless the intense heat unlocks the resin.

General Statement #20
RESTRICT HARVESTING TO EXISTING ROADS

If we were to harvest timber only adjacent to existing roads, within a short period of time we would not be able to provide any firewood, mine props, Christmas trees, sawlogs, or other forest products to the public. However, the amount of proposed road construction has been reduced and proposed roads have been dropped from a large portion of the forest in the Final Plan.

General Statement #21 - Combined with #12

General Statement #22
PLAN COMPLEXITY

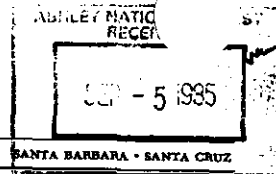
We agree that the plan and accompanying EIS can seem lengthy and confusing and the discussion of resource outputs, levels, cost benefits, and environmental effects was difficult to follow in the draft. While we have simplified and streamlined the documents somewhat in the Final and made them more understandable, we are still legally required to include certain information. Also, the fact remains that the effects of applying a management alternative to a complex area the size of the Ashley National Forest will be complicated at best and will require considerable study.

D. INDIVIDUAL COMMENTS AND FOREST SERVICE RESPONSES

I-1 Jack Major	I-28 Gary Vesperman
I-2 Clayton J. Benton	I-29 R. Alan Maurer
I-3 Newton C. Estes	I-30 Margaret R. Fraser
I-4 Richard M. Warnick	I-31 Frances J. Riley
I-5 R.D. Pederson	I-32 Roger Arhart
I-6 Pamela D. Clevenger	I-33 Diana G. Baker
I-7 Norman P. Gregas	I-34 Marv and Pam Poulson
I-8 Diana Grunig	I-35 Margaret Gregory
I-9 V. Jay Smith	I-36 Betsy Neely
I-11 Jim Miller	I-38 Stephen M. Borton
I-12 John R. Swanson	I-39 Rebecca A. Widenhouse
I-14 Jay Bickford	I-40 Margaret Pettis
I-15 Cynthia Johnston	I-42 Mollie Matteson
I-16 Ann Schaffer	I-43 Heather Campbell
I-17 Allen W. Stokes	I-44 Thomas J. Lyon
I-18 Mark Hengesbaugh	I-45 Doug Chinn
I-19 Clyde A. Morris	I-46 Joella Buffa
I-20 Kurt Welborne	I-47 George Nickas
I-21 Julie Gudmundsen	I-48 Linda J. West
I-22 A.C. Wilkerson	I-49 Mark Pearson
I-23 John Veranth	I-50 David Hanscom
I-24 Ken E. Kemp	I-51 William V. Peterson
I-25 Lynn C. Bornholdt	I-52 A.D. Shaw
I-26 Mark McKeough	I-53 Glen J. Smith
I-27 Ben Grimes	I-54 James C. Peterson

UNIVERSITY OF CALIFORNIA, DAVIS

BERKELEY • DAVIS • IRVINE • LOS ANGELES • RIVERSIDE • SAN DIEGO • SAN FRANCISCO



SANTA BARBARA • SANTA CRUZ

DEPARTMENT OF BOTANY

DAVIS, CALIFORNIA 95616

30 Aug. 1985

Mr. D. G. Tiedker, Supervisor
Ashley National Forest
U.S. Forest Service
Ashton Energy Center, Suite 1150
1680 N. Highway 40
Vernal, Utah 84078

Dear Sir:

Congratulations on completing your Forest Plan and the DEIS. They are complete for the most part, thorough, skillfully done. I have only a few comments.

I hope the Research Natural Areas system can be quickly brought up to a useful standard. I suggest the standard achieved in R-6. Not only all the major types of vegetation (ecosystems) should be represented, but there should be replication, different age classes of the various forest types should be represented, and areas of significance to particular animals such as moose, ptarmigan, mountain sheep, deer & elk (winter range especially), beaver, furbearers such as marten and wolverine should be represented. Management in the future will certainly curtail the opportunities to establish appropriate Natural Areas. And I would urge that the writeups include not only species inventories but data on the plant communities represented. The forest habitat classifications, such as Menderson et al.'s for the Uinta Mts (Utah State U., 1977), are without a checkable foundation if there are no RNA's including the plots used for the classification. You are very fortunate on the Ashley to have available such excellent plant taxonomists as Sheri Goodrich and Elizabeth Neese--their Uinta Basin flora, 1985. But taxonomic understanding is only the first step in understanding the ecology of plants in the field.

Some specific points: Page II-21. If the Utah Fish & Game Commission decides to winter-feed elk as does the Wyoming Game & Fish, there could be drastic effect on summer range, as in nw Wyoming.

I hope the Forest does not freeze itself into clear cutting as the only silvicultural method. Judging by page B-30 there is a lack of data on the kinds of forest stands found on the Ashley. Silviculturists on the Teton & Shoshone a few decades ago decided they knew how to manage those forests. FS reviewers disagreed subsequently, and the most recent review is still a black mark. The Teton has clearcuts without regeneration since cutting 20 years ago.

Does the FS charge \$10.17/AUM (page III-31)? This could be dynamite.

Page IV-6: Will the roadless areas left out of Wilderness classification on the round be eligible on a future round? A vigorous road building program has already removed much area from Wilderness consideration. There is always pressure for more roads. From within the FS?

P. IV-25. These areas cannot be rehabilitated?

P. B-23: If timber is managed to maintain at least 3% as old growth, this means not much cutting in spruce with old growth older than 200-300 years. Or is old growth lodgepole more than 80 years?

P. H-52. Blasting. Does this restriction apply to seismic lines? On all NF in R-4? If so, someone had better tell the people on the Bridger-Teton & the Targhee about it.

Sincerely,
Jack Major
Jack Major

Response to Jack Major

We have been working with the Nature Conservancy (see letter O-4) on the entire management needs for establishing our Research Natural Area system.

To our knowledge the Utah Division of Wildlife Resources has no plans to feed elk herds that populate the Ashley National Forest.

See General Statement 19.

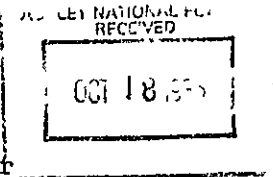
The value of an AUM of actual grazing on the Forest is \$10.17 in 1978 dollars (Shep Buchanan, zone economist, 1980). However, Federal regulations set the fees we can charge for grazing. Presently, the price is \$1.35 per AUM.

See General Statement 2.

These areas can be rehabilitated, if necessary. However, once these areas are disturbed, they would probably no longer qualify as potential Research Natural Areas.

We are not sure what you are asking in your question about 5% old growth. Lodgepole old growth on this Forest is usually 160 years and for spruce it is 200 years. Management for old growth is guided by criteria found in the Standards and Guidelines section for both Timber and Wildlife.

This restriction applies to major energy transmission system construction and not to seismic operations.



I-2

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, Utah 84078

Clayton J. Benton
1652 Lakewood Dr.
SLC, Utah 84117

Response to Clayton J. Benton

See General Statement #4

See General Statement #1

See General Statement #20

See General Statement #17

See General Statement #13

See General Statement #7

See General Statement #14

Dear Sir:

I am writing to comment on the proposed Ashley National Forest Environmental Impact Statement and Land Management Plan.

As it now stands, the plan has far too many flaws to be considered acceptable. Perhaps the most unacceptable part concerns the horrendous increases in timber harvests over the next 20 years. Any plan for harvesting must assure that there will be no below cost sales. If timber can't be sold at a profit it should be left alone. No harvesting of timber on slopes of greater than 40% should be allowed in order to prevent excessive erosion, and cutting should be restricted to existing roaded areas with the construction of new logging roads kept to an absolute minimum.

The plan cites the pine beetle infestation as a justification for the large increases in the timber cut. It would seem to me that a policy of controlled burns would be more effective, cost a lot less and in the long run inflict less damage on the forest.

The Boillies area should be closed to mineral development and ORV use. This high elevation terrain is too vulnerable to permit these kind of activities. In all areas, ORV use should be controlled so as not to damage the land or disturb other users.

management of that portion of the High Uintas Wilderness which falls with the Ashley seems to have been ignored in the plan. Any final version must contain provisions for maintaining the quality of the wilderness area including, if necessary, restricting use in some areas.

Your consideration of these points will be most appreciated

Yours Truly

Clayton J. Benton
Clayton J. Benton

U.S. Forest Service
Ashton Energy Center
Suite 1150
Vernal, Utah 84078

Attn: Duane Tucker

2018

Dear Mr. Tucker,

As an avid nature lover, wilderness hiker, and a person who believes in change only when long-term benefits are obvious, I write to ask for some clarification of your Ashley Forest Management Plan.

1) Are you proposing to open up logging areas not now served by roads? Would not these intrusions certainly degrade our national interest to preserve the natural character of these treasure lands and to improve the habitat for our elk and deer?

2) What if any steps are you taking to cut down on the use by off-road vehicles of trails that penetrate right into the heart of this unique wildlife habitat?

Certainly these noisy conveyances should not be allowed to intrude on the animals who require wilderness to survive, and on those of us who come to our national forests to get away from motorized transportation.

Please have your plan include strict penalties for those who would wheel into these sensitive delicate quality areas.

3) Does your plan set forth in plain words (which would not be subject to misinterpretation during its term) that its fundamental purpose is to maintain or improve the original character of our lands which you hold in trust?

If your plan goes contrary to this and allows intrusions by commercial interests, can you assure me that such extractions can be restricted to periods of strong product demand, and that any habitat ravaged will be offset by the closing and restoration of other areas?

If you can do neither, please let me know who, if not the general public, and what, if not our wildlife, you suppose to be the beneficiary of your guardianship?

When and where will these comments be considered, and the vote on the provisions of your plan be taken? The bad rumors I have heard will require that I take time off to attend your meeting in the hope of finding out they are not true.

Sincerely yours,
Newton C. Estes
Newton C. Estes

Response to Newton C. Estes

See General Statement #2

See General Statement #7

See General Statement #12

The fundamental purpose of the Forest Plan and EIS is explained in the introduction of Chapter I of both documents. The Forest's fundamental purpose is to manage public lands for "multiple use" (range, wildlife, watershed, wilderness, recreation and timber). We appreciate your comments and hope the changes in the Final have improved its readability.

See General Statement #22

Because the plan meets multiple use objectives, some areas will receive emphasis for commercial uses; other areas will receive emphasis for amenities such as wildlife.

Weighing public comments is determined by substance, not number of votes.

14

454 South 500 East #37
Salt Lake City, UT 84111

14 October 1985

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, UT 84078

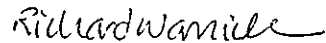
Mr. Tucker:

After the Wasatch National Forest demonstrated total disregard for public comments, I am reluctant to waste time commenting on the Ashley National Forest draft plan. This plan has problems that cannot be solved without starting over with a blank sheet of paper, anyway.

Just to list the major deficiencies, the plan is incomprehensible to the point where it is probably impossible to implement. It calls for a doubling of the timber harvest without any justification-- the Forest Service admits that this is not the solution to the pine bark beetle "problem." It opens sensitive alpine areas to ORV use. The plan offers no alternative to opening 70% of the forest to mineral development. It calls for major destruction of wildlife habitat. It proposes 3,000 miles of roads, at taxpayer expense. It will damage watersheds through timber cutting on slopes over 40%. It fails to adequately address wild/scenic river designation for Rock Creek.

The Ashley plan should be thrown in the trash and completely rewritten in a form clearly understandable by the public and with alternatives that reflect public desires for resource preservation and reflect the real situation on the ground.

Sincerely,



Richard M. Warnick

Response to Richard M. Warnick

We appreciate your comments and hope the changes in the Final have improved its readability.

See General Statement #22

See General Statement #4

See General Statement #21

See General Statement #7

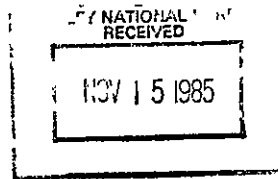
See General Statement #9

See General Statement #11

The proposed Wild and Scenic River designation for Rock Creek was studied and Rock Creek was eliminated because the U.S. Bureau of Reclamation's Upper Stillwater Dam (Central Utah Project, Bonneville Unit) would preclude sections below the dam from being designated wild or scenic. Rock Creek above the high water mark of Upper Stillwater Reservoir is located within the High Uintas Wilderness; therefore, designating it wild or scenic would serve no purpose.

10-16-85

R. D. Pederson
P.O. Box 494
Vernal, UT 84078
November 13, 1985



Response to R.D. Pederson

See General Statement #1

See General Statement #4

See General Statement #9

See General Statement #3

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, UT 84078

Dear Mr. Tucker:

Forestry by definition is "the science and art of forming, caring for, or cultivating forests".

The forest plan of the Ashley National Forest seems to have forgotten its purpose. The forest is not only trees that can be harvested, it includes flora and fauna that have no economic value but are still an integral part of the forest. It has become painfully obvious that trees and the harvesting thereof is the only consideration of the Ashley National Forest plan. Perhaps a necessary and timely reevaluation of the Ashley National Forest direction is in order. Perhaps a plan that includes more viable alternatives and an array of choices with respect to all the aspects of a forest and its' potential for multiple use, preservation of riparian zones and watershed, and protection of animal habitat, is an idea whose time has come.

The increased harvesting of trees at below cost, especially on slopes approaching 40% seems to be ridiculous and not in good keeping with responsible forest management. There are other, more economically feasible, means of managing forests. The Ashley National Forest plan considers harvesting trees as a commercial venture only and does not consider the ramifications of such harvesting on the future of the forest, thus insuring infestations of insects or disease in the future. Such irresponsible management only leads to nature taking over and doing what is necessary to protect the forest at some point in the future.

Along with the 100% increase in harvesting is the unacceptable amount of roads to be built with no plan for road closures to offset the increase. A forest with over 3 miles of road per square mile is no longer a forest but a city with dirt roads and a few trees.

The mineral development of the forest should also be more tightly controlled and spelled out in the plan. Considerably less than 70% of the forest should be open to mineral development with environmental impacts being of prime importance.

R. D. Pederson
P.O. Box 494
Vernal, UT 84078
Page 2

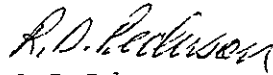
Following is a summary of my objections to the Ashley National Forest plan as now written:

1. Change the increased below cost harvesting of trees. Allow for more economical and environmental oriented management.
2. Adopt a specific plan for mineral development, disallowing such development in areas that can be permanently damaged either physically or aesthetically.
3. Adopt a more stringent road management policy requiring a proportionate road closing for each new road built, either with gates that allow only authorized use or more aggressive policies of closed roads.
4. Limit offroad recreational vehicle use in areas that are environmentally sensitive and keep more of the forest closed to vehicular traffic.
5. Allow wildlife habitat (e.g. elk calving, winter and summer ranges) to carry more weight in deciding which areas are to be harvested or roaded.
6. Keep in mind the increasing value of recreation in the future years and a broader view of multiple use so the forest can be used and enjoyed by all people: hunters, hikers and fishermen.

Finally, I believe that summary of the plans of the Ashley National Forest should be attached to the statements in the future so people who wish to comment would not have to muddle through the entire statement to discover the goals set forth in the statement.

Thank you for the opportunity to comment.

Sincerely,



R. D. Pederson

(page 2)

See General Statement #7

The Forest has given high budgeting priority to road management including enforcement of road closures.

General and specific ORV restrictions are set forth in the Standards and Guidelines section of the Plan. These provide the means of protecting the Forest from damage to the basic soil, water, and aesthetic resources while at the same time providing an opportunity for this form of motorized recreation. The monitoring section of the Plan also provides the means whereby a further evaluation or change in management direction can be triggered when resource damage occurs, or for other stated reasons.

Critical wildlife habitat is protected from damaging activities by the Standards and Guidelines in Wildlife, Timber and Riparian. In general, summer range is not considered as critical habitat and will not automatically be given priority in assigning activities.

16 October 1985

Pamela D. Clevenger
139 S 100 East
Vernal, UT 84078

Response to Pamela D. Clevenger

See General Statement #22

See General Statement #9

Duane Tuckman
Forest Supervisor
Ashley Nat'l Forest

Dear Mr. Tuckman,

I would like to comment very briefly on the glaring inadequacies that I feel exist in the Ashley Nat'l. Forest draft EIS. I honestly wonder if I am wasting my time writing this letter since that document was obviously not written so that a person of average intellect could understand it. On the other hand the national forests exist for the enjoyment & sake of the average person and it is we, the public, who own them. So I feel that I am justified in sending you my comments, especially since I am a local resident & I feel Ashley to be "home" so to speak.

The part of the plan with which I take issue the most is the 3,000 miles of roads which will be built to meet a timber harvesting goal and future mineral development. I strongly protest this plan and urge you to go back and include an alternative plan which would utilize only existing

roads and would protect important wildlife areas: massive clearcutting & roadbuilding is not the cure for the pine beetle nor is it profitable. Mineral development should be restricted in all unroaded areas & important animal ranges & riparian zones. Though an incredible mistake was made by excluding the "bollies" from designated wilderness, that is no reason for the Forest Service to abandon their protection. There are so many places where ORVs can be used. Why not save a few pristine areas from them?

I use Arkley Forest all four seasons of the year. I continue to discover new & delightful, untouched areas in which to fish, ski, back pack and camp. Please listen to the people of your area instead of "selling out" to industrial ^{& commercial} pressure. The best thing you can do for Arkley is to leave it alone!

Sincerely,

Pamela Clavinger

(page 2)

See General Statement #3

See General Statement #13

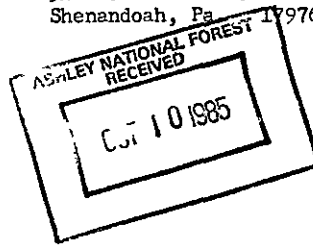
See General Statement #7

2-1
Norman P. Gregas
512 E. Center St.
Shenandoah, Pa 17976

Response to Norman P. Gregas

See General Statement #1

October 8, 1985




U.S.D.A
Forest Plan
Forest Service
Ashley National Forest
Ashton Energy Center
Suite 1150
1680 N. Highway 40
Vernal, Utah 84078

Ladies or Gentlemen:

Because the Forest Service has been losing money on almost every timber sales, and because road building, administration of the sales, and restoring the cutover land cost more than the sale of the timber would bring in. I believe less timber sales until improvements in the system are made, would be in the best interest to the National Forest and the taxpayers.

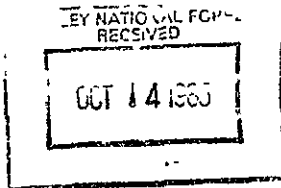
Thank you for your time and help in furnishing the desired documents.

Sincerely,


Norman P. Gregas

npg
cc

I-8



Diana Grunig
P. O. Box 146
Fangely, CO 81648

October 8, 1985

Duane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 West Highway 40
Vernal, UT 84078

Dear Mr. Tucker:

I have recently had a chance to review the Draft Environmental Statement and Proposed Forest Plan for the Ashley National Forest. I'd like to compliment you and your staff on the job you did with such a volume of data and number of concerns.

I can only look at these documents from my own viewpoint, however, that of a geologist who has been connected with the energy industry for the past ten years, that of a citizen who is concerned about government expenditure, and that of a person concerned about the environmental quality of an area that I have come to love. From this viewpoint, it seems to me that the treatment of mineral and energy resources in these documents is inadequate.

I must say that I agree with you that no more acreage should be withdrawn from mineral exploration and development until further information - geologic, economic, and environmental - is available to you. Your conception of the Ashley National Forest as III-45 "Basically ... non-mineral in character based on geological reports." (P.III-45) is, I think, probably quite accurate. The Forest is not, however, uniformly non-mineral in character. It is with your uniform treatment of the Forest's minerals and potential for development that I disagree.

You state that the Forest Service does not determine which areas are capable of minerals and energy production; this is properly the function of the private sector. I agree, but Table IV-6, page IV-27, indicates that, at least for oil and gas, you have analyzed the copious data available - you to the extent of realizing that some of the

Response to Diana Grunig

Even though there is a significant amount of acreage on the Forest under lease, there are no producing wells; those wells that have produced did so at a marginal rate. The incidence of APD's (drilling applications) is fewer than one per year, indicating that interest in mineral development on the Forest is not directly related to the amount of acreage under lease. This low interest has existed for several years despite changing emphasis in other resource areas.

Mineral development potential is totally dependent upon the economics of industry; it is authorized by laws which cannot be promoted arbitrarily by the surface managing agency; and it is governed by numerous standard and special stipulations designed to protect the surface resources. Further protection occurs through Operating Plans, APD's, Notice of Intent documents, Construction-Operation-Maintenance Plans, and other documents which are site-specific for each proposal. A matrix has been developed and appears in the EIS and Plan showing where special stipulations will be applied.

Ashley National Forest has more potential for energy development - and, of that, some would be more sensitive to this development - than other acreage. I have no doubt that you have prepared or could prepare this same information for other mineral resources. Realizing that different Forest acreage has different potential for exploration and development than other acreage, why is the Forest Plan, in the Management Area Standards and Guidelines section, so unresponsive to the individual differences in Management Areas?

The suggestion is that you cannot predict either in time or in location the exploration for and development of mineral and energy resources in the Ashley National Forest and therefore this activity must be treated uniformly in all the alternatives considered in the DEIS. I have attempted to suggest above that your own documents do not support the conclusion that mineral and energy development will be uniform throughout the Forest. I think an equally valid point is that there is no reason to suppose that this development will be uniform over time. Except for large-scale activities, especially strip-mining activities, the Forest Service will control the extent and location of exploration and development by its decisions on where to put the roads.

Ideally, the areas that a mineral or energy company would first develop would be those that you have identified as of high geologic potential and low restriction by the Forest Service. However, the placement of a suitable access road would change the economic picture; an area of medium geologic potential and moderate restriction might easily become more attractive to a potential developer than an area of higher potential and less environmental sensitivity to which an extensive road must be built. By constructing roads for other purposes without consideration of an area's mineral potential, you may make a marginal prospect in a sensitive area more feasible than it would otherwise have been. This would have a definite effect on some of the alternatives considered in the DEIS, such as D, Non-Market Opportunities. By the same token, alternatives such as C, Market Opportunities, could be influenced favorably by careful planning of road development.

"Future technology, change in economic conditions, new discoveries, and changing needs will determine to a large extent where and which minerals are developed." This statement from the DEIS (P. III-45) is quite true, but the caveat is equally valid for many of the other resources considered in great detail in the DEIS, for example, recreation - who, fifty years ago, would have predicted the snowmobile and other off-road vehicles? - and timber harvest, particularly for fuel wood. The lack of ability to completely predict the future does not seem to me sufficient

(page 2)

To the extent possible, we revised the EIS to display some variations among management areas and prescriptions.

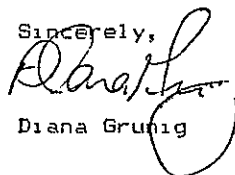
Access roads for mineral exploration do not necessarily determine where development will occur. There are several highly technical methods of seismic exploration being done with helicopters and other equipment in areas where no roads exist.

e use for the cursory treatment that mineral development and its effects receive in this DEIS.

Mineral and energy exploration and development will affect almost every other concern and issue addressed in this DEIS. Perhaps this activity will be as negligible as your treatment of it suggests, but this view is not supported by the information in the documents. It is one thing to be "reactive to industry" and "responsive" to the other agencies with jurisdiction in this matter. It is quite another to fail to deal with the issues. I hope that the Final Environmental Impact Statement will consider this issue with the attention it merits.

In addition, I'd like suggest that you consider extending the comment deadline for these documents. Although the Ashley National Forest is a recreational resource for a considerable number of us in northwestern Colorado, it was only by chance that I heard of the DEIS before the deadline had passed. Such a complex issue takes time to publicize and time to consider fairly. Although I'm sure you have complied with the letter of the law, I think a month's time extension of the comment period would help keep your organization's work within its spirit.

Sincerely,



Diana Grunig

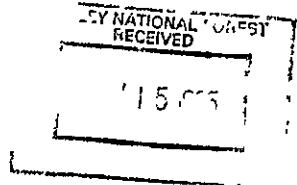
(page 3)

A set of Standard and Special Stipulations has been appended to the Forest Plan to acquaint the public with requirements governing mineral development operations.

Area g has been expanded to include most of the area referred to as "Bollies". This prescription includes a "no surface occupancy" recommendation.

cc: J.S. Tinner, Regional Forester, Intermountain Region
Will Durant, Uintah Mountain Club
Utah Wilderness Association

3252 South 200 East
Bountiful, Utah 84010
November 9, 1985



FROM: V. Jay Smith

TO: Mr. Duane G. Tucker
Forest Supervisor, Ashley National Forest

SUBJECT: The Ashley National Forest Draft Environmental Impact Statement
and Land and Resource Management Plan.

REFERENCES: Draft Environmental Impact Statement (DEIS) for the Ashley
National Forest

Proposed Forest Plan (PFP) for the Ashley National Forest

Ashley National Forest Map dated/printed 1982

Correspondence from D.G. Tucker dated Oct. 22, 1985

"Forest Service Budget Reduced." Sports Afield, Nov. 1985,
p. 18.

Upon review of both the Draft Environmental Impact Statement and Land and Resource Management Plan I find these reports to be very ambiguous and lacking in substance. I am particularly alarmed at the implied policy making decisions left at the sole discretion of the district rangers.

The proposed nine (9) alternatives of the DEIS I find to be directed toward the limited few individuals who will attain sizeable personal profits from the exploitation of our resources.

As a member of a former third generation timberman family, I am very familiar with the business of harvesting timber from our national forest. Let's be realistic - the timber of the Uinta Mountains is not of the grade or quality of that from the Northwest. Likewise, to mature a tree in this forest takes on an average of one hundred and twenty plus (120+) years. That is six (6) generations of our posterity. Can we afford to allow accelerated timber harvesting at the expense of our future generations?

Deficit timber sales have been a very common transaction justified under the guise of the need for roads. This practice has been exploited by the timberman to their obvious monetary advantage. As noted in the November 1985 issue of Sports Afield an article titled "Forest Service Budget Reduced", page 18, addresses this dubious practice. When one-fourth to one-half of the timber cut from national forests is sold for less than it costs the government to manage the sales and build roads is a total lack of fiscal management. This practice must be stopped. A timber sale should be released when it becomes cost effective.

I am dismayed to discover the existence of roads into the East and West forks of the Whiterocks drainage, past Johnson Peak, numbered 110 and 459.

Response to V. Jay Smith

The decentralized structure of the Forest Service, giving discretionary power and latitude to the District Ranger, is one of the biggest strengths of the agency. Many decisions can be made at a local level instead of being made at higher levels where decisions may be hindered by distance, time and lack of familiarity with on-the-ground conditions. The primary purpose of this plan is to establish the guidelines and parameters for Ranger's decisions.

See General Statement #1

Road #10459, which follows Johnson Creek and passes Johnson Park, was built around the late 50's for access to raise the dam on Cliff Lake and to build the dam on Whiterocks Lake. It has been closed beyond Cliff Lake to vehicle travel with axles over 50 inches wide.

Road #10110 is a high standard road to Chapeta Lake that was constructed for timber harvest and recreation access. It was built in three stages starting in the early 60's and completed in 1971. It is now an established access route and there are no plans to close it.

I foresee this area to be of major concern and possibility as a future area for constant conflicts. I would advise your serious consideration be given to closing these roads permanently, particularly 110 past Pole Creek to Chepeta Lake.

Allowing new roads into pristine forested areas is of great public concern. If I were a timberman, I would pressure the forest service for establishment of roads into areas which would service my future needs in the next ten (10) years. This would achieve removal of these areas from future wilderness consideration. This could be a well orchestrated plan on the part of the timber and mineral exploiters since the area West and including Young Springs Park, Leidy Peak, Marsh Peak including the Marsh Bench Area to Paradise Peak is prime area for future wilderness consideration. This area should remain roadless and be managed for the next decade for this purpose only - without exception.

Furthermore, the need to construct new roads into pristine forested areas, considering the type of terrain they must traverse, has several detrimental effects:

- A This has been a major contributing factor for a timberman to manipulate a sale into a deficit position.
- B It provides an open invitation for the use of off-road vehicles and regardless of signs, restrictions or supposed fines, you cannot effectively control this problem, particularly in the fragile environment of our undeveloped forest.
- C Loss of wildlife habitat. Once this incursion is made it is next to impossible to rehabilitate to its former status.

In recent years, the practice of clear cutting a sale has become the accepted method for timber extraction. Having witnessed the results of this practice, particularly on sloped areas which are subject to effects of erosion, makes one question if this is a sound management policy.

In recent years, as timber sales have become less readily available, the timberman have turned to the District Ranger Sales (approximately 750,000 bdf of timber) as a means of avoiding needed assessments and reviews. Ranger sales should be limited in number per year and this type of sale should not be granted in roadless areas.

Silvicultural management to eradicate the beetle is preposterous. Who is the source and by what proven statistics is this a guaranteed method of halting the beetle's infestation? It appears to me that the forest service is a little gullible on this issue.

The DEIS addresses the issue of mineral development from a vicarious position. Granted, the forest management is not perfect but I am not naive enough to believe forest officials cannot control mineral exploration and development within their jurisdiction.

From the various proposed alternatives it is readily apparent the forest service is siding with those who propose commercial exploitation of the forest. I can only conclude the DEIS is proposing an "open door" approach to mineral development at the expense of the multiple use of the forest.

Virtually unaddressed is the fact that a portion of this forest was considered

(page 2)

See General Statement #2

No new roads are planned in the Young Springs Park, Leidy Peak, and Marsh Peak area. Low standard timber roads will be built in the Marsh Bench area, but the entire road system is controlled by a gate at the beginning of the Marsh Bench road.

See General Statement #7

See General Statement #19

Ranger sales, like all activities are governed by this Plan. They will not be granted in the unroaded Management Area q.

See General Statement #4


See General Statement #3

as a potential wilderness area. These roadless areas offer unique qualities to the outdoorsman in the fact that they form a combination of differing environments which are not available in Yellowstone or even the Wind Rivers. To leave these roadless areas unprotected for future wilderness consideration would defeat one of the significant objectives of the multiple use policies governing our national forest system. Remember, this is a unique feature of the Ashley National Forest.

The way you manage our national forest today will determine how long they will remain that way.

I wish to express my appreciation to Mr. Tucker for his extension of the ninety (90) day review period to November 15, 1985.

Yours truly,

A handwritten signature in cursive script that reads "V. Jay Smith". The signature is written in dark ink and is positioned above the typed name.

V. Jay Smith

(page 3)

Area G in the final Plan and EIS has been expanded and the management prescription strengthened to address your concern about this area.

I-11

Response to Jim Miller

See General Statement #3

See General Statement #1

MR. TUCKER:

Thank you for the chance to comment on the Ashley Forest Plan.

I live in Heber and work as a cross-country ski guide and outfitter based in Park City. We have an Outfitter/Guide Permit for the Wasatch Forest (KAMAS Dist) AND Uinta Forest (Heber Dist). I also spend a lot of vacation time in the Uinta mountains, as well as recommend to others to visit. In the future we may wish to operate a Guide Service in the High Uinta Wilderness Area.

I believe in multiple-use. I see the Uinta mts. as good multiple-use area. But we must be sensible in our choice of which use is best and where, and not ruin one use to pursue unecconomical or wasteful use of another. Specifically, development of both mineral and Timber interests must be questioned as to their respective potential when weighed against their impact. Certainly mineral development should be restricted to areas with roads and away from prime wild life habitat. Your own assessment shows little potential ^{in real money} while Timber will (and should) employ the small interests on the Ashley forest, new development should be restricted to ~~developed~~ roaded areas, non-game habitat, and moderate angle to flat slopes. The Forest Service should not be placed in a money-losing position of building roads into unproductive Timber areas. Full development and use for Timber harvest should be encouraged in all roaded areas deemed product

(page 2)

See General Statement #7

See General Statement #2

See General Statement #11

Time after time my clients as well as other visitors to the state tell me that they travel to Utah for the wonderful scenery, clean environment, and recreation possibilities. Obviously the Ashley Forest's largest economic asset is its recreation and wildlife potential. Please do not jeopardize these unique features by allowing uneconomic timber or mineral harvest.

With the hundreds of miles of rough, dirt roads and Jeep trails - certainly the motor bikes and three wheelers have enough terrain to recreate in. With the little snowplow these same roads have even more mileage for snowmachin. The Roadless portion of the Ashley Forest is its largest asset, and eventually will provide the biggest income. ORN's, Timber and Mineral development must be restricted in the higher elevations (above 9,000ft) and should be managed as the High Uintas Wilderness area. This is very important to me as a business, as well as for recreation purposes. It is important to the state to provide ^{its} unique (in the lower 48) recreation to its citizens, and income from recreation industries, that the Ashley Forest provides.

In conclusion, I cannot fully support any of your designated Alternatives, as they all suggest massive development. Instead leave the forest as "is" - with emphasis on developing the Roadless areas for market purposes, and the Roadless areas as recreation, grazing and wildlife area. Thank you.
D. Miller

October 1985

Ashley National Forest

1650 West Highway 40
Vernal, Utah 84078

Dear Sirs,

Please accept my Comments, as follows, concerning

Draft Environmental Impact Statement - Proposed Land and Resource Management Plan -
Ashley National Forest

I have been acquainted with this area of Utah and Wyoming for many decades, and continue to retain the very firm opinion that this Ashley National Forest contains outstanding wilderness, with life, fish, botanic, scenic and cultural resources of certain national significance.

An area that provides a vital and as all Americans desire a lasting refuge for man and small life, in our grand planet. One area, then, that fully benefits man and fully benefits all life on this damaged earth.

It is my opinion that I am opposed to this National Forest's proposed alternative, as such will decrease surface and subsurface resources and, thus, will destroy the Ashley National Forest. I, then, fully recommend that as "owners" and "managers" of this area we have this area by National Forest by

establishing some as a permanent dedicated Preserve.

With each unit of the National Forest System established as a permanent dedicated Preserve. As the purpose of the Forest Service, United States Department of Agriculture, is to preserve all of the wilderness, wildlife, fish, botanic, all biological resources, cultural and scenic resources located on the National Forest System with each Preserve to protect ecosystems, preserve water habits, riparian and enhance all wildlife fish and botanic habitats - areas, protect and promote all biological resources and their diversity, preserve rivers and streams - creeks, restore a river or all such - damaged areas to their natural environmental condition, and to preserve, protect, strengthen and expand wilderness.

As wilderness is the foundation of all land and water resources with the purpose of all land and water resources planning and management to preserve, protect, strengthen and expand wilderness.

I, then, fully urge that the following areas - areas located on this Ashley National Forest - only - be fully classified as permanently protected as wilderness, as each such unit features several wilderness attributes, and to be included in our National Wilderness Preservation System - at this time

- High Uintas Wilderness addition, only 413,837
- Splitfinger Ridge 6572
- Red Hole 24,932
- Cant Hollow 12,783
- Leaky - South - 14,919
- Mahogany Face 8266
- Death Valley Creek 6917
- Bear Top 13,582
- Red Canyon 6,169
- Salmon Creek 13,066
- Hobo Canyon 17,504

• Plus, on additional 118,000 acres
• Reserve a total of some 927,000 acres of wilderness to be located on this Ashley National Forest only, and to be included in our National Wilderness Preservation System - at this time

Some include rivers and streams - creeks in the National Wild and Scenic Rivers System, such as the Green River. So, classify this National Forest as National Wildlife Biological Preserve and National Cultural Habitat Area; to have all life including those considered as sensitive, threatened and endangered.

So, then, select the Ashley National Forest as an established permanent dedicated National Wilderness Wildlife Biological Preserve and to select this National Forest's permanent planning and management alternative, the following Alternative Preservation Wilderness with life Biological Scenic Resources

- to eliminate mining - mineral activities as such also make surface - subsurface resources and to end all other activities in order to save soil resources and wild life habitat also, and hydro activities to save water resources.

So, permanently ban all forms of surface and subsurface activities - developments, small current, prop and potential wilderness with the release of any Rockwell areas.

So, require all land holdings on all public lands with no disposal of any public lands. For when we have our natural lands and waters, we have America!

Sincerely,

John R. Swanson

I-17

Response to John R. Swanson

As part of the RARE EIS process and the South Slope Land Use Plan, all unroaded areas were inventoried, evaluated, and recommended as Wilderness, non-wilderness, or further study areas. After passage of the Utah Wilderness Act of 1984, all such lands not designated Wilderness were released for management in accordance with existing Unit and Multiple Use Plans. To manage these lands only for their wilderness, botanical, or cultural resources is not consistent with existing legal authorities for management of National Forest lands.

RE: ASHLEY NATIONAL FOREST DRAFT EIS OF RESOURCE/LAND MANAGEMENT

WELL FOLKS AT THE ASHLEY NATIONAL FOREST,
JUST WANTED TO PUT MY TWO CENTS IN
ON PLANS THAT ENCOMPASS USES AND VALUES OF
THE ASHLEY NATIONAL FOREST FOR THE NEXT
50 YEARS.

I'm a USER OF MANY OF THE NATIONAL
FORESTS & PARKS & PRIMITIVE AREAS, I BELIEVE IN
LOW IMPACT AND CONSERVATIVE RESOURCE & LAND USE
WITHIN THESE AREAS. I VALUE "WILDERNESS", I
VALUE ISOLATION & PRISTINESS IN MY RECREATIONAL
PURSUITS.

Therefore, I support plans that impact
these lands as little as possible, that leave them
as they are. I DON'T WANT MY GRANDCHILDREN
ASKING ME "WHAT IS WILDERNESS" AND HAVE NOTHING
TO SHOW THEM EXCEPT A WALT DISNEY MOVIE.

THANKYOU FOR READING
& REMEMBER 1) RESTRICT HARVESTING
TIMBER FOR A LOSS, 2) NO
NEW ROADS INTO LARGE
ROADLESS AREAS, 3) NO MINING
IN ROADLESS AREAS

Sincerely, Jay Bickford

Response to Jay Bickford

The Forest Plan has a life of 10 - 15 years; the mix of resource uses for those 10 years help determine projections for the next 50 years. None of those future projections are set in concrete. The Forest Plan will be revised within the next planning cycle 10 to 15 years from now.

See General Statement #1

See General Statement #2

See General Statement #3

1-15

Cynthia Johnston
3020 Polk
Ogden, Utah
84403
October 19, 1985

Response to Cynthia Johnston

See General Statement #4

See General Statement #21

See General Statement #3

See General Statement #7

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center
Suite 1150
Vernal, Utah 84078

Dear Mr. Tucker:

I would like to express my opposition to the Ashley National Forest draft Environmental Impact Statement and Land and Resource Management Plan.

I do not feel the plan is in the best interest of conservation when excessive harvest of timber is proposed for the next 20 years with no current markets for the increase demand.

This plan would also be detrimental to animal habitat, especially the elk, and wildness preservation.

I suggest that tree harvesting only be done on slopes less than 40%, harvest only in roaded areas presently provided and harvest timber only to benefit wildlife, not the massive clear cutting and road building proposed by the Forest Service. In addition, restrictions need to be placed on mineral development, in all unroaded areas, and ORV use.

Please consider these alternatives before making your recommendations.

Sincerely,
Cynthia Johnston
Cynthia Johnston

I-16

Duane Tucker
Forest Supervisor Ashley National Forest
Ashton Energy Center Suite 1150
Vernal, Utah 84078

17 October 1985

Response to Ann Schaffer

See General Statement #4

See General Statement #1

See General Statement #15

See General Statement #12

See General Statement #3

Dear Mr. Tucker,

This letter is in response to the Ashley National Forest Plan. Though I commend you for your efforts in writing this plan, there are a number of comments I'd like to make, section by section.

Timber - Why does the proposed plan suggest doubling timber harvest over the next 20 years? You state that "Bark beetles will not be eliminated from pine stands by silvicultural practices" so it can't be to reduce pine beetle infestation. The plan admits there are no current markets for the increased wood and therefore the increased harvest will be "below-cost sales". So why increase harvesting? Also the added ~~harvest~~^{harvest} will mean logging slopes of greater than 40%. Does that mean that sustained yield has not been met on flat and suitable timber lands? That sounds like poor planning. The plan also admits that wildlife, especially elk, will be impacted and habitat will be lost. Why do it?

And 3,000 miles of new roads to accomplish the increased harvest. Sounds like an overly expensive way to harvest wood that you can't sell at a profit.

Minerals - The plan proposes leaving 70% of the forest open to mineral development. None of your alternative plans, even the most conservative, non-market alternative allows ^{less than 70%} ~~70%~~. But even with the high percentage, the plan fails to address

(page 2)

See General Statement #13

See General Statement #10

environmental impacts to wildlife. The plan states the impacts can't be controlled, yet environmental considerations aren't discussed. Why not?

Roadless - The only major unroaded region besides the High Uintas Wilderness, proposed at the end of 10 years is 60,000 acres on the Bollies. Yet even in this minimal area mineral development is not restricted and all of the tracts are open to ORV. And if this is not enough, the plan states that the roadless area may not remain unroaded because of mineral development. So there is no guaranteed roadless areas?

In general, I was under the impression that your plan, by regulation, is to have an array of alternatives addressing resource issues in a variety of ways. Your plan proposes 9 alternatives but all of the alternatives leaves 70% of the forest open to mineral development. 7 alternatives maintain existing timber harvest or substantially increases it. 6 options propose construction or reconstruction of over 2,000 miles of roads in the next 50 years. All options leave over 60% of the forests open to ORV use. The two alternatives that seem the most conservative, which reduce harvesting and road building are budget constrained and have nothing to do with resources. Even the supposed non-market alternative allows massive mineral development, ORV use, road building and maintains the already high timber harvests. Where are the options that are for the more conservation minded citizens of the Uinta Basin?

(page 3)

See General Statement #13

See General Statement #2

See General Statement #14

These are my suggestions.

Timber - Harvest only on slopes less than 40%.

- Utilize only roads presently constructed.
- Harvest only in roaded areas.
- Harvest timber only to benefit wildlife, not the clearcutting/road building plan
- Harvest no timber in important wildlife areas
- Most importantly DONT CUT TIMBER THAT WONT MAKE MONEY.

Minerals - Restrict mineral development in all unroaded areas, riparian zones, winter ranges or calving areas for elk.

- Admit that mineral development can greatly disturb wildlife. Dont make plans that you can't control.

roadless areas - Close the "bollies" to mineral development and ORV use because it is of high elevation and sensitive terrain. It is also extremely valuable to wildlife. It was proposed as wilderness during the forest wilderness review. The least it deserves is to be roadless.

- Allow no road building on any unroaded lands.
- Follow Wasatch National Forest's lead to restrict use where necessary to keep the wilderness in good ecological condition.

Comments on ASHLEY NATIONAL FOREST PLAN
ANN SCHAFFER

(page 4)

See General Statement #11

I've lived in the Ashley Basin for some time and use the Uinta Mountains for a lot of different ^{activities} ~~uses~~. The plan doesn't begin to show my interests. I would like to see an alternative that highlights preservation of wildlife, restricts mineral development, reduces timber harvests and road building and meets public issues such as "as it is" plan for the Ashley Forest. Hopefully the next version of this document can better represent my concerns for the Ashley National Forest.

A copy of this letter is being sent to Stan Tixier,
Regional Forester.

Thank you for your time.

Sincerely,

Ann Schaffer

Ann SCHAFFER
626 N 100 W
VERNAL, UT. 84078

I-17

ALLEN W. STOKES
1722 Saddle Hill Dr
Logan, UT 84321
(801) 752-2702

October 18, 1985

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, UT 84078

Dear Mr. Tucker,

Though I live far from the Ashley Forest, I have had numerous enjoyable experiences there- hunting, fishing, hiking and camping, on both the north and south slopes of the Uintas. So I have a concern that the Forest Plan fully take into consideration the interests of out door users .

I feel that the subsidization of logging through deficit timber sales goes against Reagan's philosophy of letting private enterprise be able to compete fairly. Most people agree that we can raise high-quality timber most economically on private lands of the Southeast and Pacific Northwest. Right now the logging industr is depressed, partly due to this unfair competition from loggers working Forest Service lands. I feel the fast-growing outdoor recreation users are the ones whose voice should be heard. For they will in the long run bring in more money to the small towns around the Ashley. So I favor the options in the Plan that play up the wildlife and recreational values and play down the impact of logging.

I question the need to do preventive logging to reduce losses from mountain bark beetle. Let the bark beetle run its course without our incurring the heavy expense of timber sales in these areas. And by all means greatly reduce the amount of proposed logging roads. By all means keep off steep slopes for logging and away from stream bottoms which now get the highest recreational use for fishing, camping and hiking. We need this habitat for trout, beaver and moose.

I appreciate that you have to reconcile the interests of diverse groups. But you must realize that the voice of your recreational users may be heard less just because we tend to live at a distance..

Sincerely yours,

Allen W. Stokes

Response to Allen W. Stokes

See General Statement #1

See General Statement #11

See General Statement #4

Duane Tucker,
Forest Supt., Ashley Natl Forest
Ashton Energy Ctr. Suite 1150
Vernal, Utah 84078
Oct. 17, 1985

Response to Mark Hengesbaugh
See General Statement #4
See General Statement #12
See General Statement #1
See General Statement #3
See General Statement #14

Dear Sir,

I would like to comment on the Ashley Natl Forest draft EIS and Resource Management Plans.

I do not believe you should increase the timber harvest. What's needed is to protect the wildlife habitat and wild character of the Area. We do not need any new timber harvesting roads and the harvest itself is a losing proposition financially for the Forest Service.

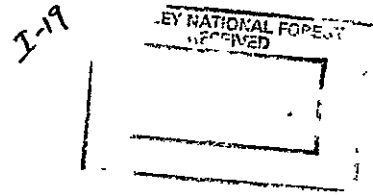
I would like you to strictly regulate mineral development in the area - again to retain the wild-life habitat & wild character of the area.

Please do not allow deterioration of the High Uintahs Wilderness Area - manage it to retain its natural majesty.

Sincerely,
Mark Hengesbaugh

MARK HENGESBAUGH
625 N. WALL
SPOKANE, ID 83203

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center
Suite 1150
Vernal, UT 84078



Response to Clyde A. Morris
See General Statement #11
See General Statement #3
See General Statement #20
See General Statement #1
See General Statement #4
See General Statement #13

Dear Mr. Tucker,

I would like to make the following comments concerning the Ashley National Forest draft Environmental Impact Statement and Land and Resource Management Plan.

ALTEPNATIVES CONSIDERED

You only have two alternatives which reduce harvesting and road building. It appears that the only reason you find for reducing logging and road building is budget constraints. I feel that the reduction in harvesting and road building can be the best alternative for managing the Forest based on the limitations of the natural resources in the Forest. I would like to see an alternative considered that contains the basic points that I state herein.

MINERALS

Do not allow mineral development in unroaded areas, riparian zones, and winter range or calving areas for elk. Mineral deveopment is not the highest nor the best use of these areas.

TIMBER

Utilize only existing road systems. Harvest only the timber which will result in a profit to the U.S. Government. Harvest only on slopes less than 40 percent. Do not harvest in important wildlife areas, i.e. riparian zones, winter range or calving areas. Do not disturb roadless areas. If you follow these guidelines you can meet the market's demands while still protecting the areas which have higher values than tree cutting.

ROADLESS AND WILDERNESS AREAS

Close all high elevation sensitive areas to mineral deveopment, logging and ORV use. Do not allow road building in any of these areas. Give special protection, i.e. Wilderness status, to the these areas.

Thank you for allowing me to comment on the plan.

Clyde A. Morris
Clyde A. Morris
658 E. 1700 S. #B
Salt Lake City, UT 84105

I-20

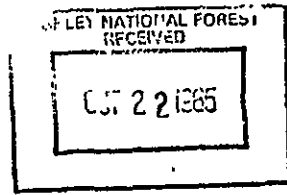
October 21, 1985

To: Duane Tucker

From: Kurt Welborne

139 S. 100 E

Vernal, UT 84078



Response to Kurt Welborne

We agree that the plan and accompanying EIS can seem lengthy and confusing. While we have simplified and streamlined the documents somewhat in the Final and made them more understandable, we are still legally required to include certain information. Also, the fact remains that the effects of applying a management alternative to a complex area the size of the Ashley National Forest will be complicated at best and will require considerable study.

Re: Ashley National Forest Plan

Dear Mr. Tucker,

Your Ashley National Forest Plan is very complicated in appearance and very rotten in content. Please consider granting a 30 day extension for further review of this document.

From my cursory reading of the Plan all I understand is the lack of insight and concern for decent management principles.

Why is there so much emphasis on the use and abuse of the forest by commercial interests?

I need more time to consider the Plan. It appears to lack alternatives in regard to

Wildlife preservation, reduction of timber
and mineral development and road building.

I say lets keep our goddamn hands off
of it. NO more development - no more roads.

Sincerely,

Kurt Welborne

(page 2)

See General Statement #11

Julie Gudmundsen I-21
1286 W. 3000 S.
Vernal, UT. 84078

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center - Suite 1150
Vernal, UT. 84078

Response to Julie Gudmundsen

See General Statement #1

See General Statement #4

See General Statement #3

Re: Ashley National Forest Plan

Dear sir,

I see a number of problems and potential problems with the proposed forest plan.

- (A) Drastic increase in the harvest of timber, the value of which would not offset the cost of obtaining the timber, i.e. building more roads, logging, etc.
- (B) So-called culling of beetle-infested trees, which admittedly will not eliminate the pine beetle problem.
- (C) General disregard for preservation of erosion-prone, steep slopes and protection of wildlife habitats.
- (D) Failure to protect the forest from unrestricted commercial development to obtain mineral resources.

(over)

I believe a better plan could be designed which would allow for timber harvest without turning the forest into a patchwork of roads, and with concern for natural wildlife. (There are already, in my opinion, an overabundance of existing roads).

I believe mineral resources can be utilized without declaring the major portion of the forest "fair game" to mineral development.

I believe a compromise can be reached which would protect the beauty of the forest for future generations, provide undeveloped areas for wildlife, limit the construction of roads, and yet still provide adequate harvest of timber and access to mineral resources.

Sincerely,
Julie Gudmundsen

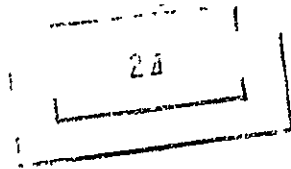
(page 2)

See General Statement #20

See General Statement #12

See General Statement #3

See General Statement #11



I-22

Roosevelt, Utah
October 23, 1985

Forest Supervisor
Asnley National Forest

In reply to your request that I review your two books, "Draft Environmental Impact Statement and Land and Resource Management Plan."

I have read them both but I doubt very many of the people you sent them to have. I can't imagine our busy Congressmen spending the many hours it takes to review them.

I realize you were mandated by a Liberal Congress to do this work but it seems to me that it could have been done much simpler and cheaper.

In the meeting I attended in Roosevelt, Forest Planner Jack Watson admitted the cost was about \$350,000.00 and from the size of the two books I would guess that is a real conservative estimate. There is a great deal of repetition in them. In my estimation they could have been condensed by three-fourths and still have had all of the information that is in them.

It seems to me that most of this money would have been better spent on roads & campgrounds.

Whiterocks Canyon has a nice campground that hasn't had any water for two years because the pipeline hasn't been repaired, also there was a mud slide in the road two years ago which hasn't been repaired and the road doesn't appear to have been graded for two years. I am sure that other roads and campgrounds have been neglected also.

I can't see a great deal of difference in the way you plan to manage the forest from what you are now doing except for one thing, I see repeated over and over that Grazing, Mining and Timber Harvesting will be allowed, providing they are compatible with Recreation and Wildlife. What happened to the multiple use concept.

It is about time that you start to realize that Grazing, Mining and Timbering pay there own way and recreation and wildlife don't.

Our Lame Brain Eastern Congressmen have destroyed the sheep industry by banning 1080 use on coyotes and have ruined much of our ranges with an asinine law on Wild Horse protection which they are now trying to correct by spending millions of dollars to thin them out. The cost wouldn't be nearly as great if they were sold for meat as they were caught instead of the stupid adopt a horse program for a bunch of Jug Heads no one wants.

I see you are still listing Endangered Species and intend to protect them. It is about time you realize that Ranches and their Livestock are the endangered species.

Wildlife such as coyotes, wolves, cougar and bear belong in Zoos, not on our Public land where they threaten the lives and livelihood of people.

Response to A.C. Wilkerson

The Whiterocks road is graded every year but wet summer conditions, damage from flooding caused by beaver, and heavy use quickly rough it up again. There has been no timber activity to provide interim maintenance. The slide occurred in 1983 and is not planned for removal because the end of the road is only about 100 yards beyond the slide and the cost of removal cannot be justified.

The Whiterocks Canyon campground water system has not passed state water quality tests for public use. There is a leak in the system allowing surface water to contaminate it. All indications point to the headbox as the problem but until money is available to reconstruct the headbox system and guarantee safe drinking water. It will remain closed.

We understand your concern about recreation and wildlife not directly saying "their own way". However, the law requires that we analyze the capabilities and demands and develop multiple use management plans that address all resources.

The Squaw Fish, the big fuss was all about a few years ago is too small to eat so the sooner they are gone the better

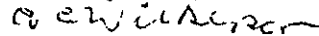
The Peregrine Falcon we are spending millions on is a migratory bird which we may never see again anyway, why do we need it there are plenty of birds to take their place.

You talk about Elk calving grounds. My Ranch is in the Uintah and I haven't seen one yet. Those elk calve wherever they happen to be when the weather permits them to be there. You also talk about saving the sage for the Sage Grouse. I can assure you that they live in the improved areas and feed on crested wheat grass, not on sage brush.

The people responsible for developing the Forest Plan and Inviromental Impact Statement were a Forest Planner, a Forest Landscape Architect, a history and Economics Expert, an Ecconomist, a Silviculturist, a Soil Scientist and four Wildlife Biologist. This seems to me to be quite an out of balance assortment of Compilers who were bound to come down on the side of Recreation and Wildlife.

There is mention in the books of the Forest aquiring more land. I am dead set against the forest aquiring more land. Our State is already over four-fifth Forest, BLM, State Land, Wilderness, Indian Reservation and National Parks. We sure don't need more taken off the tax base.

Sincerely Yours,



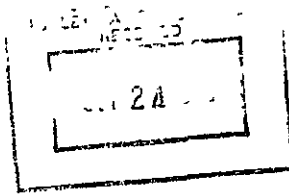
A. C. Wilkerson

(page 2)

The individuals listed in Chapter V of the Draft Environmental Statement as "Preparers" were not all involved at the same time in the analysis and preparation of the plan. For instance, the wildlife biologists (4) were replacements for individuals who had transferred to other jobs and other Forests. Of the other disciplines listed, the socioeconomic overview was prepared, before an economist was employed on a full-time basis, as a background document by an individual from the Wasatch-Cache National Forest, so there was no duplication of effort. Although the writing of the plan was by the "Preparers", the decisions in the plan are made by the staff, rangers, and Forest Supervisor, representing a wide range of disciplines and backgrounds.

Even though federal lands are not part of the county tax base, they do return significant amounts of money to the counties for schools, roads, and other purposes. All counties containing National Forest land receive 25% of all receipts paid to the Forest Service.

I-23



John Veranth
4460 Ashford Drive
Salt Lake City, Utah 84124

October 21, 1985

Response to John Veranth
See General Statement #10
See General Statement #4
See General Statement #20
See General Statement #1
See General Statement #12
See General Statement #3

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1105
Vernal, Utah 84078

Dear Sir:

I am writing in regard to the Ashley National Forest draft EIS and Management Plan.

ALTERNATIVES

The range of alternatives considered in the plan does not adequately reflect the available options. The option of restricting timber harvesting and Off-road vehicle use to protect wildlife habitat is not reflected in the "non-market" alternative.

TIMBER HARVESTING

Timber harvesting should be restricted to areas where existing roads can be utilized and where the slope is less than 40 degrees. Timber sales should not be made where the cost of administering the sale exceeds the market price. Also, wildlife and aesthetic values need to be considered in evaluating the suitability of a site for timber harvesting. Also, the level of harvesting should not exceed local demand.

MINERAL DEVELOPMENT

Mineral development should be restricted in roadless areas and in sensitive wildlife habitats. The plan should address the effects of mineral activities on wildlife and should require developers to minimize or mitigate necessary impacts.

ROADLESS AREAS

Existing roadless areas should be maintained in a primitive condition unless there is a clear reason to do otherwise. In general, off-road vehicle use should be restricted in presently roadless areas.

Sincerely,


John Veranth

(page 2)

See General Statement #2

See General Statement #7

I-24

10-20-85

MR Tucker:

I support the Utah Wilderness Association ✓
and its position concerning this matter, please
see enclosed copy of the U.W.A. position.

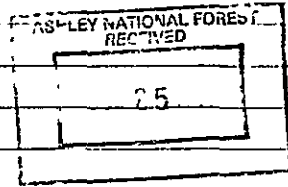
Sincerely yours,

Ken E Kemp

A-11

Sundance, Utah

84604



Response to Ken E. Kemp

See the Utah Wilderness Association's letter (0-1) and response.

22 October 85

ASHLEY NATIONAL FOREST
RECEIVED

Dear Mr Tucker,

I've lived in southern Utah for four years,
and haven't yet come to know your neck
of the woods. But, as a state tax-payer,
I feel I still have a right to ask that you
consider my opinion.

In reference to the Ashley National forest draft
EIS & Land & Resource Management Plan.

1. Why on earth would you increase timber harvest
under these conditions?
 - A "Bark beetles will not be eliminated from pine stands
by silvicultural practices" Does this leave room
for significant control of Bark beetles?
 - B No increased market demand for the timber
 - C forcing yourselves to spend more public money
destroying or damaging the land than you can
make selling the timber (This doesn't even sound
American!)
 - D Sustained yield hasn't been accomplished on flat,
more suited lands. Is sustained yield your duty,
or goal? Is a 40% slope capable of sustained
yield?

Response to Lynn C. Bornholdt

See General Statement #4

See General Statement #1

See General Statement #15

E Wildlife habitat will be lost as over 3,000 miles of roads are constructed for "below-cost" sales

2 Minerals- Are not mineral proposals and development under forest Service jurisdiction? If not, who, or what organization oversees mineral development on forest Service lands?

I believe strongly in preserving wilderness for the strength and diversity of wildlife and plant populations. I also know that backcountry is an essential element of a balanced mind and culture for ever-growing numbers of us. As well, I drive and am writing on a table of wood, and paper of wood-pulp.

Use the roads. Harvest timber in roaded areas, except near water or wild life winter range, or on slopes 40% or more.

Don't cut trees without reason

If the forest Service is unable to control mineral development, put a freeze on proposals until sufficient capability is developed to wisely govern mineral uses

Respect the "bollies" (eastern vintas, chepeta, Weyman Park and Dry fork) as sensitive, high

(page 2)

See General Statement #9

See General Statement #3

Authority for mineral exploration and development (subsurface) is vested in the Department of Interior, Bureau of Land Management. The Forest Service has authority for management of the surface resources only.

See General Statement #4

See General Statement #20

See General Statement #13

-3-

elevation wild life habitat, important watershed and beautiful backcountry

You are a steward of public lands Please listen to our voices

Act as though your great-grandchild was watching over your shoulder

Please strive for the wisdom of long-term, broad balance

Thank you

Sincerely,

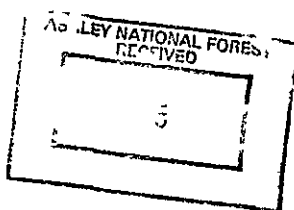
Lynn C. Bornholdt

Lynn C. Bornholdt

PO Box 62

Springdale Utah 84767

I-26
Mark McKeough
1904 Redondo Ave
Salt Lake City, Ut
84108



Dear Mr. Tucker:

October 23, 1985

Please include my comments as a part of the public comment on the Ashley National Forest Draft EIS and Resource Management Plan.

There is little necessity to double the timber harvest over the next two decades when there is no established market; the harvest will not significantly effect the beetle problem; sales are below cost and reduce the PNV of the forest; sales are set for slopes greater than 40%; and the timber program impacts important wildlife habitat.

The timber program on the Ashley should harvest trees on slopes less than 40% and do so using the existing road network. There is no demonstrated need to harvest in roadless areas so roadless areas can then provide the needed dispersed non-motorized recreation the Ashley needs. Timber harvests should be planned to benefit wildlife and not impact them. There should be no harvest in critical winter range and important riparian areas. The Ashley should sell only timber sales that make money.

The east end of the High Uintas should be closed to mineral leasing, oil and gas development and ORV use. Particularly, the forest should not allow any roadbuilding in this roadless area to preserve its value as important summer range for wildlife, watershed and backcountry use. Although this area was left out in the FS wilderness bill for Utah, I am sure it will be an important candidate for addition to wilderness system in any legislation in the near future.

The Ashley plan should adopt specific stipulations for any mineral and oil and gas development that might occur on the forest. The plan should detail what areas will be leased with, say, NSO strips, which watersheds will not be leased, which elk calving grounds will be protected during calving season and where mineral development will not be allowed due to the land's value as a source of recreation. The Ashley can, and should, exert much, much greater control of mineral development on the forest.

The forest planning process has become a disaster. And, as a member of the public, it becomes more discouraging to me with each forest plan I read--or try to read. All the plans have the same mandated array of alternatives, the same emphasis on timber harvesting, the same problem with roadbuilding and the same generic narrative that says little and tells even less. And no forest seems able to break from the strictures imposed on them by the momentum of the planning process to present an array of alternatives that addresses the uniqueness of their on-the-ground situation.

The most telling criticism of the FS planning process is undoubtedly that it now serves to keep the public from participating in managing the lands they own and care about.

Thanks for the opportunity for commenting.

Sincerely,

Mark McKeough
Mark McKeough

Response to Mark McKeough

See General Statement #4

See General Statement #1

See General Statement #12

See General Statement #2

See General Statement #7

See General Statement #13

See General Statement #3

We do not agree that the Ashley National Forest Plan is the same as all the other Forest Plans proposed and/or developed to date. The preferred alternative displayed in the Draft EIS and Plan portrays a definite effort on the part of the Forest to be responsive to the mountain pine beetle epidemic. We also consider the Flaming Gorge National Recreation Area as a nationally recognized attraction which is unique to the Ashley National Forest.

Public participation will continue to be an integral part of the management of the Ashley National Forest. This participation includes involvement in the preparation of the legally required documents such as the Environmental Impact Statement for the Forest Plan and in ongoing involvement with agencies, organizations, and individuals on the day-to-day aspects of Forest management. This involvement is carried out through news releases, personal contacts, telephone conversations, written correspondence, and public meetings.

ASHLEY NATIONAL FOREST
RECEIVED

I-27

Response to Ben Grimes

See General Statement #4

Mr. Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center
suite 1150
Vernal, Utah 84078

Re: Comment-Ashley National Forest Draft EIS and Land and Resource Management Plan.

Dear Mr. Tucker,

I appreciate the opportunity to comment on the above referenced documents. I am deeply concerned that the Ashley will become, under the Management Plan, a chopped-up, harvested, developed-to-death, monument-to-the-greed of mankind. A Forest, managed by Forest Service standards to the shame of mankind.

I am a native of Georgia, but have lived in Utah for 26 years. I have made many trips into the Ashley over those 26 years; trips that soothed the nerves, and rekindled my desire to rejoin mankind. I have taken many boy scouts into the Ashley to enjoy those same tranquilizers. Unfortunately, over the years I have watched the roads, the developers and the garbage of mankind creep in as a plague over much of the forest. I cannot sit back and see the Plan as outlined go forward without something deep inside of me crying, "Enough!"

The Management Plan is a cold, hard document prepared with all of the thoroughness and good business practices that could be mustered. The forest, it would appear, is only an economic resource sitting there waiting to be exploited. Unfortunately, the poor wildlife may have to suffer a tiny but for the benefit of mankind, and unfortunately, the forest may not look quite like it did before.

Let's put it all in perspective; the mineral and timber resources in the Ashley are of marginal benefit to man. True, we must continue to provide the materials for our economy, but let's not do it at the cost of one of the most beautiful areas in the state.

The proposed plan doubles the harvest of timber over the next 20 years, purportedly to help reduce the pine beetle infestation, but as the plan itself admits, "Bark beetles will not be eliminated from pine stands by silvicultural practices." The Plan also admits that there is no demand for increased

harvesting, and that the value of the timber is less than the cost to build roads into the harvesting areas and logging cost combined. The Plan states that to maintain or increase harvests, slopes of greater than 40% will have to be harvested. To me, this means that sustained yield has not been met on flatter slopes. The Plan also states that 3,000 miles of roads will have to be constructed to meet the harvesting goal. That many miles of roads will create unacceptable damage and eyesores that may never heal.

The Plan proposes leaving 70% of the forest open to mineral development under all alternatives. The Plan does not address impacts to the environment from this mineral development.


The Bollies, under the Plan, would be open to mineral development. This area is the only remaining roadless area besides the High Uintas Wilderness Area. Development of this area would be like having a garbage dump in your front yard.

The Plan even states that deterioration of the Wilderness Area will occur. This situation is totally unacceptable, the Wilderness Area is the only designated wilderness in the Uintas and must remain free from encroachment near its boundaries. A solid management plan to protect the Wilderness Area must be formulated.

All nine of the alternatives have serious shortcomings and are unacceptable. I urge the Forest Service to (1) harvest timber only on slopes less than 40%; utilizing only existing roads. (2) Allow no clearcutting and road building as proposed. (3) Harvest no timber in riparian zones and winter ranges. (4) Harvest timber only if it is economical, and if there is a clear need. (5) Restrict mineral development in all unroaded areas, riparian zones, winter ranges, and important wildlife areas. (6) Close the Bollies to all mineral development and ORV use. (7) Allow no further road building and close and reclaim existing roads except major access routes. (8) Formulate a sound, comprehensive management plan for the High Uintas Wilderness Area. (9) Provide realistic alternatives for the Ashley which preserve beauty, integrity and true value of the forest.

I believe the majority of Utahns are in favor of protecting the Ashley. Let's not let the American thirst for development ruin this beautiful area. I don't believe that this is a selfish viewpoint because our children and the Boy Scouts of the future must have places where they can drink in the peace and beauty found only in natural wilderness areas.

Respectfully,


Ben Grimes
Emery Star Rt.
Price, Utah 84501

(page 2)

See General Statement #1

See General Statement #15

See General Statement #9

See General Statement #3

See General Statement #13

See General Statement #14

See General Statement #11

October 23, 1985

I-20

Gary Vesperman
942 Bermuda Court
Sunnyvale, CA 94086
408-737-7571

Response to Gary Vesperman

See General Statement #4

See General Statement #20

See General Statement #12

See General Statement #1

See General Statement #3

See General Statement #13

See General Statement #11

Duane Tucker
Forest Supervisor
Aspen National Forest
Aspen Energy Center
Suite 1150
Aspen, Utah 81602

Dear Mr. Tucker:

Please include and consider my comments on the Aspen National Forest Draft Environmental Impact Statement and Land and Resource Management Plan.

Please do not allow timber harvesting on slopes greater than 10%. This would minimize road construction costs, and prevent erosion. We do have a federal deficit to reduce, you know.

Do not build any more roads. There is no economic justification for wasteful spending on roads.

Any timber harvesting should be permitted only in existing roaded areas.

Harvest timber only to benefit wildlife, not the massive and grandiose clearcutting and road building schemes proposed by the Forest Service.

Harvest no timber in important wildlife areas, that is riparian zones or winter range.

Harvest only the timber which does not lose money. You forest rangers often fail to understand the basic economic principle that there "ain't no free lunch". Money spent on wasteful public projects is ALWAYS diverted from other more worthwhile public projects such as feeding the hungry, comforting lonely people, healing the sick, educating children, and reducing taxes.

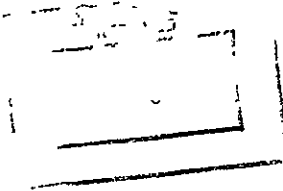
Mineral development should be restricted in all unroaded areas, riparian zones, winter range or calving areas for elk. I know that the Forest Service has the legal right to stand up to the miners.

Close the "holes" to mineral development and ORV use.

I urge the FS to provide real alternatives which highlight the preservation of wildlife, restrict mineral development, reduce timber harvests and road building and meet all of the public issues.

Sincerely
Gary Vesperman

R ALAN MAURER M D P C
A PROFESSIONAL CORPORATION
3036 WILLOW CREEK DRIVE
SANDY UTAH 84092
PHONE 942-1326



OCTOBER 21, 1985

DUANE TUCKER
FOREST SUPERVISOR
ASHLEY NATIONAL FOREST
ASHTON ENERGY CENTER
SUITE 1150
VERNAL, UTAH 84078

Dear Sir:

I am writing you to protest in the strongest terms some of the elements of the Ashley National Forest draft Environmental Impact Statement and Land Resource Management Plan recently published by your office.

I feel that every component of this plan has been a cave in to special economic interests and does not serve the public.

Specifically, my objections are as follows:

1. Timber Cutting - I feel that what timber that is harvested should only be in existing roaded areas only, on slopes less than 40%, and then only to benefit wild life. Timber harvesting should not occur on important wild life areas; in riparian zones or winter range; in any roadless area and not at all if timber sales would lose money.
2. Mineral Extraction - The Forest Service should control mineral impacts by restricting development in all unroaded areas, riparian zones, winter range and elk calving areas.
3. Roadless Wilderness - I would plead with you to close the "Bollies" to mineral development and ORV use as it is a very important watershed and back country use area. I have been there myself several times and feel this area should be included in subsequent Wilderness Designation. I strongly object to any roadbuilding or ORV use in the Ashley-we must preserve this unique resource or it will be destroyed forever.

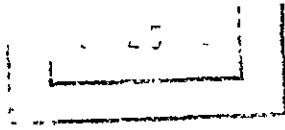
The forest service needs to provide real alternatives which highlight the preservation of wildlife, restrict mineral development and put an end to roadbuilding and ORV destruction.

Thank you for your consideration.

R. Alan Maurer
R. Alan Maurer, M.D.
3036 Willow Creek Drive
Sandy, Utah 84092

Response to R. Alan Maurer

- See General Statement #4
- See General Statement #1
- See General Statement #2
- See General Statement #12
- See General Statement #3
- See General Statement #13
- See General Statement #7
- See General Statement #11



725 Eleventh Ave.
Salt Lake City, Utah
Oct. 22, 1985

I-30
I-31

Response to Margaret R. Fraser and Frances J. Riley

See General Statement #1

See General Statement #4

See General Statement #9

See General Statement #3

See General Statement #7

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, Utah

Dear Sir:

We wish to express our opinion regarding the Ashley National Forest draft Environmental Impact Statement and Land and Resource Management Plan, to which we are opposed as it now stands. Management as set forth in this plan would work to the detriment of the Ashley National Forest and against the interest of the public in the following ways:

Through unnecessary harvests of timber and below cost sales of timber. By harvesting on unsuitable (grades over 40%) terrain, and without regard for wildlife.

By construction of proposed thousands of miles of unneeded roads.

Through uncontrolled mineral development.

Through lack of protection of the environment by allowing incursions by erosion causing vehicles.

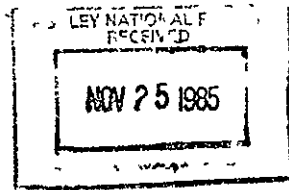
We urge that the Forest Service take all possible steps, and act as guardian of the Ashley National Forest to prevent such development plans, which we feel are against the best uses of the Forest--those of wildlife, watershed, and of unspoiled back-country; these are the uses most desired and needed by the largest numbers of the public.

Sincerely yours,
Margaret R. Fraser
(Mr. Russell J. Fraser)
Frances J. Riley
Miss Frances Jane Riley

I-32
Roger Arhart
2134 Wyoming St.
Salt Lake City Utah
84109

Nov. 20, 1985

Mr. Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah, 84078



Dear Mr. Tucker

I have briefly studied the draft EIS for the Ashley National Forest Plan. I offer the following comments on grazing in the Ashley Forest.

I have a particular interest in the headwaters of the Oweep creek drainage of the High Uintas Wilderness Area. I find the Oweep creek drainage to be abused by sheep grazing.

Response to Roger Arhart

As you are aware, the High Uintas is now a designated wilderness. The Wilderness Act pursuant to section 4(d)(4)(2) provides for the continuation of established grazing of livestock, subject to such reasonable regulations and guidelines as necessary and as are ordinarily regulated under the general guidelines governing grazing on National Forest, such as the term grazing permit.

The areas you mention in your letter as a primary concern are the headwaters of Oweep Creek and Oweep Basin. This area is designated as the Oweep Sheep and Goat allotment and has been used continually during the prescribed grazing season since 1907. The allotment has been under permit to the same family of permittees, handed down from grandfather to father to son for the past 50 years.

The camp you mention as your main concern was designated as a sheep camp in the early 1920's and was one of several camps so designated. Permanent structures to store salt and also a tent frame were allowed at these sites. This practice is, of course, no longer allowed in the wilderness, but the old facilities are allowed to remain due to the fact that the wilderness guidelines for the High Uintas Wilderness allow existing historical structures to deteriorate naturally.

Camping, sanitation and cleanup is handled under the grazing permit and annual operating plans which stress clean and sanitary campsites at all times.

We have had problems in this area in the past with sheep herding, camping, and cleanup; the permittee is currently on notice to remedy the condition of the herder's camps or face permit suspension. In addition, according to the current wilderness guidelines, each wilderness sheepherder's camp location will be evaluated; where necessary, camps can be relocated to minimize the conflict with the general public and to minimize resource impacts.

The use of wood fires for the sheepherder's camp was an established practice prior to wilderness designation and will be allowed to continue under the current camping regulations requiring concerns for aesthetics, sanitation, and minimal public use conflicts. It is unreasonable to expect the herders to stay in the wilderness areas for the length of the grazing season (one and a half to two months) without the use of wood for warming and cooking fires.

I know that livestock grazing is permitted in Wilderness Area. But the grazing activity I have seen in the upper Oweep drainage seems too extensive and too damaging to the wilderness character of the land. The sheep herders there erect camps which are virtual construction sites. They harvest wood for fires. I don't believe they should use fires because they harvest too much wood from a small area, due to their long stay in the area. Their horses crop the grass around the camp down to golf green length. All in all, the way the shepherd camp makes a joke of the recreationalists efforts to leave only footprints. As a start, sheep herders should not use fires and should not chop limbs and trees for construction projects.

Sincerely yours
Roger Albert

(page 2)

Currently one band of sheep of 1200-1400 ewes with lambs are permitted on the allotment. The grazing system consists of a rotating plan in which each area of the allotment is grazed for a specified period of time before moving to the next area. Unfortunately this system sometimes leads to the conditions you observed in the Oweep Basin area, generally caused by the herders spending longer time than specified in the open, easier-to-herd areas, and less time in the harder access, more-difficult-to-herd areas.

We are currently working with the permittee to develop a rest/rotation grazing system for the Oweep, Lake Fork, and Ottoson Basin areas that will lessen the grazing impacts you refer to in your letter.

Herder's horses are limited to the number necessary to pack in camping supplies, move the camp and properly handle the livestock. Length of stay at each camp site is regulated and sites are rotated to attempt to avoid overgrazing at any one camp site. Again, these provisions are included and administered under the grazing permit.

I-30

October 22, 1985

Duane Tucker, Forest Supervisor
Ashley National Forest

Dear Mr. Tucker:

The Ashley National Forest draft E.I.S. and Land and Resource
Management Plan SUCKS!

Now that I have expressed my displeasure, I'd like to elaborate.

Why is it that this "Plan" for managing public land doesn't mention
an alternative for what most of us in-the public want--for the Ashley
Forest to be left alone and only "managed" to preserve the terrain,
wildlife habitat and range and watershed so those of us who live in
the city will have some areas of high ecological integrity to which we
can take ourselves and our children for reassurance that life in
America amounts to more than office buildings, shopping malls, tract
housing and "planned" living communities which all have outdoorsy names
but only a few boulders surrounding an artificial pond to simulate nature;
no compensation for the wonderfully complex meadow and marsh destroyed
in the process of development.

Do we have to watch the Forest Service allow the Ashley be destroyed
by new, unnecessary roads built for questionable timber or mineral company
use, or ORV's?

Not if the Forest Service would show some guts and turn the priorities
of the agency from providing service to a few commercial interests, to

Response to Diana G. Baker

See General Statement #9

See General Statement #7

Some of the heaviest impacts to the environment come from
recreation users and if the intent is to "preserve" then the same
type of restrictions applied to other resources would have to
apply to recreationists as well, possibly to the point of
exclusion. The Forest Service manages the land under the
philosophy of multiple use.

providing protection for the forest for the benefit of all.

Come on! Provide us a real alternative that reduces and restricts and controls the mineral development and timber harvest and actively and forcefully protects irreplaceable riparian zones and range and habitat for the elk, bighorn sheep, moose, and all other wildlife.

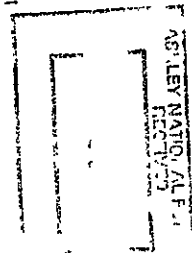
Unplug your printers and get out in the field and come back with alternatives supportive of the environmental needs and concerns of taxpayers like me.

Sincerely,

Diana G. Baker

Diana G. Baker
1774 Meadow Downs Way
Salt Lake City, Utah 84121

I-24



Marv and Pam Poulson
3631 South Carolyn Street
Salt Lake City, Utah 84106

October 22, 1985

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, Utah 84078

Dear Mr. Tucker.

We appreciate this opportunity to participate in a meaningful way in the forest planning process and trust that management of this irreplaceable resource will reflect the best interest of the country for the long term. We believe that only through far sighted planning, pro-active management, and perceptive implementation can the natural, recreational and economic values be adequately addressed.

Ashley National Forest
Land Resource Management Plan and
Draft Environmental Impact Statement
Comment

The Ashley National Forest Land Resource Management Plan, is an involved undertaking. Unfortunately, you do not consider the potential readers of your report and environmental impact statement. The information is unclear, statistical data (of dubious public value) is presented without sufficient explanation for imparting understanding. The result is that facts are buried, making reading the report a complex undertaking. This situation even appears contrived to discourage effective public involvement. We strongly believe that this important series of documents not only present the facts and alternative management approaches, but should also provide professional analysis of the facts and alternatives so that the public can react from an informed base and not be frustrated into inaction by agency gobble-de-gook. Please translate the data and bring management implications more clearly to the fore.

As for the content, including the preferred management alternative, a few comments seem appropriate. The alternatives are diverse but seem exclusive of flexibility in combinations and compromises among them.

With our strong interest in plants and because Pam is a

Response to Marv and Pam Poulson

We agree that the Draft Environmental Impact Statement for the Ashley Forest Plan is a complex document that requires considerable study to understand. However, the Ashley National Forest is a very complex subject to discuss in an understandable manner. In retrospect, we should not have tried to describe effects and impacts by the use of graphs, tables, and narratives. We were trying to make the information available and easily understood by a diverse group of readers. Apparently the multiple display resulted in more, not less, confusion. We have attempted to simplify and streamline the Final EIS with the intention of making the resulting document easier to comprehend.

graduate student of Phytogeography, we are particularly concerned with your point of view regarding vegetation. You don't seem to really care too much for the management and preservation of the native forest plant communities and natural vegetative succession. You speak of vegetation only in terms of habitat, range improvement, vegetative manipulation and especially timber harvesting.

The proposed radical increase in timber harvesting is particularly alarming from three standpoints. (1) Since increased harvest would yield negative economic benefit and (2) would not substantially control the beetle infestation--according to statements made in the plan, ("Bark beetles will not be eliminated from pine stands by silvicultural practices."), we fail to see the merits of increased cutting. So why the drastic increase in tree cutting? Why does the Forest deliberately intend to flood the market with extra wood that has no market? This is particularly alarming in the face of high federal budget deficits. Who would benefit from such a timber subsidy as is proposed in the plan?

(3) Not only is massive timber harvest proposed, but the attendant construction of thousands of miles of roads multiplies the impacts to the forest and the natural landscape. Such activities ignore other vegetation and in fact would decimate herbaceous and other understory plants. We are disappointed that you feel plant resources for other than timber and grazing potentials are unimportant. We believe that all plants are part of the forest environment and must be considered in any plan. We believe that vegetation deserves more direct, planned management and conservation of natural resources than is evidenced by the plan as it now stands. Our concerns include the natural vegetative landscape as an ecological unit. The impact of massive timber harvest, thousands of miles of new timber roads, and unrestricted mining and energy development roads that would be possible under the plan could devastate important ecological, aesthetic, scientific, and hydrologic resource values. Disturbing the general cover, as could take place under the plan cannot be allowed. Active management of the land must be part of the plan.

What of the vegetation as vegetation?

Endemic, rare, threatened and endangered species (and their habitats) must become part of an active program in order to comprehensively understand and manage the forest. Such special management areas as Research Natural Areas (RNA) and wilderness should be fully addressed by the plan. Management of these valuable natural resources cannot be passive as suggested in the plan. Active planning, program development, and management must be part of the final approach to managing the Ashley National

(page 2)

See General Statement #1

See General Statement #4

See General Statement #9

See General Statement #3

Vegetative succession in bug-killed, burned, and logged areas in lodgepole pine is similar. An increased timber harvest (which the new preferred alternative does not have; it is lower, not higher, than the current program) will have little effect on natural succession. Early succession of graminoids, forbs, and shrubs might be somewhat different, but the return of conifer trees will be about the same under the different treatments. Where bug-killed trees are left, the possibility of extensive fires will be increased. Both early and late succession on burned and logged areas is very similar.

We expect to maintain native forest plant communities and natural vegetative landscape. For example, harvest of bug-killed and old trees will make short term changes, but the return of native conifer communities to previously harvested stands on the Ashley National Forest is demonstrated on numerous areas. This return can be expected in future cuts. One visible difference in the landscape between bug-killed areas not harvested and areas that are harvested will be the standing, and later wind-felled dead trees.

There are no officially listed endangered or threatened plants known on the Ashley National Forest. Sclerocactus alaucus is mentioned in the EIS as being adjacent to the Forest, but the habitat for this plant is below the Forest boundary. We do not expect this to grow on the Forest. There are many known endemic plants from the Uintah Basin, but few of these are known from the Forest. Among those known from the Forest are: Astragalus detritalis, Erigeron untermanni, Penstemon acaulis, E. uintahensis, Parrva rydbegrii, and Townsendia minima. These and other endemic plants are not expected to be seriously impacted by the plan.

Forest under your charge Remember, without the plants, none of us animals would be here.

Also, with respect to active management, mineral and energy development must be carefully managed and not merely reacted to. Many of these resources are already recognized and locations of some are known. Any development of known or undiscovered mineral/energy resources on the public forest must hold the public interest and their land foremost on the list. Developers are legally subject to management stipulations under your jurisdiction. Frankly we are disappointed by your plan's passive approach to these management challenges

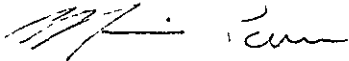
We also strongly support the Utah Wilderness Act of 1984. This landmark legislation clearly establishes Congressional intent for management of designated lands. The lack of active wilderness management recommendations in the plan is very disturbing. Since Congress has acted, it seems clear that the portion of the High Uinta Wilderness under the jurisdiction of the Ashley National Forest must be managed to maintain and protect the wilderness values of this identified national resource. We believe that the forest plan should provide clear management directives and enforcement policy designed specifically to manage natural values within the wilderness and preclude intrusion of non-compatible activities upon wilderness.

Additionally, wild lands not yet designated as wilderness must be protected and maintained in their natural condition. Such areas represent "money in the bank" for the future: for designation as wilderness or for development under a balanced active forest management program. The object being, pro-active management rather than the passive and neglectful approach proposed in the draft plan.

All in all, we see significant management imbalance in the proposed Forest Plan toward economic exploitation of resources at the expense of natural, aesthetic, recreation, and future appreciation of resources. This must be rectified if long term perpetuation of the forest is to be.

Please keep us apprised of developments related to this process, including the final and subsequent documents which will be forth coming.

Thank you,



Marv & Pam Poulson

(page 3)

See General Statement #14

See General Statement #2

I-35
1

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center Suite 1150
Vernal, Utah 84078

October 22, 1985

Re: Ashley National Forest draft Environmental Impact Statement and
Land And Resource Management Plan

Dear Mr. Tucker:

This plan states that to accomplish doubling the timber harvest on the Ashley National Forest over the next 20 years logging will be done on slopes of greater than 40%. I urge that timber harvesting be done only on flat and suitable timbered land on slopes less than 40%. I encourage that only the existing road system should be used and harvests should occur only in areas which already have roads.

Timber harvests should be carried out in a way which is beneficial to wildlife - this would exclude clearcutting methods and road building plans the Forest Service has proposed. Timber harvesting should not occur at all in important wildlife areas such as riparian zones or winter range. The plan admits harvesting timber from the forest will be "below-cost sales." Only timber harvesting which doesn't lose money should be carried out. If these actions are followed then timber harvesting will benefit the environment and meet the existing industry demand.

Mineral development should be restricted in all unroaded areas, riparian zones, winter range or calving areas for elk. Mineral impacts must be controlled, not reacted to.

The "bollies" area should be closed to mineral development and ORV use. It is high elevation sensitive terrain and cannot support such activities. The area is important watershed and backcountry use area. It was proposed as wilderness during the forest wilderness review process and by a mistake made by Utah's congressmen was not designated Wilderness, even though it is one of the most wild areas on the Uintas. To preserve this unique resource, no road building should be allowed on any unroaded lands on the Ashley.

The example of the Wasatch National Forest on the High Uintas Wilderness should be followed of restricting use where necessary and maintaining all of the wilderness in good ecological condition.

Forest Service, please provide real alternatives which stress the preservation of wildlife, restrict mineral development, reduce timber harvests and road building and meet all of the public issues. The primary public concern raised on the Ashley was to leave the forest "as it is." The Forest Service recommendation does everything but that!

Response to Margaret Gregory

See General Statement #4

See General Statement #20

See General Statement #6

See General Statement #1

See General Statement #3

See General Statement #13

See General Statement #2

See General Statement #11

Sincerely,

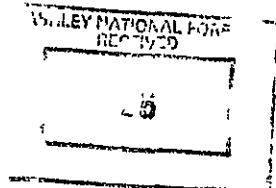
Margaret Gregory

I-36

434 Park Ave.
Logan, UT 84321

October 23, 1985

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center
Suite 1150
Vernal, UT 84078



Dear Mr. Tucker,

Please accept my comments on the Ashley NF draft EIS and LRMP.

I am opposed to the proposed plan of doubling the harvest of timber on the Ashley NF. I urge you to harvest only on gentle slopes less than 40%, to utilize existing roads only, and to harvest only the timber which does not lose money. I am strongly opposed to the construction of new roads (over 3000 miles of roads) to meet the timber harvesting goal.

The plan proposes leaving as much as 70% of the forest open to mineral development. The FS must control mineral impacts and restrict mineral development in all unroaded, riparian, and calving areas (and winter range) for elk. The plan fails to address the cumulative impacts of mineral development to wildlife. It also fails to restrict mineral development from the Bollies area, leaving all trails open to ORV use because of potential mineral development. This area contains high elevation terrain which is important for summer wildlife habitat, watershed and backcountry use. Please allow no road building in this area and help to preserve this unique resource.

The plan fails to discuss the High Uintas Wilderness management. I urge you to follow the lead of the Wasatch NF on the High Uintas by restricting use and maintaining all of the wilderness in good ecological condition. Please do all that you can to preserve the wild character of the HUW so that our children may enjoy it as we do.

Please provide realistic alternatives which highlight the preservation of wildlife, restrict mineral development, reduce timber harvests and road building. Do not forget that the primary public concern raised for the Ashley was to leave the forest "as it is." I appreciate having the opportunity to comment on the EIS and LRMP, and look forward to hearing from you concerning these issues.

Sincerely, *Betsy Neely*

Betsy

Response to Betsy Neely

See General Statement #4

See General Statement #1

See General Statement #9

See General Statement #3

See General Statement #13

See General Statement #14

See General Statement #11

I-38

644 E. 3050 SO.
Vernal, UT 84078
10/22/85

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, Utah 84078

Dear Supervisor Tucker,

It has taken some time, but I have now finished reviewing the draft plan for the National Forest and the DEIS. I am very unhappy with the proposals put forth. The National Forest is supposed to be a land of many uses. Especially in those areas closest to Vernal, it seems that the only uses the Forest Service is interested in is grazing and lumbering.

The hiking trails are a mess. Our National Forest has some of the poorest maintained hiking trails I have ever encountered. You print up maps that show miles of trails, but when I go out to hike them, I find no trailhead markers, no trail markers, and most trails seem to be for bikers and 4-wheelers, not for hikers looking for quiet. Many of the trails have been logged over and no longer even exist except on your maps.

When it comes to cross country ski trails the situation is even worse. While you do maintain 3 whole trails, they are so overcrowded and overused that it is difficult to enjoy them on weekends. The parking areas are seldom plowed out and when they are they fill up early. We are told to park along the road, but rarely is enough room plowed clear for parking without blocking traffic.

If one goes to the mountains for a peaceful car camping trip, it is hard to find anywhere to camp where one does not hear chain saws. If one wants to backpack in, it is hard to find trails.

You want to spend millions of dollars building new roads for a logging industry that costs the Forest Service money every year. I say build no more roads unless the sale of timber can pay for the roads required and the time of Forest Service people involved, then build no more roads. Most timber sales are money losing ventures for the Forest Service. Why should more tax dollars be used to subsidize lumber operations? Don't spend anymore money on the lumber people unless you spend equal amounts on campers, hikers, hikers, fishermen and all the other people who have an equal right to use our forests.

Response to Stephen M. Borton

Most of the trail system on this Forest is in fair condition with some segments in poor condition as you indicate. A map update occurs about every 6 years, however, we plan to revise the new map to accurately show the trail system and trailheads. Signing of trails is more a function of available funding than it is intentional neglect on this Forest.

The existing number of cross-country ski trails is all that the Forest can provide under current funding levels. Snow plowing and other services are provided through agreements with local, State and County governments.

See General Statement #1

(page 2)

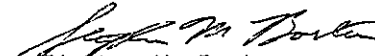
The entire section under Standards and Guidelines has been rewritten to strengthen the Wilderness management prescription and to correlate with the Wasatch-Cache National Forest's Management Plan.

The Ashley National Forest provides a variety of recreation opportunities both in roaded and unroaded environments. Many of the Forest roads provide access to little used recreation areas and lands adjacent to non-motorized settings. A wide variety of opportunities exist along roads such as East Park, the Red Cloud Loop Road and the Chepeta Lake Road. Trails access little used areas such as Cow Hollow along the Red Cloud Loop. The Forest would be happy to answer any of your questions on recreation opportunities and provide information on trails and roads in the Vernal area.

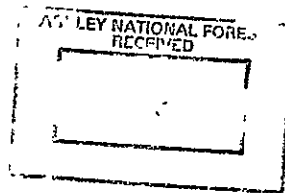
Tourism is very important to Vernal, but outside of the Flamingo Gorge area little is done to promote tourist visitation. People do not come great distances to drive down logging roads. They want a wilderness-like experience. Many local people feel the same way. When will you listen to their needs.

This summer I visited the Mirror Lake area in the western Uintans. I could not believe how differently it was managed from the Vernal area. They do a much better job of being a "land of many uses". Why can't you be more like them?

Most sincerely,


Stephen M. Borton

1-39



Rebecca Widenhouse
312 South 500 East #5
Salt Lake City, UT 84102

Mr. Duane Tucker
Forest Supervisor, Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, UT 84078

October 24, 1985

Response to Rebecca Widenhouse

See General Statement #2

See General Statement #7

See General Statement #4

See General Statement #1

See General Statement #3

See General Statement #13

See General Statement #11

Dear Mr. Tucker:

I've just learned about the content of the Ashley National Forest draft Environmental Impact Statement and Management Plan and I'm very concerned. The Plan apparently doesn't provide alternatives that focus on environmental protection.

An environmentally sound alternative would emphasize wildlife preservation, restrict mineral and timber development, allow little or no road building and no ORV use.

Such an alternative would limit timber harvesting to slopes less than 40% and to those areas where roads already exist. Timber harvesting should be conducted only to meet the needs of the public (not the timber companies) and only when it can be done profitably.

An environmentally sound alternative would restrict mineral development in all roadless areas, and wherever it would intrude on elk and other wildlife habitat. Leaving 70% of the Ashley open to mineral development is not acceptable. The Forest Service can exercise more authority over mineral development than that.

Finally, a suitable alternative plan would give special protection to sensitive areas like the Bollies, and would, in general, be designed to keep our forests in good ecological shape.

Please consider providing an environmentally sound alternative to your recommendations.

Sincerely,

A handwritten signature in cursive script, appearing to read "Rebecca A. Widenhouse".

Rebecca A. Widenhouse

I-40

Duane Tucker
Forest Supervisor

October 23, 1985

Response to Margaret Pettis

See General Statement #13

Ashley National Forest
Ashdon Energy Center
Suite 1150
Vernal, Utah 84078

Place this letter in
the official record
of public comment!

Dear Duane,

I wish to comment on the Ashley National Forest Plan. The plan is very distressing in that it offers no real alternatives for the preservation of wildlife and noncommercial landscapes. Why is mineral and timber development, and its impacting, resultant road construction, the banner of the forest? Haven't we tired of such full scale development carving the Ashley from its natural base over the years? The public does not want such exploitation to be the status quo. Records verify this.

As an active participant in forest plans & wilderness issues for a decade, I am very concerned about the "bullies." I want to see no mineral development or ORV abuse (synonymous with use on such high elevation country) here. How will elk, bighorn sheep, moose, small mammals and riparian life tolerate such constant

presence of man's heavy hand? This region should have been wilderness. Does the F.S. merely sacrifice good land management when poor Congressional decision-making omits a sensitive region from Wilderness? I had anticipated your far-sighted concern for this roadless country. Maintain roadless lands on the forest as roadless. Keep wild regions wild. Prove your good sense of management, not submission to ORV Clubs and timber cutters. The new Wilderness must be signed, managed & protected as Wilderness, not "come what may!"

If a mineral proposal faces the Ashley, fall on the side of the unroaded, riparian or critical winter range values - not just fall to their request for single-use. You can say No to development in unroaded areas.

Timber tables are extensive in the plan - overwhelming, to say the least. Yet I saw so many passages where roads are proposed to access the lands sought for harvest. Why would you consider allowing harvesting on slopes over 40% grade? And in unroaded areas, while so much volume exists in roaded

(page 2)

See General Statement #2

See General Statement #3

See General Statement #4

(page 3)

See General Statement #19

See General Statement #1

See General Statement #14

terrain. No clearcutting should be allowed, nor should road building that accompanies this practice — and destroys wildlife areas. There are alternatives, you have not offered them!

Is efficient cost-benefit ratio dead in the Forest Service? Why are forest lands being harvested at a cost to taxpayer and a more severe cost to the wild region in which they're slated? This is not fair to working people who value the recreation and naturalness offered on the Ashley.

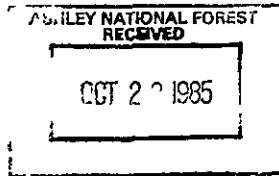
I want to see the High Uintas Wilderness protected. It took too many years to see it designated to fail to protect it through questionable management at this stage. Please count my concerns above as valid, citizen comments on a forest I value tremendously. Those lands not in the wilderness must not be ignored. It is this attitude one fears when seeking wilderness on adjacent, and sadly, omitted, ^{quality} adjacent territory.

Sincerely,
Margaret Pethia 1384 S. 600 E.
SLC, Utah 84105

I-42

P.O. Box 7192
Missoula, MT 59807
October 23, 1985

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, UT 84078



Dear Mr. Tucker:

Thank you for the opportunity to comment on the Ashley National Forest draft plan. The lands under your administration are extremely valuable, and worthy of careful decision-making.

Unfortunately, I cannot support wholeheartedly any of your 9 alternatives. I suggest you revise them, and supply at least one true wilderness option. I say this for the following reasons:

--Timber production will not be viable and economically sound for years to come. You will not rid the forest of pine beetle through harvest, neither are there great demands for timber on the current market. You will be selling timber at a deficit, and for at least the present time, lowering the net value of the forest.

--Logging on slopes greater than 40% is detrimental to the watershed, to wildlife, and is much more costly than extracting timber from flatter areas. Logging in such steep areas is not appropriate in economic or "conservationist" terms.

--You have not made plans to reclaim areas that are developed for mineral purposes. The Forest Service has the responsibility to control these impacts, not simply react to them.

--You leave out the most spectacular area in the forest for wilderness protection. The "bollies"--eastern Uintas, Chepeta, Weyman Park and Dry Fork--are important not only for their scenic values, but are also crucial summer wildlife habitat for bighorn sheep, elk and moose.

Please restrict mineral development in the 60,000 acre Bollies. Close it to ORV abuse and preserve its wild character.

I love Utah for its wildness, its spectacular landscapes, its pristine areas. So do many other people that visit your state. Wild places are an important economic asset to Utah. Don't jeopardize this resource. Consider an alternative that would keep large acreages of roadless area in the Ashley National Forest.

Thank you for your attention to my letter.

Sincerely,

Mollie Matteson

Response to Mollie Matteson

See General Statement #1

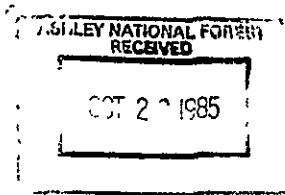
See General Statement #4

The Forest maintains an inventory of areas needing rehabilitation treatments resulting from mining activity. There is currently only one area on that inventory that needs treatment. Newly mined areas will contain adequate provisions for rehabilitation work.

See General Statement #13

See General Statement #2

Heather Campbell
P.O. Box 69
Jensen, Utah 84035



October 25, 1985

Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Response to Heather Campbell

See General Statement #1

See General Statement #4

See General Statement #17

See General Statement #2

Dear Mr. Tucker:

In reviewing your proposed Forest Plan and DEIS, I have identified several areas that I feel deserve more consideration.

The preferred 'Alternative B' calls for a great increase in timbering with a corresponding increase in road building. My understanding is that the timber will be sold below cost in order to increase the harvest of beetle-killed trees. There is certainly a good point to salvaging the timber if it can be done profitably, but if the expenses outweigh the advantages then this should be reconsidered.

The increased timber harvest will not prevent the spread or decrease the damage done by the beetles. According to the DEIS, the fire hazard may be reduced though the risk of fire will increase due to increased activity. Perhaps the objective of having marketable timber fifty years from now could be met in a less costly fashion through the use of controlled burns and harvesting along existing roads.

At a time when Congress is trying to balance the Federal budget through various reductions, it seems inappropriate that the Forest Plan proposes an alternative that requires an increased budget. It also seems inappropriate, in light of the overall timber industry slump, to assume that there will be a market for the timber in excess of our present market.

On a more personal note, I would like to see more of the forest area designated as Semi-Primitive Non-Motorized and have some of the forest bordering the wilderness area withdrawn from mineral entry and leasing with the hope that these areas will remain undeveloped for as long as possible.

I hope that you will look more closely at Alternatives D, F, and G as being more cost-effective with less emphasis on increased timber harvest and road construction.

Sincerely,

Heather Campbell
Heather Campbell

I-44

655 Canyon Road
Logan, UT 84321
October 25, 1985

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, UT 84078

Dear Mr. Tucker:

Please add the following to the record of public comments on the Ashley N.F. Forest Plan (draft EIS)

The Ashley plan is one of the most biased and anti-ecological plans to have come to my attention. It appears to be centered entirely on resource extraction, with no apparent concern for protection or even future use of the forest resource; the plan also, remarkably, flies in the face of even economic reality. It appears to be a document of unusual single-mindedness, and might even serve as a classic example of forest planning at its worst.

Doubling the harvest of timber, when there is no market for the lumber and no hope of ecological justification (forestalling pine bark beetles, for example), and when costs will far exceed revenues, is just plain irresponsible. As even the plan states, wildlife will be severely impacted; the 3,000+ miles of forest roads projected will be there for many years and decades, rendering the resource vulnerable to further raids and abuses.

Opening 70% of the Forest to mineral development, and claiming the Forest cannot control mineral development, is further evidence that this Plan has been done hurriedly, superficially, and without any profound sense of the value of the Forest itself. There is no sign of stewardship here; the plan sounds like a late-19th-century robber baron's dream of exploitation.

The higher elevations (the "bollies") should have been included in the Utah Wilderness Act, and logically are part of the wilderness, and should be protected from motorized recreation. The resource is priceless and should not be degraded. Someday, when even politicians wake up to the value of wilderness, all of the higher parts of the Uintas, and a good deal of the lower elevations, will be protected, it is up to the Forest to provide the interim protection.

What the Ashley Plan appears to need, above all else, is a vision of the value of the Forest, and a sense of stewardship. Opening the Forest to the rawest forms of extractive use, as the Plan appears to do, would be a genuine tragedy

Sincerely,

Thomas J. Lyon
Thomas J. Lyon

ASHLEY NATIONAL FOREST
RECEIVED
OCT 28 1985

Response to Thomas J. Lyon

See General Statement #4

See General Statement #1

See General Statement #9

See General Statement #12

See General Statement #3

See General Statement #13

See General Statement #11

Ashley National Forest
Ashton Energy Center
Suite 1150
Vernal, Utah 84078

Dear Mr Tucker,

I am writing to air my concerns over the Ashley National Forest draft Environmental Impact Statement and Land and Resource Management Plan.

First, the timber harvest section of the plan is not acceptable. Slopes of less than 40% grade are the only ones which should be harvested, and there is no need to construct new roads to get at the timber. Timber should not be sold below cost. Timber harvests should be done to enhance wild life, not destroy it. Hunting brings money into Utah, and we need to ensure that the High Uintas ecosystem is in fact to provide good hunting and other outdoor recreation.

Secondly, mineral development needs to be controlled, and the Forest Service has the power and authority to do so. Mining should not destroy riparian zones, winter and calving areas for elk.

Tertiary, close the "bollies" to all development, and keep the ORV's out of this very sensitive area. Roads and ORV's ruin wilderness, and provide too easy of access to areas by humans who tend to inadvertently harm the wildlife.

In summary, the forest is best "as is." A developed forest isn't a forest, it is an eyesore for the public, with a few select people profiting at public expense.

Thank you,
Doug Chinn

Response to Doug Chinn

See General Statement #4

See General Statement #1

See General Statement #3

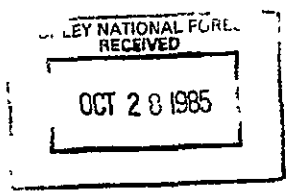
See General Statement #13

See General Statement #11

I-46

658 E. 1700 South; Apt. B
Salt Lake City, Utah 84105
October 25, 1985

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center
Suite 1150
Vernal, UT 84078



Dear Mr. Tucker,

I have reviewed the Ashley National Forest draft Environmental Impact Statement and Land and Resource Management Plan and would like to make the following comments.

Regarding timber, the Plan would double the timber harvest, even though this would result in "below-cost sales". Many roads will be built and reconstructed to do this, impacting wildlife habitat and pristine recreational values. I am opposed to this and therefore ask that you utilize only existing road systems. Harvest only the timber which will result in a profit to the U.S. Government. Harvest only on slopes less than 40 percent. Do not harvest in important wildlife areas, i.e. riparian zones, winter range or calving areas. Do not disturb roadless areas. If you follow these guidelines you can meet the market's demands while still protecting the areas which have higher values than tree cutting.

All of the alternatives addressed in the Plan appear to me to be "development oriented". For example, even the "non-market" alternative leaves 70% of the forest open to mineral development, over 60% of the forest open to ORV use and maintains an already too high timber harvest. I urge you to provide real alternatives that focus on preserving/improving wildlife habitat, restricting mineral development and reducing timber harvests and road building.

Restrict mineral development in unroaded areas, riparian zones, and elk winter range and calving areas. Mineral development is not the highest nor the best use of these areas. I urge you to make an effort to regulate mineral development in these areas, not just react to it.

Close all high elevation sensitive areas to mineral development, logging and ORV use. Do not allow road building in any of these areas. Give special management protection to preserve the wilderness character of these areas. The Wasatch National Forest plan on the High Uintas Wilderness provides a good lead.

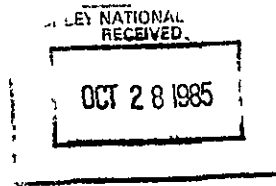
Thank you for the opportunity to comment.

Joelle Buffa
Joelle Buffa

- Response to Joelle Buffa
- See General Statement #1
- See General Statement #4
- See General Statement #12
- See General Statement #2
- See General Statement #3
- See General Statement #7
- See General Statement #14

October 24, 1985

I-47



Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center-Suite 1150
Vernal, Utah 84078

Response to George Nickas

See General Statement #4

See General Statement #1

See General Statement #2

See General Statement #13

See General Statement #11

Dear Mr. Tucker

Please include these comments in the official public comment record on the Draft Environmental Impact Statement--Resource Management Plan for the Ashley National Forest.

Because the timber program seems to drive the plan and because the timber program is out of line with what the forest should provide, the plan is not responsive to what the public wants. The major public concern is to leave the Ashley "as it is". The plan doesn't come close to doing that.

There is no need to double the timber harvest on the Ashley especially when such a proposal includes logging in roadless areas, negative impacts to elk herds and other fish and wildlife species, logging on slopes greater than 40%, deficit timber sales, and a decrease in the present net value of the forest. There isn't even a market for the timber. Why cut it?

Roadless areas should remain roadless. They are the most important resource on the forest. This is especially true for the "bollies" on the eastern end of the High Uintas. The forest service always claims they can manage roadless areas without the necessity of wilderness designation. This is a chance to prove it. The forest service should close the bollies to mineral development and ORV use. It is sensitive, delicate land, important habitat for bighorn sheep and the most aesthetic region on the forest. It is very important to backcountry recreationists which is what the area is best suited for.

There is no array of alternatives that emphasize protection of roadless areas, wildlife and aesthetics. Where is the alternative that keeps all roadless areas roadless, protects all important wildlife habitat, restricts mineral development, and reduces timber harvesting and road building? There is really no array at all.

It appears the Ashley National Forest has made a conscientious effort to prevent the public from participating in the planning process. The draft EIS and Plan, with their volumes of computer charts and lack of narrative are impossible for the public to wade through. What will the forest look like in twenty years? Plans like the Ashley's are the very reason land management decisions are being made in the courts and in Washington D.C., and not by those who know the resource on the ground. That is a tragedy.

Sincerely,

George Nickas
Price, 1

I-48

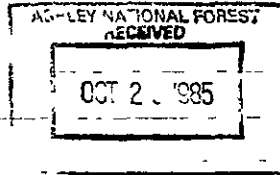
Response to Linda J. West

See General Statement #1

See General Statement #4

October 24, 1985

Duane G. Tucker
Forest Supervisor
Ashley National Forest
Vernal, Utah 84078



Dear Mr. Tucker:

I have reviewed the Proposed Forest Plan and Draft Environmental Impact Statement for Ashley National Forest and wish to make the following comments.

Five of the nine alternatives, including the preferred one, propose an increase in timber harvest, theoretically to reduce the pine beetle infestation, though the plan admits that beetle mortality "is low" and will continue to be high (regardless of silvicultural practices) for several decades. Further, whenever increased harvest is discussed, the plan "assumes that markets are available" (emphasis added), which hardly seems like economic planning when "demand for timber is elastic," as Title # 5 puts it. Add to this the need to finance [road] construction with appropriated money when current timber values are too low to carry the cost, and it is evident that increased timber harvesting is economically unjustifiable, even less justifiable when adverse effects on watershed quality, wildlife habitat, and recreation opportunities are also considered.

In contrast, the plan repeatedly states that recreational use of

(page 2)

See General Statement #11

See General Statement #14

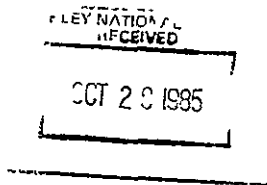
The Forest (both developed and dispersed) is increasing and that recreational demands would at best be only marginally met, if at all, by most of the alternatives including the preferred one. Overcrowding, resource and trail deterioration, and competition between different types of users are cited as present and future problems. A truly balanced management plan should place greater emphasis on these needs and problems. The Ashley should also take a stronger role in protecting its portion of the High Uintas Wilderness - including limitations on use when necessary, and provision of alternative wilderness opportunities by allowing roadless areas to remain so.

Finally, it is clear that a good deal of effort has gone into the preparation of the plan and DEIS; what is unfortunate is the equally great effort ^{required} on the part of the reader, if he/she wants to realistically compare the alternatives and their effects on the various resources. Nonetheless, I do thank you for the opportunity to review and comment upon these documents.

Sincerely,
Linda Z. West
Denise, Utah

I-49
Mark Pearson
P.O. Box 204
Grand Junction, CO 81502

October 25, 1985



Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, UT 84078

Dear Mr. Tucker:

I am writing regarding the Ashley National Forest Draft EIS and Management Plan. I have had the pleasure to spend a number of days in the Ashley National Forest while passing through or visiting the Vernal area. I am concerned by the extensive road building and timber cutting proposed by your plan.

While I have observed the extensive outbreaks of pine bark beetles on the forest, I disagree with the Plan's approach to combatting the beetles. I do not believe that a massive road building scheme will appreciably impact the beetle infestation and that the result will be severely diminished wildlife, watershed, and recreational resources. The Forest Service can have no hope of eliminating pine beetles from the forest through massive timber cutting, as the Plan admits. It is fiscally irresponsible to be proposing such a scheme of widespread below-cost timber sales at a time when the federal deficit is approaching \$2 trillion. This deficit has resulted precisely from the type of management you advocate, i.e., throwing large amounts of money at a problem with no hope of a favorable result and with few true beneficial impacts. I find it particularly objectionable that to meet this increase in below-cost timber sales the forest will have to log greater than 74% slopes. Is this wise management?

I urge the forest to utilize the existing road system to access timber on the less steep, more appropriate lands rather than at the expense of wildlife and soil stability. No below-cost timber sales should be sold without explicitly stated specific resource benefits. And please try to maintain the few non-roaded primitive recreational lands that still exist on the forest.

One last point, the forest needs to better control mineral impacts. As of now, there are few, if any, restrictions on mineral development. If the plan fails to place restrictions on activities at this time, the forest will have no handle under the 1872 Mining Law to control future development proposals. Do we really want the whole forest to end up looking like the phosphate mines north of Vernal?

Sincerely,

Mark Pearson

Mark Pearson

Response to Mark Pearson

See General Statement #9

See General Statement #4

See General Statement #1

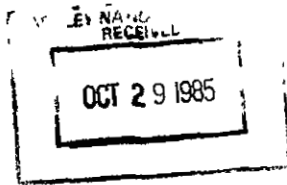
See General Statement #2

See General Statement #3

Duane Tucker, Forest Supervisor
Ashley National Forest
Vernal, Utah 84678

October 25, 1985

1/50



Response to David Hanscom

See General Statement #2

See General Statement #3

As a frequent visitor to the High Uintahs,
I have a keen interest in your land &
Resource Management Plan. I feel strongly
that you should limit timber cutting on
the North Slope AREAS to that available
to existing roads, and to AREAS which
would not adversely effect wildlife.
The same should be true of mineral
development, in fact. There is no good
economic reason to build more roads

in ~~the~~ this beautiful AREA. Your plan
needs ~~for~~ better ALTERNATIVES which don't
involve ~~unnecessary~~ disruption & destruction
of ~~a~~ st [!] truly unique resource.

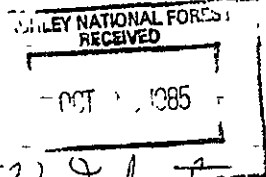
Sincerely,

David Hanson
1451 Moray Court
Park City, Utah
84060

(page 2)

See General Statement #11

Terone Tucker
Forest Supervisor
Ashley National Forest
P.O. Small, Utah



Response to William V. Peterson

See General Statement #11

Dear Sir, -

In regard to Environmental Impact
Statement & Land & Resource Management Plan
on Ashley National Forest -- I am stating
my comments.

I did not receive notification about
this proposal plan until Oct 24, so my
statements may be late.

I strongly support the Utah
Wilderness Assoc. in this matter.

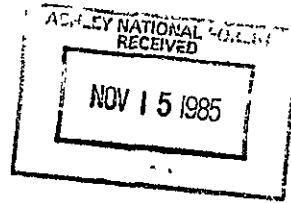
I also support the ideas of the
National Wilderness Society, Sierra Club,
Etc. in this matter.

Sincerely,

William V. Peterson
213 Holcomb Ave. N.
Jitchfield, Minnesota
55355



A.D. (Arch) Shaw
2814 LeMay Avenue
West Valley City Utah 84119
(801) 969-3679
ARTIST



November 12, 1985

Response to A.D. Shaw

The road to Chapeta Lake was begun in the early 60's and completed in 1971. Roads in the West Fork of Whiterocks were built in the late 60'S for timber harvest. There are no plans to extend these roads to Queant and Cleveland Lakes and we have no other plans for road construction or logging in the area of the lakes during the planning period (10-15 years).

Mr. Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker,

As an artist, fisherman, and one who appreciates the beauty of our high mountains in their natural state, I want to make known my feelings concerning the proposed forest plans for Ashley National Forest.

My main concern is commercial development in Whiterocks Canyon and the High Country East to Leidy Peak. I was displeased when I learned a road had been built to Chapeta Lake in Whiterocks Canyon. I am even more concerned with plans to extend this road to the Queant and Cleveland Lakes area, because this would allow motorized vehicles to get within approximately two miles of Fox Lake. Two miles is not an adequate buffer zone for the wilderness area fisheries.

One of the most valuable assets of the High Uinta range is its excellent fishing. It is excellent in the High Lakes because they are not easily accessible. The fastest way to ruin the fishing at a high altitude lake is to build a road to it. For this reason, I strongly recommend that no road be built closer than 8 to 10 miles from any of the high lakes in the roadless area. Therefore, the existing road to Chapeta should be barricaded at its beginning on Pole Creek Road to prevent further use.

Your proposal to do extensive road building in the now roadless areas of Ashley National Forest to facilitate cutting of timber is a mistake and would lead to the demise of millions of acres of primitive forests as we now

know them. Timbering operations in the upper Whiterocks Canyon, particularly in the Queant Lake area, should be stopped immediately.

In my mind, clearcutting to forestall the destruction of Lodgepole and Ponderosa Pines by the mountain pine beetle would be tantamount to amputating ones hand to prevent warts. Let the damaged trees be harvested

As one travels through the Altamont and Bluebell oil fields of Duchesne County, one notices the five-acre scars in the land with storage tanks and metal buildings marking the sight of oil drilling. To have the Ashley Forest raped in this manner is unthinkable to any caring individual.

I am not opposed to the multiple use policy of our forest lands, but I feel that it would be criminal to allow any type of development other than trail building in the vicinity of any of the high mountain lakes between the east boundaries of the High Uinta Wilderness Area and Lady Peak.

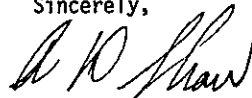
I consider excessive timbering, grazing, mineral and oil development, and easy-access recreation developments in the now roadless areas of the forest to be an encroachment upon the natural state of these areas and should be prohibited. Let us preserve as much of this area as we can for those who want to walk or ride a horse free from the roar, stench and unsightliness of civilization.

Curtailment of road building and commercial development for the next ten years is necessary to qualify the Whiterocks River drainage East to Lady Peak area for future inclusion in the High Uinta Wilderness Area.

I made the first of many pack trips into the High Uintas in 1948 and subsequently introduced my children to this area. I am hoping to do the same for my grandchildren. It is a place of great importance to me and it is critical that it be preserved for the use and enjoyment of our posterity.

May you and all others responsible for planning the future of Ashley National Forest be influenced to consider the interests of everyone, not just those who have commercial interests.

Sincerely,



A.D. Shaw

(page 2)

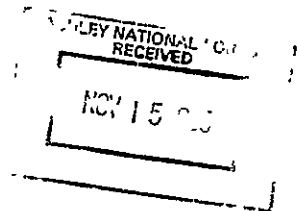
Since the Whiterocks River drainage East to Lady Peak is part of Area q. It will be protected by a prescription which has no development in the area during the planning period.

See General Statement #19

See General Statement #11

3252 South 200 East
Bountiful, Utah 84010
November 9, 1985

I-53



Response to Glen J. Smith

See General Statement #11

See General Statement #1

See General Statement #4

See General Statement #19

Mr. Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker:

Upon careful review of your Draft Environmental Impact Statement (DEIS) and Proposed Forest Plan I am left with the impression that your agency has ignored the reason for establishment of national forests - which is not only to control the removal of natural resources but also to protect the ecosystem and wildlife contained within those boundaries.

To this end, I see no planning or commitment on your part to ensure a proper balance. Instead, your policies are so slanted toward commercial use that any emphasis on environmental and wildlife planning is questionable.

As an experienced backpacker, camper and fisherman, I have traveled to areas such as Yellowstone and Glacier National Parks, the Windrivers and extensively in the High Uintas. Not one of these locations can match the diversity of the High Uinta Wilderness Area and the adjacent Ashley National Forest. With so much to offer the outdoor enthusiasts of this state you should not side with such a small minority of individuals who could care less about the environment and what they do to it.

TIMBERING: I find several points of your proposed timbering program to be of extreme interest.

- A. Your plan is to immediately double timber harvest even though you admit there will be deficit sales. This, in essence, means the forest service loses in terms of revenue. Can you really afford to let the consumers of our natural resources dictate to you?
- B. Timbering will be allowed on steep slopes, thus promoting erosion of what little humus now exists.
- C. Clearcutting: I have personally seen the results of clearcutting in the Gallatin and Wasatch forests and from these observations this practice can be measured in two ways: The first is a free ride for the timberman at the taxpayers expense with deficit sales and second, it allows for the extended use of off-road vehicles which further broadens the magnitude of damage to all the areas surrounding the cutting sites.

Your excuse for allowing this policy and an increase in timber sales is to stop the spread of the mountain pine beetle. However, the beetle can only destroy those trees that are weak to begin with.

Therefore, your suggested silvicultural approach has no valid basis for the allowance of clearcutting in advance of anticipated beetle infestation.

- D. Most importantly, you plan on opening the roadless areas to timbering and extensive road building within the first decade of the plan.

MINERALS: I would suggest a re-alignment of your mineral policy so that you are no longer a reactive force, but a controlling force in mineral management.

If this letter could be condensed into one simple and meaningful statement it would be: DO NOT OPEN THE ROADLESS AREA TO ECONOMIC DEVELOPMENT FOR AT LEAST THE NEXT DECADE. This will allow those of us who are truly concerned about maintaining forests for wildlife and future generations a chance to turn this forest into one that equals out both sides of the spectrum in terms of conservation as well as development.

In summation, I request that those undeveloped areas which were dropped from the 1984 Wilderness Act be set aside for at least ten years so they may again be considered for installment into this area of diverse and protected country.

Yours truly,



Glen J. Smith

(page 2)

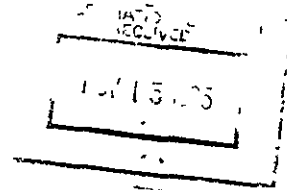
See General Statement #2

See General Statement #3

3558 S 50 W
Bountiful, Utah 84010
November 12, 1985

154

Mr Duane G Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W Highway 40
Vernal, Utah 84078



Dear Mr Tucker

Thank you for the opportunity you've given me to review the Draft Environmental Impact Statement and Proposed Forest Plan for Ashley National Forest. In particular, thank you for the extension of the review period to November 15, 1985.

Though I have not had ample time and opportunity to study every detail of the proposed plan for Ashley National Forest for the next ten to twenty years, there are certain points I feel that need to be made. My understanding for the establishment of national forests was for the preservation and protection of wildlife, plantlife, watershed, and the inherent natural beauty of the forest and surrounding areas. Many points of this plan appear to undermine this basic reason for the existence of national forests.

Admittedly, some logging operations are necessary in the national forests, but I can think of no sound reason, other than political reasons, to immediately double timber harvests when the plan admits that the industry will operate at a loss! Also, it seems to me that clearcutting the forest on steep slopes, which would be necessary to keep up with the proposed rate, would cause extensive erosion in some areas, thus endangering valuable watersheds, harming wildlife in the area.

Clearcutting parts of a forest is fine as long as it is done in a controlled and carefully planned manner. This plan, however, ignores the idea of 'controlled' clearcutting and appears to allow those involved in the timber industry to 'cut where they please'. The excuse that clearcutting would

Response to James C. Peterson

The establishment of national forests is for multiple use (range, wildlife, timber, watershed, wilderness, and recreation). Multiple use means conservation (protection from loss or waste) of resources.

See General Statement #4

See General Statement #19

(page 2)

See General Statement #3

See General Statement #2

contain the spread of the mountain pine beetle is not reasonable since vast areas of forest would have to be cut in order to significantly effect the beetle's spread. Even the Plan itself states that the beetle will not be eliminated by these 'silvicultural' practices.

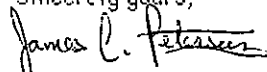
The plan states that approximately 70% of the forest will be open for mineral development, and implies that Ashley National Forest will have little control over proposed mineral developments, stating that they are only reactive. This leaves one with the feeling that the National Forest Service is at the mercy of private industry with what they do to the forest.

Still, I'm sure there are many other points of the plan which I have not covered. But as a backpacker and frequent visitor to the High Uintas' Primitive Area and Ashley National Forest, I request that you curtail the proposed increase in timber harvesting until the next review period. This includes halting the plan to build new roadways for these purposes. The timber industry cannot shut down altogether, but keep clearcutting under control, carefully planned, and off the steep terrain. Timber harvesting should not exceed rates where little or no profit is being made.

Also, I feel that the national forest service should have control over how the natural resources and minerals in the area are developed. Though some development is bound to occur, the national forest service should be able to see to it that these developments do not greatly effect the wildlife and natural beauty in the area.

In summary, Ashley National Forest should reject many points of this plan, and continue to operate as in its original fashion, that is to preserve and to protect the forest in its natural state. Perhaps a more reasonable plan can be proposed in ten or twenty years time.

Sincerely yours,



James C. Peterson

E. BUSINESS COMMENTS AND FOREST SERVICE RESPONSES

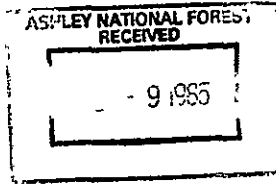
- B-1 Southern California Edison Company
- B-2 Champlin Petroleum Company
- B-4 Chevron U.S.A., Inc.
- B-5 Rocky Mtn. Oil and Gas Association, Inc.
- B-6 Great Lake Lumber
- B-7 Victor O. Brimhall, J.L. Casey Bown, T. Dean Spackman
- B-9 Adrian K. and Ellen B. Reynolds
- B-10 Reid D. Bench
- B-11 Green and Berry
- B-12 Deseret Generation and Transmission Cooperative

B-1

Southern California Edison Company

P O BOX 410
100 LONG BEACH BOULEVARD
LONG BEACH CALIFORNIA 90801

R J JULIFF
MANAGER
OF
REAL PROPERTIES DEPARTMENT



September 4, 1985

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker:

SUBJECT: Ashley National Forest
Land and Resource Management Plan

In response to your letter of July 16, 1985, Southern California Edison Company appreciates the opportunity to comment on the Draft Ashley National Forest Land Resource Management Plan.

We are pleased to see that the Draft Plan recognizes utility corridors, and encourage you to continue this recognition as you develop the Final Plan. Corridor designation is an important and critical element of land use planning and is a valuable tool for both land managers and the utility industry.

We note there is general discussion and policy in the text regarding corridors; however, we recommend that location, specified widths and type of utility facilities involved be shown on the maps.

Transmission lines are delineated on the maps as individual rights of way and should be shown as parts of utility corridors.

We suggest designated corridors be of sufficient width (2-3 miles) so as to provide the routing flexibility necessary to avoid or mitigate potential impacts to environmentally sensitive areas that might be located within the corridor.

Response to Southern California Edison Company

A statewide map is being prepared by the state of Utah, BLM, and Forest Service to coordinate all agency planning; the map will display the information you are requesting.

The map key refers to these as existing utility corridors. Also, see Table H in Appendix H of the EIS.

The width of the windows range from 4 to 9 miles wide for the reasons you mention. However, the corridor designations have been eliminated within the Flaming Gorge NRA. These designations were in conflict within NRA management standards and guidelines. The potential need for widening the right-of-way for Western Area Power Administration lines is recognized. Such widening will be analyzed and evaluated based on project specific proposals.

Mr. Duane G. Tucker

-2-

September 4, 1985

We thank you for this opportunity to comment on the plan and trust you will give our comments full consideration in the preparation of the Final Plan. If further details are needed, please contact Mr. J. R. Wilson at (213) 491-2880.

Very truly yours,

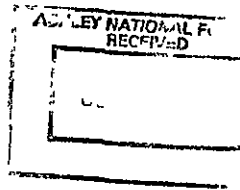
A handwritten signature in cursive script, appearing to read "R. J. Guly".

899s



B-2

A Subsidiary of
Union Pacific Corporation



October 15, 1985

Forest Supervisor
Ashley National Forest
Ashton Energy Center
1680 W. Highway 40
Vernal, UT 84078

Re: Proposed Land Resource Management Plan
and Environmental Impact Statement

Gentlemen:

Champlin Petroleum Company, a subsidiary of Union Pacific Corporation, thanks you for the opportunity to comment on the captioned Plan and E.I.S.

We commend the Forest for its efforts in the planning process; however, we are somewhat concerned about the lack of attention to minerals and energy, specifically oil and gas. We would like to see the areas of no leasing and no surface occupancy defined on a map. Also, we should appreciate an interpretation of the exact meaning of item number 15, page IV-31 of the Plan. Does this in fact mean that oil and gas exploration and development would be denied in favor of a "critical resource" of lesser value? What might a "critical resource" be in such a case?

On page III-45 of the E.I.S. under c., Suitability, in the first paragraph, the statement is made that lands may be considered suitable for exploration, but not necessarily suitable for development. Why is this so? Also, in the last sentence of the second paragraph under Suitability, the statement is made that the Forest Service can decide against leasing if the value of the land or its resources outweighs the foreseeable benefits that would be derived from exploration of the mineral resource. How can such values be determined without first conducting exploration activities? In addition, it is our understanding that the Forest Service can only make recommendations to lease or not to lease and not the actual decisions.

Again, we thank you for the opportunity to comment on the Plan and E.I.S.

Very truly yours,

James M. Taylor
Staff Landman - Public Lands

JMT/mrk
Champlin Petroleum Company
P O Box 1257
Englewood Colorado 80150
303 779 0079

Response to Champlin Petroleum Company

Except in withdrawn areas, mineral leasing is authorized under the Mineral Leasing Act of 1920, as amended, on the entire Forest. Since oil and gas lease applications commonly cover 10,000 plus acres, each application must be evaluated on a case-by-case basis; only then can appropriate stipulations be recommended. To attempt this on a wholesale basis with a map showing where selected stipulations apply would be impractical. A matrix displaying application of special stipulations and where they are applied is contained in the Plan and a list of standard and special stipulations is included in appendix B of the Plan and H of the EIS.

An interpretation of the item number 15 is that activities may be denied or limited to protect a critical resource such as threatened and endangered species habitat, visual resources, or in some cases, riparian habitat.

Exploration activities generally involve little or no surface disturbance whereas development could result in total displacement of the surface resource. Exploration must be done in a manner that protects the affected land and resources.

Your understanding is correct. The word "decide" has been replaced with "recommend."



Chevron U.S.A. Inc

700 South Colorado Blvd., P. O. Box 599, Denver, CO 80201

3-1
4 75

M M (Lisa) Flesche
Staff Analyst
Legislative and Regulatory Affairs

October 23, 1985

Ashley National Forest
Draft EIS/LRMP

Mr. Jack Watson, Ashley Forest Planner
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, UT 84078

Dear Mr. Watson

Thank you for the opportunity to review and comment on the captioned documents. We are very concerned about your planning team's apparent position that the exploration and development of energy and minerals does not need to be considered in your forest planning process.

Your position is in direct conflict with the mandates of the National Forest Management Act regulations, specifically at paragraph 219.1 (b) (2) (which requires that a trade-off analysis between the mineral resources and the renewable resources be conducted for each plan alternative), the same regulations at paragraph 219.22 (which requires that "mineral exploration and development shall be considered in the management of renewable resources"); and Section 1502.14 of NEPA (which requires that all reasonable alternatives be evaluated and reasons be given if any alternatives are eliminated, and specifically states that "reasonable alternatives not within the jurisdiction of the lead agency" shall be included). We hope that you will revise your planning documents to include alternatives which detail the various management emphases and their direct effect on energy and mineral exploration and development.

Chevron is not currently active in the Ashley National Forest, so it is impossible to predict precisely how the Plan might affect us. Still, we recognize the Ashley National Forest as being an area of potential oil and gas interest to us, and we reserve the right to challenge decisions made under the Plan which would adversely affect operations that we might propose in the Forest.

Sincerely yours,

MMF cm

Response to Chevron, U.S.A.

It was not the intent in our Draft Environmental Impact Statement to infer that minerals exploration and development did not need to be considered in the Forest Planning effort. What the DEIS did try to display was the lack of solid information on minerals potential on the Ashley National Forest. Note that the discussion in Chapters II, III and IV of the EIS all pertained to minerals management and to the problems of projecting activities which are demand related. The Final EIS expands the discussion of mineral management under the various alternatives.

We have attempted to expand the discussion of minerals exploration and development in management areas by rephrasing the standards and guidelines in the Forest Plan and by expanding the display of minerals information in Chapters II and IV of the Final EIS.

Alice I Frell
Lands Director

Response to Rocky Mountain Oil and Gas Association, Inc.

Information pertaining to mineral exploration and development is detailed in the Analysis of the Management Situation (AMS) which is available for your review. The content of the AMS is briefly summarized in Chapter III of the EIS and also addresses these comments.

Rocky Mountain Oil & Gas Association, Inc.

345 PETROLEUM BUILDING • DENVER COLORADO 80202
303/534-8261

October 23, 1985

Mr. Jack Watson
Forest Planner
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 West Highway 40
Vernal, UT 84078

Dear Mr. Watson:

I am writing on behalf of the Rocky Mountain Oil and Gas Association (RMOGA) to comment on the Draft Land and Resource Management Plan (LRMP) and Draft Environmental Impact Statement (EIS) for the Ashley National Forest. RMOGA is a trade association representing hundreds of members who account for more than 90% of the oil and gas exploration, production and transportation activities in the Rocky Mountain West. Because of this, our members have a vital interest in how the Forest Service manages its lands, particularly with respect to mineral resource activities.

We do not believe the Draft planning documents for the Ashley National Forest are in compliance with the National Environmental Policy Act (NEPA). Following is a discussion of the regulations as they pertain to energy and mineral resources in the planning process.

The National Forest Management Act regulations presently prescribe under 36 CFR 219.22 the following integration requirements for planning:

Mineral Resource: the mineral exploration and development in the planning area shall be considered in the management of renewable resources. The following shall be recognized to the extent practical in the Forest plan:

- (a) Active mines within the area of land covered by the Forest plan;
- (b) Outstanding or reserved mineral rights;
- (c) The probable occurrence of various minerals, including locatable, leasable and common variety;

October 23, 1985

Mr. Jack Watson
Forest Planner
Ashley National Forest

page two

- (d) The potential for future mineral development;
- (e) Access requirements for mineral exploration and development; and
- (f) The probable effect of renewable resource prescriptions and management direction on mineral resources and activities, including exploration and development.

Specifically, Paragraph 219.1(b)(2) requires that the process should determine "the relative values of all renewable resources, including the relationship of mineral resources to these renewable resources". This paragraph requires a tradeoff analysis to be prepared for each of the plan alternatives. When, in terms of mineral resources, there is only one alternative under consideration, it is impossible for a tradeoff analysis to be prepared. The Forest Service has said that the reason for this approach is because they do not have jurisdiction over mineral leasing. However, such problems are addressed by NEPA.

NEPA, Section 1502.14, Alternatives Including the Proposed Action, directs the agencies in the preparation of an EIS as follows: Subpart (a), "Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated". Subpart (c) further states, "Include reasonable alternatives not within the jurisdiction of the lead agency". The Forest's argument that they have no jurisdiction over mineral activities and are therefore not required to fully integrate minerals in the planning process is not a legitimate one. NEPA requires that alternatives under consideration should include those not within the jurisdiction of the lead agency. This provision applies specifically to energy and mineral activities since they are valid uses of Forest lands but administered by the Bureau of Land Management.

In light of the above provisions, we believe the Forest Service is in violation of existing NEPA and Forest Planning Regulations. We expect that the Forest Service will want to revise its current planning documents to include alternatives which detail the various management emphases and the direct effect on energy and mineral opportunities, as well as access constraints and restrictions. For example, an alternative which emphasizes timber production would prove more favorable for oil and gas activities since these activities are compatible; whereas, an alternative which emphasizes nonmarket opportunities would contain more stringent restrictions on energy and mineral activities and opportunities.

(page 2)

Chapter IV of the EIS contains an expanded writeup addressing your concerns in (e) and (f).

See General Statement #10.

As noted in several places in the DEIS, the Forest recognizes the responsibility for management of all the resources of the Ashley. What we were trying to express in the Draft is the fact that minerals activities are generated by off-Forest demands and international influences, placing us in a reactive rather than a proactive position. We are responsible for requesting, reviewing, and approving operating plans for proposed locatable mineral activities. We also have the responsibility for reviewing and making recommendations to the Bureau of Land Management, who actually has final leasing authority, for any proposals for leasing activity on National Forest administered lands.

Chapter III of the EIS includes an expanded discussion of responsibility and Appendix B in the Plan and Appendix H in the EIS, includes the stipulations applied for oil and gas leasing.

A matrix has been developed and incorporated into the Plan which displays special stipulation and land areas where applied.

October 23, 1985

Mr. Jack Watson
Forest Planner
Ashley National Forest

page three

Only through the analysis of resource values can the management priorities be determined for each management area. The Forest Service should identify lands having energy and mineral potential and prescribe actions which would open or maintain access to those resources, while meeting minimum legal standards for environmental protection. Areas where conflicting resource values outweigh potential mineral resource values would have minimum protection requirements which meet the plan objective for that area. However, when only one alternative has been identified and analyzed, the purpose of the planning process has been defeated.

Each of the management alternatives under consideration should identify the tradeoffs which would occur as a result of the possible implementation of that alternative as it relates to energy and mineral values. The tradeoffs should include opportunities and restrictions for access to minerals, minimum protection stipulations required under each alternative, and analysis of relative value placed on each conflicting resource.

When the preferred plan alternative is ultimately selected and published, each prescription for management should describe the specific impact on energy and mineral resources. This should include the minimum standard requirements for surface protection upon issuance of leases, permits and plans of operation, and what additional requirements, if any, are to be placed on these activities in order to meet the objective of the prescription. Also, the prescription should give rationale as to why normal standards are not sufficient to protect the land use objective. However, the proposed Ashley LRMP does not give this information: either an area is withdrawn or it is open, subject to the Forest Wide Management Direction, which in itself cannot provide site specific requirements by management area.

One other point we believe is relevant is that while discussions of minerals and their associated activities can be found in several different sections of both the DEIS and the proposed Plan, in most cases these sections are virtually identical. It would be more prudent to cross-reference this discussion rather than to continually repeat it. It would be much more enlightening to the public if the mineral section contained more pertinent discussions as to the energy resource situation. For instance, there is no indication as to how many leases have been issued on the Forest, where they are, how many lease applications have been filed, or how many drilling requests have been filed. A map illustrating areas considered to have mineral potential should also be included.

(page 3)

The only information available for determining the energy and mineral potential of the Forest is on a very general basis. We have clarified the effects of the various alternatives on the desirability of minerals activities. Available mineral data is sketchy and insufficiently detailed, allowing us only to speculate on future development activities. Note that standard and special stipulations are appended to the Final EIS and Plan for informational purposes.

The mineral data (number of claims, leases pending, leases filed, and general locations) are detailed in 16 pages of the Analysis of the Management Situation, available for public review upon request. No detailed map is included.

October 23, 1985

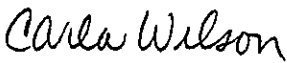
Mr. Jack Watson
Forest Planner
Ashley National Forest

page four

In conclusion, we do not believe the Ashley National Forest Draft LRMP and EIS comply with NEPA regulations or the National Forest Management Act. We recommend that several changes be made to the draft planning documents which follow the guidelines we have suggested in these comments. Further, we would also recommend that the mineral discussions be revised to include more pertinent information with regard to energy and mineral activities.

Thank you for the opportunity to participate in the planning process. We will be happy to discuss our recommendations in further detail at your convenience.

Sincerely,

for 
Alice I. Frell
Public Lands Director

AIF:cw

Duan Tucker



Our response to the Ashley National Forest Plan...

1. Economic importance of the ANF.

I felt that the forest and community were slighted in the total lack of significance that was applied here. The total impact from timber was ignored. Not only our direct employees and families, but the trickle down effect on people who we do business with (suppliers, sub-contractors etc) was

2. Roads

This is a sore point with many groups. As far as timber harvesting, we could do with temporary roads to be closed when that area has been harvested. The amount of roads in the plan to be built and rebuilt and high standards and cost seem quite high.

3. Analysis and stratification areas

I liked them. It seems that there alone with consultation and public management could be the crux of managing the forest as far as safe utilization of use of a multiple resource.

4. Bulk of the plan

Computer releases. There are too many

Response to Great Lake Lumber

Economic effects of the Ashley National Forest upon the local economy is described in Chapter III, Table II-1. This discussion did not intend to "slight" the timber or livestock industries. However, the amount of employment generated by these two sectors of the economy is only a small percentage of the total employment/population picture.

The importance of these two sectors has undoubtedly increased within the past one to one and a half years due to the downturn in the energy sector. However, the figures for recalculation of employment are not available for these recent months.

Approximately 80 percent of the roads to be constructed are temporary roads, skid trails and landings. These will be closed when the area has been harvested. Of the remaining 20 percent which would be permanent, 40 percent would be newly constructed and 60 percent reconstructed. In addition, most of the new permanent roads which will be built are local roads, many which will be closed after initial activities are completed.

We have tried to simplify and clarify the Final EIS and Forest Plan to make it more understandable.

chart and projection and data table. There was a lot of effort here but it is too complex to follow. I realize the problems you had in changes in direction.

The contradictions throughout the plan show that. As for me, I don't know when you got all your figures, the error margin, or even what some imply. (An index of unit measurements and table of value, might help. Definition of terms.)

5 Fuel woods.

This area is hardly touched. More elaboration is sorely needed. Not enough data here to even criticize.

6 Law enforcement

This area is not mentioned. Definitely need more and stiffer prosecution of violators. No data here to criticize either.

7 Water

Water quality and quantity has not been given the attention it needs in Vernal watershed.

8 Budget:

With the fluctuations in budgets, will all your monitoring and action (timber harvest, road building, etc) be reduced or expanded proportionately or one sacrificed and not the other.

(page 2)

Since commercial fuelwood sales are the most cost effective way to remove and regenerate dead lodgepole stands effectively, we intend to meet this demand. This does not mean we will increase the total board feet amounts for the Forest per year. Rather this means that percentages of the available wood will increase for commercial fuelwood sales if the demand increases.

Law enforcement was included in Chapters II and IV of the draft Forest Plan. This discussion was combined into Chapter II in the final. You are correct that enforcement of regulations is an increasing problem that will undoubtedly continue as uses on the Forest increase. We are continually upgrading the Forest's law enforcement capabilities through training and, as the budget allows, through cooperative efforts with the Sheriff's Departments in the counties with the major portion of Forest uses.

The Plan provides several Standards that will guide activities within the Vernal watershed in order to assure that Water Quality standards are met. The monitoring of both the quantity and quality of water is outlined in the monitoring section of the Plan.

Our intent is that changes from the planned actions would take place on a proportionate basis. However, this is subject to budgets we receive and to Regional and National changes. Minor changes in any given year would not necessarily trigger Forest Plan amendments or revisions. Amendments and revisions would only occur from significant variations from planned activities which could not be averaged over several years of the planning period.

9 Proper & prudent management.

For timber, you have too many wet areas for cutter units

You ground personnel will not attempt to find alternate methods (example less slash pile, perhaps broadcast burn cutter unit)

10 Wildfires

I enjoy areas that are inaccessible by ORV. If the timber needs roads to be harvested. One solution is to construct temp roads to be permanently closed.

Timothy J. Swain
% Gerald Lake Junior
Stur Rt 1 Box 135
7 + Duels Wt 84026

(page 3)

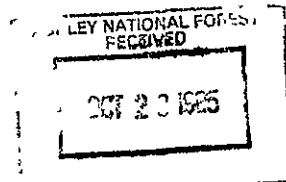
The timber sales program identified within the "scheduling section" has attempted to spread out the sales that may be located in wet areas.

The Ashley is in the process of dramatically changing the current sale standards, procedures, and purchaser requirements. Sale preparation standards are being reduced in an attempt to significantly reduce costs and put more responsibility upon the purchaser to perform as a "Prudent Operator". Sale procedures will be reduced, requiring the purchaser to be responsible for many more activities on the sales, such as volume determination, accountability, sale design, and site preparation activities. This year the Ashley is beginning a program of prescribed fire to reduce slash created by sales and for treatment of standing dead lodgepole pine to improve wildlife habitat and reduce the immense areas of unbroken fire fuels.

Road and area closures will be handled through the Travel Plan. This plan will be reviewed annually and updated as necessary. The criteria for these closures is located in the standards and guidelines in the Forest Plan.

24 October 1985

Forest Supervisor
Ashley National Forest
1680 West Highway 40
Vernal, Utah 84078



Dear Sir,

Reference your letter 1920, dated 16 July 85, soliciting our comments on your Proposed Forest Plan. We appreciate this opportunity. Our comments are directed primarily toward the Flaming Gorge National Recreation area (NRA) as covered in Appendix A, FGNRA Supplemental Direction.

Mission & Goals (Page A-1). Those of us who have chosen to live in the NRA do so primarily because of our love and appreciation for its natural environment. So, we are pleased that Par IA4 (page A-1) recognizes this as one of four important elements in providing a "high quality varied recreation experience". We suggest that the functions (facilities and services) provided by your concessionaires and the privately owned Flaming Gorge Lodge are also so significant to the NRA experience that they should be mentioned and treated as a separate element. This could be done by deleting the last sentence in paragraph 4 and moving it to a paragraph 5 as follows:

- "5. Development of facilities to relatively high scale will be concentrated in a few areas of heavy public use. Concessionaires will be used to satisfy demonstrated public needs that cannot be met with Forest Service resources. The needs of concessionaires and private enterprises serving the public within the NRA to remain economically viable in what has been a short season environment must be considered. Expansion of winter sports activities could help reduce the impact of this seasonal syndrome."

Greendale Management Unit CFC-4 (Page A-39). In par 4b(7) you state, "Release no water for private land use that is owned by the Forest Service and may be needed for use on the NRA." We support what we believe is intended, but this is too absolute to be good management policy. It seems unwise to lock up in the short term a valuable resource such as water because of a hypothetical condition that may never materialize. It is conceivable that it might be in the public interest to release water for private land use, in a period of drought and high fire hazard, on a month to month or year to year basis and still have it available when an NRA need arises. We suggest the phrase, "Protect Forest Service Water Rights" would better satisfy what is intended. And, it should apply to all management units, not just CFC-4.

Response to Victor O. Brimhall, J.L. Casey Bown, and T. Dean Spackman

The need for concessionaire and private development is recognized and encouraged on page A14 in the appendix.

Your suggested change for the Greendale Management Unit has been made.

Cedar Springs -Bootleg-Mustang Management Unit CFC-5 (Page A-40).
Paragraph 5b(4) under "Management Decision" could be deleted unless there is a particular reason for including the "no new concessionaire" idea here. It is virtually a repeat of par. IIB6(2) on page A-14 that applies to all management units. It is a good idea.

Instead of the above, add: " Consider concessionaire maintenance of the fish cleaning station." Clearly, this task for over two years has been beyond Forest Service resources. When it does not function over long periods of time it becomes a monument to waste/poor planning/bad management.

Because campgrounds and stores mutually support each other consider keeping the popular Fire Fighter Memorial Campground (Bootleg-virtually adjacent to Flaming Gorge Lodge) open through the Deer Hunt.....operated by a concessionaire if necessary. Other National Forests are successfully extending their campground services in this manner now.

Red Canyon Management Unit CFC-6 (Page A-41).
After the negative par (6) "Permit no organization or group occupation of the undeveloped part of this unit except on a day-use basis." Add: "Consider the development of a Group Campground." Reason: Stores and campgrounds provide support for each other.

Add a paragraph that in effect reads: "Maintain the uncommon status of Green's Lake where, for a fee, any person can be virtually guaranteed a fish catch and a fresh mountain trout menu at the Lodge." This is an important, unique, and long-remembered experience for many visitors to the NRA.

Dutch John Management Unit GR-2 (Page A-45).
There is a prevailing wind in Dutch John that increases the energy cost for the school and homes and often makes it uncomfortable to be outdoors, even in the summer. We don't know whether the Dutch John master plan calls for the planting of wind breaks or not, but it certainly should. Action on this is twenty years over-due. We suggest this need be specifically mentioned in your plan and priority be given to the school's protection where children of BLM and Forest Service employees spend so much of their time.

Fuelwood Management. There is only one reference to this in the NRA. It seems to be adequately covered in Chapter III (Issue #2, page III-2) and Chapter IV (pages IV-8 and IV-23) which of course apply to all parts of the Forest, including the NRA. But, there remains widespread dissatisfaction with

(page 2)

Both paragraphs 5b(4) and IIB6(2) are applicable, one on a broad scale and the other more specific to a particular Management Unit.

Because of the problems and associated expense of maintaining the fish cleaning station, it is doubtful if concessionaires would accept this responsibility. However, we would welcome such a proposal.

The option of keeping the campground open is currently available through application for a special use permit.

The need for group camping areas is acknowledged, and some campgrounds have been modified to accommodate this use.

Recreational experiences at Green's Lake are presently provided as part of the special use permit for Red Canyon Lodge.

Wind break protection can be provided outside the scope of this plan through planned community action.


the specific plan adopted in the NRA and we have concluded that the problem lies with the priority (importance) given to this function by the Forest Service. Because the resource available for harvest is so high vs. the demand does not lessen the importance of the demand. In fact, this circumstance exacerbates public dissatisfaction when the specific plan for firewood removal appears parsimonious and designed principally with the idea of "control" and the generation of statistics in mind vs. fulfilling a public need.


Harvesting firewood for personal use, for those engaged in it, satisfies recreational, psychological, physical and economic needs as great as those borne by hunters and fishermen. The numbers of interested citizens involved are certainly as great or greater than those involved in timber harvest. Personal use firewood is all dead and each stick removed from Ashley Forest in the next decade or two cannot help but improve the health of the forest.

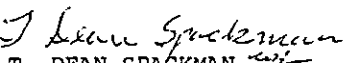
What we cannot reconcile with the above: (1) The only reference to firewood in the NRA is a negative.... "permit commercial removal of firewood only when necessary to meet NRA management objectives." (We would hope this is not directed toward firewood per se, but to reserve the area for Personal Use permits). (2) We see fuelwood being burned in slash piles where public access has not been authorized. (3) Personal use firewood harvest is denied during winter months, yet on page A-11, par 3(7) you, "Schedule timber removal operations during winter months in areas bordering roads, trails, campgrounds....." etc.

Basically, we suggest that the plan would be improved if this function (Personal use firewood harvest) was recognized as an important recreation experience. It is a good, winter sport, healthy for the citizen and forest alike. We would hope such recognition would better serve the public by providing access to more locations, covering a variety of tree species, throughout the year.

Sincerely,


VICTOR O. BRIMHALL
Flaming Gorge Acres
Dutch John, Utah 84023


J. L. CASEY BROWN
Flaming Gorge Pines
Dutch John, Utah 84023


T. DEAN SPACKMAN
637 10th Avenue
Salt Lake City, Utah 84013

(page 3)

Your dissatisfaction about the Ashley's firewood program seems to stem from not understanding the Forest's firewood policy in the NRA. The importance of making firewood available to everyone throughout the Ashley is as high as any other use of this material. We recognize the importance of the demand, especially because of the tremendous amount of dead material available. With so much dead wood, it is important we use all available opportunities to utilize the wood and accomplish our resource objectives.

The intent of this statement is to allow "commercial" firewood sales within the NRA providing they do not conflict with management objectives. All timber harvesting, whether it is for personal use or sawlog sales, must not conflict with those same management objectives. We do not feel it is good management to reserve the NRA only for personal use firewood harvesting.

Burning of slash that has been piled should only occur when the material is located where it is not practical or safe to allow gathering it for personal use firewood or where there is so much dirt mixed into the piles that it would damage chainsaws. We intend to make most slash available for firewood prior to when the contractor piles it.

The intent of the statement on A-11 (7) is to try not to log in areas of high recreational use during the time when those areas are congested with large numbers of people. Winter is the best time in these congested areas. To accomplish winter timber sales, purchasers must plow snow at their own expense. For safety reasons (timber trucks on the plowed roads), we can not allow access on these roads to the general public.

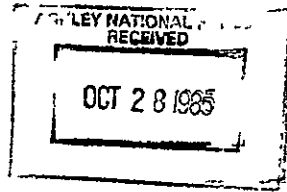
We recognize firewood gathering as a recreational activity for many individuals, but not in the winter months. Access in the winter is almost impossible, except in dangerous areas along highways. Access during the winter has a great potential for resource damage. (Timber contractors pay for road plowing at their own expense and have environmental stipulations written into their contracts; neither situation is practical with personal use firewood gatherers.) For those rare occurrences when people need additional wood during the winter, there are commercial operators available from which they may purchase firewood. We recommend that people, who rely upon firewood for their winter heat, plan ahead and gather a sufficient amount earlier during the summer harvesting season.

A variety of species is made available for firewood throughout the year, where a variety exists. Species available in past years include lodgepole pine, ponderosa pine, Pinon-juniper, and aspen.

Adrian K. and Ellen B. Reynolds

Green's Lakes
Mail via
Dutch John, Utah 84023

October 25, 1985



Response to Adrian K. and Ellen B. Reynolds

Your comments about inconsistencies between older maps and later publications will be sent to our Regional Office mapping section so that they can be considered in the next map update.

Mr Duane Tucker, Supervisor
Ashley National Forest
1680 West Highway 40
Vernal, Utah 84078

Dear Mr Tucker

As individuals with interests as inholders in the Daggett County portion of the Ashley National Forest since 1954 and with a lifetime of familiarity with the north slope of the Uinta Mountains, we want to express our concerns over the proposed Forest Land and Resource Management Plan

We realize that you are obligated to fulfill the laws and regulations in preparing such a plan as stated in the Preface, pg 1, of the Plan We are concerned that Congress has allowed any department of the government to determine it's own destiny We note that the alternatives of the plan is directly tied to future budgets and funding which can be used as justification and a prior commitment of Congressional intent

We attended the first meeting of the planning process for the Forest Plan with good intentions, having previously participated in the public meetings, reviews, etc of the Flaming Gorge Management Guide Only after receiving the procedure for the Elk Management Plan in 1984, which was prepared by various agencies and signed by the Forest Supervisor along with others, did we realize that first meeting was for the sole purpose of obtaining individual names to fill the requirement of public review The procedures for that plan stated that individual public input was of little value and that the Forest Service used it only to comply with 'the letter of the law' The first meeting for the Plan was a multiple-choice presentation of an already prepared plan Of the many items discussed, only the selected items previously chosen by the Forest Service emerged as the objectives and goals for the Plan We were further disillusioned with the value of any individual public input when we read an Associated Press release last year just before Christmas The news story covered Forest Service Chief R. Max Peterson who, in meeting in Casper, Wyoming on Forest roads, was quoted as stating that the Forest Service would manage the public lands without following the 'whims of the public'

To be more specific in our response, we have noted the following items that we are concerned about

1 Maps We have been unaware that the Forest Service had republished in 1972 the USGS Quadrangle sheets East Park Reservoir, Utah 1963, and Flaming Gorge, Utah-Wyo 1966 We have been using the USGS sheets plus the Ashley National Forest map published in 1971 This week, when we received a copy of the revised 1972 Quadrangle sheets attached to a briefing paper, we first became aware that there were errors in your version of the map used in the Plan

- The 1971 Forest map shows Lake Creek south of the Greendale canal and Highway 44 This is correct The republished map shows Lake Creek north of the Greendale Canal and going into Green's Lakes This is incorrect as this is the ditch built in the late 1800's by William Riley Green in the creation of the Green's Lakes This is the ditch that is presently under permit to Red Canyon Lodge Lake Creek drainage below (north of) the Greendale Canal has not been used since prior to 1900 and has not been shown on any recent maps

- Both the USGS Quadrangle sheets and the FS republished sheets are in error in showing the ditch going from the East Green's Lake to the West Green's Lake. Each lake drains into a different drainage and the ridge between them does not allow flow from one into the other.
- The Forest Road 372 below the West Green's Lake still shows the crossing of the drainage as it was prior to the FS use of the area in 1960 for a borrow pit for their construction of the Red Canyon Overlook road.

2 We are concerned about the situation of inholdings in the National Forest. We do not know where the justification arises for the Forest Service to write into the plan the objective of buying all inholder property whenever possible. Former Supervisor Rowen inserted into the Flaming Gorge Management Plan that the Forest Service prefers private inholdings not to develop by responding to public input of the Sweetwater County Planning and Zoning Commission. Even though the Forest Plan does not spell out the methods designed to stop development of private inholdings, we do not believe that entities essential to the original homesteading and issuance of patents for the land should be disturbed. Rights-of-way for access, water, and utilities or restrictions that stop their maintenance should not be used to stop the development or the utilization of the lands.

In August of 1979 we responded to the proposed rule change of 36 CFR Part 251 pertaining to rights-of-way permits for public lands. We still maintain that because it was necessary for the Forest to allow use of rights-of-way for access and for water in order to accomplish the requirements to gain a patent to the land that those rights became a part of that land.

We do not think the Forest should circumvent the State laws concerning water rights. The Utah State Supreme Court in a July 1965 ruling of a Forest Service Appeal of private water rights of the Green River in Utah District Court unanimously concurred. "If the rule were otherwise the Government, through its agents, could be wholly arbitrary about asserting water rights if and when it pleased. It should be obvious that if in the future the government could assert rights which could have been adjudicated in this proceeding, this decree would be without any solid foundation, the private water rights adjudication could be made a shambles of, and the principle of res adjudicata defeated."

Maintenance of roads into patented lands should not be left to the Forest Service who can neglect them in order to change land values. Any such road should be where the county and the individuals involved can maintain them to a passable condition.

3 The historical background of the William Riley Green family, their development of their Green's Lakes, their attempts to have a wildlife park, and their naming of the Green's dale for a post office has been grossly ignored and has been very poorly researched by Forest personnel. The older Green's cabins in Greendale have been ignored in relation to the latter Swett cabin. The Swett history has been reported incomplete by the Forest Service and relics of early sawmill activity have been lost in the past few years. The old dugout sites between the Green's Lakes and on Salt Lick Draw and Eagle Creek, old land corners markers, and marks of the original 1880's government road into the area are fading with the accelerating timber harvest caused by the pine beetle epidemic.

4 The development of the two visitor centers in the Flaming Gorge less than 15 miles apart is the result of pre-National Recreation Area days when the Department of the Interior built the one on the Dam and in competition to it the Forest Service built one at the Red Canyon Overlook. Duplication of this type of service for the first time forest visitor does not justify the expenditure in continuing the Red Canyon Visitor Center. Traffic patterns have changed dramatically with the completion and designation of Federal Highway US191. The Flaming Gorge Management Plan was made without full consideration to this change.

5 The Brown's Park - Littlehole road proposal which is currently again an item of discussion is denied in the Forest Plan. As a County Commissioner in 1959, I rode this area horseback with the Utah Fish and

(page 2)

Authorization for purchase of inholdings is provided in Section 8 of Public Law 90-540, the act establishing Flaming Gorge National Recreation Area. The development of private inholdings should be governed through local zoning ordinances, provided these are consistent with the purpose for which the NRA was established.

Water rights are appropriated under State Law for specific purposes and are not usually issued as part of a land patent unless, for some reason, the rights were specifically included in the patent. The Ashley Forest recognizes that Utah State laws must be followed in the allocation of water. The Plan does not vary from these laws.

Roads receive maintenance consideration on a scheduled basis according to use received.

The Forest Service is interested in all historical information and would be willing to work with you to correct any misinformation about the former Swett properties and to preserve historical information about the former Green properties. The Flaming Gorge Natural History Association is also available to assist in preserving this heritage.

The Red Canyon Visitor Center is recognized as a feature attraction within the NRA and continues to receive favorable comments from Forest visitors. Use patterns also verify the popularity of this structure. The Center is operated entirely with Volunteers and thus is one of the most cost-effective operations within the NRA.

Please refer to our response to letter Government-12 and General Statement 18 which contains information regarding the Brown's Park Road.

Game, who were both in favor of such a route. Attempts were made to coordinate with Moffitt County, Colorado Commissioners. The Forest District personnel were in favor of such a route at that time. It is apparent to us that such a road, built back from the river's edge, would allow the extreme pressure of the usage of the Green River below the Flaming Gorge Dam to be spread over twice as much area. It would eliminate the congestion on 30 to 40 miles of inadequate dirt roads that traverse through much of the wildlife habitat of the Clay Basin area. It is hard to believe that it would make that much difference to the usage of the area from the Colorado end of Brown's Park when considering the paved road and the already present attractions of the Federal Waterfowl Refuge and the Gates of Lodore at the head of the Dinosaur National Monument. The present situation is denying the people of Utah access into the Upper Brown's Park while it is readily available for the user from the Colorado direction.

6 We believe more usage of the campgrounds could be made if an effort was started to allow people to provide themselves with do-it-yourself camping. The shortening of the season on both ends with campground closures has created more problems in open areas and also in the open seasons. Winter use conducted along the plowed roads and parking areas would welcome the use of an open campground.

7 Christmas tree cutting restrictions should include consideration to private land holdings. It is not compatible to inholders to allow persons with a Forest Christmas tree permit to cut trees outside their gates. The landowners themselves don't cut the trees even with a Forest permit.

8 We would like to see the Forest Service encourage the removal of accumulated fuels to reduce fire hazards by encouraging the public with free-use permits and with year-round areas open wherever they are available.

9 Recent helicopter fire bombings on the Baretop area between North Skull Creek and Jarvie Draw appeared to be an expensive way to obtain the desired results in wildlife habitat. If opened for free-use firewood permits, most all of this area could be utilized. It is too bad that you cannot exchange the land status of Baretop for that of the wilderness of the south slope of Goshute Mountain where the proposed Brown's Park road would be built.

10 The Forest Plan does not consider the land exchange with the BLM. Splitting the Flaming Gorge National Recreation Area (NRA) at the Wyoming-Utah State line does away with the only original intent for the NRA creation. It was created only because the Park Service under the Department of Interior was to provide recreation facilities on the Bureau of Reclamation Flaming Gorge Project. There was no way for the Department of the Interior to extend itself into the National Forest. The Forest Service was obligated to provide recreation facilities on Forest lands of the project, but were unable to extend themselves outside of the Forest boundaries. The Forest could take over management of the recreation facilities on the entire project by forming the NRA. With the proposed land exchange the management of the Flaming Gorge would again be divided. Why can't the Forest recommend to Congress that the NRA be abolished and the extensive and costly rules and regulations be removed. This would result in actually providing more facilities and more beneficial usage. The Flaming Gorge is a man-made reservoir with large recreation use and a large potential for expansion. It is not a primitive wilderness area to be set aside to stagnate.

We would like to see all National Forests conserved with use rather than to have them preserved in a wilderness state behind no-trespassing signs and violation warnings.

Sincerely,



(page 3)

We are not sure what is meant by do-it-yourself camping, but there are abundant areas where camping can and does occur in the off-season, particularly by users who have self-contained units. Winter camping occurs in the paved parking lots and dispersed areas throughout the NRA.

We have no restrictions for cutting Christmas trees on private lands. Private land owners decide what they wish to do with their trees. We do not authorize the harvesting of trees adjacent to roads or in recreational areas. We will make every effort to enforce these requirements, with assistance from the local public. When a tree permit is issued, the purchasers are directed to areas where they are authorized to harvest the tree. State statutes require that people obtain permission to enter upon private land for any reason. If this situation exists, it should be brought to the attention of the local law enforcement agencies.

The Ashley is continuing a program of prescribed fire to reduce slash created by sales and for treatment of standing dead lodgepole pine to improve wildlife habitat, and to reduce the immense areas of unbroken fire fuels.

The Forest encourages as much use of the dead stands and logging slash as possible, through all available opportunities. Currently, the Forest uses the firewood program as one of the major methods for the removal of the dead wood. Year round use is impossible because of winter conditions. Due to early and heavy snowfall acting as insulation, most soils do not freeze during the winter months. When heavy trucks loaded with firewood drive on the wet, usually snow covered roads, resource damage occurs. To repair these damaged roads after this happens is quite expensive. In some cases, irreparable, unacceptable damage occurs. The charge for the firewood is part of a national program that requires people who obtain direct benefits from the National Forest also support the cost of providing those benefits. This is the same philosophy behind the requirement that people who use a developed campground must pay a fee.

The use of aerial ignition from a helicopter for prescribed fire is an economical method of pinyon-juniper control. Much of the area burned is not accessible for firewood removal. A large area was burned then seeded during the winter to provide the needed ground protection. It takes several years to remove a small portion of a pinyon-juniper area by firewood cutting. Spot seeding would not be feasible.

The proposed Forest Service-BLM interchange would not affect Flaming Gorge NRA or the adjacent National Forest administered lands.

Roosevelt, Utah
October 23, 1985

TO: USDA—Forest Service
J. S. Tixier, Regional Forester
Intermountain Region
Federal Office Bldg., 324 25th St.
Ogden, Utah 84401

ALSO: Jack C. Watson, Forest Planner
Ashley National Forest
Suite 1150, Ashton Energy Center
1680 W. Hwy 40
Vernal, Utah 84078

ALSO: Various copies to others, i.e., Forest Supervisor - Ashley, etc.

Gentlemen:

In response to your invitation as a reviewer in your letter dated July 16, 1985, I submit the following comments and suggestions:

COMMENT: The "Proposed Forest Plan" and the "Draft Environmental Impact Statement" are too voluminous and should be more brief. Redundancy should be eliminated. It is however, all inclusive and indicates much thought, research and effort was expended. I desired to respond to many of the items, but the time to fully review is not available to me. I shall therefore limit my suggestions to one aspect of the plan which is of particular interest to me and wherein I have some expertise. I refer to "Timber".

Page 11-9, Paragraph 5.

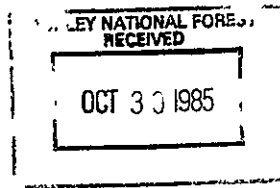
I totally disagree. Early decade harvest levels should be dramatically increased for the very reasons you concluded the alternative to be not viable.

- a. Costs of the increased harvest levels would be borne by those who do the harvesting.
- b. The environment would be greatly enhanced -improved- by rapid removal of the beetle killed timber.

Page 11-13

Your statement, "...the mountain pine beetle would still continue to run its course" is at variance with my personal observation, which is: the beetle epidemic seems to have already run its course. If my observation is correct, then the future infestations should be nipped in the bud forestwide by quickly harvesting infected trees in the dense continuous stands referred to on 111-56.

In chapter 111 of the Proposed Forest Plan, page 111-2, Issue #2 Fuelwood Management, paragraph 3, is the statement which greatly angers me, personally. Specifically it indicates that a fuelwood availability designation will be "the thinning of pole sized stands."



Response to Reid D. Bench

If the entire beetle-killed timber was removed, it would have to be by some method other than timber or firewood harvesting. There is so much dead wood that we would need to treat 30,000 acres per year. Even with the current high demand for these products, we are able to accomplish only one tenth this amount. By increasing the use of prescribed fire, we should be able to increase the treatment of dead lodgepole pine stands to around 5,000 acres per year. Treatment on 30,000 acres per year would cause unacceptable and irreparable damage to nearly every other resource. After a preliminary in-depth analysis, we decided not to spend a major effort in pursuing this alternative.

Page 11-13 - Your observations are correct: the beetle epidemic has already run its course. This statement was included in the EIS when it was drafted four years ago and is not appropriate now. This has been reflected in the FEIS and footnoted to indicate the time period involved.

Page 2

It so angers me that I turn to the Draft Environmental Impact Statement again, to Chapter V, the "list of preparers".

I wonder which person or persons I have communicated with so inadequately. I feel like a failure! I feel like throwing up my hands in futility! However, I shall try once more, here goes:

Fact: A dead, standing pole sized tree's value as fuelwood is only a fraction of its value as a corral pole, a yard fence rail, a shed rafter, a lodge beam (a tipi pole), a brace pole in a wire fence corner or line brace, a trellis for horticultural use, and on and on.

Fact: Most fuelwood gatherers prefer the larger diameter trees because more cords (tons) can be obtained with less effort and expense.

To sell, give or otherwise provide dead, dry, pole sized trees to fuelwood gatherers is a personal affront to me and every other person who needs poles for the uses indicated above and the practice should be immediately curtailed and have no part in the DEIS!

How can I persuade you? Will threats help? By a copy of this letter to Loryn Jepsen, Kelly Wilkins and others, I now make a threat. Unless you issue me personally in writing that you will issue me permits to remove from the land, by selection cut, dead, dry, standing trees of pole size in quantity, and assure me that such a policy as "thinning pole sized stands" for fuelwood shall not be a part of the "Forest Plan", I shall:

1. Obtain numerous photographs of things of beauty - fences, corrals, trellises and so on,
2. Obtain numerous photographs of things ugly such as the ugly nation forest (the Ashley) showing the dead standing and later the fallen pole sized trees; and I will,
3. Compile long lists of frustrated citizens: ranchers, farmers, homeowners, businessmen, landscapers, contractors, fence builders, even Government employees - those who have neither time nor expertise to obtain the poles themselves and have been denied the product thereby; and I will furnish the above three items to many of those on the "lists of agencies, organizations, and persons" you have so conveniently sent me in Chapter VI.

I repeat my often made request to you, the latest of which was sent to you dated May 18, 1985. I quote "I received your preliminary notice of the nine (green) pole sales in the Roaring Fork Area (a total of 2100 trees in 1 units). I have many customers who have been waiting (in vain) for months for firewood. One customer needs 2,000 poles, another 3,000 poles. DRI! Rather than sending the firewood cutters into the choice pole groves to cut up beautiful pole trees into firewood, I am requesting that you send them to cut up beautiful pole trees into firewood, I am requesting that you send them to cut up the larger bug-killed trees and sell me the dry, dead, standing pole-size trees in quantity"

Sincerely,

Reid D. Bench

Reid D. Bench

GREEN & BERRY
ATTORNEYS AT LAW
528 NEWHOUSE BUILDING
10 EXCHANGE PLACE
SALT LAKE CITY, UTAH 84111
TELEPHONE (801) 363 5650
P O BOX 1694 84110

13
go to BUSINESS
B-11

Response to Green and Berry

See General Statement #4

See General Statement #1

See General Statement #20

See General Statement #3

RAYMOND SCOTT BERRY

October 17, 1985

Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center
Suite 1150
Vernal, Utah 84078

Dear Mr. Tucker:

I am writing to you in regard to the Ashley National Forest Draft Environmental Statement and Land Resource Management Plan. My comments and concerns regarding this plan are set out below.

First, I believe the plan is seriously defective in regard to the provisions for increased timber harvest on the Ashley National Forest. The proposed forest plan proposes a doubling of the timber harvest during the next 20 years, supposedly to reduce the pine beetle infestation. However, your own plan admits that the bark beetles will not be eliminated by increased timber harvesting, and further admits that there are no current markets for the proposed timber increase. Finally, the plan admits that the proposed timber harvest will be at below cost, at the cost of providing access to the timber is substantially greater than the value of the timber being removed.

Under the circumstances, the timber is worth nothing or less than nothing. In my opinion, it is a great wrong for the public to subsidize the consumption of a public resource for the sole benefit of private entities.

I urge that the plan be modified to provide for harvesting of timber only on slopes of less than 40 degrees. I also urge the plan to contemplate utilizing only existing roads for future timber harvests. I specifically object to the substantial road building predictions presented in your plan and to timber harvesting that does not clearly benefit wildlife.

In regard to minerals, the plan is defective in that it does not restrict mineral development in unroaded areas, riparian zones or in the winter range or cabin areas for elk. Finally, I urge your office to close the eastern portion of the forest, the Bollies, to mineral development and ROV use. This area is a very important summer wildlife habitat for big horn

Duane Tucker
October 17, 1985
Page 2

(page 2)

See General Statement #13

See General Statement #11

sheep, elk and moose. No road building should be allowed in this area. Your office should follow the lead of the Wasatch National Forest on the high Uinta's forest by restricting use where necessary and maintaining all of the wilderness in good ecological condition.

Finally, the proposed plan needs to be modified to provide real alternatives which highlight the preservation of wildlife, strict mineral development, reduced timber harvest and road building and the other public concerns.

Thank you for giving this letter your attention. I would appreciate a written response from your office pointing out the changes you are going to make in the proposed forest plan in regard to these comments or in the alternative, an explanation as to why you refuse to make the changes suggested above.

Thanks for your cooperation.

Sincerely yours,

GREEN & BERRY



Raymond Scott Berry

RSB/jk
cc: Utah Wilderness Association

DESERET

8722 South 300 West Sandy Utah 84070 (801) 566 8721

December 2, 1985

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 West Highway 40
Vernal, Utah 84078

Dear Mr. Tucker:

As you are probably aware, Deseret Generation & Transmission Co-operative (Deseret) did not receive copies of the proposed Forest Plan and DEIS until November 25, 1985 so we were unable to respond by the October 25, 1985 comment deadline. Deseret does, however, wish to comment and hereby requests that our comments be considered and our comment letter be printed in its substantive entirety in the formulation of the final EIS and Forest Plan.

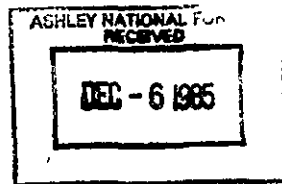
Deseret is in substantive agreement with the DEIS and Forest Plan as presented. We are particularly interested in three (3) aspects of these documents:

1. Transmission Line Corridors Within The NRA

We understand that the designation of the NRA as an Exclusion Area will allow the future upgrading of existing corridors within the NRA (i.e. 69 kv line from Flaming Gorge Dam to Manila Substation, WAPA Line 1 from Flaming Gorge Dam to NRA boundary, WAPA Line 2 from Flaming Gorge Dam to NRA boundary) so long as the present corridor alignment and corridor width (80 feet or 100 feet) is maintained.

Deseret feels that maintaining the existing corridor alignment within the NRA could be accomplished, but that upgrading the existing line voltage from 69 kv, 138 kv or 230 kv to 345 kv or larger would have an inherent requirement that the corridor be widened to accommodate the larger line. We recognize the USFS desire and intent to preserve the integrity of the NRA, but some mechanism for establishing a working dialogue for negotiating the question of required versus desired ROW width when a corridor is upgraded should be included in the final EIS and Plan.

B-12



Reply to Deseret Generation and Transmission Cooperative

The intent of this planning cycle is to upgrade the transmission system rather than to create corridors. To the fullest extent possible, these corridors should be used, even if a minor width increase might be necessary. This would be determined on the basis of a project-specific proposal.

Corridor designations were eliminated within the Flaming Gorge NRA. These designations were in conflict with NRA management standards and guidelines. The potential need for widening the rights-of-way for Western Area Power Administration lines is recognized: such widening will be analyzed and evaluated for each project specific proposal.

Mr. Duane G. Tucker
December 2, 1985
Page 2

2. Transmission Line Corridors Within Avoidance Areas

There are several existing transmission line rights-of-way within avoidance areas. Appendix H-6 of the DEIS indicates that the proposed direction of forest planning for avoidance areas will be to discourage or deny future energy transportation rights-of-way outside of designated windows. Deseret feels strongly that such a management direction may be desirable or even necessary over much of the Ashley National Forest; however, such planning should be modified to allow the upgrading of existing transmission line corridors within avoidance areas by right-of-way widening or even the establishment of new parallel rights-of-way where conditions and circumstances dictate. Specifically, we are concerned with the following lines: WAPA Line 1 from NRA boundary to Forest boundary and WAPA Line 2 from NRA boundary to Forest boundary.

These areas hold the highest potential need for future transmission line expansion within the avoidance areas outside of the designated windows. Deseret feels that the Forest Plan should be modified to establish a framework of negotiation between the Ashley National Forest and industry regarding the future use of these ROW/corridors within the avoidance areas.

3. South Unit Window

Deseret sincerely appreciates the foresight of the Ashley National Forest in establishing the South Unit Window. The highly specific wording of Deseret's Special Use Permit for the Uinta National Forest portion of the present 345 kv line from Bonanza-Mona and similar wording in the recent Uinta Forest Plan which specifically prohibits Deseret's ROW across the Uinta Forest from planning consideration as a window or corridor leaves the Ashley National Forest South Unit Window as the only viable routing for future industrial connections between the Uinta Basin and the Wasatch Front if a southerly direction is indicated. However, in order for this window to be ultimately useable by industry will require that there be a high degree of cooperation and coordination between the various potential industrial users of this Window and the adjacent land management agencies, specifically the BLM and the Uintah and Ouray Tribe.

(page 2)

There is more latitude for widening these rights-of-ways outside the NRA. These would be decided on a case-by-case basis.

We believe the framework you discuss exists and negotiation can be achieved within the parameters of this plan.

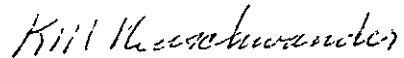
The coordination between the various potential industrial users and agencies should take place as part of the statewide corridor map currently being prepared.

Mr. Duane G. Tucker
December 2, 1985
Page 3

Deseret suggests that the Ashley National Forest could function as a catalyst in establishing a multi-faceted springboard for discussion and action in resolving this vital issue with all the potentially affected entities.

Deseret wishes to again thank the Ashley Forest for this opportunity to comment on the draft EIS and Forest Plan. We anticipate that these comments will be accepted and considered in the same spirit with which they are tendered. Deseret looks forward to discussions which will resolve these vital issues.

Sincerely,



K. M. Neuschwander
manager of Engineering

KMN/GR:ef

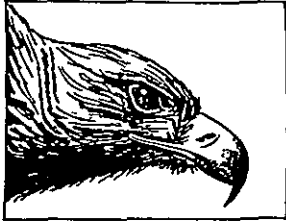
cc: M. J. Millett
J. S. Tixier, Regional Forester

(page 3)

The discussion you mention is being done in accordance with the process mentioned in our earlier comments.

F. ORGANIZATIONS COMMENTS AND FOREST SERVICE RESPONSES

- 0-1 Utah Wilderness Association
- 0-2 Utah Wool Growers Association
- 0-3 Utah Nature Study Society
- 0-4 The Nature Conservancy
- 0-5 Cache Group, Sierra Club
- 0-6 Wilderness Society, Central Rockies Region
- 0-7 Wasatch Mountain Club
- 0-8 American Wilderness Alliance
- 0-9 Utah Wildlife Federation
- 0-10 National Outdoor Leadership School
- 0-11 Uintah Basin Flyfishers
- 0-12 Uintah Mountain Club



Utah Wilderness Association

455 East 400 South B-40/Salt Lake City, UT 84111/(801) 359 1337

October 21, 1985

Mr Duane Tucker
Forest Supervisor
Ashley National Forest
Vernal, Utah 84078

Dear Duane

Here is our comment on the Ashley National Forest Plan. We anticipate it will receive considerable attention from your staff in preparation of the final plan.

We are not satisfied with the Ashley plan or planning effort. Our concern is far beyond the obvious issue that nothing in the plan meets or alleviates concerns expressed by the UWA throughout the planning effort. Obviously this is a major consideration. However, this plan is simply incomplete and presents the classic "pie in the sky." It is not achievable or necessary and, in this instance, the plan is inaccurate. The plan should tell a story of how this plan will manage the forest and it doesn't. It doesn't because it lacks information and because it isn't written to tell a story in terms anybody can understand.

We were not satisfied with our meeting with some of your staff on September 30 in Vernal, though we were appreciative. The timber and minerals folks were not available and Jack had to leave early. Many of our questions were therefore unanswered. And without being unduly critical of the forest planner he did make this statement and we unfortunately agree with it: "This document is not written for the average public person." We also left with a strong sense that our comments were going to be of minimal value regardless of what we said, how we said it or how it was documented.

We've had these problems throughout the process. We urged the Ashley to open up the alternative selection process to the public. The Ashley

responded, under your signature, with a firm no. And not surprisingly one of the primary concerns of this process is the absolute lack of alternative arrays

This plan is one of the few plans which does not contain a timber suitability map. The plan is one of the few plans which does not contain a map showing location of old growth stands during the first decade. This plan is one of the few plans which does not harbor a mineral leasing stipulation map. This plan is one of the few plans which does not show an ROS spectrum map. Or where roads will be located. Or a VGO map. Or critical wildlife areas. The plan doesn't even have a map of the preferred alternative. The maps which are included are severely reduced 7.5 minute quads encumbered with usually dozens of management areas, analysis areas outlined in green and black lines and dotted with green and black numbers. The scale is simply too small to read or understand and too small to see the big picture, which this forest plan is supposed to direct. Believe it or not we are not planning for hundreds of analysis or capability units--we are planning for the 1,000,000+ acre Ashley National Forest.

In fact we have heard the concern from some Ashley personnel that the breakdown of analysis units was too small for adequate solution within FORPLAN.

It is imperative the maps noted above be included in the final documents. It is imperative the plan be more specific as to environmental impacts as a result of alternative selection. Too often the plan simply runs over this legal requirement. By reading the document one can not adequately determine what will happen to the forest as a result of increased timber harvesting, road building and mineral development, for example. Alternatives must be expanded to reflect the legal requirement of planning. Frequently, and I will use recreation as one example, the plan shows the preferred alternative will not meet demand by the end of this planning cycle. However, the narrative will simply state with "improved methods of management and using volunteer programs, outputs for these alternatives could be increased" (11-19, draft EIS). The plan then leaves this subject and fails completely to define or describe the better management. I defy the Ashley to show us how the recreation demand can be met under this alternative? This is simply an abdication of planning, particularly given the limited actions volunteers can meet.

The EIS makes the assumption no activities will impair long term soil productivity "for the time being" (1V-23 EIS). What is meant by "time being?" NFMA doesn't allow for such a caveat. But the caveat becomes

Response to Utah Wilderness Association

(page 2)

The Final contains additional written explanation along with a map that identifies the portions of the forest that will remain undeveloped during the first decade.

Alternative J was modified from alternatives in the DEIS and developed to emphasize recreation and meet future demand projections. See General Statement 11.

Further clarification on long term soil productivity is included in the Watershed Section in Chapter IV.

meaningless when the document then states, "All alternatives could result in changes to the environment which could reduce short or *long term soil productivity* or that affect other uses or resources"(IV-24 EIS, emphasis added) How can the non-market alternative, as another issue, have the same impacts the accelerated harvest alternatives have?

These kinds of incompleteness, inaccuracy and hidden meanings go on and on. Thus all of this comment from this introduction letter to the last sentence must be reviewed carefully and major changes must be made in this plan. Our suggestions are made throughout this plan and follow the intent of the non-market alternative with even more restrictions on timber harvesting. However, it is clear from the public review and our analysis of the public issues your office provided us, that alternative is the direction urged by the Ashley users. It is also best for the forest and by far the most efficient from every standpoint.

This plan is "pie in the sky." The budget would have to be increased 100% to meet the commodity resource outputs. If that is achieved still the forest will see an overwhelming change and become one of the most heavily timbered and roaded (already the road density is over 1 mile of road per 1 square mile of land) forests in Region 4. If the budget isn't achieved the public will have been told "not to worry" because this Ashley plan will take care of everything. And with or without the budget the proposed plan won't meet the real demands on the forest or the needs of the land harbored by your forest. That is not acceptable. If the budget isn't achieved what will happen to the programs in the plan?

The plan is one-sided. It serves as a timber management plan rather than a multiple use resource management plan. The plan is a classic example of "timber absolutism." Three alternatives, in fact, appear to represent departures from sustained yield (B.H.I.) The forest has been given to the sawyer and that represents questionable judgment in this day and on a forest of such marginal timber value and productivity.

We do appreciate your planning effort but not the plan. We hope our comments help circumvent a long drawn out challenge to the plan. We hope the Ashley will make a real effort to meet the intent of public comment. It hasn't so far. We needed more time on this plan and other plans and the agency to this point has turned a very deaf ear to our concerns. I have sitting in front of me a number of memos, one from the Regional Forester's Office stating, "Because our planning documents are comprehensive and somewhat voluminous, we should be sure to take the extra time with people so that they understand how issues are being handled in the EIS and Plan." This was dated April 8, 1985 and signed by John Butt. Another memo (March 19, 1985) from the Washington Office

(page 3)

None of the alternatives would reduce long term soil productivity. Standards and Guidelines and constraints in the Forbjan model maintain soil productivity. The nonmarket alternative increases water yield; consequently, those management activities that increase water yield occur in the alternative.

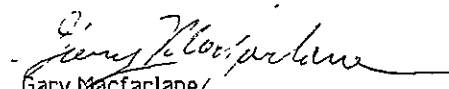
Concerns about the budget were answered during the preparation of alternative J. Even under alternative J, the potential exists for budgets to be a limiting factor in achieving the objectives of the Forest Plan. When budget shortfall is relatively insignificant, then succeeding years within the planning period (ten years) can be used to achieve the total program. When the budget and program cannot be balanced within the planning period, then the Plan should be amended. This can be done at the Forest level.

urges the local forest to make changes recommended by the public to avoid the appeal process. Our recommendations are not minor changes but they do allow the Ashley full rein to meet legitimate goals and outputs.

We do look forward to working with you and will be glad to discuss our comments in more detail if you would like. Thanks very much.

Sincerely,


Dick Carter
Coordinator


Gary Macfarlane
Natural Resource Specialist

ARRAY OF ALTERNATIVES

One of the most glaring and consequential errors in the draft EIS is the array of alternatives prepared for the plan. The pertinent Forest Service regulations guiding alternative preparation, of course, is contained in 36 CFR219 12(f). And because this is an EIS it is also bound by regulations promulgated by CEQ which also require a wide range of alternatives meeting public issues and resource concerns.

Those particular Forest Service regs are very concise in guiding the development of alternatives. They do provide a clear direction to analyze numerous resource potentials, management concerns and different ways to address public issues and concerns. If both of these mandates are not met the plan fails with respect to both the planning regulations and the CEQ regulations.

The plan fails on both counts. Though there are nine alternatives presented in the plan they do not meet the minimum requirements of an alternative array. For example, of the nine alternatives five increase timber harvesting substantially in the first two decades. In each of these five alternatives timber harvesting is maintained at or above the current harvesting in the last three decades. Three of these five double or nearly double the timber harvests in the first two decades. The other two show increases of 40%-60% in the first two decades with an increase or maintenance of existing harvests in the last three decades.

Two of the seven maintain existing harvest levels, including the non-market alternative. Thus seven of the nine alternatives maintain existing harvests or cut substantially more timber than the existing program! Remarkably enough the non-market alternative maintains current harvest levels leading one to believe there is indeed no intent of preparing a realistic non-market approach to managing the Ashley National Forest.

Only two alternatives reduce harvests and neither of them do it as an approach to issues raised by numerous public or resource and management concerns. Both of them respond to budget constraints programmed into FORPLAN by either not increasing the budget at all or reducing the budget by twenty-five percent. Although both of these approaches have been required through forest planning direction neither of them in any way respond to public issues or resource concerns and needs such as wildlife habitat.

Not one alternative reduces timber harvesting based on public input or resource issues. There can be no doubt this fails the test of providing an array of alternatives displaying numerous resource allocation schemes and addressing public involvement.

(page 5)

Array of Alternatives

Several respondents have questioned the array of alternatives. The Final EIS and Forest Plan includes one additional alternative (J) which should answer most of the concerns that desired another recreation emphasis and/or amenity value emphasis alternative. The array of alternatives displayed in the Draft EIS did have a considerable range. This range, or variation, is most easily understood by referring to Tables 11-4 and 11-5 in the EIS.

In most instances the reference to the lack of enough alternatives was tied to timber harvest levels, road construction, and areas available for minerals activities. The amount of timber sales offered in Table 11-4 of the DEIS varied from 1.0 MMCF in Alternative F to 10.9 MMCF per year in Alternative I. At an average conversion of 4 board feet per cubic foot, Alternative F would have an approximate sell volume of 4 million board feet, well under the average sell volume for the recent past, and Alternative I would have an approximate sell volume exceeding 40 million board feet, well in excess of past averages.

The same comparison can be made for road mileage to be constructed or reconstructed. Note that estimated construction in Table 11-4 varies from a low of 4.2 miles in Alternative F to over 50 miles in Alternative I.

Both of the above comparisons are made for the first decade or the first planning period.

Alternative J, reduces the amounts of road mileage and timber harvest considerably from alternative B.

Concerns over long term roading statistics were answered by "ground truthing" FORPLAN runs to come up with more realistic numbers. Alternative J projects a lower amount of road mileage and timber harvest both short term and long term. The plan will be revised no later than 15 years from now. We can expect changes in roading and timber harvest based upon the changes that 10 to 15 years will bring.

This represents only one example. Each alternative treats mineral allocation and management in precisely the same manner in terms of land suitability or capability and mineral direction. It only seems sensible to have the thrust of each different alternative proposing a different scheme of mineral management. Without such difference obviously each alternative essentially is the same.

Although the chart on page IV-27 gives some hope for a diverse management scheme it does so deceptively. At a meeting with Ashley planners we asked to see a map or representation of the indicated geologic potential and proposed operating constraints as well as a definition of the constraints. The planners were unaware of any map, meaning of the constraints or how or where the numbers came from.

The plan states rather plainly each alternative had only a 3% demand increase programmed for recreational use. The plan states also, without hesitation, that this figure is 'very conservative'. In fact, it is conservative and falls far short of RPA and other Forest Service and numerous common sense projections with respect to recreational demand on our National Forests. It is a projection welcomed by the non-amenity and development interests but not the typical Ashley user. Nor is it responsive to the issues raised by the public.

The array of alternatives notes that at the end of this decade somewhere between 150,000 to 210,000 acres of unroaded lands may be available for wilderness consideration. This is a very small variation and it is clear there is no alternative or series of alternatives focussing on preservation of unroaded areas or managing those unroaded areas as unroaded. Another telling lack of variation is found in the document as it describes the consistent allocation of MRVDS to the semiprimitive non-motorized recreational category. This ranges from, using the first decade as only an example, 60-93. Ironically, the accelerated timber harvest alternative shows more MRVDS for the semiprimitive non-motorized category than the non-market alternative! Why?

And it goes even further toward homogeneity. Table IV-1, page IV-4, shows and states clearly, "It is not expected that any alternative would generate a significant change from the current percent of the forest being managed as a closed or restricted area." How true! And how unfortunate in that not one alternative, including the non-market (or even the "low-funding" alternatives), change this direction. Not only is this senseless from an alternative array but also from addressing public concerns and resource issues. Put simply the plan leaves open 878,973

(page 6)

For minerals, Area q will receive a "no surface occupancy" recommendation. The High Uintas Wilderness and The Flaming Gorge National Recreation Area have been withdrawn from mineral entry except for existing rights. Beyond this, mineral development is authorized by laws administered by Department of Interior and can occur on any public lands. The Forest Service responsibility is to manage the surface resources through recommendation of Standard and Special stipulations which we have added to the Final Plan. The "No Surface Occupancy" stipulation has been and will continue to be recommended in fragile and sensitive areas. It is not within the purview of Forest planning to exclude public land from mineral exploration or development through a defacto withdrawal. Withdrawals can only be done by statute or administratively through the BLM. It is also not within the authority of the Forest Service to inventory, allocate, or prescribe when or where mineral development will occur on land administered by the National Forests. Inventories of locatable or leasable minerals, along with the associated maps, are maintained by the Department of Interior and state geologic offices. Chapters II, III, and IV of the EIS contain additional information on minerals and Appendix B of the Forest Plan and Appendix I of the EIS contain copies of Standard and special stipulations.

Recreation demand increases are tied directly to the respective State growth rate projections and are realistic when viewed over a number of years. These projections are consistent with the current use trends occurring on the Forest.

Alternative J increases Area q and protects unroaded areas from roadbuilding activities through the first decade of the Plan. The RVD's shown were in error and have since been corrected. A map is included showing those areas that will remain unroaded throughout the planning period.

Alternative J prescribes fewer miles for motorized vehicle use; however, this use, both on and off-road, is a legitimate use of National Forest administered lands. The Ashley National Forest will continue to provide a variety of user opportunities while maintaining and protecting the other land resources. The thrust of any alternative should not detract from this basic multiple use policy. Criteria which govern motorized vehicle uses are set forth in the Standards and Guidelines Section of the Plan.

acres (63%) on the forest in each alternative apparently regardless of the thrust of the alternative. This rather plainly states there is no difference in alternatives.

In the next decade the plan states road construction and reconstruction will be from 72 miles (Alt F) to 825 miles. And over the 5 decade period from 625 miles to 3712 miles. On the surface this looks diverse. It isn't when looked at in the perspective of the plan proposing roads forest wide with almost no unroaded areas left across each alternative. Five of the nine alternatives construct or reconstruct over 3,000 miles of roads in five decades. Two alternatives "do it" to 2,000 miles of roads in the same period of time. Only two alternatives are left with "minimum" roading.

Where does the non-market alternative fail? As usual, almost even with the current program it simply is not portrayed as a legitimate alternative. This represents a major concern. The Ashley can't show the so-called non-market alternative as a non-market alternative. It doesn't reduce timber harvesting from the current. It doesn't preserve unroaded areas. It doesn't control mineral leasing or exploration. It doesn't restrict ORV use any differently than the market alternative. It is deceptive.

There is no alternative devoted to non-market analysis, recreation or wildlife or meeting public issues.

But it is also easy to look at the prescription array and come away with the sense of no diversity in management prescriptions. Of the 18 prescriptions, only 5 of them disallow timber harvesting. Of those five, two are wilderness prescriptions (high and moderate wilderness) so really only three prescriptions ignore timber harvesting.

The plan fails in this arena and thus fails from the starting blocks. In summary why is timber harvesting maintained at the current level for Alt D? Why do seven alternatives maintain or increase existing timber harvests? Why are there no alternatives reducing timber harvests except from a budget constraint? Why is mineral management the same for Alt D as Alt B, C or I? Why is ORV use open on 63% of the forest in each alternative? This whole section can only be construed as a question. We expect only one answer in order to meet the statutory and regulatory requirements and that is a new array of alternatives and analysis.

Understand this is not the first time we have complained about this

(page 7)

We feel the array of alternatives represents an adequate range in intensity of road construction, especially with the addition of alternative J. The miles of road to be constructed/reconstructed have been reduced from 34.1 miles per year proposed in the Draft Forest Plan to 25.8 miles per year. We also have taken a look at the methodology for estimating and displaying road mileage, to better explain the proposal. Approximately 80 percent of the roads to be constructed are temporary roads, skid trails and landings. For the remaining 20 percent permanent roads, roughly 40 percent of the total given is new construction and 60 percent is reconstruction.

As described in Chapter II of the Draft EIS, the Non-Market Alternative (D) is designed to display the effects of emphasizing non-market, amenity outputs such as dispersed recreation, wildlife, and water.

Since water is one of the resources to be emphasized in this Alternative (D), the timber harvest level remained at the current level of 3.3 MMCF, approximately 13-14 MMBF, which is well below the existing allowable cut of 25 MMBF. Vegetative manipulation is one way of increasing water yield over natural or background levels. Timber harvest, in carefully located areas and in carefully shaped clearcuts, is the most readily available and efficient method of increasing water yield.

Investment in wildlife improvements is also included in this alternative at the rate of approximately \$100,000 (1982) per year; \$100,000 is considered a high emphasis level. This investment level would include "nice to do" projects in addition to "need to do" projects.

The recreation resource on the Ashley is considered an interdependent item which cannot be practically separated into developed and dispersed categories. Based upon this assumption, increased investment in developed recreation facilities would necessarily provide a corresponding increase in dependent dispersed recreation activities. Investment in heavy maintenance and new recreation construction is therefore included in this Alternative (D) as a part of the amenity emphasis.

Diversity in management prescriptions is provided for by the intensity of timber management, but obviously not to the extent desired here. However, with the addition of alternative J, which places a large area in a management situation that precludes timber harvest activities during the first decade, the diversity is increased. See Chapter II of the EIS for a complete description of the management prescriptions.

See the response under your earlier discussion of the array of alternatives.

problem Back on October 8, 1984 we raised the issue that the Ashley was the only forest not to provide an array of alternative booklet subject to public comment to assure the public saw the array and could help the Ashley determine if the array was sufficient The response was a glib one basically saying 'we know best " That is not the way to plan for OUR National Forests in this day

WILDERNESS

A number of points need to be addressed in this section. Although the Forest Service continues to state the wilderness issue has been resolved, it is important to understand the conflict of development versus non-development on the High Uintas still exists. This is clearly borne out by the public issues addressed in the draft plan and EIS. For the plan to attempt to downplay this issue will result in a complete non-acceptance of the decisions in the forest plan by many publics. To resolve, in part, this issue we would suggest an adoption of a maximum unroaded benchmark. This has been initiated and completed by other forests and Forest Service Regions, for example Region 6. This would display very clearly the kind of massive assault and impacts on the unroaded resource the Ashley National Forest Plan is contemplating and is only fair to resolve the publics' concern over maintaining the forest character as it is (page 11-27, Forest Plan) and in meeting a primary objective of forest planning--addressing public concerns and issues.

On page 11-15 the draft EIS states, "It is estimated that this area, in addition to areas that existed prior to the Act, will meet the anticipated demand for wilderness during the first planning period." At least three points need to be made. First, what is meant by "areas that existed prior to the Act?" There was no wilderness on the Ashley National Forest prior to the Utah Wilderness Act. Second, the HUPA is now part of the High Uintas Wilderness and can't be considered outside that context. Third, a pure novice can see that by the year 1995-2000, according to your own table 11-10, that at least 87,000 acres of additional wilderness will be needed to meet the demands your own document predicts. The EIS further states in chapter IV that significant impacts are now occurring due to high use of the resource. Thus it is pure nonsense to write and expect us to believe that a rapid demand, which is now taking place, can be met. Furthermore, the document doesn't give us a very positive feeling and actually fails in a planning context by stating "it is estimated". The purpose of planning is to build a plan to meet demands, not take wild guesses in the face of data that shows the demand can't be met. It simply appears the Ashley doesn't want to own up to the high value of the wilderness resource on the forest by simply stating any amount of wilderness harbored on the forest will meet demand for unroaded and wilderness recreation.

The lack of an array of alternatives in the plan can be clearly shown on page 1V-7. The maximum amount of land "estimated" (there is that lack of commitment again) to be available for wilderness evaluation at the end of

(page 9)
Wilderness

The statement on page 11-15 of the draft was about designated Wilderness other than the one on this Forest. Demands for Wilderness use will be evaluated during the 1995-2000 planning cycle, in conjunction with other Wilderness areas administered by adjacent National Forests and BLM. Other management alternatives are also available such as dispersion of use away from heavily used portions of the Wilderness--or starting a permit system--if, through Plan monitoring, it is determined such actions are necessary.

this planning horizon is 210,000 acres. The minimum amount is 150,000 acres. This is only a 30% range! This means the "non-market" alternative does a pretty effective job of eliminating roadless lands--far from what the non-market alternative is supposed to do. This clearly states all alternatives propose to develop nearly 70% of the unroaded resource base on the forest. The array of alternatives to meet planning requirements must show a broader range of preservation of unroaded lands.

This array doesn't really exist either simply because the Ashley has abdicated the public's responsibility for mineral management to the private interests associated with mineral companies by stating these few remaining wild unroaded areas may be lost to unforeseen mineral proposals. This is clearly noted on page IV-7 of the EIS. Rather than using the word "unforeseen" we suggest you utilize the word "unplanned" simply because this plan and forest refuse to state where and how and why mineral development will occur in the future. The Ashley has that responsibility and right by regulation, case law and statute. To ignore it is not going to be taken lightly by this organization.

Our suggestion, of course, is to remove these unroaded lands from the mineral base by simply putting them in a no lease or no surface occupancy category. Almost every forest to date has used this technique to meet the responsibility of surface management. This assures some segment of sensitive forest will not be developed from a mineral standpoint.

Specifically, we would like to know and see a map in the final plan as to where the unroaded areas will be at the end of this planning cycle and where they will be at the end of the first decade. We, frankly, are suspicious that the acreage used (150,000 acres-210,000 acres) may represent small chunks of unroaded islands rather than the continuous and contiguous blocks of land needed to qualify for wilderness. Already, we have seen this take place in your plan. We mapped the basic unroaded prescription in your plan and found many very small chunks of land given the unroaded prescription.

Furthermore, the plan gives no indication of how any alternative, especially B, will manage the wilderness. The EIS simply states use is "expected to increase beyond previously projected growth rates." The EIS goes forward by stating the resource will continue to deteriorate. There is absolutely no indication the proposed plan will deal with these problems. However, that is supposed to be the purpose of the plan and clearly renders the EIS faulty in that the issue isn't even dealt with.

As we have mentioned earlier, Area q has been expanded and designated for a recommendation. The High Uintas Wilderness, Sheep Creek Geologic Area, and Flaming Gorge National Recreation Area have been withdrawn from mineral entry except, in the case of the latter, where special conditions were prescribed by law. Beyond this, mineral development is authorized by laws administered by the Department of Interior and can occur on any public land. The Forest Service responsibility is to manage the surface resources through recommendation of standard and special stipulations, including the "No Surface Occupancy" stipulation. It is not within the purview of Forest planning to exclude mineral exploration and development through de facto withdrawal. This can only be done by statute or administratively through the BLM. Likewise, consultation and coordination with the BLM takes place regarding when, and where mineral development will occur on National Forest administered lands. A further write-up of the role of both BLM and the Forest Service is included in Chapter III of the EIS.

A map showing those lands that will be undeveloped through the first planning decade is included in the FEIS.

The management prescriptions for Wilderness were rewritten as part of the Standards and Guidelines section. The monitoring section also contains directions that can trigger an evaluation or change in management direction under all management alternatives.

On page III-34 it is noted except for two or three large unroaded regions the road system is in place. What are those two or three unroaded areas?

We are very concerned with the intent and meaning of the last paragraph on page IV-7 (EIS) which seems to imply it is in the hands of everybody but the Ashley National Forest to make the investment in managing the High Uintas Wilderness. It is the responsibility of this plan to manage this wilderness and the burden rests only and entirely on this forest. The choice to invest is in this plan and the subsequent regulations which guide this plan. If the plan fails to make the choice then the plan fails in every aspect.

We would like to know why Alt. D proposes to develop roadless lands? This certainly shouldn't be the intent of the non-market alternative.

Why is there no alternative that protects all roadless lands on the forest? The two alternatives which seem to preserve most roadless type lands are the two low budget alternatives. These alternatives don't recognize the value of unroaded areas or the public issues surrounding those unroaded areas--they simply make the decision based on budget.

In terms of management there appear to be no guidelines to determine restrictions on horse use, numbers of folks in parties, camping restrictions, fire restrictions, riparian protection, grazing administration or management. Why? Did the Ashley and Wasatch have any coordination? The Wasatch plan faithfully acknowledges and deals with these issues as the regulations and laws require. However, the Ashley plan doesn't even mention them. The only mention is within the description of Management Area 1 and this is so generic that it gives no guidance. It does mention the reliance on the High Uintas Wilderness Management Plan. What wilderness plan? There was a very outdated management plan--certainly it can't be relied upon to guide wilderness management now! The Wasatch, for example, has a party and horse size restriction on the three districts harboring wilderness lands. How will the Ashley plan compliment the Wasatch decisions? Or will it simply be a matter of the Ashley saying "no" to restrictions and the Wasatch being unable to manage its lands to a higher standard? Certainly there is more movement by wilderness users from the Ashley to the Wasatch than there is between the Wasatch districts due to the way the trail system has been constructed.

(page 11)

As we stated earlier, "non-market" outputs include water yield, so some timber harvest is necessary in Alternative D.

Although one alternative was generated by a low budget objective, it resulted in low development, minimum roading consequences. Therefore, it was unnecessary to duplicate the alternative from a non-development objective, since the consequences would be identical. Budget is just one of many constraints used in alternative formulation.

The standards and guidelines have been rewritten to include wilderness management and to closely coordinate with the Wasatch National Forest management direction on group size, horse numbers, and other matters. All references to any other Wilderness Management Plan have been deleted.

UNROADED/SEMI-PRIMITIVE NON-MOTORIZED

First, let us reiterate our question as to where the 150,000 acres to 210,000 acres of unroaded lands will be at the end of this first cycle? , The plan fails in not providing direction as to where it will be located and if it is in scattered chunks or large blocks of land which may qualify as wilderness. Simply put, which roadless areas will survive?

Second, the EIS states with adoption of Alt B the last of the major unroaded areas (presumably not inclusive of the proposed management area g) will be roaded, primarily for timber harvesting. Where are these last remaining unroaded areas that are essential for timber management? If, in fact, these areas are roaded as proposed how will there exist from 150,000 acres to 210,000 acres of unroaded lands that may still qualify for wilderness?

Third, the alternative array again breaks down with respect to this analysis. There exists very little alternative variation. Essentially, the market alternative and accelerated timber alternatives, including the preferred alternative, preserve only 60,000 acres more than the non-market alternative. We are not even sure with this contention because the plan fails to disclose the intent of each alternative with respect to which unroaded areas will be developed and over what period of time. Thus we would like that alternative breakdown. Essentially, each alternative would make substantial inroads on the roadless resource. This includes the non-market and low budget alternatives. Obviously we would like the justification of such impacts on the unroaded lands. Why do they seem to be so important that they are rather uniformly treated in the alternatives?

Why is there no roadless land benchmark? And why is there no alternative which proposes to maintain all roadless lands as unroaded? This can't be perceived as counter to the Utah Wilderness Act because these lands do harbor resources needing special attention such as non-motorized recreation, wildlife values and high visual quality. They also cost a great deal to access and thus create a steadily decreasing PNV and increasing PVC. The plan states clearly and without room for interpretation it is wise to leave the unroaded lands alone in order to meet the objective of maximizing PNV.

In particular we are concerned with the lack of protection of the "Bollies", including Lakeshore Basin. The EIS allows for standard mineral stipulations by not, from the outset, restricting leasing to no lease or at the minimum no surface occupancy. The EIS leaves the entire area open to ORV use. This, without a doubt, makes a mockery of the "non-motorized" recommendation. All of this with full knowledge that the "Bollies" were proposed as a wilderness study area in the early '70s as a result of the Vernal Pool Study. The Plan and Interim adopted

(page 12)

Unroaded/Semi-primitive Non-Motorized

The map showing undeveloped lands through the first planning cycle is included in the FEIS.

Alternative J and corresponding revisions throughout the plan and EIS address concerns about location of areas.

While there was no "Roadless Land Benchmark and no alternative which maintained all roadless land as unroaded" as you stated, Alternative F does assign most of the inventoried "roadless" lands to nondeveloped management areas. This assignment includes 273,426 acres to the High Uintas Wilderness, 180,159 acres to management area q, and 216,718 acres to the minimum level (custodial) prescription. These assignments amount to approximately 94% of the area inventoried as "roadless" in the reevaluation conducted during 1983.

Area q has been expanded to include most of the area referred to as "Bollies". This prescription includes a "no surface occupancy" recommendation.

The decision to allow continued ORV use in portions of the Bollies is based on several factors: the Utah Wilderness Act released this area for other types of uses; there has been, to-date, no evidence of extensive damage in the area; the area has historically been a favorite for ORV use, particularly by snowmobilers; the area is used very lightly throughout the rest of the year. Therefore, we have determined portions of the "Bollies" as suitable for ORV use.

While ORV use is allowed, it is governed by criteria in the Standards and Guidelines section of the Plan. The monitoring section of the Plan may trigger a further evaluation or change in management direction regarding continued ORV use in the Bollies as well as on the rest of the Forest.

as a wilderness proposal during the So Slope Land Use Plan and RARE II. Clearly, the management direction in this forest plan diverts radically from the previous direction and hides it from the public. During RARE II, the South Slope LUP and Vernal LUP these areas were closed to ORV use and did not allow for surface disturbing activities (i.e. mineral action--see Vernal LUP)

In order to meet the public concern long expressed for this area and be consistent with Forest Service intent and rationale, also long expressed, the area should be closed to all motorized access and mineral development through a no surface occupancy or no lease stipulation. Clearly, this designation will have no substantial impacts on forest management goals or economic impacts. It would be the only area on the forest, aside from the Wilderness, closed to snowmobile use. It would meet public concern about providing a true array of recreational uses. It would meet the concern of providing an array of forest uses. It would meet obvious resource and environmental issues. We see the present logic, which can best be described as we will close the area when a problem occurs, as faulty with respect to long term resource planning. Our goal in areas of high resource concern, sensitive environmental conditions and unique user patterns should be to protect those conditions and prevent the impacts prior to occurrence. When they do occur these conditions are lost. It was only through a monumental lack of vision this area did not end up in the Uintas wilderness.

And, of course, we are concerned with the lower Uinta River Canyon from the Sheep Bridge at the Wilderness boundary down to the trailhead. This also was proposed for wilderness in the So Slope LUP and RARE II and failed to get designated due to political concerns rather than resource concerns. Now the Forest Service isn't subject to such concerns, this area, the "Bollies" and the Fish Creek drainage, should be fully protected to provide an array of values and maintain the consistency of planning direction and resource values. With respect to the Uinta River, Fish Creek and Lakeshore Basin the management area should be changed from n to g with the further stipulations we have proposed. Within the Uinta River Canyon, the lower two miles discussed here is every bit as spectacular as the rest of the canyon. There are no proposed timber sales or any other proposals which would dictate any direction but semiprimitive non-motorized. Access is by trail only and it is the primary access point to the High Uintas Wilderness on the south slope.

Why is the "Bollies" open to ORV use? Why is management area n open to ORV use? Why is management area g open to mineral development? Why

(page 13)

The Uinta Canyon area you mention will remain unroaded and undeveloped through the first planning cycle.

Isn't the Uinta River Canyon (the roadless portion proposed for wilderness and discussed in this section) in area g--why is it within n? The same questions are pertinent to the Lakeshore Basin and the Fish Creek drainage

How many acres, aside from the wilderness, are closed to snowmobile use?

Clearly FORPLAN shows unroaded areas in management area n are better off as unroaded in order to preserve dispersed non-motorized recreation and prevent uneconomic harvesting while controlling sedimentation. Given this we would suggest all unroaded analysis and capability areas within management area n be altered to management area g since, in fact, that is what the low intensity prescription of n essentially states. In this case, with respect to unroaded areas, area n is copying the prescription in g. However, the Forest Service appears to be hiding this fact by applying area n to unroaded areas when it shouldn't.

(page 14)

Some of the land in area n was placed in area g particularly in the areas you pointed out in previous comments.

Although a specific acreage figure is not known, a significant area within critical winter game habitat has been closed to snowmobile use on the Forest outside of Wilderness. On the Vernal District, this includes portions of the faces of Mosby Mountain, Taylor Mountain and Diamond Mountain. These closures are shown on the District Travel Plan.

RESEARCH NATURAL AREAS

Why is Alternative B the only alternative to program RNAs? Again this reveals the problem of a lack of alternative arrays within the plan. For example, RNAs have the effect of providing, though way too small, a diversity on the land, thus meeting the diversity requirements. In this case including RNAs in each alternative assures diversity. By maintaining them in only one alternative the Forest Service sends a strong signal that diversity in alternative arrays and on the ground is limited. And frankly, it appears as classic "power politics"--either accept our alternative or do without any RNAs.

In our meeting with the forest planner on September 30 it was indicated to us RNAs would simply be "rolled over" to another alternative if another alternative was selected by the Forest Service. The plan gives no such indication implying the plan does not represent actual allocation and management intent. This becomes a serious problem as noted throughout this comment.

Our suggestion is to incorporate RNAs in each alternative. It simply seems senseless to do it any other way. But for the record we would like to know why RNAs were not included in each alternative?

(page 15)

Research Natural Areas

Our intent was to include the potential Research Natural Areas in all alternatives as "givens". The various alternatives were developed consecutively and not simultaneously. The last two developed were Alternatives B and I and did include the RNA listings, while the earlier alternatives were never rolled back to include the listing.

This oversight was corrected in the Final EIS and the updated listing of candidate and potential candidate Research Natural Areas (RNA) is included in the Forest Plan and the EIS.

MINERALS

We simply reject this entire section as being far too generic and simplistic. The Forest Service is not reactive to minerals management. Both Forest Service regulation, statute and case law plainly state the Forest Service has the responsibility to act on the public's behalf and the values of the surface administered by the Department of Agriculture. This is not a reactive position. The agency has the obligation, by law, to determine where the appropriate mineral development zones should be on the forest and how they should be administered, regulated, prohibited and managed. Any other interpretation, notably the interpretation in this plan, is illegal and flies in the face of your responsibility to public land management.

The plan states the Forest Service is not the "lead agency" with respect to determining "the technical, economic, budgeting and to some extent the environmental feasibility of minerals and energy production." Starting with Duesing v Udall, 350 F.2d 748 (D.C. Cir. 1965), and now with a host of cases, this archaic response to planning has been abandoned. The Forest Service has the obligation and responsibility to determine where mineral leasing should not take place, where it should be constrained by no surface occupancy strips, where it should be severely stipulated by season or type of access and where it should be allowed with standard strips. In all cases, contrary to the premise in this plan, the agency has the primary responsibility of maintaining the surface values when making leasing recommendations to the Department of Interior. Leasing is a discretionary activity. The same holds true from the perspective of surface disturbance with respect to hardrock mineral impacts. Until a claim goes to patent and actual surface ownership is exchanged, the Forest Service can prevent unwarranted or damaging surface impacts.

Though we have already discussed the lack of alternative arrays with respect to minerals management, let us again make this point. We presume the lack of mineral management alternatives stems from the incorrect version of Forest Service responsibility toward mineral management and allocation. If the incorrect assumption noted above is dropped, the array of management scenarios vastly increases to be in line with regulation, law and vast experience of almost every other forest plan.

The d EIS states "Variation in minerals and energy outputs and associated impacts on management are anticipated to be the same for all alternatives." Why? How? How can the non-market alternative produce the same management array as a market alternative? We are stunned and want a clear and concise answer. We want to know why there are no places on the forest where a no lease or no surface occupancy category would not be in the interest of the forest surface resources? Don't answer by throwing back at us the restrictions on the tiny RNAs, the legislated NRA and wilderness and the

(page 16)

Minerals

The Department of Interior has the basic authority for the management of all mineral resources. The Forest Service is authorized by statute to protect the surface resources associated with mineral exploration and development. This protection is provided by recommending standard and special stipulations through the leasing process. Where leases are issued and where drilling applications are received, constraints and mitigations are applied on a site-specific basis. In the case of locatable minerals, surface resource protection is prescribed through approved operating plans and notices of intent. Chapter III of the EIS contains additional write-up of the role of the Forest Service and BLM in mineral management.

To attempt wholesale classification of National Forest administered lands prescribing how, when, or where mineral exploration and development could occur would at best be hypothetical and conceptual, since we do not maintain a data base or inventory of mineral resources. We have determined, however, that a no surface occupancy recommendation will be made on all applications within area a due to the high elevation and sensitive ecosystem.

The assumption regarding variation in outputs and impacts is based on the number of lease applications processed, the activity associated with oil and gas development adjacent to the Forest, and the increased number of seismic exploration permits issued by the Forest.

Table IV-6 has been completely revised to clearly define which land areas are included in each restrictive category. The Plan now displays the variation by alternatives and the footnotes describe what is included in each of the restrictive categories. Chapter IV also contains a matrix of special stipulations and the areas where they are applied. It is not assumed the number of cases will vary by alternative by where they occur possibly will.

77 small withdrawals (many of them dedicated to development already) Why isn't management area g restricted to a no surface occupancy or no lease category? Why shouldn't it be restricted? The entire direction of this formerly proposed wilderness (proposed by the Forest Service dating back to 1979) is to protect the natural values and provide for diversity from a natural and recreational perspective However, it is left open to mineral action as though it were a priority mineral development area

The same holds true within each alternative for riparian areas, critical wildlife habitat, winter range for wildlife and important recreational lands on the forest Why? Without a doubt the plan dedicates almost two-thirds of the forest to major mineral development potential Why? How does this meet public issues, diversity and obvious resource concerns?

The plan assumes mineral development and exploration will increase yet there is no acknowledgement of the obvious turn down in the oil industry How the plan assumes oil exploration will continue in an upward trend when the EIS itself states the forest is considered to be "non-mineral in character" is unexplainable Please provide us the planning records and logic in justifying such an assumption

As already noted the chart on page IV-27 seems to lack any credibility First, in a meeting with Ashley Forest planners on September 30 we queried them on this chart We asked for the meaning of each operating constraint It was not known The planners simply did not know what was meant or how to define the four listed constraints We then asked for the meaning of the four geologic potentials They were also not known but were assumed to have come from the oil industry! We don't want to sound too surprised here as that now seems to be common practice in this "professional agency"--simply use data provided by a self interested industry with no interest in professional land management

Second, we then asked for maps showing the potentials and the allocation of the constraints over these potentials We were told by the planners that a map was not available or if it was it wasn't known exactly where it was or precisely in what form And unfortunately the minerals officer on the forest wasn't available Please provide the map and background information as to how the map and constraints came about

The EIS is only partially correct in stating demand of minerals will control Forest Service outputs It will control them where the Forest Service decides they would be provided At least that is what the plan and EIS should state and that is largely what is being stated by almost every plan except the Ashley The Ashley has the obligation to control mineral development to meet

(page 17)

Area q will be recommended for no surface occupancy. As previously mentioned, control over surface disturbance and other resource concerns is handled through recommendation of appropriate stipulations, including the "No Surface Occupancy" stipulation.

Guidelines on riparian areas and critical wildlife habitat are contained in the Standards and Guidelines section of the Plan.

The assumption regarding variation in outputs and impacts is based on the number of lease applications processed, the activity associated with oil and gas development adjacent to the Forest, and the increased number of seismic exploration permits issued by the Forest.

This section and corresponding charts have been revised to display the variation you have requested.

Maps showing potential for mineral development, locations, or inventories are not within the province of the Forest Service. Department of Interior and State Geologic Survey do have these maps on a broad scale. Descriptive criteria are applied, however, in the Standards and Guidelines section of the Plan.

Mineral development can and will be controlled through the application of Standard and Special Stipulations to protect surface resources.

resource concerns, control surface disturbance, provide an array of uses on the forest, maintain forest diversity and meet the concerns and issues of the the public. The EIS simply fails as we have noted and we expect to hear the logic of this decision and see the change which is required.

But the plan and EIS also fail in the context of disclosing environmental impacts to the surface. This is largely justified by saying we don't really know how or when or where the impacts will occur. This simply fails the test of an EIS and the forest planning regulations.

For example, there is no discussion of cumulative effects on wildlife over the period of exploration and development (if it occurs) and in the context of timber harvesting and associated road construction.

There are no guidelines to provide direction for when surface disturbance may occur on specific tracts. Or how it will occur. There is no discussion as to how recreation will be impacted by mineral development. There is no discussion as to how visuals will be impacted by mineral development. There is no indication of what "reasonable conditions for protection" means. There is no discussion of impact on hunters and their access and hunt quality. There is no indication of impacts on high elevation soils or vegetative systems if mineral development is proposed for areas above 10,000 feet. There is no discussion of impacts on winter range areas or critical wildlife areas or how those areas would be administered.

To each of those points we ask why and would like to see an answer consistent with NEPA and Forest Service regulations. And obviously we would like to know why there is no array within the alternatives?

Consistent with these points we would make a number of suggestions. First, the Bollies, management area g, should be classified as no lease. The reasons are obvious. It is almost exclusively above 10,000 feet. It is visually one of the most sensitive areas on the forest. Physically it is one of the most sensitive areas on the forest due to the short seasons and limited vegetation and soil development. It is one of the unique recreational areas on the forest and heavily used by hikers, backpackers and muscle powered enthusiasts. It is very important summer wildlife habitat for a number of rather unique species, including recent sightings of bighorn sheep. For years it was an integral part of the Forest Service wilderness recommendation dating back to the South Slope Land Use Plan and RARE II. By a supreme lack of vision the area, one of the 'cleanest' in the Uintas, was not designated. However, during those years the area was protected from mineral development and the logic still extends in that and only that direction. The decision to go this direction is not dissimilar to the wisdom of the Wasatch plan which made no lease and

(page 18)

Most of the areas mentioned are within area g and will receive a "no surface occupancy" recommendation. Additional protection is afforded under the Standards and Guidelines section of the Plan. Chapter IV contains a discussion under minerals on effects on other resources and irreversible and irretrievable commitments to the resources.

The Bollies area is also protected under a nonroaded, undeveloped prescription (prescription g).

Criteria to protect surface disturbance, including monitoring requirements, are in the Standards and Guidelines section of the Plan.

no surface recommendations on a number of sensitive areas, some proposed as wilderness and some that weren't

The same holds true for the Uinta River Canyon from the trailhead to the Sheep Bridge. This area was proposed as wilderness and also failed to get designated based on a lack of political willpower and not quality land as you well know. It had been proposed as wilderness since RARE II and the SSLUP. The values here are as sensitive as the Bollies because this area is confined to a deep unstable canyon and a critical riparian area which also harbors important wildlife and primitive recreational values. It is the main South Slope access into the Uintas Wilderness as well.

Other areas of importance are the proposed RARE II wilderness east of Moon Lake on the proposed Fish Creek National Recreation Trail, the Rock Lake area (really a part of the Bollies), all riparian areas (the noted decline won't be helped if mineral development is even considered), and all wildlife areas of special importance such as winter range, critical summer range, MIS habitat, calving areas and the like. In each of these cases, if mineral development is allowed the "surface" values are compromised over what could be a long period of time.

We anticipate a detailed answer to these questions and concerns.

(page 19)

Protection of these areas is afforded under the current Standards and Guidelines.

TIMBER/ROADS

This portion of the plan in essence drives the entire forest plan. And there is little we see in the timber allocation/management in the forest plan that we agree with. Our concerns can best be expressed in this manner:

Why almost double the harvest on the Ashley National Forest for the next three decades and then drop harvests back to 24% larger than the current program for the next two decades?

The plan does admit silvicultural actions will not control the pine beetle and offers no indication of how much less of an impact the beetle will have under Alt. B than any other alternative. The plan notes there is no demand for this massive increase in timber harvesting. Furthermore, the pine beetle Accelerated Harvest Program (5/13/85) revealed clearly the potential for bringing substantive new timber demand into the Uintah Basin is anything but likely. The plan clearly states this increased sales program is a big money loser and with increased harvesting we will see a major decline in PNV and increase in PVC. The plan notes to maintain existing harvests or increase them it will require logging on slopes between 40%-70% utilizing cable systems. The plan fails to delineate high and moderate risk beetle areas. The plan concedes most of the sale program is a salvage or sanitation program as the beetle has already run through the forest and the cycle is very clearly on the downside (the number of trees impacted in 1982 was 3.5 million and in 1983 it was 1.4 million). The plan concedes a much larger budget is needed to meet the objectives of Alt. B and the increased costs of the timber program--much larger is an understatement as the first decade annual budget is 100% larger under Alt. B than the current budget as displayed by Alt. F. Of course, the forest's budget today is more reflective of a declining budget. The Alt. B recommendations impact wildlife in a significant manner, notes the plan. The current visual presentation of the forest is dramatically altered. The current recreation opportunity spectrum of the forest is dramatically changed. The plan simply doesn't meet public issues.

In summary, the timber program in the preferred alternative seems to do little or nothing to mitigate the existing beetle infestation and will do little or nothing for future beetle infestations. There is no demand or need for any increases in timber harvesting. With each new timber sale the costs increase far more dramatically than the benefits. The plan

(page 20)

The modified preferred alternative has reduced the annual timber sale volume from 29.0 MMBF to 21.0 MMBF. This reduction occurred due to the elimination of scheduled harvesting on slopes exceeding 40%, deleting the harvesting of aspen as sawlogs, deferring some potential harvest areas because of their unroaded characteristics, and deleting some sales that proved not to be the best resource management option at this time. The target of 21.0 MMBF is below the allowable sale quantity (ASQ) of 25.86 MMBF identified in the approved 1978 Timber Management Plan, which will remain in effect until the Ashley Forest Plan is approved.

The market demand in 1985 exceeded the 25.0 MMBF (ASQ) that was offered and sold. We anticipate that this demand will continue at a high level for an extended period of time.

Except in isolated, live, uninfested stands, future harvesting in the lodgepole and ponderosa pine ecosystems will have little or no effect on the mountain pine beetle. The beetle epidemic has peaked and is on the decline, mainly due to the lack of live trees sufficient to support large populations.

The objectives of harvesting the dead material are: 1) To allow people to use some of the material prior to its being burned in a wildfire. The natural way a lodgepole forest regenerates is through large wildfires. Wildfire can cause unacceptable soil losses, flooding, stream and lake pollution, wildlife losses and reduced habitat diversity, air pollution, and reduced visual qualities and recreational opportunities. 2) To accomplish site preparation by providing optimum soil conditions for seeds to grow in, thus obtaining a new stand that will provide wood for future generations. 3) To remove surrounding dead material to help protect new stands from destruction by wildfire. Standing dead trees will fall in 20 - 25 years. If the stand does not burn with the increased fuel loading, any future reforestation or timber stand improvement work will be significantly hampered by the downfall of logs. 4) To remove, with the dead harvest, the live, overtopping, mistletoe-infected trees that spread mistletoe to the developing new stands. 5) To develop stand age diversity, thereby improving wildlife habitat. Typically, lodgepole stands are even aged monocultures. By staggering the cuts over time, we can achieve some variation in stand ages. Wildlife habitat is best when there is a 40/60 cover-forage ratio in lodgepole. Currently, due to the extensive lodgepole stands, the Ashley is excessive in the cover category, and low in the forage. Small clearcuts improve the amount of forage, while providing optimum conditions for the shade intolerant lodgepole to grow. 6) To increase water yields. 7) And to improve the recreational experience for Forest visitors.

significantly impacts resources on the forest the public says are important and shouldn't be altered. The proposal is "pie in the sky" planning, something the Chief of the Forest Service warned Supervisors and planners about and apparently has not been well taken by this plan. The timber allocation serves no functional purpose except to harvest timber that is "worthless" and is not needed.

Alternatives

We have already discussed this in detail in the alternatives section of this comment. Again, however, let us emphasize the serious nature of the failure in meeting regulations revolving around legitimate alternative arrays. For example, there should be an uneven aged management alternative in the plan. This alternative should not simply be applied to the FGNRA or specific areas on the forest. Rather it should be applied forest-wide. This would fundamentally change the assumptions in the plan and show and provide an alternative management scenario to timber. It isn't good enough to simply say we can't do uneven aged management because it isn't the right thing for our trees. This is the common assumption in the plan and it actually assumes even aged management co-evolved with lodgepole pine and ponderosa pine. Why wasn't an uneven aged management alternative included in the plan? It wasn't even discussed in the section on alternatives discussed but not selected. Why?

There are no lands considered physically unsuitable for any alternative. Why? That is not consistent with regulation and the stratification and stage II analysis. Nor is it consistent with the thrust of different alternatives. One would assume with a non-market alternative there would be more land physically unsuitable to protect amenity values than the maximum timber alternative. This represents a serious problem with the entire plan.

Every alternative appears to require cable logging. Why? That is also questionable from a perspective of alternative thrusts and good forestry.

Our recommendation is obvious. Going back to our earlier discussion on alternative arrays we suggest alternatives of uneven aged management, wildlife emphasis, harvesting only slopes of 40% or less, roaded area logging only, prescribed burning for pine beetle control along with some of the other alternatives you have selected.

Three alternatives appear to be departure alternatives--B,H,I. Why? Each alternative has high harvests for two to three decades and then major fall downs. This is a departure. This is a bit too much. Dropping B and H would

(page 21)

Even-age is the natural growth cycle of lodgepole stands. During natural regeneration, the lodgepole stands normally burn in large wildfires at the same time. Clearcuts replace the role of fire and achieve the same results. Partial cutting is a technique used best in other tree species requiring shade instead of intense sunlight for regeneration. Numerous lodgepole studies and consistent successful regeneration tests throughout the country have proven even-age, clearcut methods as the solution to management of decadent, beetle infested lodgepole stands.

Even-aged or uneven-aged treatments are not alternatives; they are a means to accomplish an alternative. The alternative is a management strategy for the Ashley, which includes the harvest of so many board feet of timber.

"Physically unsuitable" lands are the same as those defined in the Glossary under Timber Classification item 4, categories (2), (3), and (4).

Cable logging has not been scheduled during this planning period. However, proper harvesting on slopes in excess of 40% will not necessarily produce higher erosion rates. With a reduction of temporary roads and skid trails, erosion rates can be well below the amounts on flatter harvested lands. Cable logging could also be used on some of the more sensitive soil areas and reduce the amount of impacts.

Prescribed fire has been included. This year the Ashley is beginning a program of prescribed fire to reduce slash created by sales and for treatment of standing dead lodgepole pine to improve wildlife habitat and reduce the immense areas of unbroken fire fuels.

The alternatives that show increased harvest are designed to use a larger percentage of the dead lodgepole pine, for the reasons explained earlier.

allow for addition of alternatives we have suggested above in order to meet your statutory requirements

PINE BEETLE/OLD GROWTH/DIVERSITY

Both the Accelerated Harvest Program Document and the draft EIS plainly note silvicultural treatments will not substantially impact the bark beetle populations. Both documents (the Accelerated Harvest Program directed the timber alternative in the plan--this was confirmed by a discussion with the forest planner on September 30 in Vernal) pointed out the beetle epidemic is on the way down. Both documents noted the beetle has cycled through the forest for the last forty years "removing most of the larger diameter trees in infested stands." Over this period of time a substantial volume of timber has also been harvested. The ATH Program and *information from Ashley planners show 70%-80% of the susceptible stands are dead*. We certainly question the need for an accelerated harvest if this condition exists. Why? We also wonder how the beetle has maintained its population density with such activity impacting the larger diameter trees?

The answer is obvious--there is limited diversity on the pine type due to a myopic fire prevention policy and timber program which has highlighted even aged homogenous stands. Don't try to fool the public any longer. By regulating the lodgepole pine type the way you are proposing, the Forest Service assures a constant beetle population and a host species at the perfect age--100 to 120 years and at the perfect diameter -- 7" to 10". The entire point of regulating the Ashley National Forest is to bring it into an even aged stand, not create uneven aged and multiple species/storied stands. The plan simply fails to explain truthfully the intent of even aged regulation and attempts to justify the entire program on the need for beetle control. This, despite the fact, in both the ATH and draft EIS the Forest Service states in no uncertain terms the proposal will fail to have a substantial impact on beetle activity on the forest.

The plan also fails to clarify whether the accelerated harvest is a post-beetle or pre-beetle strategy. Is the accelerated harvest essentially removing dead trees or infested trees? Or is it to harvest green uninfested trees? The plan fails to document the importance of harvesting to control the beetle and ignores other potential methods of control such as a prescribed fire or intensive biological control. As important, the plan simply fails to document the need for any action by failing to look at the losses or benefits of a no action proposal. There is no analysis of high or low risk areas or a determination as to whether the risk is high enough to continue any of the program. No alternative, including the preferred,

(Page 22)

The beetle situation was described earlier. The Ashley Plan is directing that a comprehensive fuels inventory be completed for the Forest. This data will be used to develop treatment strategies, which will include options for the use of prescribed fire. The strategies chosen will be based upon their cost effectiveness and their minimal adverse effects upon other resources.

documents the range of board feet that would be saved from the beetle due to a particular silvicultural action across the entire forest. Is B more successful than D? Or F? How much more successful? From an economic standpoint the plan clearly shows it is less successful as the PNV drops drastically with increased harvesting. This is because trees on the forest are 'worthless'. Why harvest trees that are very expensive to log, that have no value and that will have no impact on the beetle (the reason for logging) infestation?

The plan fails to disclose or determine the locations of high risk areas. In this part of the world the beetle is not much of a factor above 9,700 feet. Much of the proposed harvesting within unroaded areas is at or above this level. We would like to see a map and know precisely where the high, moderate and low risk areas are on the forest.

The Forest Service, frankly, looks like a bit of a clown on this issue. For example, the Wasatch chose what they called an Integrated Pest Management Program and it is precisely reversed from the beetle control strategy utilized by the Ashley. The Ashley tends to argue *we have more dead trees on our forest*. This tells us the Ashley strategy is a post-beetle strategy and will perpetuate the beetle at high numbers only to waste more money in the future. The obvious irony is the beetle and the trees don't see the artificial boundary separating the Ashley and Wasatch Forests on the north and south slopes of the Uintas. In land management on common ground the boundaries should be unimportant and consistent management should be the goal. We hate to spoil 'the party' but beetles do cross boundaries and unless there is some sense and consistency to management these strategies will fail.

The Ashley preferred alternative resorts to a primitive argument on this issue by stating there will be no old growth or diversity on the forest if *we allow the beetle to run its course as the critter will kill all of the old trees*. Thus the Forest Service says *let us kill and remove all of the old trees anyway by logging and at about the same rate of the beetle*. Somehow the conclusion is wildlife will appreciate all of the old growth and 'diversity' being removed by loggers and not beetles. The point is this argument used in the plan frequently is pure nonsense. Both actions will result in loss of timber. One action will achieve a long term diversity with minimum surface disturbance or roads and at a minimum cost to the environment and the taxpayer. The other action will assure an incredible road density, which will have to be managed, assure a lack of diversity by regulating the forest to an even aged pine type built for 100-120 year old stands and constant hosts for the beetle, and assure wildlife impacts and an expense that is unjustifiable.

(Page 23)

The 9700 feet is normally the highest level for most of the beetle's geographical range. However, on the Ashley, the beetle is aggressive throughout the entire lodgepole pine ecosystem, which in some places exceeds 11,000 feet. Within the lodgepole pine, there are some areas that are mixed with other species such as aspen, or that consist of small diameter lodgepole pine that are classified as low or moderate risks due to the fact that the beetle generally attacks thick barked, mature or overmature lodgepole.

At the current rate of harvesting in the modified preferred alternative, approximately 3,178 acres will be regenerated each year. This would cause those same acres to reach rotation age at the same time. These acres are scattered throughout the forest so it is not likely that they will contribute to a future beetle epidemic. They will also be intermingled with other stands of varying ages. This should benefit many other resources, such as wildlife, and reduce the potential for major outbreaks of all types of destructive agents that prey on overmature, even-age forests.

And it won't work. Alt D in the ATH Program is essentially the preferred alternative (B) in the Ashley Plan (this was confirmed also by the planner on Sep 30) and it states this alternative would treat about 19% of the susceptible acreage over this decade. Alt D in the ATH Program and Alt B in the Ashley Plan note about 44,000 acres to 47,000 acres would come under treatment in this first decade. The preferred alternative in the EIS shows 18.7% of the timber is in seed-sap or pole stands in the first decade. The same percentage holds true for Alt D, the non-market alternative, in the Ashley Plan. At the end of the first decade the preferred alternative shows 81% of the timber stands are in old growth and sawtimber. The figure is 82%(!) for Alt D in the forest plan. This shows two things. First, the difference in alternatives, as we have complained, is non-existent--they show too much similarity in thrust. Second, Alt B is not going to be successful. It is a pipe dream which will change the face of the forest due to roads and loss of the backcountry character of the Ashley, create substantial impacts at incredible costs while apparently accomplishing the same thing as a less frenetic alternative. Why select Alt B over D or the other reduced cost alternatives?

The plan looks at diversity only from the perspective of a timber management plan. That is not the intent of the NFMA or its guiding regulations. To call for regulation of the forest and then attempt to tell the public the forest is being diversified is deceptive. And to tell the public if the beetle infestation continues then the forest will not be diverse *so let us go ahead and cut down those same trees with the added expense and road construction and loss of forest character* is nonsense. For example, on page IV-21 the EIS states alternatives with lower harvests will reduce vegetative diversity. By how much? What kind of reduction in diversity? How will it be reduced? How much less diversity under Alt D, A, F and G than B?

There is no map of timber suitability. Why? Where will the old growth stands be at the end of the first decade? Why is there no map of old growth stands?

When looking at diversity your requirement is to look at the entire forest--that is the purpose of forest planning. The Ashley is not a blanket of lodgepole pine. Rather it is a mosaic of vegetation and land types. Even when looking at the pine type it is exceedingly diverse with ground cover changing and co-dominant species changing in response to microclimatic changes, elevation, soil types, precipitation and aspect. When looking at a small specific timber sale you may argue diversity is minimal. However, that is looking at diversity only from the sawyer's perspective, not the perspective of a professional land manager or requirements in NFMA.

(Page 24)

Those areas identified for timber harvest activities during the first decade are located on the large map included in the FEIS and Plan. In addition to this general map, the maps displaying Management Areas (contained in Chapter IV of the Forest Plan) can be used with the administrative unit matrix to determine those areas identified as suited and appropriate for timber production. An old growth inventory and plan are scheduled in the plan to be completed by 1991.

Diversity is looked at on a Forest-wide basis as well as on a local basis through an analysis of cumulative effects. Local diversity is important for many resources, especially wildlife.

Trying to force new species into traditionally even-aged lodgepole areas is generally unsuccessful. Best regeneration is achieved by copying nature (using clearcuts or prescribed fire) and allowing natural succession to follow. This will result in another lodgepole forest; however, by staggering the cuts over time, we can achieve some variation in stand ages. Although each stand on local sites will be even-aged, the lodgepole forest as a whole can have a patchwork of stands with varying ages. Many of the lodgepole areas at lower elevations have enough aspen to be put back in the successional period to aspen stands. Many clearcuts are regenerating aspen in otherwise predominately lodgepole areas.

Why must the Ashley, to "provide total timber harvest volume at current or higher levels," move from "flat ground" harvesting using tractors to cable logging systems? This is a massive change in direction for this forest and it is tucked away on page 11-27 of the Forest Plan and not stated in the timber section. It is not even discussed in the EIS. What would the harvest be if flat ground harvesting was required as it is now and has been for the last 100 years? Why is there such an obvious difference and changed needed? This timber (40% to 70% slopes) was placed in the marginal component and deferred from harvesting in the 1978 Timber Plan because adequate technology was not available and the potential adverse impacts were too high. What has changed on the forest to ignore this direction made specifically in the the '78 plan? What analysis has been done in this plan to show the impacts may not be too high? It appears the forest has been routinely overcut and the most productive sites and accessible areas have been utilized without concern for the legal mandate you have to provide a sustained yield of a multiplicity of resources

The present capacity of sawmills is 18mmbf. The average harvest has been less than this (around 14 mmbf) Proposed harvests will reach 29 mmbf and according to the plan much of this will have to be cable logged. How will this be accomplished and what will happen if it is not achieved? What is the likelihood of such a massive increase in cable logging? This is ignored in the plan.

ECONOMICS/DEMAND/YIELD TABLES

Obviously this section pushes the entire plan. It is refreshing the plan is so open about severely below-cost sales and increasing timber harvests equalling substantially decreased PNV. It is also refreshing the plan and EIS are so open about not having the demand available for the increased harvesting.

But it is remarkably distressing the plan ignores the analysis in FORPLAN and takes a direction the analysis clearly says shouldn't be taken. Furthermore, the plan ignores the recent Macleery Decision, utilizes stumpage rates far too high, assumes timber prices will go up and uses yield tables that are beyond optimistic.

Appendix B notes stumpage for lodgepole pine is \$33.00/mbf. However, the information provided us by Ashley planners on September 30, 1985, while we were in Vernal, showed bid prices ranging from \$7-\$8/mbf for lodgepole (larger Supervisor sales) and \$12-\$15 for smaller sales (District level). These were averages for the last five years.

(Page 25)

The technology needed to harvest timber on slopes over 40% without excessive environmental damage has existed for many years. The use of cable logging equipment can reduce soil disturbance and can reduce the miles and cost of road construction. However, we believe that General Statement 4 addresses the heart of your comment.

Indications are this downward trend will continue

With this trend and low prices the assumption there may exist a demand for increasing any decades harvest from 40%-55% simply fails a common sense test and assures an expensive and quick revision of this plan. That is particularly true, given a large portion of future harvesting of this low value species is going to have to come from cable logging. The plan does note the annual harvest for the last couple of decades has averaged about 14mmbf. This is less than the mill capacity indicating the potential for going to 29 mmbf as the annual sales program is even more unlikely.

We also received yield tables which evoke suspicion. The yields for existing stands of lodgepole pine, site index 60 and 15 decades old show a harvest of 1.8 mcf/acre. Regeneration yield tables show the harvest occurring at 12 decades and 3.34 mcf/acre for lodgepole, site index 60 and with a maximum harvest prescription. This is a threefold increase and seems awful high. Under prescriptions less than maximum harvest one sees a threefold growth rate increase also. We would like to see the background data, assumptions and any evidence this kind of growth can be coaxed out of such a poor site quality.

We are quite surprised to learn no site index map exists on the forest. We are equally surprised only elevation seemed to be the basis for determining site index. Were any other factors considered? Why were 10,000 feet elevation and 8,000 feet elevation chosen as the side board for site 60? This just creates further suspicion the timber management scheme on this forest and in this plan is weak. Too say the least and far more work needs to be done to justify actions in this plan. It looks to me as though the reliance on regeneration yields which are far too high have already had their mark as logging on the forest must now leave the arena of tractor and skidder to cable systems. This is called overcut and is illegal on the public land administered by the Forest Service.

From a harvesting perspective where are the most economic lands located on the forest? We are referring to a stage II analysis (36 CFR 214) which would determine after stratification of suitability where harvesting is most economically efficient? Was a bare land analysis done to determine economically suitable harvest areas? What lands were found unsuitable simply based on economics?

Unfortunately it is as though the Ashley Plan was fine tuned to be precisely what the Macleery Decision was refuting. There is no need to increase harvests. The proposal to harvest is not cost-effective. The plan denegrates non-timber multiple uses. Other effective methods of meeting

(Page 26)

The volumes currently being harvested from these sites only include the net volumes. The present stocking on these areas include a significant amount of dead or cull material, as it relates to saw logs. A managed stand has the capability of more than doubling the yields. The projected increases are based upon a managed stand productivity.

Data was not available for site index mapping so a generalized breakdown of site productivity was based upon inventories made for past harvesting activities. These inventories showed that generally the site index 60 is located between the 8,000 and 10,000 feet elevation, and that the site index 50 is below 8,000 feet and above 10,000 feet.

We believe that the proposed action, Alternative J, is much more responsive to the concerns expressed in the Macleery decision and in your comment. The Forest intends to use prescribed burning as one method of site preparation for natural regeneration. Additional methods will also be used after analysis of the specific project and these additional methods may include sales at less than full cost recovery.

objects are ignored, including prescribed burning. Significant amenity values will be lost and environmental costs are very high. The plan fails to describe how or where harvesting would occur in an economically efficient manner.

With respect to roads the EIS states road construction and reconstruction amounts to 561 miles for the first decade and 3,388 miles for the fifth decade. How much of this is actual construction? Where will the new roads be located? What roadless (unroaded to use your terminology) areas will be roaded? The plan further states every alternative except F and G will provide more roads for recreational activities due to timber road building. Why is this important? What demand is this meeting? What is the analysis and prognosis for such a demand? These roads, the plan states for Alt B, will remove large areas of semiprimitive non-motorized recreation. Later in the plan (IV-37 Forest Plan) the document states, "About the same number of miles of roads will be open for public use." What is it, more roads for recreation or not? Where will the closed roads be located since there is no indication in any section of this plan, including standards and guidelines, that roads will be closed under a generic standard? Again deception creeps in. On the one hand the plan says more roads for recreation. However, the plan then states there will be no more roads on the forest than present. This eliminates any benefits from the proposed road building (according to your analysis roads for timber harvesting only decrease the PNV and increase costs--there are no benefits from this road building except through allocation to recreation) and clearly restates the fact that there is no demand for new roads. The point is plenty of roads exist now and the plan fails to document the need for more recreational roads. What values would these roads access? What recreation resources would they access? What facilities would be built to enhance recreation? What resources would be displaced by the new roads? How much more use would occur on these new roads? Would other roads receive less use because of the new roads? If so, this is simply a displacement, not an increase in demand. We would like to see the information to justify allegations of increased recreation use of timber roads. And we would like to see how you intend to rectify the contradictory statements in this section of the plan on the need for more recreational roads via timber harvesting and the intent to close roads so the mileage remains approximately the same now as it will at the end of the planning decade.

The entire section fails to delineate actual environmental impacts from a massive harvesting proposal. There is no talk of impacts to wildlife other than elk and deer. There is no discussion of loss of hunt quality due to roads in unroaded areas. There is no discussion of cumulative impacts to wildlife or recreation users. There is no indication of alternative habitat for security, thermal cover, or calving areas which will exist after road building,

(Page 27)

As explained earlier, the amount of road construction has been reduced. Also, a substantial portion of new roads will be closed after initial activities are completed, although they will still be of benefit to recreationists on foot or horseback or for other forms of dispersed recreation use. Although roughly the same numbers of miles of roads will be open at any given time, more of the forest will be roaded (though not much more), providing more options for where roading activities may or may not be allowed, depending on other resource priorities. Increased options for roaded recreation experiences mean net recreational benefits are increased, even though the total of roads that will be open may not increase.

Chapter IV of the EIS evaluates the effect of all alternatives on management indicator species as well as other resources. The plan states that approximately the same amount of miles will be open for use but access will be more uniformly distributed across the Forest. Alternative J and some other alternatives will improve wildlife habitat in general. Standards and guidelines as well as the monitoring section in the plan provide specific actions for managing these species.

harvesting, increased ORV use and vehicle access and potential mineral development. There is no indication the plan looked at all of these activities at one time to determine the viability of aquatic habitat as represented by the macroinvertebrates. There is no discussion of thermal pollution of streams due to these activities. These are just examples of the problems with this plan. Many more exist.

(page 28)

See General Statement #11.

Our alternative for timbering is to bring the harvests back to slopes of less than 40% and within roaded areas only and then only within high beetle risk areas. Prescribed burning should be used on more inaccessible areas and on low productive and economic sites. In riparian areas there should be no harvesting activities. In areas of identified wildlife habitat needs, including important summer habitat, harvesting should be completed for the sake of wildlife and not timber volume production. In unroaded areas there should be no harvesting. Utilization of some prescribed fire should be considered as an alternative. Harvesting should not take place above 9,700 feet. We urge you to include this as an alternative in the final EIS. In fact, it should be the preferred alternative as it removes the objectionable portions of the forest plan and is more responsive to public issues and concerns. Local demand would be maintained, costs reduced, PNV enhanced, the character of the forest would be slightly modified and existing uses would largely be left alone. It represents a far more integrated approach to beetles. And it resolves the major public issues to the benefit of the forest without increasing the adversarial and confrontive problems of below-cost sales, inefficient timber harvesting and roadless area harvesting.

WILDLIFE

Like many other resources, the plan does not indicate what will happen to wildlife on the Ashley National Forest. We barely glimpse what may happen to some species from some of the management activities. What little information that is presented does not give a good picture for the public who is very concerned about the continuation of wild land for wildlife.

There is no analysis of the effects of mineral development on wildlife. The plan does not plan for mineral activity, instead it is "reactive" and "responsive" to mineral resources. There is no indication where or how stipulations will be applied, what areas may or may not be open to mineral leasing and location nor recommendations for withdrawals or no-lease areas to protect wildlife habitat. The Forest Service admits on page III-45 they do not know where development will occur. Planning must direct future activity.

The impacts to wildlife from other management activities are inadequately discussed. For example, we only hear brief mention of impacts to pronghorn and sage grouse from range manipulation. Elk are the only animal mentioned in the range discussion on "social interaction." We are told "mitigation" will assure acceptable range conditions in riparian areas. Will every stream be fenced permanently from cattle? Of course not, yet, the plan and EIS insist every alternative will produce the same results for riparian wildlife.

We are told (EIS page IV-21) elk security cover will be decreased from the present favorable mix. However, we are "reassured" all will be well because the limiting factor for big game on the Ashley is winter range. Strangely, Alt B shows an immediate decrease in the number of elk and deer (EIS, page II-22). There are no statements in the EIS or plan that winter range will be reduced. Is the summer range so destroyed by timber activity that it cannot even support the small numbers of elk the winter range presently supplies? If so, the plan does not indicate such a massive destruction of the Ashley National Forest.

Other than elk security cover, the plan does not analyze any impact to this species from timber harvesting. What about increased hunter access to harvest more animals? What about increased disturbance forcing elk to abandon roaded areas? Again, we see assumptions, but no commitment to close roads (EIS page IV-31).

There is no analysis of timber impacts on fisheries (EIS, page II-45 assumes no water degradation under all alternatives and "estimates" fish numbers will be about the same under all alternatives) and assumes all alternatives will be the same for fisheries. Clearly, increasing the timber harvests will adversely impact the fishery resource even with careful mitigation because the sediment charts in the LIS show increases under high harvest alternatives. There is no mention of impacts to other wildlife such as moose or predators from harvesting. All we are told about wildlife is that Table IV-3 (EIS page IV-11) guarantees adequate old growth for wildlife (see EIS, page IV-21). Ironically, Alternative B, which doubles the timber harvest, shows more old growth after 5 decades than does the non-market alternative. Not only is the analysis inadequate as to the impacts on wildlife from timber harvesting, the numbers don't make any sense.

(page 29)

Wildlife

Because of the low interest in past and expected mineral activity on the Forest, we do not expect this activity to have a great impact on wildlife. Each proposal will be analyzed on a site specific basis following NEPA procedures. Management Area G under Alternative J would be recommended for no surface occupancy.

A large amount of sagebrush manipulation is not planned. Where it does take place, the needs of sage grouse will be considered. Riparian standards and guidelines provide for the proper allocation of resources and management in these areas. Little mitigation is expected to be needed.

Security cover for elk would be reduced, resulting in a drop below the UDWR population goals, only in Alternative C, resulting in a reduction of about 200 animals. Deer habitat capability under all alternatives would remain two to three thousand above UDWR goals.

Chapter IV of the EIS states that increased access will have impact upon the elk habitat and hunting quality. Standards and guidelines in the plan provide for closing or managing roads to meet habitat needs.

The sediment production levels under all alternatives do not exceed water quality regulations. No significant impact on fisheries is anticipated.

Another problem with the EIS and plan is the old growth indicator species' (goshawk) treatment. We are told in the AMS that enough habitat for the goshawk exists in the High Uintas Primitive Area. Are we to assume no goshawks will result outside of the wilderness area? What is the present goshawk distribution in the wilderness? Is all of the available habitat used? This type of statement presents a serious problem -- the Forest Service appears to relegate old growth species to the 270,000 acres of the High Uintas Wilderness out of 1.3 million acres of Ashley National Forest. The public cannot help but assume the only area on the Ashley National Forest managed in a diverse and healthy way is the wilderness area. The rest of the forest is served to the saw.

The EIS and plan neglect many important species -- moose, bighorn sheep and predators. We do not know what will happen to moose populations from reading the plan. We do not know the present range of the bighorn on the Ashley nor chances for its reintroduction into the High Uintas Wilderness -- the place it belongs. The EIS and plan fail to discuss high interest predators such as black bear and cougar. There is no mention of river otters which have been reported along the Yellowstone River. It is the wildlife for which the Ashley is known. You would not know this fact from reading the EIS and plan.

Unfortunately the plan fails to address the public issues and concerns about wildlife. We see a reduction in two important game species -- elk and deer -- in the preferred alternative. This is contrary to public concerns and interests on the Ashley. The plan is not geared toward the public who own the forest -- the hiker, the hunter, the fisherman, the recreationist. Rather this plan is geared to the tiny minority, both in numbers and economic importance, of commodity special interests. The wildlife loving public is the loser as are the inhabitants of the Ashley National Forest.

Several things could be done for wildlife. Timber harvesting should be confined to already roaded areas. Any harvesting in roadless areas should be done specifically for wildlife purposes and not for so-called timber reasons. Of course roads should be closed after harvesting. The Ashley cannot have it both ways by claiming increased benefits to recreation due to increased road access (ORV recreation, see EIS S-7 and IV-4) and also assuming to close about 75% of the new roads.

Important wildlife habitat such as winter range, calving grounds and large tracts of land (for example the bollies) should be closed to harvesting and road access and carry a no lease or a no surface occupancy stipulation. Plans should be made to prohibit surface disturbing activities in sensitive watersheds to protect the fisheries from sedimentation. Guidelines must be established for the percent of harvesting allowed in any watershed to prevent the areas from being overloaded with sediment. This is also true for other surface disturbing activities. Old growth areas should be identified and mapped for wildlife cover and security. These areas must not be restricted to designated wilderness or areas managed for semi-primitive non-motorized recreation.

(page 30)

Table IV-3 shows a minimum of 123,000 acres of timber type with a non-harvest prescription outside the Wilderness area. This guarantees that a sufficient total acreage will remain after fifty years to still provide habitat for the goshawk. Old growth will also exist in areas with a harvest prescription that for one reason or another will not be harvested.

The plan selects and outlines management needs and monitoring for 12 management indicator species.

The plan now provides for elk and deer habitat beyond the population goals of the UDWR. Habitat needs of the other management indicator species are also provided.

We do not propose to restrict timber harvest to already roaded areas. Harvest in all areas will consider wildlife as well as other needs as outlined in the standards and guidelines of the plan and evaluated additionally through the NEPA process.

Management Area q is scheduled for recommendation of no surface occupancy.

State water quality standards will be met in all alternatives.

Specific project plans and NEPA documents will recognize and evaluate critical habitat needs for all species.

Reintroductions of extirpated species should be undertaken. Making room for the bighorn in the High Uintas by consolidating domestic sheep allotments should be done. Studies for reintroduction of the grizzly and wolf should be undertaken for the Uintas as well as an inventory of rare species which have been reported from time to time to still inhabit the Uintas (wolverine, otter and possibly the wolf). Even with all the roads on the Ashley, the forest contains in the Uintas the largest roadless area in Utah and the most intact large ecosystem. These wild values are the important resources on this forest.

Grazing should be excluded from all riparian areas as they are important fisheries and critical for all wildlife. Non-use allotments should be allocated to wildlife.

The goal for the Ashley National Forest should be a healthy and diverse ecosystem with respect to wildlife. The Uinta Mountains possess all the natural and wild traits of an intact, or nearly intact, ecosystem. Only the management vision and implementation is lacking.

(page 31)

A standard in the plan provides for inventorying vacant niches and evaluating these for reintroductions of wildlife.

Standards and guidelines for riparian areas and range allotment plans will guide grazing activities in this important sensitive habitat. Wildlife needs will be considered on all allotments following the standards and guidelines in the plan. The plan does not allocate non-use allotments to wildlife.

The Ashley National Forest intends to provide a healthy, diverse ecosystem for wildlife as part of the multiple mix of resource values and uses.

RECREATION

This important resource is slighted in the Ashley plan and EIS. We cannot understand why this is the case. The Ashley National Forest, with the backdrop of the High Uintas, is best suited to recreational use. This is supported by statements in the plan and EIS about the importance of recreation (see plan, page II-3 and EIS, page III-6). Also, the plan clearly states, for the most part, the "losing proposition" of commodity resources and the higher economic value of resources such as recreation.

For example, recreation funding is planned for only conservative projected demands and is the only output so constrained (see the EIS, page II-11). Page III-8 notes, "It does not appear that there will be an opportunity for construction of recreation facilities as current funding allows little more than minimum operation and maintenance." Page IV-3 (EIS) indicates recreation will be displaced in all alternatives and also states, "In popular areas, it may be necessary to intensify management of recreational uses to protect investments, such as tree plantings." It is indeed ironic that the perceived "valuable" investments are not recreation/wildlife oriented. Rather, they are timber/commodity oriented which show poor economic returns.

The analysis of recreation is incomplete and flawed. Page II-20 indicates RVDs for wilderness recreation would be the same for all alternatives reflecting an inadequate array and an unimaginative approach to wilderness management. Furthermore, the projected demand for wilderness will be exceeded between 1985 and 1990 (EIS, page III-11). Yet, the Forest Service later strongly maintains demands can be met! Page III-12 of the EIS clearly states conflicts will increase between types of trail users yet no indication is given about how to plan for or resolve these conflicts. This is abdication, not planning. Problems like this abound.

Non-motorized recreation, a very important part of the Ashley National Forest, is "low man" on the totem pole and there is no alternative array discussing open and closed areas for motorized vehicles (EIS, page S-6). Roads will replace trails (S-12) and the trails that are lucky enough to remain will be open to ORV use (S-7). The Ashley -- with fragile alpine areas like the East and West Forks of Whiterocks, Dry Fork, Weyman Park and Sheep Creek, already heavily used by non-motorized recreationists -- is well suited for primitive and SPNM recreation. The trails on this forest are not designed for motorized use (EIS, page III-12). There is no analysis in the plan and EIS of the impacts from motorized use on these trails designed for foot or horse travel. What will be the effect on sediment, wildlife and other recreationists? This is not discussed.

The real problem is the continual destruction of SPNM and even SPM terrain by other management activities (EIS, page IV-3). Demands for non-motorized or wilderness type recreation can't be met with the constant roading (3,000 + miles of construction/reconstruction in the next 5 decades) and leaving trails open to ORVs (of the 30,000 miles of trails in Region IV, 95% are open to ORVs). Already, the Ashley has a high density, 1.11 miles of road per square mile, of roaded terrain.

(page 32)

Recreation

All of the sections referred to in the EIS have been rewritten to address the impacts of motorized use. Area q has been expanded to include much of the fragile alpine areas you have identified and a management prescription was applied to maintain its undeveloped character. Section III-12 of the EIS also recognized impacts from motorized use of trails, and the Standards and Guidelines section of the Plan established criteria to prevent resource damage resulting from trail use.

Obviously the recreation portion of the Ashley National Forest plan and EIS are lacking in substance and detail. This important resource has been slighted both in budget requests and in the tradeoff analysis -- what little there is in the plan. This irresponsiveness to public issues and concerns fails to meet the needs of the Ashley National Forest, the public and federal statutes. This is an unfortunate commentary for a forest that contains the High Uintas Wilderness, the Flaming Gorge NRA, Sheep Creek, the Red Cloud Loop area and the high bollies.

RANGE

There are several inconsistencies and problems that plague the range analysis in the draft EIS and forest plan such as economic shortcomings and inconsistencies, impacts to other resources and the array of alternatives. In addition, several points are not clarified and many statements are inconsistent making it impossible to determine the direction the forest plan intends to take. This coupled with the primacy of timber, range and other commodity resources, even when the forest plan itself admits the importance of these other resources (page II-3, forest plan) in comparison to the commodity resources, shows a lack of response to public issues and concerns.

There are several inconsistencies in the analysis of the range resource. For example, pages III-30 and II-45 (EIS) indicate about 77,000 AUMs of forage on the Ashley National Forest. However, page III-28 (EIS) and II-9 (plan) indicate only 75,000 AUMs of forage. Why is there this discrepancy? The problem is further compounded by the actual use figure of 64,880 AUMs found on page III-30 (EIS). This leads to concerns about the accuracy of the Forest Service in analyzing the range resource and questions whether the Forest Service knows how much livestock use actually takes place on the Ashley.

Another problem concerns the prescriptions. In appendix B (page 29 EIS) the chart shows a prescription "j" listed as High Wilderness. This prescription does not allow grazing. However, there is no prescription "j" in the plan which skips from prescription "i" to "k". Is there a prescription "j" on the Ashley? If so, where does it apply?

Many problems exist with the analysis of the various alternatives in the LIS. The suitable acreage for livestock remains the same under every alternative. There is no change to account for other resources such as wildlife, watersheds, aesthetics or recreation. The tentative capacity listed on page III-30 of the EIS (73,194 AUMs) is exceeded in all alternatives, including the proposed alternative and the current direction, except for the non-market and low budget alternatives. There is no analysis of the biological effects of not balancing use with capacity. There is no alternative presented in detail in chapter II of the EIS which balances current capacity with grazing use. There are no completion dates for allotment management plans. Where in the EIS is the relationship discussed between permitted use, actual use, current capacity and potential capacity? Also the analysis is weak in assessing effects on other resources. What will be the effect on fisheries? Every alternative assumes the same fishery output. What are the impacts of grazing on wildlife other than the "social" interaction with elk? What about bighorn sheep, black bear, cougar or other species? Clearly the plan fails to meet the mandates of NEPA, NFMA and the March 29, 1985 memo to Regional Foresters regarding grazing.

The range of alternatives presented in the draft EIS and plan is inadequate. Only two alternatives, the low budget alternatives, would reduce the current use on the forest. Even the non-market alternative has use levels above actual use for livestock. Even Alternative F would only reduce livestock AUMs 1% below actual use. Why is there no alternative that reduces livestock use for wildlife, recreation or watershed purposes? 84% of the Ashley National Forest is within range allotments (EIS, page III-28 and AMS). However, the plan and EIS do not give any indication this will change under the various alternatives. Again, the suitable range remains the same under every alternative.

(page 34)

Range

Chapter III states that a five year average of 77,000 AUM's will be permitted to be grazed. Chapter II shows a wide range of forage available for livestock depending on the alternative. This amount of forage varies the amounts of AUM's from 52,000 AUM's to 95,000 AUM's. Both the EIS and the Plan state that about 75,000 AUM's of grazing is provided. The last five year actual use was 64,880 AUM's. These amounts are intended to be approximate estimates of possible and actual uses that reasonably describe the situation.

There is a prescription i and also prescriptions c, m, o, and d in the DEIS which were not assigned to any management areas in the computer model. Economics as well as other conditions prevented them from being allocated. Range suitability does stay the same in all alternatives.

Capacity is based on an analysis of an area's ability to support grazing. Areas suitable for grazing are coordinated with the other resource uses or values through additional analysis which may include closing suitable range for watershed, wildlife or other values or uses. The tentative capacity of 73,194 AUM's is based on range analysis completed 15-25 years ago on most of the Forest. This capacity is based on season-long grazing and a key area/key species concept. For actual use, grazing impact studies show that this tentative capacity is conservative for intensive management systems. Also forage conditions have improved since much of the analysis was completed. The 73,194 AUM's is used because it is our only existing data base and reanalysis is not expected in the near future. This 15-25 year old capacity also does not recognize any transitory range. Significant transitory range has been developed through the years by fires and timber harvest. Additional capacity will also be made available in future years from these activities.

Table III-18 in the EIS displays permitted use and actual use. Table II-4 shows the capacities presently available under the various alternatives. We do not have a good estimate of capacity available on transitory range but the standards and guidelines and scheduling sections provide for obtaining this information.

A summary of the impacts of livestock grazing other resources is in Chapter IV of the EIS. We feel that adequate analysis has been completed considering the existing issues and concerns about the present level of grazing on the Forest.

Estimates under all alternatives show forage available for allocation to livestock. Because of the economic conditions facing the livestock industry, we do not know how much of the available capacities under any alternative will actually be grazed. In the high capacity alternative, we do not anticipate that the available capacities would be utilized during the planning period.

There are several problems with the assumptions made in the plan and EIS. The goal is to provide 82,000 AUMs of forage for livestock (plan, page IV-7) yet the capacity is only about 73,000 AUMs and the actual use is less. What demand is there for increased livestock forage? Why can't livestock allocations reflect actual conditions?

The plan is also unclear in its assessment of range condition. Page III-30 (EIS) notes 34% in good condition, 42.5% in fair and 23.5% in poor condition. The trend is stable on 55%, up on 25% and down on 20%. However, pages III-28 and III-29 note

Most of the suitable range is in fair to good condition from the resource standpoint and in a stable to upward trend (Table III-19). The majority of the poor range is located on the South Unit of the Duchesne District and on the Flaming Gorge NRA. Some of these areas are just naturally low-forage producing range due to climatic and soil conditions. Many of these areas are in good condition ecologically but poor for resource value. The only solution on these areas is to manage livestock numbers at a level that will maintain the vegetation.

Range condition is a reflection of ecological condition. Why has the Ashley "differentiated" between range and ecological condition? Also, poor forage producing areas should not be grazed. Having 42.5% of the range in fair condition means only 26-50% of climax. There is no acreage listed in excellent condition. Clearly the current range condition on the Ashley National Forest is not satisfactory nor is the current trend, which at best, only maintains this unsatisfactory condition.

Much of the Uintas are allotted for recreational stock use (horses). Also many of the sheep allotments have nonuse status (Chepeta and Fall Creek). This allows for the consolidation of sheep allotments on the eastern portions of the range while leaving the western portions unallotted. This would allow for the reintroduction of bighorn sheep into the Uintas in areas such as upper Rock Creek, Granddaddy Basin, upper Lake Fork and portions of the Yellowstone and Uinta River drainages. The plan clearly indicates the decline in sheep numbers (plan, page III-2). This would be in line with multiple-use concepts by having the bighorn reintroduced into the Uintas, an area highly suited for this species, an animal domestic sheep have extirpated.

The plan is full of economic problems. The EIS (page III-31) indicates a value of \$10.17 per AUM. However, the 1985 Grazing Fee Review and Evaluation Draft Report, published jointly by the USDA and USDI, gives a fair market value of \$5.31 when using the GNP index to achieve 1983 dollars. The total value of the 77,000 AUMs on the Ashley National Forest is \$408,876 not the millions of dollars indicated in the charts in Chapter II.

Taking the costs of range management, not including improvement, in Appendix B (page 40) and converting them to costs per AUM, there is a cost of \$3.78 per AUM in the 1978 dollars. Converting that figure to 1983 dollars, we have \$5.41. Surprisingly, the range program loses money, even when considering a fair market value for the livestock forage. For 77,000 AUMs, a loss of \$7,700 is evident. Clearly the costs and benefits displayed in the charts on Chapter II are in error.

(page 35)

We agree that the Draft Plan is unclear and does not fully address range conditions and trends. As previously stated, our data comes from an outdated range analysis. Not only is this analysis old, but its classification system can be confusing if it is not understood. The old condition classes shown are based on the level of a vegetal and soil rating. The ecological status of areas are not in direct correlation with the range analysis condition. We have a new analysis procedure which evaluates and rates areas according to their ecological status. The general correlation we can make is that the ecological status of our ranges indicate they are in a better condition than the old range analysis data indicate. Your statement that range condition and trend on the Forest is not satisfactory is inaccurate. The old condition ratings did not correlate directly with climax situations as you state. Recent grazing impact studies show that, overall, the ranges are in satisfactory condition and the trend is upward or static.

As we mentioned earlier, a wildlife guideline provides for assessing areas for possible reintroduction of wildlife species. Your comments have merit and your organization will be contacted for input should these assessments occur.

You are comparing the value of forage (\$5.31) with the value that is received in the local economy for an AUM. Dollars that are brought to and stay in the local economy have a multiplier effect.

The data of \$58.6MM is based on a 150-year time period and a 4% discount rate. This can not be compared to the yearly value received for AUM's of forage. We agree there is concern for the real value of an AUM on the Forest. Recent Congressional and administrative studies investigated this concern. We support the results of that evaluation since it is up to Congress to establish this value.

The livestock industry apparently would agree. They contend the PRIA fee formula, \$1.35 for 1985 per AUM, is all the forage is worth. Given the buyers (in this case the livestock industry) unwillingness to go higher, the value in 1985 dollars is \$1.35. If we subtract the costs from the benefits, using the 1983 figures, we come up with \$-308,770 benefits from 77,000 AUMs on the Ashley National Forest. This is a far cry from the figures on page II-72 (EIS) which show a net benefit of \$58,000,000 in range for Alternative B!! (58.6 - 0.60 in MM\$)

Again, the economics for range are not only in error, they are inconsistent. The figures on page II-72 (Table II-7) (EIS) are not consistent with Table II-5. The economic evaluation of range is inadequate.

The entire range analysis fails to meet public concerns. The economics are inadequate, effects on other resources are not analyzed. The public must receive better documentation.

ECONOMICS

Unlike other national forest plans in the Intermountain area, the Ashley Plan does not hide the fact that timber is a losing proposition and benefit cost ratios decline with increased timber harvesting. However, even the Ashley Plan severely overvalues the price of timber. According to information we obtained from the Ashley, the average past bid price for live lodgepole pine (Supervisor's Sale) was about \$7 per Mbf. The figure listed in appendix B, page 33, is \$32.79 per Mbf. This large discrepancy is even more astounding when one realizes many of the sales listed in the ten year schedule contained in the EIS/plan are salvage sales of dead timber. Dead timber receives only about \$1 per Mbf. Obviously, the economics contained in the plan and EIS are seriously flawed even though they do not claim timber is a resource which "brings in" money. The timber resource on the Ashley is much more economically unacceptable than the plan claims.

Timber is not the only resource with wrong economic assumptions and data. The grazing values listed are well over the "fair market value" listed in the 1985 draft grazing fee report done, in part, by the U.S. Forest Service. The definition of market value is the worth of the product, no amount of gerrymandering the numbers or "massaging" the facts can change the real value of this commodity. Simply put, the FS has distorted the value of the range resource. Water is another problem. It is listed in the EIS (B-36) \$58.38 per acre foot even though the value used in FORPLAN is only \$5.00 per acre foot. Yet another figure, \$12.00 per acre foot, is given in the 1985 RPA draft EIS on page F-7. Why is there such a discrepancy?

Differences also occur between the values assigned by the Ashley for wilderness, recreation and wildlife use (RVDs and WFUDs) and the values given in the 1985 draft RPA EIS (see pages F-6 and F-7, in the RPA document). This inconsistency casts doubt on the entire forest plan and leaves the public wondering whether the Forest Service is undervaluing wildlife and recreation just as it overvalues timber and range.

The biggest problem with the economics in the forest plan is the assumption made about the budgets for the various alternatives. All alternatives, except F and G, will increase the budget -- an improbable assessment given the present mood of Congress. The problem does not end here. The preferred alternative has no budget constraint at all! The other alternatives, except for Alternative I which is not constrained in order to cut more trees, have budget constraints one and one half times the past average. Obviously, to reach the ridiculously high timber outputs for the proposed plan, no budget constraints can be applied. This flies in the face of logic and common sense. The Ashley is proposing to double its timber harvests over the next two decades, without a market demand, by asking for a drastic increase in money. The probable result is a plan that cannot meet its budget nor its proposed harvest levels. This "pie in the sky" approach to planning is antithetical to real planning and ignores budgetary instruction from the Chief of the Forest Service. What use is a "plan" if it does not come close to reality?

(page 37)

Economics

The economic tables and values used in preparing this plan were developed long before the 1985 RPA draft was prepared and released. Appendix B displays the sources for values used throughout this plan.

A related problem concerns the demand for certain resources. For example the plan (Alt. B) doubles the timber harvest and increases the number of AUMs allotted to livestock. However, there is no justification for this so-called demand because it is assumed to be elastic. On the other hand resources such as wildlife, which have definite increasing demands, are relegated to second class status where reductions (elk, for example) are planned. Strangely, timber harvests double even though the mill capacity is well below those projected harvests. Livestock AUMs increase to 82,000 from the permitted 77,000 even though the actual use is less than 65,000 AUMs. Clearly, there is no sane reason to increase timber harvesting or livestock AUMs. The demand is not there. By emphasizing these "commodity" resources, the Forest Service neglects the important values for which the Ashley National Forest is known.

Clearly the assumptions made in the plan and EIS are faulty and the budget projection unrealistic. What has ensued is a plan that tries to justify increasing the commodity resources on the forest while "barely treading water" on outputs for recreation, wildlife and other important values. This is ironic because the Ashley is suited for these other resources and its value to the local area, state and nation is far more important in terms of wildlife and recreation than it is for commodities. The High Uintas Wilderness Area exemplifies the important values on the Ashley. Simply put, the economics in the plan fail because the Forest Service does not recognize the land capabilities -- what the forest is best suited to do. This plan may apply to a west slope Pacific/Northwest forest. It does not apply to an Intermountain ecosystem.

(page 38)

We believe the development of the additional alternative (J), which is incorporated in the Final as the proposed alternative, meets the concerns expressed in this comment.

02



October 21, 1985

8 EAST 300 SOUTH
415 JUDGE BUILDING
SALT LAKE CITY UTAH 84111
TELEPHONE 358-3272

OFFICERS

KAY FRISCHKNECHT
Hatch
President

VANCE AAGARD
Fountain Green
Vice President

CLAIR R. ACCORD
Orem
Executive Secretary

EXECUTIVE COMMITTEE

Vance Aagard
Kay Frischknecht
Melvin Harris
Hatch Howard
Kristine Lee
Malcolm Young

BOARD OF DIRECTORS

Wesley Aagard
Merrill Beckstrom
Gerald Bertagnole
Darrell Byram
Dean Chew
George Cosmos
Joe Fawcett
Don Fitzgerald
Kay Frischknecht
Stephen Galtner
Howard Hatch
Dean Hansen
Hatch Howard
Lee Humphrey
Paul Jacob
Burke Johnson
Howard Jones
Edwin O. Larsen
Lorin L. Moench Jr.
Elmer Moon
Albert H. Neff
Lee Okeberry
Roger Pearl
Jerry Peterson
Hardy Reed
Russell Seay
Ray Slarey
Steve Stamatakis
Warren Williams
Vern W. Young
John Vinton
Malcolm Young

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
1680 West Highway 40
Vernal, UT 84078

Dear Mr. Tucker:

We have reviewed your Environmental Impact Statement, and Land and Resource Management. We thank you for the opportunity to comment on the plan.

One of the Wool Grower's great concerns is AUM's maintenance. On the Ashley Forest it would appear more sheep could be run, and we recommend you give consideration to the increasing of sheep allotments where practical.

We observe that some consideration should be given to running in common use with cattle and sheep on some allotments, or at least an alteration of sheep and cattle on some ranges.

I failed to find a statement that predators could be controlled. We believe this is essential in livestock operations, not only for sheep, but cattle as well. We recommend you place in your final plan, "Predators can be controlled on the Ashley Forest as is necessary."

Introduction of other species of wild animals is a challenge. We recommend that consideration not be given to introducing the wolf and black, brown or grizzly bear. Also, the Rocky Mountain sheep crossing with domestic sheep is a financial loss to the sheep rancher.

In considering wildlife increases, primarily deer and elk, please consider small quotas. Also, please give consideration to private land owners that adjoin the forest. They are over burdened with these animals and are robbed of feed that could be used for their own domestic animals. If it comes to push and shove, people are getting tired of supporting these animals.

Response to Utah Wool Growers Association

The Plan recognizes that additional forage is available for sheep grazing on existing allotments as well as in vacant grazing areas.

Common use or alternating use by sheep and cattle is acceptable after a site specific analysis through a management plan for a specific allotment.

The Plan provides for coordinating predator control with the Division of Animal Damage Control now assigned to APHIS. Control is not excluded from any area of the Forest, including wilderness.

Reintroduction of native species will be considered on a specific species and area basis only after it is determined that a vacant niche occurs as provided for in the wildlife and wilderness standards and guidelines.

The Plan recognizes that additional non-winter deer and elk habitat is available on the Forest. The actual increase in numbers that will be permitted to occur will be determined in herd unit management plans, coordinated with the Utah Division of Wildlife Resources.

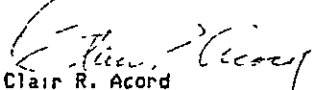
Duane G. Tucker
Page 2

(page 2)
The Plan provides for construction or reconstruction of range
improvements near the current expenditures.

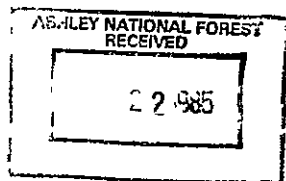
We recommend range improvements be made a continuing part of the forest
program; that water be improved where practical; and timber continue to be
used for commercial purposes within a standard of sustained yield.

Sincerely,

UTAH WOOL GROWERS ASSOCIATION


Clair R. Acord
Executive Secretary

CA:tr



October 22, 1985

0-3

Dear Mr. Tucker,

As President of The Utah Nature Study Society, I am writing as spokesperson for our organization concerning the Ashley National Forest Environmental Impact Statement and Land Resource Management Plan.

It has been shown in many of our nations' forest lands that the cost of extensive timber harvesting far outweighs any monetary profit. The Ashley Plan is no exception. Many times the short-sighted, 'make work' mentality overlooks the permanent damage done to our wilderness areas.

The impact to the wildlife is irreversible and unforgiveable. A study of the Glacier Park area shows that the bears and elk will no longer have free travel across many miles of forest lands, due to both timber cutting and oil exploration.

The Ashley study admits to all of the above, as well as extensive use of Off Road Vehicles. Can a study and plan of such obvious irresponsible use of our wilderness be taken seriously as a 50 year plan? I fear that it surely can and future generations will be the losers.

Harvesting timber only to benefit the forest and wildlife on existing roads is the only reasonable approach to timber cutting in the Ashley area.

Response to Utah Nature Study Society

See General Statement #1

See General Statement #12

See General Statement #7

See General Statement #20

(page 2)

See General Statement #3

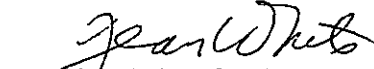
See General Statement #9

Restricted mineral developments plans must protect high elevation sensitive terrain as well as winter range and calving areas for elk and summer habitat of bighorn sheep and moose.

Extensive road building and reconstruction will only encourage more and more commercial and private inroads into areas that should be preserved.

This Ashley Plan seems to recommend the worst of all alternatives. Please do not act to destroy these beautiful lands on a long term proposal.

Respectfully,


Jean White, President
Utah Nature Study Society
Since 1954!

We Care.



The Nature Conservancy ⁰⁻⁴

Utah Public Lands Protection Planning
2225 South Highway 89-91
Wellsville, Utah 84339
(801) 752-4154

October 22, 1985

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
Suite 1150, Ashton Energy Center
1680 W. Highway 40
Vernal, UT 84078

Dear Mr. Tucker:

Thank you for this opportunity to comment on the Draft Environmental Impact Statement (DEIS) and the Proposed Forest Plan (PFP). I welcome this chance to be involved in the planning which will guide the future direction of the Ashley National Forest.

Let me preface my comments with some brief words about The Nature Conservancy. The Conservancy's mission is to preserve natural biological diversity, by identifying and protecting examples of the full array of ecosystems and species in the natural world. We are focusing our resources on those parts or "elements" of the natural world which are most scarce: rare plant and animal species, rare communities, and undisturbed remnants of common communities.

The Conservancy's Rocky Mountain Heritage Task Force has summarized the best scientific information available on the locations of Utah's rare species and communities. In working with this information, I have found that the majority of Utah's rare species and relict areas occur on federally administered lands. This is not surprising in light of the fact that about two-thirds of Utah is under federal ownership. My specific objective is to work with the Forest Service and other land-management agencies, to assure the maintenance of certain natural areas and rare species on lands which these agencies administer.

The Nature Conservancy has taken two approaches in its work with the Forest Service. Under a series of Cooperative Agreements, we have assisted the Forest Service with certain tasks involving the designation of Research Natural Areas. We are also participating in the Forest planning process, realizing that decisions which affect natural areas and rare species will be made through that process.

(p. 2)



National Office, 1800 North Kent Street, Arlington, Virginia 22209

100% Recycled Paper

Mr. Duane G. Tucker
October 22, 1985
p. 2

My comments in the remainder of this letter will focus specifically on the Conservancy's two main topics of interest with respect to the Ashley National Forest's Land and Resource Management Plan: 1) Research Natural Areas, and 2) endangered, threatened and sensitive species.

Research Natural Areas

The Research Natural Area (RNA) designation is an excellent tool to protect the natural values represented in certain relict remnants of the landscape. The Forest Service recognizes the value of RNA's as baseline areas for monitoring management practices, and as scientific reference areas for studying ecological systems. The PFP echoes this concept by mentioning the applicability of RNA's within the "Research Needs" section (page II-28). RNA's are usually established to include undisturbed examples of common types of communities. However, RNA's may also protect uncommon habitats or other unusual situations.

Under three Cooperative Agreements with the Forest Service, the most recent being Supplement Number 22-C-5-INT-59, the Conservancy is assisting Region Four and the Intermountain Station in the RNA establishment process. My associates and I have worked closely with the Ashley Forest during the past several years to assess the RNA potential of specific areas. You have concurred with our findings by proposing RNA candidacy for the five sites we recommended as of Autumn 1984 (listed on pages III-14 and IV-28 of the DEIS).

The Ashley's support of the RNA concept, as manifested by Candidacy proposals in the draft planning documents, shows a good commitment on your part to contribute to a system of natural areas in the Intermountain Region. This support also shows a commitment on your part toward dealing with the RNA requirements in the National Forest Management Act.

Based on field work conducted in the summer of 1985 by our contract ecologist, Wayne Padgett, we are proposing a revised list of RNA Candidates and Potential Candidates on the Ashley National Forest. His work resulted in the demotion of one former RNA Candidate, and the elevation of four areas from "Potential Candidate" status to "Candidate" status. The end result would be a total of eight RNA Candidates on the Forest. Wayne's letter to the Ashley Forest, dated October 16, 1985, is intended to serve as the written documentation for these suggested changes.

I believe it would be useful to summarize the current status of all past and present RNA nominations on the Ashley Forest, as proposed by The Nature Conservancy. This summary is presented below.

Mr. Duane G. Tueler
October 22, 1985
p. 3

<u>Site Name</u>	<u>Acres</u>	<u>Recommendation</u>
Sims Peak Potholes	650	Retain as RNA Candidate, as documented in DEIS and PFP.
Pollen Lake	1025	Retain as RNA Candidate, as documented in DEIS and PFP.
Gates of Birch Creek	240	Retain as RNA Candidate, as documented in DEIS and PFP.
Ashley Gorge	1085	Retain as RNA Candidate, as documented in DEIS and PFP.
Shale Creek - Uinta River	2925	Elevate to RNA Candidate status, as documented in W. Padgett letter.
Gilbert Creek Basin	2545	Elevate to RNA Candidate status, as documented in W. Padgett letter.
Timber-Cow Ridge	335	Elevate to RNA Candidate status, as documented in W. Padgett letter.
Lance Canyon	110	Elevate to RNA Candidate status, as documented in W. Padgett letter.
Shale Creek - Duchesne River	2100	Demote to Potential Candidate status, to be considered further only if Pollen Lake or Shale Creek - Uinta are rejected in the Establishment Record process.
Painter Basin	--	Retain as Potential Candidate, pending future site inspection.
Oweep Creek	--	Retain as Potential Candidate, pending future site inspection.
East Basin	--	Retain as Potential Candidate, pending future site inspection.
Kibah Basin	--	Drop from further consideration, as documented in W. Padgett letter.
Lost Basin ("Unnamed Basin")	--	Drop from further consideration, as documented in W. Padgett letter.

Mr. Duane G Tucler
October 22, 1985
p. 4

<u>Site Name</u>	<u>Acres</u>	<u>Recommendation</u>
Bear Mountain	--	Drop from further consideration, as per verbal agreement December 1984.
Brush Creek Gorge	--	Drop from further consideration, as per verbal agreement December 1984.
Hickerson Park	--	Drop from further consideration, as documented in AMS and DEIS.
Upper Birch Creek	--	Drop from further consideration, as documented in AMS and DEIS.

* * *

As shown in the above list, therefore, The Nature Conservancy recommends RNA candidacy for eight areas on the Ashley National Forest: Sims Peak Potholes, Pollen Lake, Gates of Birch Creek, Ashley Gorge, Shale Creek - Uinta River, Gilbert Creek Basin, Timber-Cow Ridge, and Lance Canyon. Four areas can additionally be considered as potential RNA candidates: Shale Creek - Duchesne River, Painter Basin, Dweep Creek, and East Basin. These candidacy recommendations are based on careful site-specific assessments, and consultations with the Forest Service's Inter-mountain RNA Committee. We are pleased that you have concurred with our recommendations in the past, and request that you incorporate our revised candidacy recommendations in the Final EIS and Plan.

It is important to have good descriptions of RNA Candidates in the planning documents, and I commend you for having included such descriptions in Table III-8 (pages III-14-15) of the DEIS. The following list is proposed as a revision of DEIS Table III-8, incorporating the Candidacy changes suggested above, and making some minor corrections for the sake of accuracy.

Candidate and Potential Candidacy Status
as of October 1985

<u>RNA Candidate</u>	<u>Acres</u>	<u>Status</u>	<u>Cells</u>
1. Sims Peak Potholes	650	ER completed 1984	SAF: Lodgepole pine. PNV: Spruce-fir. Lentic: pond, marsh, bog, wet meadow Geologic: metamorphic rocks, lateral moraine, kettles (potholes).

Mr Duane G. Tucker
October 22, 1985
p. 5

Response to the Nature Conservancy

(page 5)
The complete list of candidates and potential candidates have been updated and are included in the Final EIS and Forest Plan.

<u>RNA Candidate</u>	<u>Acres</u>	<u>Status</u>	<u>Cells</u>
2. Pollen Lake	1025	Recon. Report 1984 ER to be done 1985	SAF: Spruce-fir. PNV: Spruce-fir, alpine. Other veg.: subalpine herbland, willow: <u>Parrya</u> <u>rydbergii</u> , <u>Penstemon un-</u> <u>tahensis</u> . Lentic: lake, ponds, marsh, wet meadow. Geologic: metamorphic rocks, moraines, cirque. Scientific: Pollen chron- ology, limnology.
3. Gates of Birch Creek	240	Recon. Report 1984 ER to be done 1985	SAF: Lodgepole pine, In- terior Douglas-fir. PNV: Douglas-fir. Geologic: Sedimentary rocks (limestone). Unusual: Disjunct subal- pine fir/ <u>Linnaea borealis</u> habitat type.
4. Ashley Gorge	1085	Recon. Report 1985 ER to be done 1986	SAF: Blue spruce, aspen, lodgepole pine, ponderosa pine, cottonwood. Other veg.: Mountain ma- hogany, serviceberry. Lentic: Type 3 (high grad- ient perennial) stream, riparian dogwood. Geologic: metamorphic, sedimentary rocks.
5. Shale Creek (Uinta River)	2925	Initial survey 1985 Recon Report pending ER possible 1986-87	SAF: Spruce-fir, lodge- pole pine. PNV: Spruce-fir, alpine. Other veg.: willows, sub- alpine herbland. Lentic: lakes, ponds, marsh, wet meadows. Geologic: metamorphic rocks, moraines, cirque.

Mr. Duane G. Tucker
October 22, 1985
p. 6

<u>RNA Candidate</u>	<u>Acres</u>	<u>Status</u>	<u>Cells</u>
6. Gilbert Creek Basin	2545 (or less)	Initial survey 1985 Recon. Report pending ER possible 1986-87	SAF: Spruce-fir. PNV: Spruce-fir, alpine. Other veg.: willows, sub-alpine herblands. Lentic: lakes, marshes, wet meadows. Lotic: Type 2, 3 streams. Geologic: metamorphic rocks, cirque.
7. Timber-Cow Ridge	335	Initial survey 1985 Recon. Report pending ER possible 1986-87	SAF: ponderosa pine, aspen, Douglas-fir. Other veg.: mountain brush. Geologic: sedimentary rocks.
8. Lance Canyon	110	Initial survey 1985 Recon. Report pending ER possible 1986-87	SAF: Douglas-fir, piñon-juniper. PNV: Douglas-fir, piñon-juniper, big sagebrush. Other veg.: Mountain mahogany, salina wildrye. Geologic: sedimentary rocks, mass movement.

Potential Candidate Areas

1. Shale Creek - Duchesne River
2. Painter Basin
3. Oweep Creek
4. East Basin

* * *

I have some comments which deal with how the DEIS and PFP treat the management of candidate and established RNA's. In some cases I will lend support to specific statements and policies which you have included in the draft documents. I will also suggest some specific additions and clarifications which could improve the Final EIS and Final Plan.

I see that protection of RNA Candidates prior to their formal designation or rejection is accomplished by assigning the sites to management area "a". On page IV-28 of the DEIS it is stated that if Candidate sites are rejected for RNA status, then those sites will be managed as part of adjacent management areas. These policies are fine. However, the draft

Mr. Duane B. Tucker
October 22, 1985
p. 7

planning documents are unclear as to management direction for formally-designated RNA's. I believe your intent is to treat established RNA's within management area "o" (see DEIS page B-24). I would recommend that this be stated specifically in the section which appears on page IV-2B of the DEIS, and at appropriate locations in Administrative Unit descriptions in Chapter IV of the Final Plan.

The specific standards and guidelines for management area "a", on pages IV-40-41 of the PFP, are essentially adequate. I would suggest only that the statement "Closed to motorized vehicles" be added under the Recreation element. Based on the revised list of RNA Candidates presented earlier in this letter, management area "a" would contain at most 8915 acres in eight separate sites.

Even though there are no designated RNA's on the Ashley Forest at present, I believe that Chapter IV of the Final Plan should include a specific listing of standards and guidelines for management area "o". This will anticipate the eventual designation of RNA's, although no specific acreage figure can be given. Such standards and guidelines for designated RNA's would be similar to those already written for management area "a". Also, as RNA's become established, the Forest Travel Plan will have to be changed to show them as closed to vehicle travel.

I see on page IV-33 of the DEIS (and also in Appendix H) that proposed RNA's are identified as exclusion areas for utility/transportation corridors. I support this policy, but want to bring several specific matters to your attention. Perhaps the most serious matter is that the Lance Canyon Candidate RNA lies right within the Sowers Canyon planning window to the south of Duchesne. From a planning standpoint, there could be a conflict with having an exclusion area in a planning window. From a practical standpoint I do not see this as being a major conflict: The potential RNA is small and easily avoided, and encompasses only steep terrain where utility lines or transportation routes should not go.

Among the seven other RNA Candidates, Timber-Cow Ridge and Ashley Gorge do not appear as exclusion areas on the draft Corridor Map. Ashley Gorge should appear as such on the final Corridor Map, because the Forest has proposed RNA candidacy for this site in the DEIS and PFP. The eastern edge of the Ashley Gorge Candidate RNA abuts the Red Mountain-Carter Dugway planning window, but should involve no future conflict. If the Forest agrees to our recommendation of RNA Candidacy for Timber-Cow Ridge, then this site should appear as an exclusion area on the final Corridor Map.

A monitoring program which, at a minimum, periodically checks RNA's for intrusions or alterations should be incorporated into the Implementation section of the Final Plan.

Mr. Duane G Tucker
October 22, 1985
p. 8

I would also like to comment on some other specific treatments of RNA's within the DEIS and PFP. I will address topics roughly in the order in which they appear in the two draft planning documents.

Of nine alternatives considered in the DEIS, only two provide for the designation of RNA's on the Forest. I do not fully understand the rationale for this, but I would think that RNA candidacy could be included in most alternatives, because RNA designation has little effect on costs or other resource outputs. At a minimum I am satisfied that RNA Candidates appear in the preferred alternative, and strongly urge that they be carried forward into the Final Plan.

There are two sections in the Plan where an added mention of RNA's would further document your commitment to establishing such areas. Under Forest-wide Goals and Objectives (page IV-3 of PFP), Recreation Goal #2 includes the identification and protection of significant natural aspects of our national heritage. I believe that RNA establishment can be mentioned as one of the specific objectives aimed at achieving this goal. Also, within the section on Desired Future Condition (page IV-37 of PFP), general mention of established RNA's would be appropriate.

I have noted a number of inconsistencies and errors in the way RNA's are treated in the Management Area Standards and Guidelines in Chapter IV of the PFP. First, as mentioned on page 7 of this letter, the acreage figure shown for Management Area "a" (page IV-40 of PFP) is incorrect. If you follow our recommendation of eight RNA Candidates, this figure would be 8915 acres. (The five candidates described on page III-14 of the DEIS total 4590 acres.) The following paragraphs point out further refinements to be done within Administrative Unit write-ups.

The Flaming Gorge Ranger District (outside FGNRA) contains two RNA Candidates: Pollen Lake and Gates of Birch Creek. These are both mentioned in the text on page IV-82 of the PFP. However, the maps in the PFP do not show these two RNA Candidates as Management Area "a". The attached Maps 1a, 1b, 2a and 2b depict the proposed RNA boundaries. The acreage figure in the PFP is incorrect; rather than 440 acres for Management Area "a", the correct figure should be 1265 acres (Pollen Lake 1025 + Gates of Birch Creek 240). Finally, the chart which shows acreage allocations by Analysis Area will need revision: Based on maps in the PFP, Management Area "a" (RNA's) should include Analysis Areas 65, 125 and 130 for Gates of Birch Creek, and 80, 148, 194, 206 and 208 for Pollen Lake. I am not able to calculate the exact acreages involved for each Analysis Area.

The Vernal Ranger District contains two RNA Candidates: Sims Peak Potholes and Ashley Gorge. Only the former is mentioned in the text on page IV-90 of the PFP. Neither candidate appears on the accompanying set

(page 8)

You are correct about the earlier intent to use Management Area a for all Research Natural Areas. This was our intent but it became an easier modeling procedure to use the custodial level Management Area a.

The Lance Canyon RNA is now on the corridor map and will be unavailable for any energy transmission systems proposed in the South Unit window.

All Research Natural Areas will be shown as exclusion areas on the corridor map.

Your suggestion for a monitoring program for intrusions in RNA's has been included.

Mr. Duane G. Tucker
October 22, 1985
p. 9

of maps in the PFP. The attached Map 3 shows the proposed RNA boundaries. I do not know how the figure of 859 acres for Management Area "a" was arrived at. The correct figure should be 1735 acres (Sims Peak Potholes 650 + Ashley Gorge 1085). These revised acreage figures should also be transferred to the chart in the PFP: Management Area "a" would include Analysis Areas 184 and 194 for Sims Peak Potholes, and 59, 61, 65, 76, 78, 82, 85, 86 and 147 for Ashley Gorge. Again, I am not able to calculate the acreage breakdown.

The Roosevelt Ranger District contained no RNA Candidates at the time of PFP preparation. However, our revised recommendations include two Candidates on this District: Uinta Shale Creek and Gilbert Creek Basin. These are being purposely proposed even though they both lie within an existing Wilderness Area. The attached Maps 4a, 4b and 5 show the suggested RNA boundaries. A total figure of at most 5470 acres would be indicated for Management Area "a" (Uinta Shale Creek 2925 + Gilbert Creek Basin 2545). Appropriate Analysis Areas would be 80, 85, 190, 191, 194, 206 and 208 for Uinta Shale Creek, and 80, 189, 190, 191, 206 and 208 for Gilbert Creek Basin.

The Duchesne Ranger District (North Unit) did contain one RNA Candidate at the time of PFP preparation: Shale Creek - Duchesne River. However, our most recent recommendation is to no longer consider this area as an active candidate. The text on page IV-106 of the PFP does not mention this area, and need not do so if you follow our recommendation.

The Duchesne Ranger District (South Unit) write-up mentions that Timber-Cow Ridge is considered as a Potential Candidate for RNA status. Following 1985 fieldwork, we are able to recommend that this area be considered a formal Candidate. We also recommend RNA Candidacy for Lance Canyon. The attached Maps 6a, 6b and 7 show the proposed RNA boundaries. A total figure of 445 acres would be indicated for Management Area "a" (Timber-Cow Ridge 335 + Lance Canyon 110). Appropriate Analysis Areas would be 9, 17, 18 and 42 for Timber-Cow Ridge, and 41 for Lance Canyon.

Including our revised RNA Candidacy recommendations into the Final EIS and Final Plan would involve some other changes in documentation. Acreage assignments on DEIS page II-41 would have to be revised. Adjustments in "Forest Land Not Appropriate" acreages (page II-25 of DEIS and II-11 of PFP) may be required. The matrix of Management Prescription Application by Alternative (Appendix D of DEIS) would need revision. These are just a few needs for change that I have noticed; no doubt there would be others.

Overall, I found the treatment of RNAs within the draft planning documents to be well done, given the information you had in Autumn of 1984. My remarks so far have been offered with the intent of updating and clarifying RNA direction in the Ashley Forest Plan. In addition,

(page 9)

Our intent was to include the potential Research Natural Areas in all alternatives as "givens". The various alternatives were developed consecutively and not simultaneously. The last two developed were Alternatives B and I. They did include the RNA listings while we never remembered to insert the RNA's into the "older" alternatives.

This oversight was corrected in the Final EIS. The updated listing of candidate and potential candidate Research Natural Areas (RNA) is included in the Forest Plan.

Your suggested changes to mention RNAs in Goals and Objectives and Desired Future Condition have been made.

Acreages have been adjusted to agree with your figures.

Coordination of Research Natural Areas with management areas and assignment of management area identification letters is scheduled during the final mapping associated with the Plan.

Mr. Duane G. Tucker
October 22, 1985
p. 10

many of these suggestions have been made so that subsequent RNA designation proceeds smoothly. In dealing with people in many levels of the Forest Service, I have learned that certain things must be "just so" or else RNA designation may be delayed. I hope you will consider my comments with this bureaucratic reality in mind

Let me conclude my comments about Research Natural Areas with some general observations. First, I believe it is safe to say that designation of the recommended candidates as RNA's will have negligible impact on Forest resource outputs and local socioeconomic conditions. The Ashley National Forest is in an excellent position to fill gaps in the Regional RNA system with minimal management conflict.

The Nature Conservancy will continue to cooperate in the process of formal RNA designation for candidate areas on the Ashley. Such cooperation would be in the form of gathering needed information and preparing the required Establishment Records.

The identification of candidate RNA's in Forest Plans should not be seen as the end of efforts to build a system of RNA's in the Intermountain Region. Gaps still remain in the system, some of which can likely be filled with additional carefully-selected areas on the Ashley National Forest. The Conservancy will continue to work closely with the Ashley Forest and the Intermountain RNA Committee on future RNA proposals. As further searching locates additional qualified candidates, we will be glad to work cooperatively toward their establishment.

Endangered, Threatened and Sensitive Species

In reading through the draft planning documents, I tried to get a sense of the Ashley Forest's commitment to protecting species of concern. I found the strongest statement to be Wildlife and Fisheries Goal #3 (page IV-6 of PFP): "Manage the habitat for all threatened and endangered or sensitive listed plant and animal species to maintain or enhance their status." This is the only policy- or management-statement I found within the draft documents which provides for sensitive species. All other statements deal only with species which are formally listed (or proposed for listing) as endangered or threatened.

The DEIS and PFP appear to give adequate policy direction regarding the management and protection of T and E species, and this should be carried through to the Final EIS and Plan. Direction for sensitive species seems to be lacking in the draft documents. The Forest Service Manual calls for certain actions regarding study and management of sensitive species (FSM 2670.45). In particular is a directive to develop quantifiable objectives for managing populations and/or habitat for sensitive species. I would like to see more attention given to such "proactive"

Mr. Duane G. Tucler
October 22, 1985
p. 11

management of sensitive plant and animal species at appropriate places in the Final EIS and Final Plan.

As inventories are performed, and quantifiable objectives developed and implemented, it becomes important to monitor how well the objectives are being achieved. The monitoring and evaluation program outlined in Chapter V of the PFP provides for threatened and endangered animal and plant species. I would also like to see this section contain provisions for monitoring and evaluation of sensitive species.

The following comments pertain to the Ashley Forest's lists of species of concern. First, the draft planning documents do not contain a complete list of endangered, threatened and sensitive species on, potentially on, or adjacent to the Ashley National Forest. Rather than deferring to the AMS, it would be helpful to list these species of concern at least once within the Final EIS and Plan. Second, the Conservancy's scientific information suggests some specific changes in the composition of the Ashley Forest special species lists.

The Conservancy's Rocky Mountain Heritage Task Force has developed lists of animal and plant species of special concern in Utah. For the most part, such species occurring on or near the Ashley have already been given similar recognition by the Forest. However, there are some discrepancies which I would like to call to your attention. The following table shows species which we consider to be of concern on (or potentially on) the Ashley National Forest, along with our recommendations

<u>Taxon</u>	<u>TNC*</u> <u>rank</u>	<u>Federal</u> <u>status</u>	<u>Current</u>	<u>Proposed ANF status</u>		
			<u>ANF</u> <u>status</u>	<u>retain</u>	<u>add</u>	<u>remove</u>
<u>Fish</u>						
Colorado Squawfish (<u>Ptychocheilus lucius</u>)	G1S1	E	E	x		
Humpback Chub (<u>Gila cypha</u>)	G1S1	E	E	x		
Bonytail Chub (<u>Gila elegans</u>)	G1S1	E	E	x		
Razorbuck Sucker (<u>Xyrauchen texanus</u>)	G1S1	?	-		x (S)	

(p. 12)

(page 11)

Thank you for your concern in this area and also your list of species of special concern. The Objectives and Standards in the Plan still exist essentially the same as in the Draft. To strengthen this area, the monitoring plan provides for completing habitat and population inventories of sensitive species. Your suggested changes will be evaluated during this inventory.

Mr. Duane G. Tucker
 October 22, 1985
 p 12

Taxon	TNC* rank	Federal status	ANF status	Proposed ANF status		
				retain	add	remove
<u>Birds</u>						
Bald Eagle (<u>Haliaeetus leucocephalus</u>)	G3S1	E	E	x		
<u>Mammals</u>						
Black-footed Ferret (<u>Mustela nigripes</u>)	G1SH	E	E	x		
<u>Plants</u>						
<u>Erigeron untermannii</u>	G1S1	-	-		x (S)	
<u>Lepidium barnebyanum</u>	G1S1	c1	S	x		
<u>Oenothera acutissima</u>	G2S1	c2	-		x (S)	
<u>Penstemon acaulis</u>	G2S1	3c	S	x		
<u>Festuca dasyclada</u>	G3S1	c2	-		x (S)	
<u>Aquilegia barnebyi</u>	G3S3	3c	S	x		
<u>Penstemon uintahensis</u>	G3S3	3c	S	x		
<u>Sclerocactus glaucus</u>	G3S3	E	E	x		
<u>Astragalus lutosus</u>	--	c2	-		x (S)	
<u>Cirsium owbeyi</u>	--	-	-		x (S)	
<u>Astragalus barnebyi</u>	--	3c	S			x
<u>Gilia spicata</u>	G5S1	-	-		x (S)	
<u>Papaver radicans</u>	G5S1	-	-		x (S)	
<u>Potentilla palustris</u>	G5S1	-	-		x (S)	

- An explanation of this ranking system is provided in Figure 1, attached to this letter.

Eleven of the above species already have some special status on the Ashley Forest. Of these eleven, we recommend that current status be retained for ten, and that one (Astragalus barnebyi) be deleted by virtue of not occurring near the Forest. Nine species in the above table do not appear on your sensitive list, and we recommend that they be added.

The Nature Conservancy is very concerned with the maintenance of rare plants and animals. In the preceding paragraphs I have commented on how these species should be treated in the Forest Plan, and I have made some specific recommendations for updating your list of species of concern. Above and beyond these written comments, however, the Conservancy is willing to work actively with the Ashley Forest toward the goal

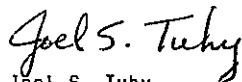
Mr. Duane G. Tucker
October 22, 1985
p 13

of rare species conservation. Such cooperative work would include information sharing and actual field assistance -- as you require and as our resources allow.

* * *

In conclusion, thank you for considering my comments in the development of the Ashley National Forest's Land and Resource Management Plan. I greatly appreciate the interest and support that I have received throughout the Forest during my visits there. I look forward to continuing a good working relationship between The Nature Conservancy and the Ashley National Forest

Sincerely yours,

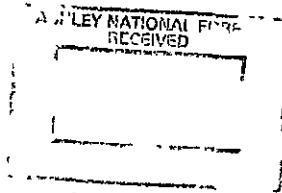


Joel S. Tuhy
Utah Public Lands Coordinator

Attachments. 11 Maps
1 Figure

October 22, 1985

Duane Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
Vernal, Utah 84078



Dear Sir:

The following are comments on the Ashley National Forest Draft Environmental Impact Statement and Land and Resources Management Plan.

This plan is a disaster. It completely ignores the public interest in favor of timber sales, mineral development and ORV use. By comparison, the Wasatch-Cache Plan, which is not without problems, is a model of what forest plans should be. It is strongly recommended that the Wasatch-Cache plan be required reading for those who are responsible for this plan. Specific comments follow.

1. Timber harvests must only be permitted on slopes less than 40%. Harvesting on slopes above this grade will result in irreversible damage to the watershed and cause unacceptable soil erosion. In view of the fact that current timber offerings cannot be sold, it is completely irrational to harvest timber on such slopes.

2. Only the existing road system should be utilized. Over 3000 miles of roads are proposed to be constructed or reconstructed, primarily for timber harvesting. This is an incredible amount of road construction, particularly when current timber cannot be sold. Furthermore, when the cost of these roads are included, it is absolutely certain all timber sales will be below cost, with the public subsidizing the sales. It appears the only purpose for such an enormous construction project is to prevent any current roadless areas from ever being considered for wilderness in the future. I am certain also this is not the intent of congress and, if you persist, will be the subject of an appeal, and possible legal action.

3. No timber should be harvested in important wildlife areas such as riparian zones or winter range. Considering the relative economic values, wildlife is far more important than timber, particularly when future needs for recreation are considered.

4. No timber should be harvested at below cost, and all costs, such as roadbuilding, must be included. There is no justification for sacrificing the public interest to support a marginal timber interest.

5. Minerals development must be restricted in all roadless zones, riparian areas and winter ranges for animals.

Response to Cache Group of the Sierra Club

See General Statement #4

See General Statement #9

See General Statement #1

See General Statement #12

See General Statement #3

The wildlife and wilderness values are far more important than any possible mineral development. The Forest Service can certainly do more than merely react to proposed mineral developments. As in the Wasatch-Cache Plan, you can protect sensitive areas from development by prohibiting leasing, or by allowing only No Surface Leases. To maintain you can do nothing except react is to abrogate your responsibilities to the public.

6. The "Bollies" area should be closed to all mineral development and ORV use since it is one of the most wild areas yet remaining outside of the Wilderness. It is important habitat for bighorn sheep and other game, as well as being an important watershed and recreation area for backcountry use.

7. No roadbuilding of any kind should be undertaken on roadless areas. There are far too few such areas remaining, and they will be in great demand for future recreational use for an expanding population. There are already ample roads for use by ORV's, ATV's and other mechanized travelers.

8. Management of the High Uintahs needs management direction, particularly to control the perceived future deterioration. Use must be restricted if necessary to preserve this prime Wilderness.

9. Real alternatives which preserve wildlife, restrict mineral development, reduce timber harvests and prohibit road building are absolutely necessary in The Plan if it is to meet the public issues.

10. The primary public concern raised for the Ashley was to leave the forest "as it is". The current Plan fails dismally in addressing this concern

Finally, an important question needs to be asked of those responsible for this terrible plan. How can Forest Service employees, presumably working to protect the public interest, completely ignore it in favor of the interests of timber harvesters, mineral and oil/gas developers and ORV and other off road vehicle users, all of whom are a small minority of the public you are supposed to be serving?

These comments are submitted by The Cache Group of The Sierra Club (116 members).

Jack T. Spence
 Jack T. Spence
 Conservation Chair
 1755 E 1140 N
 Logan, Utah 84321

<< J.S. Tixer

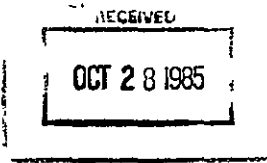
(page 2)

See General Statement #13

See General Statement #2

See General Statement #14

See General Statement #11



THE WILDERNESS SOCIETY

CENTRAL ROCKIES REGION ⁰⁻⁶ 25 October 1985

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker:

The Wilderness Society is a national conservation organization of 140,000 members which devotes all of its resources to the preservation and wise management of America's public lands. Founded in 1935, The Society has been in the forefront of major conservation battles for half a century. We are pleased to submit to you our comments on the Ashley National Forest Draft Environmental Impact Statement (DEIS) and Proposed Forest Plan.

The National Forest Management Act (NFMA) requires that every national forest be planned on a long-term, comprehensive basis. Congress passed the NFMA in an effort to reform longstanding forestry abuses on the national forests: excessive and damaging clearcutting and road construction, uneconomic timber production, loss of forests' ecological diversity to monoculture, silting of streams, and inattention to recreation.

Unfortunately, the Proposed Forest Plan for the Ashley National Forest (ANF) corrects none of these abuses, but proposes to manage the forest with emphasis on intensive timber management to the serious detriment of the forest's many other valuable resources. The Proposed Plan fails to meet NFMA's requirement that lands be managed for multiple use and sustained yield, "without impairment to the productivity of the land."

We believe that implementation of this plan will cause irreparable damage to a unique ecological region. The Uinta Mountains--a major portion of which lie within the Ashley National Forest-- contain the headwaters of almost a dozen major rivers (90 percent of the water which originates

(page 2)

See General Statement #10

in Utah), 500 lakes and 400 miles of fishing streams, in addition to supporting the largest elk and moose herds in Utah and the largest acreage of alpine flora in the intermountain west. We request that the Proposed Plan be drastically revised so that the Final Plan will fulfill the mandates of the laws of the U.S. in both letter and spirit.

Range of Alternatives

The National Environmental Policy Act demands that federal agencies present and analyze the full range of reasonable alternatives for significant actions they propose. The DEIS does not consider a broad range of reasonable alternatives with differing emphases. Indeed, many of the alternatives call for essentially the same management parameters and thus constitute, in reality, the same alternative (with only minor variations) under different names. For instance, in several alternatives (B, C, E, H, and I) "intensive timber management prescriptions are applied" (p. IV-6) and "all include moderate to high levels of road construction and reconstruction" (p. IV-12). In all of the alternatives, over 50 percent of the present roadless area will be roaded during the next 10 to 15 years. In addition, "In all alternatives, through all decades, there would be an increase in water yield." (p. IV-26) It is difficult to understand the lack of at least one alternative which would call for minimal increases in roadbuilding, water yield, and timber harvesting on roadless lands.

The DEIS states that "Alternatives were formulated with the understanding that maintenance of future options was an important consideration." Our reading of the alternatives presented leads us to precisely the opposite conclusion: that, in fact, major options for wildlife preservation, water quality maintenance, soil protection, and recreational opportunities would be foreclosed by most of the alternatives.

The Selection of Alternative B as the Preferred Alternative

The selection of alternative B was based primarily on one criterion: the harvesting of lodgepole pine that has been or could be damaged by the mountain pine beetle. According to the NFMA, forest plans must provide for the simultaneous protection of all forest resources: fish and wildlife; soils and watersheds; recreation and wilderness, as well as range and timber. The benefits from each use are supposed to continue undiminished over time. This will certainly not be the case if alternative B is implemented.

Sustained yield. As stated in the DEIS (p. III-32), "The preferred alternative does not meet the requirement that growth will equal at least 90 percent of the long term sustained yield by the year 2020. This level of growth is

not reached until decade 13 . . . This is due to the large loss of growing stock inventory as a result of the mountain pine beetle epidemic."

The projected heavy cutting of timber over the next 50 years, particularly on steep slopes where loss of soil productivity is inevitable, will make sustained yield forestry impossible and will lead to an overall degradation of the forest resource. Species not affected by the pine beetle should not be heavily timbered. Lodgepole and ponderosa pine should be logged only at a low or moderate level while other actions are taken to control the pine beetle problem. Other techniques to control the epidemic situation--stand hazard rating to identify high risk stands; monitoring the beetle population; thinning stands--should be considered. In addition, the feasibility of allowing natural fires to burn in self-contained areas should be examined, the DEIS does not explore this approach at all.

Demand for timber. The DEIS (p. III-33) states that "Demand for all timber resource outputs is assumed to be completely elastic " You are thus explicitly assuming that you will have a market for all the timber you can harvest, an assumption that flies in the face of recent forest product history. Timber demand has dropped precipitously. In 1984 the Forest Service failed to find a buyer for more than 50 percent of the timber offered for sale. In addition, lumber producers are turning back to the Forest Service and the Bureau of Land Management a great deal of unharvested timber due to low demand (an estimated 10 billion board feet across the country).

In spite of all of this, the Proposed Forest Plan (and all the time and resources its production represents) has been based on alternative B. In light of the fact that "Failure to actually market these timber outputs . . . may necessitate a plan revision" (p.III-33) other options should have been more seriously considered, since it is unlikely that markets will materialize for all the timber that would be harvested under this plan.

Considering the above, you have failed adequately to address Issues, Concerns, and Opportunities No. 5 (What level of timber harvest and what type of management practices should be used on the ANF?) and No 12 (If additional markets for ponderosa and lodgepole timber can be found, what level of harvest should the Ashley attempt to achieve?).

Economic suitability and efficiency. Section 6(k) of NFMA stipulates that the economic suitability of forest land must be taken into consideration when formulating projected timber cuts. To quote the Proposed Plan (p. III-33), "The price of timber during the last 10 years has been very

(page 3)

The "sustained yield" concept is applicable to a living, dynamic Forest and not to dead non-growing stands. Presently on the Ashley a significant percentage of the lodgepole and Ponderosa pine stands are dead, which limits the amount of green material that can be harvested under sustained yield. The small acreages left that are stocked with live trees has significantly reduced the opportunity to provide green volume. We will continue to manage these green stands under the sustained yield concept and add newly established ones as they mature. Approximately 70% of the harvesting scheduled for this planning period is comprised of dead material.

This year the Ashley is beginning a program of prescribed fire to reduce slash created by sales and for treatment of standing dead lodgepole pine to improve wildlife habitat and reduce the immense areas of unbroken fire fuels.

In the reference to the demand for timber, the failure of the Forest Service to find buyers for 50% of the timber was a national average, not the Ashley's. The Ashley has a greater demand than it has offered.

See General Statement #4

erratic. Increased costs for road construction, logging, and milling have caused most timber sales to be below cost."

In fact, the timber sale programs on all six national forests in Utah have consistently operated at a net economic loss to the U.S. Treasury and the Ashley is very near the bottom of a dismal list. According to the Forest Service's own figures, on the ANF the ratio of timber receipts to timber expenses during the years 1979 to 1984 averaged 0.16, or a return of 16 cents for each dollar spent. Now the Proposed Plan is calling for increased logging, in steep terrain which will require expensive logging equipment and the construction of over 300 miles of road. Such a plan is indefensible on economic grounds alone; when other losses are factored in--impacts on soil, water and wildlife habitat, and damage to recreational, scientific and scenic values--the plan becomes unconscionable.

Noncompliance with the MacCleery Decision. In 1983, a number of conservation groups, including The Wilderness Society, appealed the San Juan and the Grand Mesa, Gunnison and Uncompahgre National Forest Plans. The Secretary of Agriculture accepted the appeal and his decision--commonly referred to as the MacCleery Decision--offers generic guidance not only for the Colorado forests but for all national forests. The DEIS flatly ignores this guidance. MacCleery directs that the Record of Decision include a discussion of the major economic, environmental and physical trade-offs when the alternative selected is not the most economically efficient. There is no such defense of the selected alternative in the DEIS nor do we believe the regional forester can construct such a defense.

The Proposed Plan suggests that you believe there are essentially no trade-offs--that you will be able to maintain water quality, soil productivity, wildlife habitat, and recreational and scientific values while harvesting over 60 percent of the growing stock inventory in the next 50 years, building over 300 miles of additional roads, and reducing the non-wilderness roadless area from 40 percent of the ANF to less than 7 percent. No amount of glib assurances and superficial analyses can make these assertions any less preposterous.

The MacCleery decision states that the following questions should be addressed in the Proposed Plan:

- (1) "Is the timber program as currently proposed actually the most effective way to achieve the non-timber multiple use objectives of the plan?"
- (2) "To what extent can timber program costs be cut and/or

(page 4)

See General Statement #1

You are correct that the "MacCleery decision" does require that the rationale for selection of an alternative be displayed in the Record of Decision with a discussion of tradeoffs. The EIS presents the evaluations and environmental effects in Chapters II and IV. It is not the purpose of the EIS to present the rationale or justifications for a preferred alternative. This is covered in the Record of Decision accompanying the Final EIS. We believe that you will find the new Alternative J to be one which answers many, if not all, of the concerns expressed on page 5 of your letter.

revenues be enhanced while still providing an appropriate level of non-timber multiple use objectives? Are there other ways to accomplish vegetation management more cost effectively than through a timber program as currently proposed? The Forest Service has been exploring the use of prescribed fire for this purpose in Colorado. Does this technology, used in conjunction with timber sales where economically efficient, hold promise to reduce the cost of vegetation management?"

- (3) "Are the non-timber multiple use benefits to be achieved through the timber program really needed?"
- (4) "Do projections of demand for these non-timber objectives support the need for the Federal expenditures required to achieve them?"
- (5) "What are the high-level non-timber and amenity benefits that would be lost and who would be affected by the change and in what ways?"

Just as MacCleery found the San Juan and GMUG planning documents deficient in answering the above questions, so do we find the ANF deficient. And we demand to know, as MacCleery did, why one of the alternatives which provides for lower levels of timber harvest and similar (or better) benefits for other resources (range, recreation, wilderness, wildlife, water) with more favorable costs and revenue characteristics was not selected.

Environmental Consequences

Discussion of the environmental consequences of all the alternatives listed in the DEIS, and especially of the preferred alternative B, is entirely inadequate. We are particularly concerned with the impacts of the increase in water yield, the most important being a dramatic increase in sediment in the streams. Not only is soil lost, and soil productivity consequently lessened, but aquatic species are adversely affected. There is no way to increase water quality on the forest, as you propose to do, at the same time you are increasing the water yield of the forest.

We are also concerned that the extensive roading of nonwilderness roadless areas will have severe impacts on wildlife habitat and recreational activities. We find it particularly disturbing that most of the areas adjacent to the High Uintas Wilderness have been scheduled for logging, along with other areas the Forest Service and conservationists recommended for wilderness protection during the Rare II process.

(page 5)

in all alternatives, as stated in Appendix B of the EIS, a constraint used in the model required that State water quality standards must be met. This constraint was measured by sediment delivered to live streams per unit of water yield.

See General Statement #2

wilderness candidates. This represents a totally insupportable use of a valuable resource on the Ashley National Forest. To compound the problem the roadless acreage that would remain would consist primarily of small, scattered, random patches of forest--the leftovers from timbering operations--some on steep slopes, without regard for recreational values or wildlife habitat.

In order to submit these comments by the official deadline (October 25, 1985), we must end our discussion here, but pursuant to our telephone conversation of October 24 with Alan Beard of your office, we will be sending additional comments within the next week or two, as you assured us that all comments received before the Final Plan goes to the printer will be reviewed.

We thank you for your consideration of our comments on the Proposed Forest Plan and DEIS. We feel the plan needs extensive revision, and stand ready to assist you in any way we can toward that goal.

Sincerely yours,

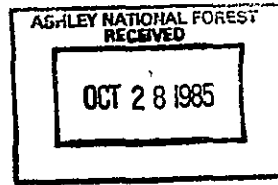
Dianne Andrews

Dianne Andrews
Administrative Assistant

Darrell Knuffke

Darrell Knuffke
Regional Director

Wasatch Mountain Club
168 W 500 North
Salt Lake City, UT 84103
October 23, 1923



Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center -Suite 1150
Vernal, Ut 84078

Dear Mr. Tucker;

The Wasatch Mountain Club is a Salt Lake City-based organization of over 1000 members. The organization was founded in 1921 for purposes of promoting "the physical and spiritual well being of its members and others by outdoor activities; ... to foster awareness of scenic beauties; and to encourage preservation of our natural areas including the plant, animal and bird life."

It is within this context that we wish to comment on the Ashley National draft environmental impact statement -Resource management plan, hereafter referred to as "the Plan".

Specifically, we oppose the proposal to double the harvest of timber within the Ashley National Forest over the next 20 years. This proposal is not justified by market demand and at the same time will fail to solve the pine beetle infestation.

The Plan's timber harvests will obviously rely on deficit timber sales. We oppose deficit timber sales in principle and feel they can be justified only in extraordinary circumstances. The Plan fails to identify extraordinary circumstances which could justify deficit sales.

We are also greatly concerned about the impacts that specific parts of the timber proposal -such as logging on slopes of over 40% and construction of 3000 miles of logging roads -will have on erosion, aesthetics, recreation, wilderness and wildlife values..

We also consider the Plan inadequate in its failure to address the potential impacts of leaving 70% of the Ashley National Forest open to mineral development. There will be adverse impacts on recreation, wilderness values and wildlife and these impacts need to be addressed.

With these concerns in mind we urge that the Forest Service exclude mineral development and logging in important wildlife habitat areas. Logging should be allowed only in existing roaded areas; no new logging roads should be developed.

We also urge that the Forest Service close the area known as "the Bollies" to mineral development and ORV use. Furthermore, we encourage the Ashley Forest District to follow the example of the Wasatch National Forest in restricting use where necessary to protect and maintain the the wilderness values of the High Uintas. We would like to see the Ashley and Wasatch Forest Districts work together toward this objective.

Finally, we feel that the Plan should consider real alternatives which aim to protect wildlife and restrict mineral development and reduce timber harvests and allow little or no new road building. We would like to see the Ashley National Forest make these objectives part of its Plan which actually sets

Response to Wasatch Mountain Club

See General Statement #4

See General Statement #1

See General Statement #9

See General Statement #3

See General Statement #2

See General Statement #12

See General Statement #13

See General Statement #11

policies and directs development rather than just reacting to uncontrolled impacts.

Sincerely,

Michael Budig

Michael Budig
Conservation Co-director
Wasatch Mountain Club



American Wilderness Alliance

7600 East Arapahoe Road / Suite 114 / Englewood, Colorado 80112 / (303) 771 0380

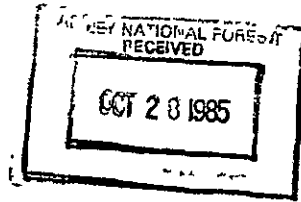
0-8

Response to American Wilderness Alliance

See General Statement #1

October 24, 1985

Mr. Duane Tucker, Supervisor
Ashley National Forest
Ashton Energy Center
Suite 1150
Vernal, UT 84078



re: draft EIS &
Forest Plan

Dear Mr. Tucker:

We have reviewed the Ashley National Forest Draft Plan and are submitting below our comments for the official record.

We appreciate the great amount of hard work you and your staff have done in preparing the Plan which, when finalized, will govern activities on the forest for the next ten years--and perhaps fifty.

The American Wilderness Alliance is a western-based, national, non-profit organization whose members are working to conserve the nation's decreasing public wildlands, wildlife habitat and free-flowing rivers. We have members throughout the United States, including Utah, and many of our members make substantial use of the Ashley National Forest for hunting, fishing, camping and wilderness purposes.

I have visited the Ashley Forest on a number of occasions, and I am familiar with the established High Uintas Wilderness and other roadless areas on the forest.

Our review reveals that the Plan contains several major flaws which thwart the long-range public interest, and which require revision. They include:

Land-Use Allocation

The public interest is severely shortchanged in the Plan's proposed allocation of land uses.

Although the Ashley National Forest has freely admitted that planned timber sales would be below cost, and that, with higher commodity production, the net value of the forest would go down, it nevertheless proposes to double the timber

harvest on the forest over the next two decades. The alleged reason is to reduce the pine beetle infestation. Yet one part of the Plan acknowledges that the pine beetle will not be eliminated by silvacultural practices, as we know.

What, then, may we ask, are the benefits of doubling the cut? It is surely not apparent, except to create made work for sawlog foresters and road engineers, and to satisfy timber interests with subsidies that enable them to log poor public forest stands at a profit.

But these subsidies come from the American taxpayers. From our members and me. Such subsidies add many millions of dollars to the United State's staggering \$230 billion debt which is already destabilizing our economy.

Moreover, the 3,000 miles of logging road which the forest plans to build or reconstruct will invade roadless areas, promote erosion and reduce water quality in streams for both trout and man. In addition, such roads and man's associated activities will eliminate or impair habitat for such sensitive species of wildlife as elk, moose and bighorn sheep.

The 3,000 miles of new or reconstructed roads would be equivalent to stripmining 15,000 acres of the Ashley National Forest!

And the forest proposes to build roads and log on slopes exceeding 40%, which will further exacerbate the erosion problem.

So we not only lose money as taxpayers on the timber sales but we also lose again with the destruction to watersheds, trout streams and wildlife habitat--and lost fishing and hunting opportunities.

What kind of sense does that make?

Besides, the Plan would leave 70% of the forest open to mineral development, taking the attitude that "we can't do anything about it, anyhow." The Ashley Forest can do something about it if it wishes. It can propose a mineral withdrawal for sensitive areas having other important resource values. It can conduct careful mineral studies to determine whether a mineral find is commercially operable. It can recommend to the Bureau of Land Management against approval of mineral leasing. And finally it can manage mineral exploration and development so as to minimize environmental impacts on the forest and its renewable resources.

(page 2)

See General Statement #4

See General Statement #2

See General Statement #9

See General Statement #3

Wilderness and Roadless Management

The ten-year Plan would develop all major roadless areas, except those in the eastern part of the High Uintas--and leave these open to off-road vehicle use and mineral development, thus assuring that their outstanding wilderness character also would be destroyed.

The Plan offers no direction to management of that part of the High Uintas Wilderness on the Ashley Forest and, by Forest Service neglect, even predicts that deterioration in the Wilderness will occur. The Ashley Forest needs to be reminded that the Wilderness Act requires the administering agency to maintain the wilderness character of an area in the Wilderness System. Limiting use and types of use can be employed. An educational wilderness ethics program can be initiated, as other national forests are doing.

Recommendations

Accordingly, the American Wilderness Alliance respectfully urges the Ashley Forest to revise its Forest Plan to:

1. Use only existing roads for timber harvest, and harvest only in already roaded areas.
2. Harvest no timber on slopes of 40% or greater.
3. Harvest no timber in such major wildlife areas as river areas and on winter range.
4. Avoid large clearcuts, and harvest timber only when it will actually improve wildlife habitat.
5. Harvest largely only that timber which is cost-efficient. In other words, avoid below-cost timber sales.
6. Prohibit or restrict mineral development in roadless areas, elk calving areas, winter range and river zones.
7. Exercise existing Forest Service authority to control and limit environmental impacts of mineral exploration and development.
8. Close the eastern Uintas, Chepeta, Weyman Park and Dry Fork roadless areas to mineral development and off-road vehicle use, since this is high-altitude fragile country of exceptional watershed and scenic values, as well as critical summer range for elk, bighorn sheep and moose. It is also noted that this wild region was previously proposed by the Forest Service for wilderness status. There is no justifiable reason for the agency to change its

(page 3)

See General Statement #14

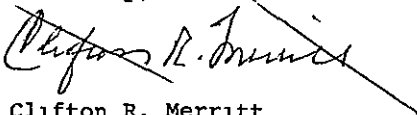
See General Statement #11

position now simply because the Utah Congressional Delegation the first time around overlooked the importance of protecting the roadless tract as wilderness.

9. Emphasize in the Plan those management activities which will conserve the national forest, its watersheds, fisheries, wildlife and non-motorized recreation. In this connection, it should be remembered that prevailing public sentiment as expressed at public meetings and on other occasions was to leave the Ashley Forest "as it is", without increased roading or timber cutting.

Thank you for the opportunity to comment on this matter.

Sincerely,

A handwritten signature in cursive script, which appears to read "Clifton R. Merritt". The signature is written in dark ink and is positioned above the typed name.

Clifton R. Merritt
Executive Director

CRM:dbh



UTAH POST SALT LAKE
WILDLIFE OFFICE CITY UTAH
FEDERATION BOX 15636 84115

NOV 10 1985

09

November 7, 1985

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
1680 West Highway 40
Ashton Energy Center
Vernal, Utah 84078

Dear Mr. Tucker

Re: Utah Wildlife Federation Comments
to the Ashley National Forest Draft
Environmental Impact Statement (EIS)
and the Land Resource Management Plan (LRMP)

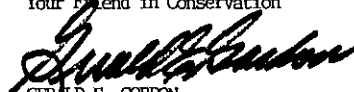
Please reference my October 27, 1985 telephone call requesting an extension in our response to you. I thank you for your favorable consideration to that request.

We have reviewed the draft EIS and LRMP, our comments are attached.

On behalf of the more than 3,000 members and families represented by the Utah Wildlife Federation I thank you for the opportunity to comment on this important document.

Sincerely,

Your Friend in Conservation


GERALD E. GORDON
President

enc.



UTAH POST SALT LAKE
WILDLIFE OFFICE CITY UTAH
FEDERATION BOX 15636 84115

Response to Utah Wildlife Federation
(page 2)

Alternative J emphasizes recreation and provides increased emphasis and funding to meet projected recreation demands. Appropriate sections of the EIS and Plan also have been revised.

The wildlife and fish improvement needs presently identified on the Forest are all shown under the scheduling portion of the Plan. The dollars identified for improvements by the plan are adequate to complete these projects over a 10 year period. Funds designated for Wildlife and Fish Biologists are adequate. We will be able to fund the number of personnel recently identified with your group as necessary to manage these activities on the Forest.

SUBJECT Utah Wildlife Federation Comments to the Ashley National Forest Draft Environmental Impact Statement (EIS) and Land Resource Management Plan (LRMP)

Recreation Wildlife and Fish

The EIS states that the present net value of recreation is 288.6 or 67 percent of the total Ashley Forest resource benefit.

The LRMP states "In recent years, construction and rehabilitation of recreational facilities has declined because Forest Service budgets have been reduced and human resource programs have been reduced or eliminated. It does not appear that there will be an opportunity for new construction of developed recreational facilities in the near future."

We don't understand why recreation with its high present net value is receiving such low priority consideration from the Forest Service resource managers. Of course, there will be little or no new construction of developed recreation facilities in the near future because over the next 45 years only seven to eight percent of the total Ashley Forest budget is projected for recreation. Why is this? It appears to us that if the Forest Service Resource Managers placed more emphasis on recreation, there would be more recreation developments and dollars for such developments.

The plan for recreation developments is not acceptable to this Federation.

We also see the same demonstration of lack of consideration for wildlife and fish. The net values for wildlife and fish are about 37 percent of the total Ashley Forest resource value, but only four percent of the total Ashley Forest budget over the next 45 years.

The LRMP as written is inadequate in meeting the budget needs for fish and wildlife in the immediate years and the outlying years. The Forest budgets must be increased to properly address the needs for wildlife and habitat.

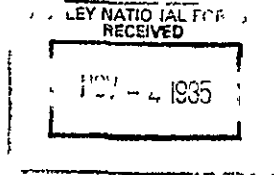
Summary

It is our analysis that the LRMP emphasizes timber and range management while at the same time reflects little or no consideration for recreation, wildlife and fish. The EIS and LRMP state that eighty percent of big game winter range is located out of the Forest on other lands, regardless, the LRMP should demonstrate that wildlife habitat improvements are planned on spring, summer and fall ranges and on that twenty percent of the winter range. The LRMP fails to do that when measured against the budget projections.

We believe the Forest Service priorities should parallel the resource net values and recommend that the priorities be redesigned to adequately address the needs of recreation, fish and wildlife.

L 0714
The National Outdoor
Leadership School

0-10



October 23, 1985

Mr. Duane Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 West Highway 40
Vernal, UT 84078

Dear Mr. Tucker:

Thank you for the opportunity to respond to the Ashley National Forest Proposed Plan. The National Outdoor Leadership School has utilized backcountry areas in your Forest for many years and we hope to continue in the future. We are presently the second largest outfitter organization utilizing public lands in the United States. We feel that we are in a unique position to express our concerns about a plan that seriously affects both private and public outdoor recreation.

We anticipate these concerns will be addressed. If I can provide greater detail concerning our position, please do not hesitate to call on me.

Sincerely,


Jim Ratz
Executive Director

JR/blh

Encl NOLS Response to the Ashley National Forest Plan

Jim Ratz
Executive Director

P O Box AA
Fowler Wyoming 82520
307-332-0973



FO

NOLS RESPONSE TO THE ASHLEY NATIONAL FOREST PLAN

1) Awareness of the importance of recreation on our National Forest lands is increasing daily. As the economic benefits are becoming more evident both nationwide and among local communities, the Forest Service must address this demand with long range planning and budgeting. On page A-7 of the DEIS it states, 'Recreation is the dominant resource on the Ashley National Forest'. Unfortunately the Ashley Forest's response to this important issue is very inadequate.

2) The Plan predicts that recreation demand will be at least three times greater in the future than it is at present. On Table II-5 however, it is shown that the supply will NOT meet this demand. The Forest Service has an obligation to provide a wide range of Recreation Opportunity Spectrum classes. However, it expects to change the present ROS to an emphasis on the developed side of the spectrum with a "loss of semi-primitive and semi-primitive non-motorized R.O.S. acres" (page IV-3).

Wilderness recreation demand will exceed capacity by 1995, only one decade into the fifty year plan. On page S-7 of the DEIS it states "With the recent formal designation of the High Uinta Wilderness, previous estimates of demand may prove to be low." If the plan is based on these low estimates, then the need for additional capacity is even more obvious. The future management only provides primitive and semi-primitive opportunities rather than including any pristine experiences. It is admitted that in all the FORPLAN runs the prescription for "High Wilderness" never came into solution.

The Forest Service should promote more dispersed semi-primitive and primitive recreation opportunities outside wilderness to augment the demand for these within the wilderness. Instead, the Ashley National Forest emphasizes the commodity resources that will limit these kinds of recreation use. Some examples are: "Acres available for wilderness evaluation under all alternatives could be reduced as a result of minerals activities that are unforeseen at this time" (page IV-7 DEIS). "For all alternatives, there will be times when recreation uses will be displaced by other management activities for periods of time (up to seven or eight years)" (page IV-3, DEIS). When explaining the desired future conditions in the Plan on page IV-37 it is explained that "road construction will develop areas at a more rapid rate than what has been occurring during the recent past." All these conflicting resources, especially the emphasis on timber harvesting, will affect primitive dispersed recreation negatively.

3) Timbering is the main emphasis in this plan. An accelerated cutting program will be initiated. The Forest admits this will hurt wildlife, dispersed recreation, and visual quality. However they claim that it is necessary to increase the timber program to

Response to National Outdoor Leadership School

(Page 2)

Alternative J affords additional protection to unroaded areas, and reduces timber harvest and corresponding road construction while recognizing recreation values throughout the Forest.

Both the Plan and EIS have been revised and a modified alternative J developed which gives more emphasis to recreation supply and demand and affords additional protection to undeveloped areas. The Forest Service coordinates with all other governmental agencies in providing the user public with a full range of ROS opportunities.

The demand for wilderness use and the capacity is not determined by the High Uintas Wilderness area alone to meet this demand it will have to be coordinated with wilderness designation on adjacent Forests and BLM lands. The Standards and Guidelines section of the Plan are directed more towards maintaining the wilderness resource instead of meeting projected demands.

combat beetle kill and disease. This is not the only solution. Many Forests around the West are making the choice of burning diseased stands as a more economical and less deteriorating alternative to promoting below-cost-sales of timber.

4) On page IV-5 of the Plan it is stated that the High Uintas Wilderness will be managed as a single unit maintaining consistency with the Wasatch National Forest. The National Outdoor Leadership School has many concerns with the Wasatch Plan and would like to see the Ashley Forest address these problems.

The Wasatch Plan has a group size of 15 people and 20 head of stock. Both Forests realize that there are conflicts between hikers and horse users. One of the major reasons is the unfair differences between these two group sizes. Research has shown that horses create more environmental and social impact than humans, however these group sizes are not managed accordingly. The Wasatch Forest claims that "these numbers have been in effect for the past 10 years and have resulted in both resource protection and an increase in the quality of wilderness experience." We question whether there is any documentation of these results. Other National Forests, such as the Bighorn National Forest, have addressed this problem by creating a combined group size of horses and/or humans, thus treating the hiker more fairly. Enclosed is a copy of their response.

The special use permits are now limited to only two groups at one time in the Uinta High Wilderness area. This decision does not take into account the tremendous diversity of permitted organizations and the many different kinds of public they serve. The Forest Service should regulate the number on a case-by-case basis, allowing more than two, if their use is not conflicting.

The Wasatch Forest also limits the stay to only 14 days. NOLS courses now currently are 31 days long. On page II-7 it is stated that "most of the use in the wilderness probably occurs on something less than 10% of the total area creating some heavy impacts on the social and physical parts of the environment. Because of this concentration of use in such a small portion of the area, capacities may be exceeded in certain areas. Distribution of use by management will be necessary to optimize use within the Forest." Limiting the length of stay does not encourage recreationists to spend most of their time in areas that are more inaccessible and minimally used; instead it concentrates use near roadheads. The Ashley Forest has an obligation to promote a diversity of dispersed recreation, including use by groups who need a longer period of stay in order to allow in-depth training of wilderness skills, conservation practices, and leadership.

5) Continued (wilderness) management at current and historic levels is resulting ina deteriorating resource. This level of management coupled with increase use is leading to a situation where unacceptable limits of deteriorating conditions

See General Statement #4

Group size for the Ashley has now been coordinated with the Wasatch National Forest. We have also observed fewer impacts around popular areas as a result of reducing group size.

The Ashley National Forest has increased the number of groups under special use permit to a maximum of five.

Limit of stay is currently 16 days in all areas outside of developed sites on this Forest.

will exist creating the need to change the way this resource is managed. If the choice is not to invest in management of the wilderness resource to a level that maintains our wilderness characteristics then in the near future we will be faced with making significant changes in the way wilderness has been traditionally managed." After such a serious statement the Ashley Forest does not make clear several things. First, will the proposed direction provide enough increased funding to change the present management radically? Second, if there are to be significant changes in how wilderness will be managed, what will they be?

NOLS would like to see more emphasis on education of the recreation user. The Forest makes a good beginning on pages IV 16-18 of the Plan. However, an additional resource never mentioned is the promotion of educational organizations such as NOLS. With budget cuts, the Federal Government must increase cooperation with the private sector. NOLS is a unique organization because its main priorities are the teaching of conservation practices, wilderness skills, and safety.

6) This Plan in particular is one of the more confusing plans to understand. Alternatives are never presented in a clear fashion with detailed differences between the choices and explanations of how each alternative affects each resource. Symbols and codes for management styles are used throughout the Plan with no reference to what they mean. Though guidelines for Forest standards are established on pages IV 16-18, this is only a beginning. There is no explicit section on evaluation and monitoring of the standards and changes in direction if these standards are not met.

7) In conclusion, NOLS is not pleased with the proposed direction of the Ashley National Forest. We prefer Alternative D. On page S-2 of the DEIS the benefit minus the cost shows that this alternative is the most profitable of all. The Forest states that in the future it will evaluate additional areas for wilderness inclusion, however all of the alternatives, except for D, "result in roading of timbered unroaded areas." The "high intensity management of dispersed recreation" is much greater in alternative D than in the one proposed (145,844 acres compared to 69,401 acres). Because recreation is the number one resource on the National Forest, it's emphasis should be the priority. We hope that the Ashley National Forest will study the economics and social implications of their proposed plan more closely and adopt Alternative D as the Final Plan.

The Standards and Guidelines section of the Plan has been revised to prescribe a level of management which will protect the wilderness resource.

This is an excellent recommendation and has been incorporated into the Standards and Guidelines section of the Plan. A program that is national in scope on this issue is also being developed.

See General Statement #11

Chapter VI of the Draft Plan contains the Monitoring, Evaluation, and Change of Direction sections. The Final Plan has been revised to more clearly display intended monitoring and triggers for change in direction for Wilderness and other areas.

0-11

Ashley/DEIS/Page 1

Clay Johnson
P.O. Box 31
Jensen, Utah 84035
13 November 1985

Duane Tucker
Ashley National Forest Supervisor
1680 West Highway 40
Vernal, Ut 84078

Comments on Ashley National Forest DEIS and Proposed Plan

Dear Mr Tucker;

The Uintah Basin Flyfishers is a group of anglers mainly from the Vernal area who share an interest in quality fishing, and the sportsmanship and ethics which go with that interest. Since we organized about seven years ago, members have been active in stream cleanup activities, input to various agencies and entities on matters concerning policy or management direction for streams, lakes and riparian habitat, and sponsoring activities such as fly tying and fly casting classes for the general public.

We appreciate the opportunity to comment on the draft EIS and proposed forest plan for Ashley National Forest. Before commenting on specific features, we would like to compliment you on the inclusion of many concerns we felt were neglected in past plans. We especially commend your stress on early identification and control of ORV problems and the pack-in, pack-out program under Recreation Objectives, your concern for in-stream flows and identifying and managing for self-sustaining trout populations, and your overall emphasis on riparian areas. It is gratifying to see our blue ribbon fishery on the Green River recognized as important in its own right rather than as just a background for rafting, and to see that you will continue to oppose efforts to build any additional roads along or near the Green. The concern given to buffer zones around riparian areas, to culverts to prevent sediments at unavoidable stream crossings, and to locating roads away from lakes, streams, and meadows is appreciated.

Question: On page 111-36 of the draft EIS is a line graph showing peak timber cutting years. We note peaks in 1960 and in the early 1970s. Our recollection is that the worst floods of Ashley Creek in the Vernal area were in the early 60s and the early 70s. Is it possible there is a correlation which has gone unnoticed? If so, special caution should be used in determining timber sales on this type watersheds.

Response to Uintah Basin Flyfishers

A large portion of the timber harvest taking place on the Forest during that period occurred in the Whiterocks Drainage. No correlation has been made but it is doubtful the amount of cutting during this period had enough effect to cause flooding.

The DEIS

1. III-3: Reference here and on IV-36 is made to three distinct cultures in the area. Since by definition over the next decade the younger newcomer class is going to show the greatest size gains, any plan adopted should emphasize the amenities or types of uses preferred by this group. Further, the table on III-26 shows wildlife and fish use increasing rapidly; any plan should examine the possibility of increasing fish and wildlife values, rather than maintaining them near or at current levels.
2. It does not appear that alternatives for the beetle kill problem such as leaving the dead trees alone, or prescribed burns along natural contours, or let burn areas are adequately assessed in the DEIS.
3. In order to establish vegetative diversity and age class diversity, have you considered planning a series of burns in various areas at various times in the next 50 years, so that vast areas of the forest are not all the same age and vegetative type next time the beetle cycle erupts?
4. I seem to recall that wood ash is alkaline. I read somewhere that reduced growth in Yellowstone Lake trout at one time was attributed to control of fires, which led to a reduction in nutrients and minerals reaching the lake. I wonder if it would be worthwhile to set up a test situation on one or two of our lakes with acidity problems, and prescribed burn the watershed above them, along with a monitoring program to determine short and long term benefits, if any.
5. While realizing such things are difficult to assess, we disagree with the assumption that demand for commodities is completely elastic, while demand for amenities such as recreation is not, and is related directly to population growth in Utah and part of Wyoming. In fact, we believe the opposite to be the case. Amenities use seems constrained only by lack of awareness of the possibilities...by lack of advertising, or by perceived overcrowding of an area. Commodities such as timber, especially when increased production is being emphasized on Forests all over the West, quickly reach a glut condition, which causes hardship on those businesses involved.
6. We believe you should identify areas of the forest as no surface occupancy, etc. regarding minerals exploration. If you are not sure which areas to mark, then your plan should include an aggressive program to identify critical areas, and the DEIS should recognize this problem.
7. The NEPA process was designed so that all interested people could have input to and gain awareness of the management decisions and direction affecting public lands. To this end, the DEIS should be easier to study and cross reference. I have no idea how to accomplish this.
8. We do not feel an adequate range of alternatives have been

(page 2)

Significant opportunities for increasing fish habitat or numbers have not been identified on the Forest. Winter range is the limiting factor for sustaining deer and elk populations in our Forest area. Priority is given to improve those winter range areas on the Forest that can be reasonably improved. Significant improvement or maintenance activities are scheduled for wildlife in the scheduling portion of the Plan.

This year the Ashley is beginning a program of prescribed fire to reduce slash created by sales and for treatment of standing dead lodgepole pine to improve wildlife habitat and reduce the immense areas of unbroken fire fuels.

Acidity testing would have questionable value and is not planned. To obtain a significant reading of a pH change in a lake, a large burn that causes extensive damage to the watershed with heavy runoff would have to occur.

In addition to the constraints on mineral development shown in Chapter IV area a will be designated for a "no surface occupancy" recommendation. Beyond this, the Forest Service exercises control over surface resources through recommendation of standard and special lease stipulations (copies contained in Appendix I of the EIS and B in the plan) on each application reviewed. These stipulations protect riparian, wilderness, wildlife, and other surface resources. Through proper application of the existing stipulations, the surface resources can be protected without wholesale withdrawal and unlawful restriction of mineral exploration and development. A matrix is contained in the EIS and Plan displaying special stipulations and the areas they are applied in.

displayed because:

(A) RNAs are only prescribed for Alts B & I, should be included with Alt D.

(B) Minerals exploration is treated identically under all alternatives.

(C) The alternatives nearly all include an accelerated road building program, when road density is already 1.11mi/square mile.

(D) Many of the values such as shown in figs. II-1, II-3, and II-6 do not vary greatly from alt to alt, and are actually lower under alt D, which presumably is the one enhancing such values.

9. The DEIS fails adequately to address the closure of roads to maintain levels at or below present density.

10. The DEIS fails to discuss safeguards and enforcement for ORV use areas, and prevention of damage to riparian zones and wet meadows, and sensitive soils from ORVs, and conflicts between ORVs and other users such as livestock, hikers, campers, wildlife observers, hunters and fishermen.

11. The assumption is made that dispersed recreation levels are somehow driven by developed recreation levels. We disagree and in fact believe the opposite: that developed recreation sites drive out or reduce the use by dispersed recreationists of areas near developed sites and roads leading to such sites.

The Flaming Gorge NRA

We examine this area separately because of special legislated requirements and because of the interagency management aspects of much of this area.

Overall we approve of present and proposed management direction on the NRA.

1. App. A-15 #7(5) should include the Green River.
2. App. A-15 #7(6) should include the Green River.
3. App. A-23 #7 Add "Encourage BuRec to investigate ways to prevent rapid increases in flow levels, causing hazardous conditions for recreationists downstream from Flaming Gorge dam."
4. App. A-43 1(a) should read "Manage a portion of the river for a 'trophy' river experience navigable...". Remember that the goal here is to maintain recreational diversity in uses of the river.
5. App. A-43 1(b) #5 through #7 and #13 and #14. many of these appear to be obsolete, or need rephrasing to clarify what is meant.
6. App. A-45 #25 should read "strive to maintain a section of the river...".
7. App. A-45 2(b) #2 appears to be obsolete, and further, needs rephrasing regarding "relocation".

(page 3)

See General Statement #10.

In regard to road closures, the final Plan calls for road closures so that the number of miles open at any particular time will approximately equal present open mileage.

Safeguards and enforcement for ORV use is a cooperative effort between State and Forest Service officials under authority of an existing Cooperative Agreement. Protection of riparian and sensitive areas is provided under the Standards and Guidelines section of this Plan, and conflicts among ORV users is dealt with through a public scoring process to specifically identify the problem and seek resolution.

Your comment on the relationship between dispersed and developed recreation is acknowledged.

In reference to your comments on the Flaming Gorge NRA, App A-15 #7(5) and (6) are corrected in accordance with your comment.

Your comment #3 is covered under A-43. D.1.b.(2)

The management direction pertaining to a "trophy" river experience is for the entire river corridor and not the river itself.

The changes in your comments #5 and #7 have been made.

The management decision in A-45 #25 applies to the management area, not just the river.

The Proposed Plan

In the following areas we feel the proposed forest plan needs rephrasing or alteration .

(1) IV-16 #12: Include rafters vs non-rafting fishermen as a conflict.

(2) IV-27 #37: We doubt the economic benefits derived from harvesting timber in riparian zones outweigh the short and long term costs, and recommend that either no harvest occur in riparian zones, or that such harvest only occur after careful study has identified the desirability for the benefit of the habitat, and then in the manner prescribed.

(3) IV-29 #1 100 feet is not sufficient distance in some instances. Perhaps this should read "...extending from 100 feet to 1/4 mile from the edges of perennial streams, lakes, wetlands or other riparian ecosystems."

(4) IV-29 #5 Same as (2) above.

(5) IV-30 add #13 extreme caution should be used in considering or applying any herbicides, pesticides, or other toxicants near riparian zones.

(6) A-43 D.1.a This sounds like you want to maintain the entire NRA portion of the river as a "novice float-boat" stream, and should be rephrased to indicate your desire to manage the Green within the NRA to provide opportunities for several different types of water recreation in a manner so as to minimize conflicts.

In general we feel the proposed plan is not a good one, and doesn't display that balance between uses that normally exists. We feel that a version of what you are calling the "non-market" plan, alt D, modified to not reduce currently used livestock AUMs in the first decade, with reduced road building and maintenance of road density at no more than current levels, no timbering in riparian zones or on slopes exceeding 40%, aggressive policy regarding designation of areas not suitable for minerals development, and an effort to force vegetative age class diversity throughout the forest by innovative methods including burning, would far better answer the needs and use trends displayed by the users of this forest. Further, this alternate appears to offer very good ratios of cost versus returns to the treasury, even ignoring the tremendous returns to an extremely broad segment of the private sector, which has large non-identified secondary benefits to the treasury.

Thank You,



for: Uintah Basin Flyfishers
member; Uintah Mountain Club

(page 4)

The entire section including IV-16 #12 has been rewritten and addresses user conflict.

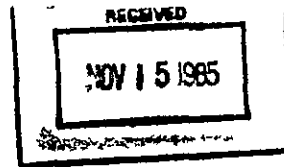
Standards and Guidelines provide for special management of the riparian ecosystem to protect the values of those areas. These are found under both the Riparian Area and Timber Standards and Guidelines.

The definition of what constitutes a riparian area is in the glossary and the standards and guideline section.. Special protection will be provided to these areas as stated above.

The specific addition regarding herbicides, pesticides, etc. was not made. It was felt that the Standards for management of this habitat provided for this concern.

The management decision that follow A-43 D.1.a address the numerous opportunities, activities and resources.

0-12



Will Durant, M.D.
President, Uintah Mountain Club
3264 W 500 S
Vernal, Utah 84078

Mr. Duane Tucker
Forest Supervisor
Ashley National Forest
Vernal, Utah

SUBJECT: Land and Resource Management Plan, Ashley National Forest

Dear Duane,

What follows is the carefully considered response of the Uintah Mountain Club to the Ashley National Forest Plan, a body of work that has been five years or more in the preparation. We appreciate the considerable amount of work that has gone into the Plan, and we realize that countless hours of labor have been necessary to generate the data contained therein. I must admit that we were a little overwhelmed by the size and complexity of the volumes we received. We are just "average citizens" trying to get involved in the plans for the lands we own. We are not professional land managers, foresters, or wildlife biologists, although many of us have a keen interest in many aspects of land stewardship and natural history. We have to depend somewhat on the professionals--our public employees--to provide proper care for the land that is the heritage of us all.

So it was with not a little consternation that we embarked on a review of your Plan. It is a ponderous work, filled with reams of data, tables, equations, and some apparent inconsistencies. To wade through this document requires many hours and considerable dedication. To respond in a meaningful way requires quite a bit more time and effort, and some technical assistance to interpret both the content and the intent of the Plan. It is not a casual

undertaking. So I would like to express our appreciation to you for allowing an extension of the comment period. We were assured by Dave Kimbrough, speaking for you in a telephone conversation in late October, that our comments would carry as much weight if they were submitted after the official deadline as those you received by 25 October. This extension allowed many of us who have full-time jobs, family responsibilities, and community obligations to respond in a way that, we hope, is not superficial or naive.

It appears, however, that a big reason that you may not receive the amount of public comment you claim to seek is that documents like the Plan are so incredibly lengthy, complex and intimidating that most people who would like to get involved are simply scared off when faced with the task of dissecting them. Comments such as, "You've got to be kidding," were commonplace when I attempted to distribute copies of the Plan. How many people do you think are willing to abandon a normal social life, forsake their families after work for two or three weeks, and teach themselves forest management and timber economics the hard way in order to respond to all facets of this document? Especially if there is little chance that their comments will be included in the final Plan?

To quote the Chief Planner,

"This document is not written for the average citizen."

We quite agree. How, then, do you expect the average citizen to respond? We were also informed that there will almost certainly be no major change or departure from your chosen alternative in the final Plan, no matter what comments are submitted. It sounds as if we're doomed from the start. Nevertheless, we feel compelled to respond to what we feel is an inadequate Plan, costly to the taxpayer, potentially disruptive to the natural scene, and weighted toward development and commodity production.

Please read on. We would appreciate careful consideration of our comments and look forward to working with you in a constructive manner.

"Quit thinking about decent land use as solely an economic problem. Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends to do otherwise."

Aldo Leopold, A Sand County Almanac

TIMBER

Accelerated timber harvest seems to be the driving force behind this Plan, so the assumptions made here are very significant. If false premises are used and acted upon, the Plan will collapse under its own weight. Costly revisions will have to be made in the near future, and repercussions will occur throughout the Plan and, therefore, throughout the Forest. It is difficult to follow this portion of the DEIS and Plan because MCF and MMBF are constantly being interchanged. This makes calculations unwieldy.

Two major assumptions are made, and form the basis for the entire management direction:

- (1) There is a market for all the timber you plan to sell (pB-13, Plan).
- (2) Timber prices will rise.

The most important assumption in the FORPLAN analysis is that, "Demand for all resource outputs is equal to or greater than supply (elastic) except for recreation" (Appendix B, p13). The Preferred Alternative calls for an annual harvest of 29 MMBF. Current capacity of sawmills in the area is 18 MMBF, and the average annual harvest has been only about 14 MMBF annually. It appears extremely unlikely that local mills will ask for that much more timber, especially when you consider what has happened to other mills that have expanded in other parts of the country and the projected market for lumber in this country and abroad. Much of the sawtimber in local mills comes from areas other than the Ashley National Forest. There is not a strong market for the timber, nor is there likely to be. It is no secret that all Forest Service regions have been given clear instructions to maximize commodity production and to accelerate timber sales in the National Forests. If intensive timber sales and harvesting

Response to the Uintah Mountain Club

(Page 3)
Timber

The modified preferred alternative has reduced the annual timber sale volume from 27.0 MMBF to 21.0 MMBF. This reduction occurred due to the elimination of scheduled harvesting on slopes exceeding 40%, deleting the harvesting of aspen as sawlogs, deferring some potential harvest areas because of their unroaded characteristics, and deleting some sales that proved not to be the best resource management option at this time. The target of 21.0 MMBF is below the allowable sale quantity (ASQ) of 25.86 MMBF identified in the approved 1978 Timber Management Plan, which will remain in effect until the Ashley Forest Plan is approved.

The market demand in 1985 exceeded the 25.0 MMBF (ASQ) that was offered and sold. We anticipate that this demand will continue at a high level for an extended period of time.

is the direction taken by most other National Forests, what will this oversupply do to the price of timber and lumber? Oversupply in the face of unchanged demand or a slumping market certainly will not get you the price you seek for Forest timber. On page B-33 stumpage for lodgepole pine is given as \$32.79/MBF. Historically, however, bid prices have ranged from \$7-8/MBF to \$12-15/MBF in timber sales over the past five years. This information was provided by the Forest Planner during our meeting on 30 September. How do you propose to sell twice as much timber in a depressed market at the inflated price you expect? The premise is faulty, but the entire Plan seems to be predicated upon it.

Below-cost timber sales in scores of National Forests have resulted in losses to the taxpayer—the owners of the Forests—amounting to some \$2.1 billion over the past ten years. Another study by the Congressional Research Service puts the loss at \$1.6 billion for the 11-year span 1973-1983. Eight of the nine Forest regions actually lose money on timber sales. Six regions took in less than they spent on timber sales and road building in fiscal 1983. Except for California, Oregon, and Washington, there were not many years where other states generated a positive cash flow during the eleven years of the study cited above. Utah, it should be pointed out, is consistently among the states whose National Forests lose money on timber sales.

Section 6(k) of the 1976 NFMA stipulates that the economic suitability of forest land must be taken into account when formulating timber sales in each Forest Plan, yet it is clear that the Ashley Plan would result in losses to the taxpayer by costing the government millions of dollars more to build roads, administer the sales, restore cutover land, regulate the increased recreational access that road building would encourage, and to mitigate harmful environmental and esthetic effects. That is, if there was a market for all the timber you propose to cut. We are unsure how to respond to a faulty premise, especially when it appears to drive an/ entire Plan. On the one hand, the Ashley Forest Plan looks unlikely to be successful by your criteria (assumed increased market). On the other hand, if there was an increased market, the timber would likely be sold at such a loss as to be detrimental to Federal fiscal policy. The Forests just can't sell twice the volume of timber at four times the going rate.

(page 4)

The question of "below cost sales" has become one of national concern. National policy is stated by the Chief of the Forest Service as follows: "As a general rule, the timber sale program on a National Forest should be managed so that total benefits equal or exceed the costs over time" and further, "The timber sale program should be planned and conducted in an economically efficient manner, consistent with applicable land management plans."

Many future timber sales on the Ashley Forest will fall into the category of "below cost" as a result of low value species (lodgepole) aggravated by a very high percentage of dead material (lodgepole killed by pine bark beetle epidemic) being included in the sales. Sales will be made in compliance with the Forest Land and Resource Management Plan and will be based on meeting the Chief's intent that any timber sale program must provide total Forest benefits. Benefits considered include not only the dollar value of the timber sold but also the benefit of regenerating a new timber stand in place of the beetle-killed stand; the benefits to be gained in creating or increasing wildlife habitat diversity over the long term; the benefits of reducing the potential for major and catastrophic fire occurrence by breaking up the continuous fuel bed; the benefits to be gained over the long term by beginning to rehabilitate visual quality where diversity is being reduced by the extensive beetle-kill; and the benefits to be gained by providing some stability in a seriously impacted local economy.

You admit that prices have been erratic (AMS, Plan, pII-12). Is there any indication that this condition will change in the future? You admit that most timber sales have been below cost. Is this likely to change? We doubt it.

The Plan acknowledges that these sales will be below cost (Table II-9, pII-76, DEIS). Alternative B has the fourth highest PVC (cost to administer) and the fourth lowest PNW--value of resources and commodities. By contrast, the "non-market" Alternative D, which nevertheless has substantial timber harvest and road building, beats this by a mile: it has the fifth highest PVC (and is therefore cheaper to administer), and the third highest PNW. Even Alternative A is worth more to the taxpayer. Table II-9 emphasizes that everyone is better off with no below-cost timber sales and road building. We are at a loss to guess why you persist in preferring a more costly, less valuable Alternative. Could it be that timber sales are being used as an excuse to increase the profile and therefore the budget for Ashley National Forest, perhaps by projecting an increase in administrative duties attendant to the logging? It is unrealistic to assume that the Plan will practically increase timbering, and when this becomes obvious the rationale for budget increases will disappear, and with it, a large portion of your budget.

The 1978 Timber Plan recommended that timber not be harvested on steep slopes because of inadequate technology and the potential for adverse impacts. How has this changed? The assumption that cable logging will be needed to sustain the rate at which you propose timbering the Forest (DEIS, pIV-17) makes it even more unlikely that you will be able to sell your timber. And even if logging could be accomplished on steeper slopes, the consequences of logging these slopes in the watersheds in which they typically occur are unacceptable. There would be the risk of more and faster runoff, with the potential for erosion, destabilization, and increased sediment load in streams and rivers. We oppose any timber harvest on slopes greater than 40%.

No site index map is included in the Plan showing each site by the various parameters which determine relative suitability, and there is no indication of whether a study has been done to determine which sites are most economical and in what order it is planned to harvest them. This leads us to believe that "cost is no object" in getting to any stand which is even marginally suitable for timbering.

(page 5)

No cable yarding is scheduled in the modified preferred alternative during the first decade.

No site index map is included because we do not have the entire Forest mapped and we have chosen not to include just a portion.

We think that most people are under the impression that accelerating the timber harvest in areas of heavy pine beetle kill will somehow stop the epidemic. Your Plan denies that timbering practices will control the pine beetle, and rightly so. But the public is still under the impression that harvesting affected stands is "good" for the Forest. The Ashley Forest Plan neglects to indicate, nor is most of the public aware, that the beetle epidemic has probably peaked and is on the decline. The Plan does not clearly document the importance of accelerated timber harvest in controlling the pine beetle and certainly does not compare this method with other methods, such as controlled burns or intensive biological controls. Simply no other method is looked at as a way to control further infestation. Perhaps, then, control of the pine beetle cannot be accomplished with current methods. The Ashley Forest Plan should not imply in any way that an accelerated harvest is part of a larger pine beetle control strategy. Nor will harvesting even-aged stands of lodgepole pine result in anything but perpetuation of the situation which led to the infestation in the first place--large stands of even-aged lodgepole pine 100-120 years old. Whether the trees are removed by the pine beetle or by loggers is moot. Both activities result in loss of the same-sized trees. The obvious difference is that timber harvest is accomplished at a loss to the taxpayer and significantly impacts important biological and esthetic values of the Forest. This is largely due to road construction (DEIS, ppIV-30/31), but may also be due to harvesting methods used.

We are also concerned that many of the areas apparently slated for road and timber harvest are around 10,000 feet in elevation--in areas where the pine beetle is generally not a problem. Lakeshore Basin is an example.

We cannot understand why uneven-aged management can't work for other areas of the Forest besides Flaming Gorge NRA. There is no alternative where uneven-aged management is considered. Uneven-aged management is summarily dismissed as an option in one small paragraph on page II-12 of the Plan. We feel that failure to acknowledge that fire is a natural part of the Forest scene, and your persistence in even-aged management of the Forest, are good ways to ensure that diversity will not exist in large portions of the Forest, and that the pine beetle will be with us again in epidemic form.

(page 6)

Except in isolated, live, uninfested stands, future harvesting in the lodgepole and ponderosa pine ecosystems will have little or no effect on the mountain pine beetle. The beetle epidemic has peaked and is on the decline, mainly due to the lack of live trees sufficient to support large populations.

The objectives of harvesting the dead material are: 1) To allow people to use some of the material prior to its being burned in a wildfire. The natural way a lodgepole forest regenerates is through large wildfires. Wildfire can cause unacceptable soil losses, flooding, stream and lake pollution, wildlife losses and reduced habitat diversity, air pollution, and reduced visual qualities and recreational opportunities. 2) To accomplish site preparation by providing optimum soil conditions for seeds to grow in, thus obtaining a new stand that will provide wood for future generations. 3) To remove surrounding dead material to help protect new stands from destruction by wildfire. Standing dead trees will fall in 20 - 25 years. If the stand does not burn with the increased fuel loading, any future reforestation or timber stand improvement work will be significantly hampered by the downfall of logs. 4) To remove, with the dead harvest, the live, overtopping, mistletoe-infected trees that spread mistletoe to the developing new stands. 5) To develop stand age diversity, thereby improving wildlife habitat. Typically, lodgepole stands are even aged monocultures. By staggering the cuts over time, we can achieve some variation in stand ages. Big game habitat is best when there is a 40/60 cover-forage ratio. Currently, due to the extensive lodgepole stands, the Ashley is excessive in the cover category, and low in the forage. Small clearcuts improve the amount of forage, while providing optimum conditions for the shade intolerant lodgepole to grow. 6) To increase water yields. 7) And to improve the recreational experience for Forest visitors.

Harvesting of timber is scheduled throughout all commercial timber ecosystems except where removal activities might adversely affect other resources, where economics make the sale unfeasible, at administrative sites, in a Wilderness, or in other specific areas identified in this Plan.

Current theories about the altitudinal limits of mountain pine beetle epidemics are proving to be less than accurate in the Uinta Mountains. The beetle has been in the lower end of Lakeshore Basin, in the Hopper Lakes area, for over two years. This area is at an elevation of 10,500 feet.

Lakeshore Basin is no longer in our timber harvest schedule. It has been added to Management Area q and will be given a dispersed recreation emphasis.

Summary.

- (1) We do not think the Ashley National Forest Plan is realistic in appraising a market for the Forest's timber. Projections for timber sales are not in line with historical reality.
- (2) Timber sales have traditionally been a losing proposition. There is no reason to expect this to change. As taxpayers, we believe in the powers of the marketplace, and we emphatically do not want to subsidize an industry with below-cost timber sales.
- (3) Harvesting should only be done on slopes of less than 40% and in areas that are already roaded. Leave the unroaded areas alone until overweening need and economic justification can be demonstrated.
- (4) Do not use the pine beetle epidemic as justification for accelerated road building and timber harvest. The trees will be dead whether they are girdled or sawed. At least if the beetle kills the timber it won't cost us a small fortune and permanently scar the Forest.
- (5) You do not have a meaningful array of alternatives presented in the DEIS and Plan. The only constraints on timber harvest are the "low budget" ceilings in Alternatives F and G. This alone makes your analysis invalid, since no voluntary restraints were placed on timber harvest and road building for the sake of wildlife, esthetic or other non-commodity values.
- (6) There is no site index map, other than the Analysis Area quadrants, which allows us to see how you prioritize the areas of the Forest re. the parameters that determine suitability and relative order of sale and harvest.
- (7) Uneven-aged management is dismissed in every alternative. The reasons are vague.
- (8) Some areas appear to be open to sale and harvest which occupy the heads of watersheds and are above 10,000'. We condemn any Plan which opens these areas to harvest and road building.

FIRE PROTECTION

We are encouraged by your statement on page III-55 of the DEIS in reference to the future of modified suppression plans on the Ashley. Likewise we support your proposal to use broadcast burning on cut-over areas as a way of decreasing fuel load and returning nutrients to the soil. We feel that fire is a very important management tool that is often neglected. Prescribed burns should certainly be used to deal with the fuel situations and beetle epidemic on selected areas of the Forest. Availability of the timber to harvest should not be the sole criterion for fighting fires. Availability is a relative thing and assumes access at some future time by road. For our money, we'd just as soon see affected portions of the Forest go up in smoke, under the right meteorologic conditions, than to see roads built into unroaded areas, permanently changing the character of the Forest for all time. Prescribed or allowed burns in cool, humid seasons on previously designated and carefully chosen parts of the Forest is a lot cheaper way to control fuel loading, increase vegetation diversity, and enrich the soil than is your grandiose Plan to double timber harvest and lace the Forest with roads.

You point out that fire organization costs are calculated on increased budgets because of increased risk. We assume that this means increased risk because of increased human access and activity. This would imply that the fires you are trying to prevent by increased access and harvest are more likely to occur as a result of that access and related activities. We understand that very hot, destructive fires may be prevented by reduction of fuel, but we wonder whether such fires produce a greater demand in money and manpower than numerous human-caused fires in roaded areas.

To your credit, you do allude to the legitimate use of prescribed burns as a management tool (DEIS, A-8), but in the next sentence you state that, "some publics view fire as an enemy and a destructive force that should be aggressively controlled at all times." The real issue is not whether the public views fire as a threat and an enemy from their particular prejudice. Fifty years of Smoky the Bear have indoctrinated people to regard fire as something to be fought at all times. Any notion that fire was historically and prehistorically part of the natural scene and cycle has been effectively removed. The question is whether fire is a legitimate and efficient management tool to control the pine beetle epidemic and the fuel burden in the Forest.

(Page 8)

Fire Protection

The Ashley is continuing a program of prescribed fire to reduce slash created by sales and for treatment of standing dead lodgepole pine to improve wildlife habitat and reduce the immense areas of unbroken fire fuels.

If Smoky the Bear can teach whole generations that fire is bad, we must certainly try to teach them that fire is good in some circumstances. Public prejudice should not be a factor in managing the Forest in an efficient and economical way.

It has been pointed out to us that "lump sum" timber sales may preclude a "let burn" policy in some areas. This management direction could be modified at any time to exclude timber sales of individual merit, or compensation could be paid in current dollars to timber purchasers if it is determined that certain stands or portions of stands might be better treated with naturally-occurring fire.

Summary.

Fire is a legitimate and effective management tool in Forest management. It is not touched upon in enough detail in the Ashley Forest Plan, and no strong commitment is made to its use. We feel that prescribed burns and modified suppression should have high priority and be used concurrently with timber harvest. No timetable is given for implementation of management by fire. Public prejudice is recognized, but it is not clear whether you intend to try to overcome this in the near future. Increased commodity production entails increased risk of man-caused fires in unfortunate areas at undesirable times. This is reflected in increased fire management budgets in those alternative plans which emphasize commodity production.

ROADS

Thirty thousand miles of road are planned for construction or reconstruction in our National Forests. To put this in scale, we need only consider that this is about 4,000 miles farther than the circumference of our Earth. This is disastrous from an esthetic and environmental standpoint, and absurd and wasteful from a practical point of view. The Ashley Plan falls right in line with these grandiose directions from Washington, D.C. by proposing to build or reconstruct 3356 miles of road in the next five decades under Alternative B. No indication is given as to how much of this is new road and how much is upgrading of existing roads, opening of old roads, or appropriation of existing trails. No indication is given as to which roadless areas will be roaded except to produce quadrants of "analysis areas," which only show where timber harvest may take place. No comprehensive map is provided demonstrating how the road system will likely appear at the end of decades 1 through 5, so we are left to guess the timing and location of each possible road.

Furthermore, there is no real spectrum of road building offered in the alternative array. The Non-Market Alternative D still proposes 2057 miles of road construction and re-construction over the 50-year period. Even the low budget alternatives F and G allow for 625 and 1630 miles of roads each. (ppII-48/49, Table II-4, DEIS)

The average annual addition of roads on the Ashley National Forest is stated as 5.5 miles for a total of 55 miles from 1971-1981. Re-construction has been 94 miles, for an average annual mileage of 9.4 miles. We assume this equates to 14.9 miles of total road for each year. Yet the "Current Direction" Alternative proposes a total of 2233 miles on construction and re-construction in the next five decades, for an annual mileage of 44.6. Need we point out that this is not consistent with the current direction?

Road density is listed as 1.11 miles of road per square mile of land outside the High Uintas. Obviously this includes large tracts of unroaded land, and the density is higher in the areas that are roaded. Nevertheless, it does nothing to reassure us that road density will increase to almost 2:1 (1.8:1) if Alternative B is implemented. This increase in road density by 60% will undoubtedly change the nature of the Forest experience irrevocably, no matter how many roads you promise to close.

(Page 10)

Roads

The miles of road to be constructed/reconstructed have been reduced from 34.1 miles per year proposed in the Draft Forest Plan to 25.8 miles per year. We also have taken a look at the methodology for estimating and displaying road mileage, to better explain the proposal. Approximately 80 percent of the local roads to be constructed are temporary roads, skid trails and landings. Of the remaining 20 percent which would be permanent roads, approximately 60 percent would be reconstruction and 40 percent would be construction. In addition, most of the new permanent roads which will be built are local roads, many which will be gated after initial activities are completed, although they would still be available to recreationists on foot, horseback, or off road vehicle if permitted.

Resource management objectives and environmental constraints are considered in planning for new roads. It is not our objective to construct roads for the sake of building roads. Local roads will be located in areas where this Plan allows activities which will require access.

Additional "ORV opportunities" and management challenges are the inevitable result, and will magnify the disruption of habitat for game and non-game species. (pS-7, Plan) You assure us that alpine ecosystems and wet meadows will be closed to ORV use to protect resource damage (pIII-4, Plan; pIV-31, pIII-11, DEIS) I hope that you don't seriously think that you can prevent the sort of damage that currently occurs around Chepeta Lake or at the road end below Leidy Peak! To create roads is to beg for management conflicts and regulatory problems. Roads create an osmotic pressure that ensures that they and the land around them will be used whether or not they are officially close to traffic. We doubt if any budget, far less the one you propose, will allow for adequate enforcement of road closures and regulations concerning ORV use. Road closure is a nice thought, but you and we both know that it is unrealistic. This effort is even less likely if your timber sales and road construction proceed adequately funded, but budget constraints or cuts prevent adequate enforcement and restriction.

You admit that "roads and road construction have the most significant impact of any activity on soil and water," and then proceed to select the alternative which has the second highest total mileage for road construction and which is virtually indistinguishable from Alternative C--the Market Opportunities Alternative. You are, in fact, inviting impacts, and we suspect that you will be ill-prepared to mitigate all of them satisfactorily.

I'll assure you that the hunters in our organization do not appreciate your approach to mitigating the impact of road construction, i.e, season manipulation and increased restrictions on hunters. They feel that there are already enough restrictions on them, but readily accept the de facto limitations placed on them by the roads already built and those that won't be built. In A-4, DEIS you state only that the public's interest in access was divided between those desiring more and those desiring less access, but you demonstrate no clear mandate for increased access. But you do state on page II-27 of the Plan that "much of the issue input related to maintaining the character of the Forest". If you can assume that the public wants 3356 miles of new road in their Forest from your analysis in A-4, allow us to conclude that the public does not wish to have the character of today's Forest permanently altered by a profusion of roads. We feel that the Forest is sufficiently roaded today, and that, with some exceptions, those roads will answer our needs in the foreseeable future.

(page 11)

We agree that roads are often difficult to keep closed, and we have given high budgeting priority to road closures. Even though occasional lawbreakers will violate road closures, we still feel that, on balance, we minimize adverse impacts on dispersed recreation, wildlife, and watersheds.

Your VQO's are not necessarily our VQO's (pII-32, Plan). We are not prepared to accept a major change in the forest experience and appearance to satisfy your ambitious plan for commodity production. Your guidelines for what is an acceptable visual impact may differ greatly from ours. We strongly oppose any roads to below-cost timber sales or mineral leases which significantly alter habitat quality or the appearance of the land in its natural state.

There is a notable inconsistency in your rationale for increased road building. It would appear that you attempt to partly justify the magnitude of construction by alluding to the potential benefits of roads to recreation (pIV-3, DEIS). You seem to be saying, "Well, remember, you can use these roads for recreation after the logging's done." This holds out substantial hope for the motorized recreationist who may support your Plan. However, you say on page IV-31 that up to 75% of all local roads would be closed. What are we to expect from a plan that displays these kinds of inconsistency? Are roads an irretrievable action (pIV-45, DEIS)? Or can they be effectively closed to this extent? Motorized and muscle-powered recreationists alike await your answer.

Lastly, it seems odd that, although timber harvest begins to taper off after the third decade in Alternative B, the amount of road building doesn't. This is reflected in the budget and mileage figures for road construction (Table IV-2, DEIS). Where are these roads being built and for whom? What a waste of money!

Summary.

We see roads as an unnecessary and extremely expensive intrusion into the natural scene. They cannot be justified by below-cost timber harvest or by the perceived need for a substantial increase in developed or dispersed motorized recreation. They constitute a potential threat from both their direct (soil disruption) and indirect effects (increased motorized intrusion and loss of natural cover, esthetic degradation, loss of productivity). They encourage ORV use and abuse by virtue of their very presence, and are difficult, if not impossible, to close and police. They are an "irretrievable action" that leave their indelible mark on the Forest for generations to come.

Note: At \$40,000/mile of new construction in today's dollars (personal commun. with USFS employee), your cost of \$88 million (Table II-4) looks like a significant underestimate if only 2/3 of the total is new road.

(page 12)

As we mention in the EIS, the public's interest in access is split between recreationists who want more access and those who do not. We feel that the changes in the final allow us to strike a better balance by removing road building in Management Area g, while continuing to build a few new roads, at a more modest rate than originally planned. Although many of these new roads will be closed, many of the old, established roads will be open and accessible during certain seasons of the year.

The road building rate does not taper off as fast as timber harvest after the third decade because we used economics in developing the alternative. It is cheaper to harvest accessible timber first, and postpone road investments which would be discounted under present net worth calculations. Thus, in order to sustain harvest levels in later decades, a few more timber sales would need to be offered involving new roads. Local roads are currently being designed at a lower standard to better meet resource management objectives: road costs are substantially less.

ROADLESS AREAS/WILDERNESS

The management direction of all alternatives seems to reflect the attitude that, because the Utah Wilderness Bill of 1984 was passed, the issue is closed, i.e., all other lands are "released from multiple uses other than wilderness." While this may be the letter of the law, we take exception to any attempt to change the character of areas which could have and should have been included in the Bill, particularly those areas identified in your own RARE II and in the land use plans of the 1970's. These areas--primarily the Bollies--are no less deserving of protection because they missed inclusion in the Wilderness Bill. They haven't changed because, through oversight and political maneuvering, they were not given legislative protection.

Even if a deserving area was not designated wilderness in the 1984 Wilderness Act, it should still be maintained as unroaded. Building roads into a roadless area would have the effect of eliminating, de facto, that area from future consideration. The Wilderness Act did not release any areas of the National Forest for all time, but just until the next review period.

To your credit, you do appear to be committed to a re-evaluation of additional wilderness at the end of the first planning period. But it is really unclear how serious you are about maintaining candidate areas in their original state. It is stated in the DEIS that "reaction and input during the public involvement period indicated that the general public is not demanding major changes in the Forest direction. In fact, much of the issue input related to maintaining the character of the Forest." We can only interpret this to mean that the public does not want great changes wrought in the visual quality and recreational experience in the Forest. This includes the current direction with unroaded lands. This preference does not appear to be reflected in the array of alternatives.

Four alternatives estimate that there would be 190,000 to 210,000 acres available for wilderness designation at the end of the first planning period. Four alternatives would have a estimated 150,000 to 160,000 acres (pIV-7, DEIS). This does not represent a wide range of suitable lands through all alternatives. Further, all acreage suitable is subject to reduction by virtue of mineral exploration and development. There does not appear to be much commitment to the preservation of roadless areas as the

(page 13)

Roadless Areas/Wilderness

You have quite accurately stated the Forest Service position regarding release language in the Utah Wilderness Act of 1984. We do, however, recognize the potential of existing unroaded lands outside the Wilderness and have made the following changes in response to public concerns: 1) Area q was expanded and the prescription was strengthened to provide increased protection. 2) Additional areas were identified outside Area q where roading will not occur within the first decade. 3) And a "no surface occupancy" recommendation was made on all mineral lease applications within Area d. In addition, any projects impacting the unroaded areas are subject to the NEPA process. The monitoring section of the Plan has also been strengthened so that a 10% change in ROS classification will trigger an evaluation or change in management direction.

one best use among many, pending wilderness review. Even the Non-Market Alternative D would develop roadless areas to a great extent. And the low budget alternatives F and G would have the least roaded activity based on budget constraints alone, not, it would seem, because you think roadless areas deserve protection.

We have been assured that prescription area g will be managed as roadless and primitive, but a glance at the analysis area maps shows several non-contiguous areas g which are too small and enveloped to be assured preservation and wilderness consideration. Is this acreage part of the 150,000-210,000 acres that may be available for wilderness in ten or fifteen years? This is not clear from the text or from the maps.

The value of the wilderness resource and the demand for unroaded primitive and semi-primitive recreation is not properly addressed in the Plan. The DEIS on page III-15 states that it is estimated that current wilderness lands will meet the anticipated demand for wilderness during the first planning period, while maintaining on page IV-7 of the same document that increased use is leading to a situation where unacceptable limits of deteriorating conditions could exist. Could preservation of primitive areas in the BOLLIES and eventual protection as Wilderness prevent this? How about volunteer help on trail construction and maintenance? The Uintah Mountain Club would like to help in this regard by organizing trail maintenance crews and repair projects under the auspices and direction of the Forest Service.

Any use or management of the Ashley National Forest short of mining pure gold or molybdenum will probably result in a loss to the taxpayer. But wilderness and dispersed recreation has been shown to be one of the least costly ways to manage the National Forests. And the demand for this type of experience is growing, unlike the demand for timber.

We are particularly concerned about specific unroaded areas which appear to be open to development of some sort. These include the Lakeshore Basin between Leidy and Marsh Peak, which is designated n/b in analysis area maps; Uinta Canyon south of the new Wilderness boundary; and the area between the SW flank of Marsh Peak and upper Dry Fork Canyon. These areas have high visual quality and the opportunity for solitude and challenge. Please leave them alone. Keep them unroaded and close them to ORV use.

Your attitude toward minerals management also falls short of our expectations. Hampering your efforts to plan the impacts of minerals production

(page 14)

The area you identified was added to Area g. ORV use is not prohibited in this area, but stronger criteria for managing this use is included in the Standards and Guidelines section of the Plan.

is the absence of an inventory of mineral sites and proposed activities in the Plan. This makes it impossible to understand your approach to mineral development and to assess areas where these impacts might be unacceptable. Your "reactive" posture toward minerals suggests that unroaded areas will not receive your support if a conflict between preservation and development arises. While "reactive" implies passivity, you state elsewhere that the role of the U.S. Forest Service is to encourage the exploration and development of the mineral resource (pIV-45, DEIS). But we're still confused: in yet another place you affirm, correctly, that "stipulations and procedures may exclude surface occupancy." Ah, at last we are beginning to see a firm (?) resolve to be an advocate for the Forest. We suggest that sensitive and unroaded areas receive just this protection unless circumstances are truly extraordinary. We would like to see no development on unroaded lands in the Forest.

Summary.

- (1) The Utah Wilderness Act of 1984 did not settle the issue of how roadless areas are to be managed. They should not just be opened up to satisfy the letter of the law. Nothing has changed to make many of these areas less deserving of protection until the next Wilderness review.
- (2) There is not a broad spectrum of alternatives in this DEIS, ranging from accelerated road construction and resource development to complete preservation of the unroaded state on the roadless areas of the Forest.
- (3) Demand for wilderness and unroaded types of recreation is not accurately addressed in the Plan.
- (4) ORV use should not be allowed in unroaded areas with fragile ecosystems, important habitat, or where solitude and the primitive experience exist.
- (5) Prescription area n is a confusing denotation when applied to either roaded or unroaded areas. "Existing low" impact in a roadless area is quite different from that in a roaded area, and more closely corresponds to the prescription area g. We feel that this designation n, when found within a roadless area, should be changed to a g.
- (6) Lakes ^{shore} Basin, Uinta Canyon, and the west slope of Marsh Peak should be fully protected from roaded incursions and development.

(page 15)

Your concern over the Wilderness Act was addressed next to your earlier comments.

See General Statement #10.

In addition to the constraints on mineral development shown on page III-44 of the EIS, area n will be designated for a "no surface occupancy" recommendation. Beyond this, the Forest Service exercises control over surface resources through recommendation of standard and special lease stipulations (copies were placed in EIS) on each application reviewed. These stipulations protect riparian, wilderness, wildlife, and other surface resources. Through proper application of the existing stipulations, the surface resources can be protected without wholesale withdrawal and unlawful restriction of mineral exploration and development.

Several sections of the Plan and EIS have been rewritten to address the concern expressed in summary item (3).

The criteria for ORV use are in the Standards and Guidelines section of the Plan. Solitude cannot always be guaranteed in unroaded areas, but it is more readily available in most portions of untrailed areas of the Wilderness.

In reference to summary item (5), the management prescription for Area n is the deciding factor and applies to either a roaded or an unroaded situation within this area.

This protection has been provided through expansion of area g.

WILDLIFE

We are quite disturbed that your Alternative B shows a substantial decrease in suitable elk and deer habitat over the first two decades. There is a discrepancy between the stated objective of the Plan (pS-8, DEIS) and the projected impact of Alternative B. We feel that most people don't want the appearance and character changed that much in the near future.

Figures II-7 and II-8 make it crystal clear that, because of timber harvest, possible mineral development, and increased motorized access, the Ashley National Forest will no longer be capable of supporting some forms of wildlife--in this case, elk and deer--in the numbers to which we are now accustomed. If the Plan proceeds without adequate review, those non-game species that depend upon old growth timber will likewise lose valuable habitat in the first two decades.

How will "long term plant and animal habitat..be managed the same for all alternatives"? Why should any plant or animal community be adversely impacted in the short term just to satisfy unwise commodity production by uncompetitive industries? How do you plan to modify existing plant communities? This is not indicated in the Plan. What are "mechanical stream channel improvement(s)", and how would you "improve" on the natural habitat which has existed long before Man came to the Forest? We look to the Forest Service for a leadership role in protecting and nurturing riparian and streambed habitat. We do not expect a mitigating, "pick up the pieces" role after human-caused activities have damaged them.

In particular, we strongly suggest that you not allow public or private small-scale hydroelectric projects to disrupt streamflow or species movement (pII-4, Plan), (pIII-41, DEIS). Such projects would benefit a very few people at the expense of an existing resource, and introduce management and mitigation problems which are just not necessary at this time. Small- and large-scale water projects will always make demands upon free-flowing water. All we are asking is that you stand firm and not take a passive role in reviewing applications for these projects. We pledge to stand with you in opposing any projects that would adversely impact the character of the Forest.

We commend you for recognizing in the DEIS and in the Plan the need for

(page 16)

Wildlife

Alternative J will produce fewer impacts on deer and elk habitat as well as on non-game species which rely on old growth timber.

The questions you raise here are site specific and beyond the scope of the plan. Specific project plans will be implemented under the overall direction of the Forest Plan

The Plan contains a standard under Soil and Water Goal 3 which states that the Forest Service will "file protest with the State Engineer in cases where existing or proposed uses conflict with Forest needs and multiple use objectives". Other standards under this goal state that the Forest will pursue obtaining water rights by various means to protect and manage the Forest. There are also Standards and Guidelines specifically written for guiding the development of hydropower applications.

non-game habitat preservation and diversity (pIII-2, DEIS, et. al). We recognize the importance of non-game species, and, it seems, so do you. But aside from a vague commitment to this aim, it is not clear how you propose to accomplish non-game management. No analysis, so far as we are aware, has been done on the possible effects of mineral exploitation on wildlife. This ties in with the absence of a comprehensive map showing which areas will be closed to leasing and development with time, and which areas will be rigidly controlled or placed "off limits" to preserve animal habitat. Thus, there is no "plan" for wildlife, only goals. Only possibilities are discussed, not what activities will be allowed or prohibited in each area, and the probable effects on resident populations. I suppose that this can be gleaned from the analysis area maps, but letter notations for most areas are vague in their intent (n/b, f, n/f, etc.), and do not show calving areas or other important habitat. We have tried not, and dare not, to draw conclusions from these maps. Some riparian areas are even marked with a "b," indicating priority to timber harvest (Uinta R. canyon).

You state that effective elk security cover is directly affected by the amount of roads (pIV-3, DEIS) and assure us that 75% of all local roads will be closed. Can you do this and enforce it? What will it cost to close and landscape a road? This is unrealistic. Our members who hunt are anything but excited about the idea of further season adjustments and restrictions.

You imply on page IV-15, DEIS, that there may be increased "social tolerance conflicts" with elk in the high AUM alternatives, but every alternative except the Non-Market and low-budget alternatives increase AUM allotments. Does this mean that the Ashley National Forest will try to revive a dying industry at the expense of wildlife? Instead of a modest decline in range reflecting the downward trend in profitability of the Western ranch, you have chosen to benefit cattle at the expense of wild species by habitat modification and road building. There is no Wildlife Alternative except the Non-Market one, and even this does not reflect an earnest attempt to preserve habitat just for wildlife. Why does Alternative B show such a precipitous decline in elk and deer habitat? This must reflect a substantial change in Forest character, and has nothing to do with winter habitat capability. At any rate, the projected fate of this resource does not address the concern and interests of a broad public segment, including hunters, fishermen, hikers,

(page 17)

The standards and guidelines in the plan give some specific direction to the management for wildlife. The monitoring section identifies how the specific needs of the management indicators species will be monitored. Specific project plans either exist or will be prepared for such areas or species on deer and elk units. Currently identified habitat improvement is included in the scheduling portion of the plan. Management area prescriptions give direction for the priority of resource use and development in specific management areas.

Efforts to effectively close roads will be intensified. Reasonable accomplishment is expected. Closed roads will be landscaped by grass or forb seeding or they will be allowed to return naturally to the dominant species in the area.

Alternative J exceeds the deer and elk numbers requested by the Utah State Division of Wildlife Resources. It provides for good populations of other wildlife species also.

campers, and many other users.

The fate of important high-profile species is not even discussed. For instance, where will bighorn sheep be re-introduced and how will grazing allotments for domestic sheep be modified or curtailed to allow for this? Will historic range in the High Uintas be re-stocked? What about the impact of this Plan on moose, black bear, and cougar? How will increased grazing allotments and human motorized impact affect these species? We do not want to see increased predator "control" made "necessary" by upping the ante in this endless game: raise the number of allotments, increase prey/predator contact, destroy the predator.

We are left with the impression that commodity production takes precedence over habitat preservation and diversity, and that "mitigation" is a late response to habitat degradation which is inevitable with this Plan. By the time a decade of studies are done on the effects of increased commercial activities, much will have been lost which you consider "irretrievable".

Summary.

We see an inadequate study of the effects of vigorous road-building and timbering, increased livestock use, and mineral development on wildlife. Mitigation of these activities, on the scale to which you aspire to allow them, would be an almost impossible job. This would be especially true if unforeseen budget reductions occur in the future. Once a commodity-oriented direction is taken, it will not be easy to reverse. Rather, regulatory and mitigating measures will be the first to suffer in the case of a tight budget. You must reassure us that this will not happen.

Our suggestion is to make habitat preservation the number one priority in the Forest Plan. When another agency proposes a potentially destructive activity on National Forest land, don't just be "reactive". Stand up to them! As stewards of our public land, you are charged, not with making land produce at a loss, but with preserving the best that the land contains. We think that that is wildlife, recreation for a harried society, and preservation of esthetic values and diversity in a time when vulgarity, ugliness, and sameness are commonplace.

(page 18)

Standards and guidelines under objective 2 in wildlife states thatpreference will be given to big horn sheep in the management of Bear Top Mountain. Areas in the High Uintas where livestock use is presently permitted will continue to be grazed to a level compatible with other uses in these areas. Specifics about these uses can be found in the management prescription for those areas. Improved management of the riparian habitat will improve moose habitat. There are no unforeseeable detrimental impacts upon black bear or cougar. Predator control is expected to remain at a low level on the Forest.

Alternative J provides for less road building. Increased livestock use is covered by revised allotment management plans are which fully consider other uses. Mineral activities covered by operating plans and environmental analyses which will coordinate activities with other uses. We do not agree that habitat preservation should be the number one priority in all cases as you suggest.

RANGE

This activity is closely tied to wildlife and plant and animal habitat, and has been partially discussed in the previous section.

It is a complicated problem and one which has important historical significance and precedent. Many habitats have been permanently modified by grazing (e.g., sage grouse habitat), are traditional, and should be left the way they are. Improvements on such land could disrupt a particular ecosystem and should not be undertaken without the mitigation measures to which you alluded (vaguely) on page IV-10. On other areas, high priority should be given to restoring range or changing the primary use to wildlife forage, as appropriate.

As we previously stated, your Alternative B does not appear to reflect the generally declining sheep and cattle industry in the West. Further, it contradicts the statement made in paragraph 2, p III-29 of the DEIS.

At the end of 1985 the Public Rangeland Improvement Act expires. The current \$1.35 grazing fee is a tremendous bargain for the ranchers which use the public lands, but it is not at all certain whether this fee standard will continue. A House Appropriations Committee investigation found that the BLM alone loses more than \$20 million a year in their grazing program. We have no reason to believe that the National Forests are not in the same situation. A USFS study has indicated that even if the fee per AUM was raised to \$8.85 today, there would still be only a 10% reduction in herds. To increase the fees to fair market value--about \$6.68--would certainly not greatly reduce this legitimate use of public land. But it would have the effect of removing cattle and sheep from marginal lands. There is much to indicate that this will happen, for our Federal government is definitely looking for ways to cut losses and increase profits. The question is whether the taxpayer should continue to subsidize marginal, unneeded industry.

Utah only contributes 1.5% of the nation's beef cattle, and most of this is produced on private land. Why sacrifice wildlife to keep the Marlboro man on marginal and sensitive lands? Your Plan does not recognize economic realities, nor does it address the very real possibility that the grazing fee may be raised, thereby discouraging grazing on public lands.

Inconsistencies appear. In the DEIS, pIII-31, the value of an AUM is considered to be \$10.17. This is grossly inflated from the generally accepted

(page 19)

Range

The need for wildlife habitat will be considered in all habitat manipulation projects through a site specific analysis.

The grazing fee issue should be resolved by Congress who has the final authority. No resolution is discussed in the Plan.

market value of \$6.68 in 1985 dollars. For the current permitted use of 77,000 AUM, this equates to a total value of \$514,360, not the \$1.7-2.8 million given for Alternative B for decades (Table II-5). Costs to manage the range are likely to go up if range allotments are expanded, and this will trim or negate any income from grazing. If fair market value is charged, some allotments will likely go unfilled. That is good from the wildlife standpoint. If less than the fair market value is paid, the benefits will be correspondingly less, and there will be even less fiscal justification for using marginal lands. Since actual use has only been 82% of permitted use over the last five years, why do you think that demand will increase in an industry which is becoming increasingly marginal, especially if the grazing is substantially raised?

How does "tentative capacity" (pIII-30, DEIS) differ from permitted use? Why is this capacity exceeded by use? Your DEIS and Plan are not specific about which areas will be leased and whether sheep or cattle will be turned into each area.

If the Department of Agriculture and the USFS defer to political pressure and grazing fees stay at \$1.35, their total value will be \$103,950 for 77,000 AUM in 1985 dollars. This is significantly less than the estimated annual benefits given in the Plan.

Your assessment of range conditions raises some anxious questions. The DEIS (pIII-30) states that 34% of the range is in good condition, 42.5% is in fair condition, and 23.5% is in poor condition. On these lands the trend is stated as "stable" on 55%, "up" on 25%, and we are not told whether the "good" range is declining toward "fair" or whether the "poor" range is improving toward "fair". You state on page III-28 that "most of the suitable range is in fair to poor condition". Another way of saying this is that 2/3 of the land is in fair to poor condition. If a large portion of the land designated as "poor" cannot be improved, and we assume that poor range should not be grazed, then 55% of the remaining range is in only fair condition and should be watched very closely for signs of deterioration. What trend is occurring on this fair land and how can it be restored to good if increased allotments are allowed?

(page 20)

The value of an AUM is calculated to be \$10.17 based on a study done by the Economic Research Service. The total value shown in Table II-5 is based on forage produced and not necessarily on AUM's utilized.

Tentative capacity was based on the Range Allotment Analysis completed 15 - 25 years ago. This capacity was based on the key species/key area concept; we have since found that the old analysis grossly underestimated the capacities obtained from intensive management systems used today on most of our allotments.

The local economy derives other significant benefits from grazing beyond the value of an AUM collected for a grazing fee.

The conditions and trends tables in the Plan are based on the old Range analysis which is around 20 years old. The analysis is the only data available for the total Forest. Acres that have been recently compared to the old analysis data show significant improvement. The ratings are an expression of vegetal and soil indexes which are not a valid expression of the overall ecological condition of the sites.

Summary.

- (1) The USFS and the Ashley NF should not see themselves as being in the business of subsidizing a marginal industry. Grazing should be allowed where wildlife habitat and watershed preservation are not compromised.
- (2) Riparian habitat is especially valuable in this regard. No grazing should be allowed in riparian zones.
- (3) Poor range should not be grazed at all. Fair range should be carefully watched for deterioration. Your figures indicate that 2/3 of the range is in fair to poor condition. None of the range was described as being in excellent condition. This would suggest that much of the range needs help. In the face of this, it seems unwise to expand range allotments.
- (4) Range "improvements" should not be made that would significantly disrupt wildlife or diversity. Improvements, such as watering ponds, troughs, and catchments, in unroaded areas should be small and unobtrusive, and take into account the natural features and character of the land.
- (5) A map of range condition by category and proposed allotments should be made available.
- (6) To ensure that the public gets a fair return, we suggest that the grazing fee be set very close to the fair market value or that allotments be sold by competitive bid. You should make it clear that you reserve the right to reduce the number of stock allotments in any bid year.

RESEARCH NATURAL AREAS

Why are there no research natural areas included in any alternatives except your Preferred Alternative and the Accelerated Harvest Alternative I? Are you offering a Faustian bargain whereby the only way we can have RNA's is by accepting your Plan or another alternative even more slanted toward commodity production? Either yours or not at all? This is not an accurate assessment of true need, and certainly is not a fair offer. If RNA's are needed at all, they are needed in all alternatives. If they are not needed they are unnecessary in each alternative, and shouldn't be put into your Preferred Alternative to "sweeten the deal". In any case, they represent areas which are not to be impacted, either by recreationists, or by live-stock or commodity production. We strongly disapprove of the cavalier treatment given RNA's throughout the array of alternatives.

We recommend that the candidate sites be included in the final Plan as Research Natural Areas and that the potential candidate areas listed on page III-15 be given serious consideration for inclusion at some future date. We endorse RNA's as a means to preserve and study unique or representative ecosystems. They represent the least impacted of all our public lands, and should be an integral part of any Forest Plan.

(page 22)

Research Natural Areas

Research Natural Areas are now included for consideration in all alternatives. The original intent was to include the potential Research Natural Areas in all alternatives as a "given". The various alternatives were developed consecutively and not simultaneously. The last two developed were Alternatives B and I and did include the RNA listings while the earlier alternatives never were rolled back to include the listing.

This oversight was corrected for the Final EIS. The updated listing of candidate and potential candidate Research Natural Areas (RNA) is included in the Forest Plan and in all alternatives in the EIS.

SOIL AND WATER

You have identified the risks and potential problems quite well in many sections of the DEIS. The trouble is, your Preferred Alternative invites the impacts which put certain resources at risk.

The Ashley National Forest should be managed to preserve riparian habitat and watershed integrity. Small hydroelectric projects and diversions should be strongly discouraged by whatever means at your disposal. We are hoping for meaningful instream flow legislation which will make it possible to preserve habitat and fisheries by purchasing water rights. Until then, it is important that you discourage or condemn any attempts to modify or divert instream flow. We support you in this endeavor.

We feel that you should be more precise about the expected effects of various alternatives on the resource. Figures are given without showing how they were generated or why they differ through alternatives. What effect will increased road building and timber harvest on slopes greater than 40% have on long-term soil productivity, soil loss, and sediment yield compared to other alternatives? A Soil Resource or Geologic Inventory has not been completed for the Forest. We should have much more information before embarking on a Plan that will commit real money and resources.

You are saying, "Trust me". (p IV-23, para. 2,3, DEIS) We are saying that we'd like some examples. If impact is too great, we don't want it. We do not want to see any degradation of dwindling instream habitat with increased sedimentation.

You state on page IV-25, DEIS, that "the primary sources of water pollution on the Forest include grazing, construction associated with the Central Utah Project, logging, and road construction and maintenance". On page IV-31 you state that "roads and road construction have the most significant impact of any activity on soil and water". If these are the expected impacts, then you are putting the Forest at risk by choosing Alternative B. All activities which cause water pollution will be expanded with this alternative. Why take such a direction?

Water yield would increase in all alternatives, through all decades (pIV-26). Increased sediment would be the expected result in those alternatives which disrupt the most ground. This is confirmed by your assessment and projection (Fig. II-18, DEIS). Water yield will increase for many

(page 23)

Soil and Water

All alternatives were modeled for sediment production. All of them met State water quality standards.

An adequate array of alternatives were considered and displayed in the EIS. Endless combinations are possible but are often unnecessary as well as unproductive.

Alternative J was developed to handle concerns such as the ones you mention. It reduces logging and road construction thus having fewer impacts on the water and soil resources. It also removes the scheduling of logging on slopes over 40% during the first decade.

reasons it seems; pine beetle kill and logging are probably the most significant. The difference between beetle kill and logging is disruption of the soil. It would seem to us that intact soils with dead trees would be much less likely to erode than soils which have been disrupted with heavy equipment, especially on steep slopes. The Non-Market Alternative and Current Direction Alternative would both provide for increases in water meeting quality goals without the large increases in sediment allowed in the commodity alternatives. We suspect that a true non-market alternative, with a minimum of new roads, and with emphasis on wildlife and dispersed recreation, would result in even less sedimentation. Why wasn't an alternative chosen which would (1) be cost effective, (2) maintain maximum long-term soil productivity, and (3) provide for maximum water yield with little sediment? Mitigation necessary to achieve the levels of sediment and water quality, as well as preserve soil productivity, make Alternative B uneconomical. Such measures are an added expense which compounds the fiscal losses from below-cost timber sales and road construction.

As we prepare this response, it is hoped that future funding for the wasteful Central Utah Project will be sufficiently curtailed by a vote of the informed public as to force a reassessment of the need for further diversion of Uinta Basin water. We trust that the Ashley National Forest will earnestly try to fulfill the requirements of NEPA when public works projects are proposed for the Forest. Although "the Forest Service has limited control over impoundments, transmission facilities, wells, and man-made developments," we hope that potentially destructive projects will undergo a rigorous environmental assessment by the Ashley National Forest staff, and, where appropriate, receive your censure.

Summary.

We anticipate significant deterioration of water quality and increased sedimentation in practically all alternatives, and a real possibility for disruption of instream flow, for habitat loss, and for degradation of stream-oriented recreational opportunities if the Ashley National Forest does not modify its commodity-oriented direction and vigorously oppose destructive outservice projects. We recommend that a Soil Resource Inventory be completed as soon as possible--before the commitment of money and resources. We demand that logging not occur in steep-sloped watersheds or any slope

greater than 40% (Example: Brownie Canyon, Marsh Peak Analysis Area map 29), and that road building be extremely limited in the Ashley National Forest.

We appreciate your analysis of the possible risks. Now please select a management direction that will minimize those risks. This is the only rational approach to stewardship and resource management.

MINERALS

Shall we say it again?

There is no meaningful array of mineral development through all the alternatives. But you admit this (pII-70, DEIS) and offer the excuse that the Forest Service is traditionally "reactive" to mineral development.

On the other hand, you say that "the role of the Forest Service is to manage the surface resources...., while encouraging the exploration and development of the mineral resource". It would seem that the USFS is confused as to their role in mineral exploration and extraction. Are you "reactive" or are you "encouraging"? You do emphasize that one of your jobs is to "minimize adverse environmental impacts", but we feel that your role must sometimes go beyond that, especially when another special resource is at stake. We realize that the Forest Service is able to impose such stringent regulations as to make marginal ventures impractical. These powers should be used for protection of habitat, watershed, and special scenic and natural values. We think you realize this. But your analysis makes it seem that the entire Forest is "up for grabs".

We would like to point out that some activities proposed in Alternative B and in other alternatives have an effect upon mineral development in the Forest. An extensive network of roads, for instance, could encourage mineral development by making marginal mining and oil ventures economically attractive. The economy of scale might be such that, unless a road was handy, development of a lease would not be feasible.

You have an obligation, by law, to determine where on the Forest mineral development should occur and how these areas should be regulated, managed, or prohibited. You seem to acknowledge this obligation in the Plan (pIV-10, 30-31, pIII-45), but this is not reflected in the array of alternatives, i.e., no spectrum of minimum versus maximum development of these resources. Leasing is discretionary and can vary according to plan. Likewise, there should be certain places in the Ashley where no surface occupancy is allowed. Areas such as riparian zones, critical wildlife habitat, and roadless potential wilderness candidate areas should be off limits to mineral exploitation and designated as such in the Plan. Notably, the large contiguous areas marked g on the Analysis Area quadrants were formerly proposed for wilderness by the USFS and certainly deserve another look. Why are they not declared no lease/ no surface occupancy?

(page 26)

Minerals

In addition to the constraints on mineral development shown in Chapter V of the EIS, area g will be designated for a "no surface occupancy" recommendation. Beyond this, the Forest Service exercises control over surface resources through recommendation of standard and special lease stipulations (Appendix B of Forest Plan an Appendix I in the EIS) on each application reviewed. These stipulations protect riparian, wilderness, wildlife, and other surface resources. Through proper application of the existing stipulations, the surface resources can be protected without wholesale withdrawal and unlawful restriction of mineral exploration and development.

Accordingly, we feel that a map of those areas with mineral potential should be included in the Plan. It should show possible minerals by class, economic significance, and whether conflicts exist between the mineral exploitation and other resource values. That is the only way we can assess the value of a mineral claim relative to that of other resources in the same area. The hydrocarbon and mineral interests would like for you to do this as well, so they can plan their future. We feel that the Ashley National Forest should know what areas it will and won't allow to be impacted--not just open up the entire Forest to any and all comers.

Again, let us emphasize that we appreciate your commitment to careful development of mineral resources on the Forest, but we must say that we see no commitment to absolute preservation of some special areas in the Ashley outside of the Wilderness.

We suggest that the following areas be placed in a no lease/ no surface occupancy status:

- (1) All riparian zones, e.g., Uinta River canyon.
- (2) All wildlife areas of significance, e.g., critical winter and summer range, MIS habitat, head of watersheds, calving areas, etc.
- (3) The Bollies and all management areas marked g, as well as all other lands previously proposed for wilderness status under RARE II.

Summary.

Mineral exploitation is not treated as something that can be modified significantly by the Forest Service. But you have a duty to protect non-mineral resources to the extent of prohibiting exploitation of special areas. We'd like to see a plan for mineral development on the Forest and a wider array of alternatives to reflect differing attitudes toward mineral development and resource management.

A map showing minerals in relation to other resources would be nice. Actually, it would be absolutely essential to help us understand the situation and to identify resource conflicts earlier on.

RECREATION

Recreation in the Ashley National Forest is treated as a byproduct of commodity production. Period.

This is a reflection of Forest Service direction and budget over the last four years. While the USFS budget has been reduced overall, the cuts have not come across the board. Timber budget is up 13%. Road budget is up 16%. Mineral budget is up by 57%.

Soil and water conservation is down by 22%. Fish and wildlife is down 11%. Recreation has been cut by 40%. As the Forests were preparing comprehensive Plans required by NRPA, the Assistant Secretary of Agriculture ordered the value assigned to recreation and wildlife user days reduced by a third, and the computer ranking of use values redone. This is what you have to work with, and, to that extent, it is not entirely your fault. However, reorganizing the recreation spectrum to conform to your accelerated road construction plans just will not wash.

Area closure to vehicles does not vary by alternative (Table IV-1, DEIS). All alternatives, except for F and G (budget constraints) allow for significant additional roads and will create a potential for increased ORV "opportunities" (Oh, how I love that word!) and management challenges (pIV-4, DEIS). All alternatives except Alternative D will have timber harvesting in areas that are now free of this activity (p S-6). This will have the effect of impacting large areas of the Forest which, by their nature, should be left unroaded and off-limits to motorized recreation. You can't mitigate those impacts. Some roadless areas should be kept unroaded and managed for a primitive recreational experience. Potential wilderness candidates may, de facto, be eliminated from future consideration by activities related to mineral development, logging, and road building.

If a "satisfying backcountry experience" is needed by people who can't or won't pry themselves from their vehicle, then ample opportunities exist along the 1817 miles of road that currently lace the Forest. Drive through the Forest. You can see that opportunities abound for dispersed recreation. Even in times of heavy use, traffic is sparse and impact generally low. It is absurd to maintain that more roads are needed to access recreation.

But they are, of course, needed to access below-cost timber sales, and thus we are told to be glad for the additional recreation opportunities

(page 28)

Recreation

Alternative J significantly reduces road construction associated with timber harvest. Additional recreational emphasis is provided for all recreation activities. The expanded area q also affords increased protection of undeveloped areas. An area in excess of 200,000 acres will remain unroaded and will not have timber harvest activities throughout the first decade, as shown on the map attached to the EIS. The monitoring section of the Plan also provides that changes in ROS classes in excess of 10% which will trigger a reevaluation or change in management direction.

The purpose of NFMA and the Forest planning process is to achieve a *proper balance of all resources.*

Criteria addressing VQO objectives are contained in the Standards and Guidelines section of the plan, and have been strengthened to protect the landscape resource.

See previous comments on timber harvest and mineral development.

Area q has been expanded and a revised map of undeveloped area now appears in the appendix of the EIS.

Comments to this summary section have been covered in the foregoing sections of this response.

See comments on the previous page.

Your proposal to increase ORV use in the Forest is like saying, "Since we can't stop it now, let's just open it up so it won't be illegal." This analysis may be simplistic, but you present no evidence that ORV use can be adequately controlled under your Plan.

Under all alternatives you project modification--a major modification--of visual quality VQO on 332,580 acres (pIII-15, DEIS). We can't believe that that many people want to see their Forest changed to that extent. Why are we hearing different different reactions to your Plan than you presumably heard when you asked for public input? Folks don't want the appearance of the Forest to change significantly, for the long or short term. In your analysis of the economic and social effects of different management directions (pIV-36, DEIS) you allude to the relatively large segment of the population who favor amenity values and the natural setting of the Forest over increased commodity production and resource development. You note that the regional and national thrust is toward preservation of recreational and amenity values.

Here is a resource in its own right. Preserve it! We suggest that, the less visually appealing the Forest becomes, the more public outcry you will hear. Increased road building and clear cutting of large stands will ensure disapproval by the majority of the public.

On page IV-7 you mention that areas eligible for future Wilderness status may be reduced in size or eliminated due to "unforeseen" activities, such as mineral development. Referring to our previous comments, we emphasize your responsibility to protect values other than commodity production. Wilderness candidate areas and habitat will be lost only as a function of unwise timber practices and imprudent mineral development.

Another criticism of your Plan is your attempt to fragment area g lands on the analysis area quadrant maps. Many areas marked "g" are very small and are surrounded by areas projected for possible timber harvest. If we assume that area g lands are to be maintained in an unroaded state and that they represent future Wilderness candidate lands, why are they interspersed with and surrounded by areas where logging activity may be intense? If total acreage in g (listed as 69,400 acres) represents the only large tracts of land that may be considered for Wilderness designation,

and much of this is fragmented into tiny parcels, then we may truly despair of getting a reasonable amount of contiguous land for Wilderness in the next review. This acreage in g is inconsistent with the acreage projected to be available for Wilderness designation (150,000-210,000 acres) at the end of the first planning period. And area g is the only unroaded prescription area outside of the legislated Wilderness area. We assume, but you don't state, that this means that some land in a different prescription may be Wilderness candidate land. But this is very vague and should be clarified.

Lastly, and this is a really sore spot with us, your analysis of the impact of increased roads on the Ashley National Forest seems to indicate that you want to guide or dictate types of recreation in the Forest. We refer to pages III-11 and IV-45 in the DEIS. You appear to be saying, "Our Plan will change greatly the types of recreation you can enjoy. It will increase motorized use and make it more likely that those of you seeking a backcountry experience, with isolation and solitude, will come into contact and conflict with motorized recreationists. It will be more difficult to get away from the roads, and ORV use will be encouraged on most of the Forest. Well, Mr. Muscle-powered Recreationist, why don't you just learn to love car-camping and four-wheel driving? You just might like it, once you get used to it. It isn't so bad, really."

Thus you are projecting motorized recreation as the wave of the future, and are, in fact, trying to guide recreation in that direction. It helps your case to be able to justify all those roads! This tack runs counter to current trends, which show that non-motorized forms of recreation are growing in popularity. People like to get away, and are beginning to leave the roads in increasing numbers. There is a strong bias in this Plan in favor of developed, motorized recreation and commodity production.

Summary.

- (1) There is not an adequate array of alternatives which features at least one alternative as primarily recreation-oriented. Recreation is an afterthought, and is treated as a byproduct of commodity production.
- (2) Area closure to ORV's does not vary by alternative. This makes it more difficult to obtain the peace and solitude our Forest affords.

- (3) You cannot help to justify the incredible impact of 3,300 miles of new or re-constructed roads by telling us how lucky we are to have increased recreational opportunities.
- (4) Major VQO modifications are not desired by the public, yet will be the unavoidable result of your Plan. Alternative B ignores public concerns in this regard.
- (5) Recreational opportunities may be seriously affected by commodity production. Many proposed activities may result in increased sediment load in the streams. Logging and mineral development may adversely affect hunting sport on the Forest if not forbidden or closely regulated.
- (6) Your treatment of unroaded areas is vaguely presented and gives us no assurance that values on these lands will be preserved. Muscle-powered and other non-motorized recreation is given lip-service and very little funding.
- (7) The value of the recreational resource, both from a cost-saving and income standpoint, is ignored or discounted. If you exclude the Flaming Gorge NRA, wilderness and motorized and non-motorized semi-primitive areas have a greater dollar value than roaded natural (B-38). All recreation is a bargain compared to the exorbitant costs of road building and timber harvest.
- (8) Emphasize the recreational resource. It will be less costly in any case, and answers the public's demand for an intact resource, wisely managed.

CONCLUSION

We hope that we have not offended you in any way by making these comments. They were made to help you discover how we feel about the way the Forest should be managed. We hope it may help guide the Forest's management. We chose to interpret the DEIS and Plan as written. On the one hand, if our analyses are wrong and our conclusions incorrect, our error will only point out the difficulty with which such a public document can be understood by the public for which it was intended. On the other hand, wading stubbornly through this unwieldy tome without interpretative help may have brought to light some inconsistencies which cannot be explained away, and which should be corrected in the final Plan.

Your Preferred Alternative is too commodity-oriented, and will not solve more problems than it creates. No attempt was made to offer a meaningful array of balanced alternatives from which to choose. Your Plan will be costly and has the potential for significant environmental impact. It is very possible that the character of the Forest will be degraded, but there is no question that it will be changed considerably. We do not think that this is what the public wants. These are our criticisms in their most simple form.

We honestly look forward to working with you on many of the problems and questions facing the Ashley National Forest. I do not think of our relationship as adversarial, and neither should you. You have done an impressive amount of work--all of you. We respect your dedication and your honesty. You may be assured that I will do everything I can to assist you in improving the Forest experience in the future. We would like to offer volunteer work for special projects, such as trail maintenance, for instance.

Thank you for your attention. We hope to see you soon.

Sincerely, .



Will Durant
President, Uintah Mountain Club

G. GOVERNMENT AGENCIES COMMENTS AND FOREST SERVICE RESPONSES

- G-2 Wyoming State Archives, Museums and Historical Department
- G-3 State of Utah Division of State History
- G-4 U.S. Department of the Air Force
- G-5 State of Utah Bureau of Water Pollution Control
- G-6 U.S. Department of Housing and Urban Development
- G-7 State of Utah Water Resources
- G-9 Wyoming Game and Fish Department
- G-10 U.S. Department of the Interior
- G-11 Environmental Protection Agency
- G-12 Bryce Caldwell, Uintah County Commission
- G-13 Thomas G. Wardell, Uintah County Commission
- G-14 Neal H. Domgaard, Uintah County Commission
- G-15 Colorado River Board of California
- G-16 Soil Conservation Service
- G-17 Senator Orrin Hatch
- G-18 Daggett County Commission
- G-19 Congressman Howard Nielson
- G-20 Colorado River Commission of Nevada
- G-21 Wyoming Dept of Environmental Quality, Water Quality Division
- G-22 State of Utah Office of the Governor
- G-23 U.S. Department of Energy, Western Area Power Administration



6-2

0 1 2 0 3



Ed Herschler
Governor

Wyoming State Archives, Museums & Historical Department

Barrett Building

State Historic Preservation Office

Cheyenne, WY 82002

Robert D. Bush, Ph. D.

Director
307-777-7519

August 1, 1985

J.S. Tixier, Regional Forester
Intermountain Region
Federal Office Building
324 25th Street
Ogden, Utah 84401

RE: §Ashley National Forest Land and Resource Management Plan DEIS

Dear Mr. Tixier:

Our staff has reviewed the DEIS. We cannot make any specific assessments on the various alternatives potential effects on cultural resource sites and have no preference for one or another of the alternatives. As discussed in the DEIS, specific projects or actions are subject to 106 review by SHPO and the ACHP. We will provide comments on a project specific basis as they occur.

Sincerely,

Mark Junge
Deputy SHPO

FOR:

Dr. Robert D. Bush, Ph.D.
State Historic Preservation Officer

MGJ:RLB:kjm

6-3

August 6, 1985



NORMAN H. BANGERTER
GOVERNOR



STATE OF UTAH
DEPARTMENT OF COMMUNITY AND
ECONOMIC DEVELOPMENT

Division of
State History
(UTAH STATE HISTORICAL SOCIETY)

MELVIN T. SMITH, DIRECTOR
300 RIO GRANDE
SALT LAKE CITY, UTAH 84101-1182
TELEPHONE 801 / 533-6755

Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 West Highway 40
Vernal, Utah 84078

RE: 1920, Forest Land and Resource Management Plan, DEIS

In Reply Please Refer to Case No. I239

Dear Mr. Tucker:

After review of the above referenced project, our office has the following comments for consideration by the Forest Service:

1. In the chapter on environment, cultural resources are not listed as a topic along with such things as mineral, timber, recreation. The way the chapter is constructed, and the definitions of affected environments, seem to indicate that it would be preferable to put cultural resources here and perhaps not as an add-on to a recreation issue. That is just our review of how affected environment issues are developed, and cultural resources appear to be one of those.
2. No mention of impact of recreation uses on cultural resources is made. This activity has proven from past information, is an impact on cultural resources, and it should be considered and documented.
3. The ICOs 1-8 should include cultural resources, particularly questions about how to protect significant resources and provide public interpretation visitation to known sites, and secondly to what extent should the Forest Service pursue recording the sites in likely areas, rather than a project by project basis as part of, perhaps, the identification phase.

Since no formal consultation request concerning eligibility, effect or mitigation as outlined by 36 CFR 800 was indicated by you, this letter represents a response for information concerning location of cultural resources. If you have any questions or concerns, please contact me at 533-7039.

Sincerely,

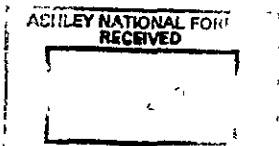
James L. Dykman
Cultural Resource Advisor
Office of State Historic
Preservation Officer

JLD:jrc:I239/1961V



DEPARTMENT OF THE AIR FORCE
AIR FORCE REGIONAL CIVIL ENGINEER CENTRAL REGION
1114 COMMERCE STREET
DALLAS TEXAS 75242

20 AUG 1995



Mr. Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker

Thank you for allowing us the opportunity to review the draft planning documents for the Ashley National Forest Utah and Wyoming.

We continue to express our support of the Forest Service in developing functional management plans for lands under its control. The Air Force concern for these management issues contains the need to retain use of existing and the establishment of future military flight training areas and routes which may traverse these areas.

Currently no Air Force air operations traverse any portion of the study area. Although flight training areas, routes, and airspace requirements of the military are subject to change and do change frequently, it is not anticipated that new routes will be established in the immediate future.

We are hopeful this information is useful in your planning. If additional information is needed, our staff point of contact is Mr. Raymond Bruntmyer, (214) 767-2527, or FTS 729-2527.

Sincerely

EDWARD LOPEZ
Chief, Planning and Intergovernmental
Affairs

Cy to: AFRCE-WR/ROV
HQ USAF/LEEV



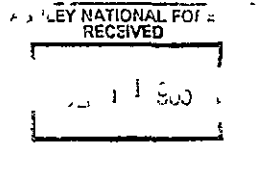
STATE OF UTAH
DEPARTMENT OF HEALTH

533-6146
Sept 9, 1985

NORMAN H. BANGERTER GOVERNOR

SUZANNE DANDOO MD MPH EXECUTIVE DIRECTOR

Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078



Response to State of Utah Department of Health,
Bureau of Water Pollution Control

Best management practices will continue to be implemented in all projects or activities outlined in the plan. Water quality and riparian conditions will continue to be given top priority. All alternatives considered in the plan have the criterion that State water quality standards will not be exceeded.

Dear Mr. Tucker;

The Bureau of Water Pollution control appreciates the opportunity to review the proposed Forest Plan and Draft Environmental Impact Statement for the Ashley National Forest.

The State has designated all surface water geographically located within the outer boundaries of U.S. National Forests whether on public or private lands as anti-degradation segments. This is to protect high quality waters which now or may potentially serve as raw water sources for culinary use. The Bureau will support plans which will not degrade water quality in anti-degradation segments.

Construction projects, including roads, dams and development will be considered on a case-by-case basis by the Water Pollution Control Committee. When pollution results from these construction activities, best management practices must be employed to minimize pollution effects. Point source discharges are prohibited in anti-degradation segments and nonpoint sources need to be controlled to the extent feasible through implementation of best management practices.

The Bureau will support any plan that will maintain or enhance the riparian and aquatic habitats in streams and lakes within the Ashley National Forest boundaries. The Bureau supports the current management efforts of maintenance or improvement of watershed conditions and protection of water resources for on-site use. We also support the recent emphasis placed on stabilization of watersheds, stream banks and low standard roads.

In addition to the water quality being monitored by the Forest Service and Geological Survey, the Bureau of Water Pollution Control maintains the following stations which may be of interest to the Forest Service and your proposed plan as you assess water quality:

Duane G. Tucker
Page Two

<u>STORET #</u>	<u>DESCRIPTION</u>
493672	Duchesne River at U-208 crossing near Tabiona
493522	Duchesne River below the confluence with Rock Creek
493525	Rock Creek above the confluence with Duchesne River
493451	Strawberry River above the confluence with Duchesne River
493615	Strawberry River above Starvation Reservoir
493419	Duchesne River near Myton at US 40 crossing
492790	Green River at Dinosaur National Monument
493721	Ashley Creek above the confluence with Green River
492776	Brush Creek at U-149 crossing
493786	Brush Creek at U-44 crossing
493810	Green River at Browns Park
493825	Red Creek at Clay Basin Road crossing
493849	Green River below Flaming Gorge Dam

The proposed Forest Plan and Draft Environmental Impact Statement for the Ashley National Forest represents an excellent effort by the Forest Service to maintain or enhance current water quality conditions. We hope this effort will continue to insure good water quality for future needs. We look forward to closer involvement with you on a project specific basis as per our Memorandum of Understanding.

Sincerely

Calvin K. Sudweeks, Director
Bureau of Water Pollution Control

cc: Dennis Dalley RDCC
Doug Lofstedt, EPA

RDG/jm
2748-6



U S Department of Housing and Urban Development
Denver Regional Office, Region VIII
Executive Tower
1405 Curtis Street
Denver Colorado 80202-2349

Jan

9-16-85

6-4

September 13, 1985

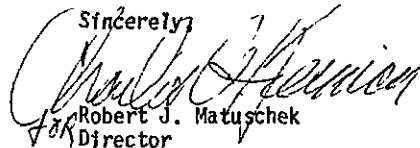
Mr. Duane G. Tucker
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker:

This is in response to your request for comments on the Draft Environmental Impact Statement (DEIS) for the Ashley National Forest, in Utah and Wyoming.

Your DEIS has been reviewed with consideration for the areas of responsibility assigned to the U.S. Department of Housing and Urban Development. This review considered the proposal's compatibility with local and regional comprehensive planning and impact on urbanized areas. Within these parameters, we find this document adequate for our purposes.

If you have any questions regarding these comments, please contact Mr. Myron Eckberg, Environmental Specialist, at (303) 844-3102.

Sincerely,

for Robert J. Matuschek
Director
Office of Community
Planning and Development

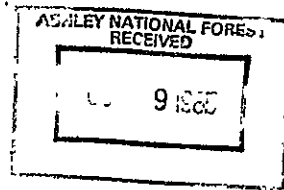


STATE OF UTAH
NATURAL RESOURCES
Water Resources

1636 West North Temple Suite 310 Salt Lake City UT 84116-3156 801-533-5401

October 7, 1985

Norman H. Bangerter Governor
Dee C. Hansen Executive Director
D. Larry Anderson Division Director



Response to State of Utah Department of Natural Resources.
Division of Water Resources

The plan makes no site specific decisions on future developments to store and transmit water. No new improvements (storage or transmission) are currently proposed on the Forest. If they are made during the period of the plan they will be considered on a site specific basis following any coordination criteria established in the plan. The new Alternative J, although not as high as Alternative B, shows an increase in water yield while meeting state water quality standards.

Flooding from intense rain storms has been recognized in a rewrite of Chapter III. The discussion on the Upper Colorado River Compact was not deleted because it still applies to the Forest.

Mr. Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Ut 84078

Mr. Tucker:

Reply to : 1920

We appreciate the opportunity to review the Ashley National Forest Land and Resource Management Plan and the Draft Environmental Impact Statement. These represent considerable effort by many people. Hopefully our comments are constructive in nature and will add to these reports.

There is considerable repetition within each report and between the two documents. Unless the format used is required, the volume could be reduced by eliminating the duplication.

Water resources are limited in Utah. We would encourage you to allow for future development of this resource as much as possible. This will require additional water storage and transmission facilities. We appreciate the fact the recommended plan projects a water yield improvement nearly as high as any of the alternatives studied.

Our specific comments follow:

DEIS

1. p. II-12, 2nd par. The Research Natural Areas should be located as such on a map. Table III-8, p. III-14 names 5 candidate and 9 potential RNA's but most are difficult if not impossible to locate by name only.
2. p. III-39, last par. If conflicts occur, which will take precedence. There is a vital need for more irrigation water storage to make efficient use of the water supply and to carry out needed work on the Colorado River Salinity Control Program.
3. p. III-41, 6th par. All major floods are not related to snowmelt events. Quite often, it is just the reverse. What about the Sheep Creek flood in the mid-1960's.
4. p. III-41, 8th par. These next paragraphs seem to deal with the Central Utah Project so maybe a heading is indicated. Also, delete the discussion on the Upper Colorado River Compact as it is not relevant to the plan.

Duane Tucker
Page 2
9-30-85

5. p. III-42. The references to the Bonneville, Upalco, and Uinta units in the 2nd par., and to the Bonneville, Jensen, and Upalco units in the 9th par., do not agree. They all impact the Ashley National Forest.

6. p. III-43, 3rd par. It is questionable if increased demands on the Wasatch Front will be of great magnitude. There is an upper limit to the commitments that can be diverted.

Also, the data in the 7th par. includes only the Utah part of the forest. Table III-25 should be credited to "State of Utah Water- 1980" written by the Utah Division of Water Resources. Wyoming data are not shown. This should be included. The text indicates demands are for Uinta Basin only yet the data include Dagget County.

7. p. III-60, 1st par. If alternate B is the accepted plan, present practices will change and pest management will be a part of the plan.

8. p. IV-28. If the RNA's include potential reservoir sites, this should be given consideration.

9. p. IV-43, item 2. Should the Division of Water Resources and the Central Utah Water Conservancy District also have been included as contacts?

10. p. VI-2. Include the Utah Division of Water Resources.

11. p. VII-2. Research Natural Areas, change III-8 to III-13 and 14.

12. p. A-7, 5th par. Shouldn't reference to 58.0 summer range be 58.0 deer summer range capability.

13. p. H-10, item 4. The proposed RNA's are different than shown on page IV-28 and III-13.

Land and Resource Management Plan

1. p. II-13, 4th par. A brief summary of the Ashley National Forest Municipal Watershed Plan should be included.

Last par. This is a very general statement. Will fillings be made on all these uses and how will this impact prior rights?

2. p. II-14, 4th par. Where are these areas located and what impacts will they have on existing conditions.

(page 2)

The Bonneville, Upalco and Uinta units directly impact the Ashley National Forest; the Jensen unit has only indirect effects on the Forest because water storage impoundments are all off the Forest.

The impact discussed in Chapter III is already occurring with the construction of the Bonneville Unit of the CUP.

Credit of table III-25 to Utah Division of Water Resources has been made. Your suggested changes in the text are also included. The demand for water in Wyoming is expected to increase slowly. The second paragraph under demand states the Wyoming situation.

Your comment 7 is not understood. No change in the text was made.

Potential reservoir sites would be evaluated in the establishment report of any RNA.

It was not felt that implementation of the plan would have any significant effects on the Utah Division of Water Resources and the Central Utah Water Conservancy District.

The inclusion referred to in comment 10 has been made.

The changes referred to in comments 11, 12, and 13 have been made.

The summary in item 1 was not made. It is not felt that additional discussion is needed.

Fillings will be made on these uses as appropriate for the specific use and area involved. The impact on prior rights will not be known until these needs have been quantified.

Priority restoration needs are located in the Soil and Water scheduling section of the plan. Impacts on existing conditions will not be known until site specific planning has been done. In general, the impacts should be minimal; benefits should vastly outweigh any impacts.

Duane Tucker
page 3
9-30-85

Last par. See comment 4 on the DEIS.


3. p. II-15. See comment 5 on the DEIS. Also, State of Utah Water-1982 shows the same uses but a supply of 1,483,700 acre feet, not necessarily all from forest lands. Show the source of the supply data of 948,500 acre feet.

4. p. II-17, item 10. Indicate if the planning units and ranger districts are the same. If not, show planning units on a map.

5. p. IV-4, last par. The SCS snow measuring instrumentation should be left in place to assist with watershed and water supply management. Also, does not agree with p. IV-28, item 40 or p. IV-56, last paragraph which indicate the opposite.

Again we appreciate this opportunity and look forward to working with you and your staff in the future.

Thank you,



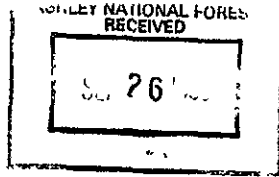
D. Larry Anderson, P.E.
Director

(page 3)

Credit to the Utah Division of Water Resources has been made for supply data. Supply data is available in Forest records.

No decision has been made on the future of precipitation instrumentation in the Wilderness. The objective of our agreement with the SCS is to remove the four stations from the wilderness when adequate correlation has been made to stations outside the Wilderness, within the next 7 years.

Planning units are not necessarily the same as ranger districts. The planning units noted in the reference were those analyzed and documented in land use plans in the 1970's. These units did not necessarily coincide with Ranger District boundaries. For instance, the South Slope Unit Plan published in 1979 included a portion of the Vernal Ranger District, all of the Roosevelt Ranger District, and the North Unit of the Duchesne Ranger District. All of these unit plans as well as the old multiple-use plans are replaced by the Forest Plan.

GA
ED HERSCHLER
GOVERNOR*Game and Fish Department*

CHEYENNE WYOMING 82002

W DONALD DEXTER
DIRECTOR

September 23, 1985

EIS 704/L3
USDA/FS-Ashley NF-Forest
Land & Resource Management
Plan and DEISMr. Duane G. Tucker
Forest Supervisor
USDA/FS-Ashley NF
Ashton Energy Center
Suite 1150
1680 W. HWY. 40
Vernal, UT 84078

Dear Mr. Tucker:

In response to your notification, we have reviewed this Draft Resource Plan and DEIS and offer the following comments for use in finalizing the plan and environmental assessment.

The only portion of area administered by the Ashley National Forest in Wyoming is the Flaming Gorge National Recreation Area. Therefore, in reviewing the Plan, we have concentrated only on this aspect of the Plan. The primary purpose of the Flaming Gorge NRA is to provide recreational opportunity.

General Comments.

1. We suggest the plan could be more precise in defining acceptable constraints and practices. Most of the language appears to us to be cushioned by wording which will allow a great deal of interpretation by the Administrator in charge. For example, one resource will be managed "consistent with use and protection of other resource values". There is no definition of the level of protection to be afforded the other resources. Obviously, there is a need for some flexibility in the application of some constraints. However, without more definitive language, the value of the Plan is seriously compromised. The Plan is too open to individual interpretation to be used as a standard to measure forest management effectiveness.

One phrase relating to roading disturbance on critical wildlife ranges should be specifically addressed. On page IV-33, the Land and Resource Plan notes that roads and trails will be designed and constructed to avoid adversely affecting critical big game ranges "whenever practical". We suggest that the phrase "whenever practical" be deleted.

Response to Wyoming Fish and Game Department

We did not feel that this degree of absoluteness could be applied without site specific analysis over the entire Forest. This guideline has been rewritten but still permits a road or trail to be constructed in critical areas if justified.

2. In relation to livestock grazing and AUMs, it is stated that transitory grazing forage created by logging or other disturbances will be assessed and assigned as AUMs for grazing. We recommend this be avoided. In our experience, transitory allotments may become permanent despite continuing loss of these AUMs through succession. This creates overstocked areas or management directed toward finding ways to continue the availability of these transitory AUMs. Any increased forage produced through these means should be allotted to wildlife use not as livestock forage since additional livestock grazing is not a primary objective within Flaming Gorge NRA.
3. The Plan addresses wildlife values and recreational use as separate from defined, dispersed, and non-dispersed recreation in the analysis of cost:benefits and public demand. This undervalues some of the identified value of the wildlife resource. The esthetic value of wildlife contributes significantly to the recreational experience and enjoyment of visitors to Flaming Gorge NRA. Wildlife values should be included in the value of recreation here.

Despite the conclusion that recreational demand will increase 30% over the life of the Plan, wildlife habitat and wildlife populations are projected to remain essentially stable for the preferred alternative. We would prefer the plan would address and work to enhance and increase this resource. Enhancement of wildlife habitat in Flaming Gorge NRA could significantly increase its value as a recreation area, and could provide additional economic benefits to communities in southwestern Wyoming.

4. We support Alternative D, which emphasizes non-market opportunities such as recreation and wildlife values.

Specific Comments by Section and in order of Pagination of the Documents.

1. Appendix A, II, A, 1(2), page A-3

Winter recreational activities such as ice fishing, snowmobiling, 3 and 4 wheeling, and snow plowing are becoming more popular when the reservoir is ice covered. Driving vehicles on the ice to get to favorite ice fishing areas is also becoming popular. The Forest Service has not addressed these activities in the Plan or D.E.I.S. Forest Service involvement is needed in educating the public concerning safe ice conditions in this form of recreation, as well as marking areas which do not have safe ice conditions for particular types of recreational activities.

2. Appendix A, II, A 4, page A-4

Marking the Wyoming-Utah stateline across the reservoir with buoys is recommended. We understand that the Forest Service historically marked

(page 2)

The plan provides for giving preference to wildlife or livestock forage needs on transitory range depending upon the prescription. Assignment of transitory forage to livestock is made through allotment management plans which recognize the longevity of this forage.

The aesthetic value of wildlife is recognized as a recreation benefit, but our current state-of-the-art economics does not quantify this factor as part of our cost-benefit process.

The new alternative provides for no wildlife habitat reduction in relation to timber harvest. The scheduling portion of the plan provides for completing all projects presently identified for wildlife habitat enhancement. Both big game and fish habitat projects are planned in the Flaming Gorge NRA.

Winter recreation activities on the reservoir are a part of our dispersed recreation program. To the extent that funding allows, we plan on posting information about winter recreation activities, particularly in those areas where public health and safety is involved. Priorities for administering these activities are covered in our Districts' Dispersed Recreation Plan.

Marking the State line with buoys is desirable; however, in terms of priorities under current funding levels, this activity receives low emphasis. Since this is also a State concern, the respective States could consider doing this on a cooperative basis.

Mr. Duane G. Tucker
September 23, 1985
Page 3 - EIS 704/L3.

the stateline until recent budget constraints eliminated this service. Fishermen and other recreationists are confused as to the exact location of the stateline.

3. Appendix A, II, A 6(6), page A-5

We recommend this section be expanded to include stream habitat improvements specifically for kokanee in Sheep Creek, Carter Creek and Cart Creek. Sheep Creek has the largest run of early spawning kokanee in the reservoir. This strain of kokanee has potentially important management implications in other waters. With Sheep Creek prone to flashflooding during the summer months, which introduces large amounts of silt and destroys spawning areas by covering in-stream gravels, the run should be expanded to utilize Carter Creek and Cart Creek. Both Carter and Cart Creeks have natural barriers in their lower reaches which have kept kokanee from establishing spawning runs.

We recommend the Forest Service address the problems associated with the instability of the Sheep Creek drainage and plan a study to see if it is feasible to stabilize the drainage to prevent or control the siltation events. If stabilization of the watershed is not possible, we suggest the Forest Service consider formulating a plan to rehabilitate the stream after the floods, so the early run strain of kokanee can perpetuate through natural reproduction.

Improvement of spawning habitat and the removal or modification of natural and/or man-made barriers on Carter Creek and Cart Creek is also recommended so the early run strain can be established in these streams.

4. Appendix A, II, B, I(4), page A-7

This section needs to be more specific because of the increasing demand for recreation during the winter months. Boat ramps and other facilities need to be maintained for safe boating and launching during the ice free periods. Boat fishermen fishing for brown and lake trout use the reservoir during the fall, winter (where and if open water exists) and early spring. Ramps should be placed clear of snow and sand should be provided at the ramp when slick conditions exist. Removal of silt and rocks on boat ramps should be done as soon as possible after ice-out. Courtesy docks should be in place and maintained so they are usable during the entire ice free season. Concessionaires should not be allowed to store their gas docks and other docks on the boat ramps where they interfere with and pose a hazard to people launching boats or otherwise utilizing the ramps.

(page 3)

The scheduling portion of the Plan now provides for completing adfluvial fish (Kokanee) studies for Flaming Gorge. These studies would determine the habitat needs of this species. This section of the Plan also recognizes that habitat improvement is needed in Carter Creek. Additional evaluation is needed for Carter Creek before improvements are scheduled.

The establishment of the Sheep Creek Geological Area recognized this as a naturally unstable area. We cannot predict the occurrence and extent of future floods. Each occurrence would need to be evaluated assessing the extent of the damage and the availability of funds before any rehabilitation could be assured.

We agree and would prefer to operate in winter at the level you indicate; however, current funding levels do not provide for the level of winter sports administration you have identified. Public safety matters involving violations of regulations by concessionaires will be enforced, especially where there is a possibility of congestion on the boat ramps.

Mr. Duane G. Tucker
September 23, 1985
Page 4 - EIS 704/L3.

Certain access roads to the reservoir, such as those to the Confluence, Buckboard, Squaw Hollow and Anvil Draw on the west side and Firehole, Current Creek and Upper Marsh Creek on the east side, should be kept open during the winter to allow adequate access for ice fishermen, snowmobiling, cross-country skiing and other winter recreational activities.

5. Appendix A, II, C, 2(5), page A-20

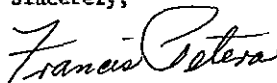
We recommend this section be expanded to include the need to preserve and maintain all presently existing roads leading to the reservoir so adequate access to areas of the reservoir can be maintained for fishing, swimming, camping and other recreational activities.

6. Appendix H, Exhibit No. 1, page H-47. D.E.I.S.

The following should be added to the requirements for power transmission lines crossing the reservoir: All new and existing power transmission lines crossing Flaming Gorge Reservoir be properly marked and maintained so they are readily visible to low flying aircraft. Unmarked power lines present hazards to our aerial fisherman counts as well as other flights for administrative purposes.

Please contact this office or our Area Fisheries office or District Game Division office in Green River if we may be of further help.

Sincerely,



FRANCIS PETERA
ASSISTANT DIRECTOR
OPERATIONS

(page 4)

Access roads to the reservoir cannot be kept open during winter months since they are not a priority item within the available funding. Hopefully, future funding will be such that these access roads could be opened.

Public access to the reservoir is provided under the existing Forest Transportation Plan and in a cooperative Road Maintenance Agreement with Sweetwater County, Wyoming. Due to current low funding levels, not all roads are maintained to the standard we would like at all times.

Although these lines do not require marking under current Army Corps of Engineers or Federal Aviation Agency standards, we were told by Pacific Power and Light that these lines were adequately marked during the winter of 1984.

FP.HBM.ssc
cc: Game Div.
Fish Div.
SPC



United States Department of the Interior

OFFICE OF THE SECRETARY
OFFICE OF ENVIRONMENTAL PROJECT REVIEW
Denver Federal Center Building 67, Room 488
P O Box 25007
Denver, Colorado 80225-0007

October 22, 1985

IN REPLY
REFER TO

ER 85/1164

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, UT 84078

Dear Mr. Tucker:

We have reviewed the Draft Environmental Statement and proposed Forest Plan for the Ashley National Forest, and offer the following comments.

Fish and Wildlife Resources

We believe the plan is very general and does not provide sufficient detail to determine how fish and wildlife resources will be affected. In addition, there is no mention of the need to coordinate activities that involve water resource development and Federally protected fish and wildlife species with the Fish and Wildlife Service (FWS). Mandated authorities for FWS involvement in these matters include the Fish and Wildlife Coordination Act, Section 7 of the Endangered Species Act, the Eagle Protection Act and the Migratory Bird Treaty Act. Also, the FWS requests an opportunity to provide comments on new highway and energy development plans.

Activities that may increase streamflows in Rock Creek, the West Fork of the Duchesne River, Currant Creek and Strawberry River and their tributaries may be pertinent to a February 27, 1980 Streamflow Agreement. Signatories to this agreement include the Governor of Utah and representatives of involved state agencies, the Central Utah Water Conservancy District, Forest Service (FS), and Department of the Interior. The goal of the agreement is to provide at least 44,400 acre-feet of water annually to the four major streams mentioned above for the preservation of fishery resources. To date, water to achieve this goal has not been assured.

To coordinate water development activities in the Forest with respect to the Fish and Wildlife Coordination Act and the February 27, 1980 Streamflow Agreement, the FS should contact the FWS Field Supervisor at the following address:

U.S. Fish and Wildlife Service
Ecological Services
2060 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104-5110
Telephone: FTS - 588-5637
Comm. - (801) 524-5637

Summarized Response to United States Department of the Interior
Office of the Secretary

Fish and Wildlife Resources and Threatened and Endangered Species
We will consult with the U.S. Fish and Wildlife Service when actions have the potential to affect any T&E species.

We agree that understanding the discussion of resource output levels, costs, benefits, and environmental effects was difficult in the DEIS. While we have tried to simplify and streamline the discussion in the Final EIS, the fact remains that the effects of applying any management alternative to a complex area such as the Ashley National Forest will be complicated at best and will require considerable study. We do show what would happen in the recommended alternative (J) in more detail than in the other alternatives; the recommended alternative is the very detailed Forest Plan document.

We feel that the plan is too general to provide the reader with enough understanding of what is to be done. Without a better understanding of the plan, it likewise follows that the impacts are not understood. The Land and Resource Management Plan identified Alternative B as the one the FS is recommending. The EIS randomly discusses different aspects of Alternative B and all of the other alternatives with respect to various resources. A more concentrated effort to show what would happen with the recommended alternative and less discussion of the other alternatives may help improve the document.

Threatened and Endangered Species

Page 5-8, Wildlife. It is mentioned that there are three birds, one mammal and one plant on the Forest that are Federally listed as endangered or threatened.

The peregrine falcon (*Falco peregrinus*), bald eagle (*Haliaeetus leucocephalus*), whooping crane (*Grus americana*), black-footed ferret (*Mustela nigripes*), and Uinta Basin hookless cactus (*Sclerocactus glaucus*) occur on the Forest. In addition, activities on the Forest that affect streamflows and water quality in the Green River could affect the downstream habitat of Federally listed endangered fishes of the Green and Colorado rivers. This includes habitat for the endangered Colorado squawfish (*Ptychocheilus lucius*), humpback chub (*Gila cypha*) and bonytail chub (*Gila elegans*). It also includes habitat for the razorback sucker (*Xyrauchen texanus*) which is a candidate for Federal endangered species listing.

Section 7 of the Endangered Species Act of 1973 requires Federal agencies to consult with the FWS to insure that their actions or programs do not jeopardize the continued existence of plants and animals listed as threatened or endangered. Consultation is required whenever there is a may affect situation, either positive or negative.

To coordinate activities in accordance with the Endangered Species Act, the FS should contact the Field Supervisor at the following address:

U.S. Fish and Wildlife Service
Endangered Species
2078 Administration Building
1745 West 1700 South
Salt Lake City, Utah 84104-5110
Telephone: FTS - 588-4430
Comm. (801) 524-4430

Mineral Resources

The documents present a brief discussion of mineral resources and mineral-related activities within and adjacent to the forest (DEIS p. III-45 and PLRMP p. II-17). Mineral resources known to occur in the forest include copper, gold, silver, iron, metallurgical limestone, oil and gas, oil shale, coal, tar sands, trona, phosphate, sand and gravel, and stone. Oil and gas leases cover part of the forest, and phosphate is mined adjacent to the forest boundary (DEIS p. III-47).

Addition of the following would enhance the section on minerals: a discussion of past, present, and possible future mineral-related activities in the forest; a map showing location of mineral resources, mines, and mineral leases; and an explanation of how

Mineral Resources

A discussion of past, present and projected mineral activity is discussed in the AMS as well as other sections of the Plan and EIS. As indicated, mineral exploration and development activities are dependent on the economics of industry and interest generated by various interested publics. Maps and inventories of mineral resources are appropriately kept by the Department of Interior and State agencies who have the mineral authorities granted by law. The Forest Service has surface management authority only for minerals and thus cannot plan and direct how, when, or where most mineral development will occur. In most cases, where mineral withdrawals occur, they are accomplished through statutes and not through administrative action.

The term "nonmineral in character" is a geologic term pertaining to the potential for mineral occurrence based on the strata of an area. This term seems accurate when comparing this Forest with adjacent National Forests, and when considering its geologic origin. Although the Ashley does have a variety of mineral resources, development of these has never been a major activity when compared to other adjacent Forests.

Information on the oil and gas potential of the Forest can best be obtained from either industry or Department of Interior sources.

Table II-6 is a comparison of all the alternatives with the current program on the Forest; it was revised, to the extent possible, to display some variation among alternatives. Chapter IV displays the highly, moderately, and minimal restricted areas by geologic potential. Although the cases are expected to remain the same under all alternatives, restrictions will vary by alternatives based on the analysis in Chapter IV. Management prescriptions have also been rewritten to address various mineral constraints.

The availability of lands within the Forest for mineral development are determined by site specific factors such as percent slope, land status and encumbrances, prescribed stipulations, existing standards and guidelines, and proximity to other uses. The Forest Plan alternative or management prescription have little influence upon what lands are available. For this reason, each application must be reviewed on a case-by-case basis. Note that the Forest has taken a position on Area q to recommend "no surface occupancy".

Again, maps showing potential for mineral resources are not within the province of the Forest Service. Such maps, at best, can only be hypothetical and conceptual with our limited data base. Restrictions on mineral development are best applied through standard and special stipulations on a case-by-case basis.

management prescriptions would affect phosphate leasing and mining activities in Tps. 2 and 3 S., Rs. 20, 21, and 22 E. (United States Geological Survey, Undefined Addition to the Ashley-Creek-Brush Creek Known Phosphate Area, effective December 2, 1965).

We question usage of the term "nonmineral in character" (DEIS p. III-45 and PLRMP p. II-17) when discussing the forest. In view of the large variety of mineral commodities known to exist in the forest, current mining operations adjacent to the forest, and leasing activity within portions of the forest, "nonmineral in character" seems inappropriate and possibly misleading. Subsequent versions of the documents should either clarify usage of the term or preferably, adopt different terminology.

The geologic reports that indicate low favorability for mineral resources within the forest (DEIS p. III-45) should be discussed and referenced in subsequent versions of the documents. Discussions pertaining to the oil and gas potential in the forest and the phosphate reserves of the Park City Formation also should be included.

Table II-6 (DEIS p. II-70) shows that 100 percent of the forest is open to mineral exploration in each alternative. This is misleading. Some land in the forest is unavailable because it is withdrawn from mineral-related activities, and management practices would restrict access and/or development on part of the remaining acreage. Of the 1,405,609 acres within the forest boundary, only 861,355 acres of the federally owned minerals are open to mineral entry and only 1,083,830 acres are open to mineral leasing (DEIS p. III-44; PLRMP p. II-16). Table D-1 (DEIS) shows that proposed management practices for several areas differ with alternative plans; therefore, restrictions placed upon mineral-related activities in such areas would vary. On pages III-45 (DEIS) and II-17 (PLRMP), the documents state that portions of the forest considered available for mineral entry and leasing would be unavailable for mineral development. Subsequent versions of the documents should evaluate how each management prescription would affect mineral exploration and development activities. Areas where mineral development would be denied also should be identified. Table II-6 should be revised to reflect such information.

Although a revised Table II-6 showing acreage of restricted areas would be useful, such information also may be misleading. For example, if areas having low mineral potential are highly restricted, only an insignificant mineral deposit might be subordinated. In areas of high mineral potential, however, severe restrictions may have more significant impacts by discouraging or preventing mineral-related exploration or production activities. For these reasons, Table IV-6 (DEIS p. IV-27) is important. It compares potential for oil and gas (indicated as high, medium, low or unknown potential) with operating constraints (shown as totally restricted, highly restricted, moderately restricted, or low restriction). The table, however would be more useful if a discussion of terminology and methodology were included in subsequent versions. Similar comparisons for the other mineral resources occurring in the forest are necessary to evaluate the impacts of each alternative management plan.

Maps showing potential for mineral resources and areas where mineral exploration and development would be restricted would readily illustrate how each alternative would impact mineral-related activities.

Mr. Duane G. Tucker

4

Central Utah Project

Neither document clearly explains the relationship of features and units of the Central Utah Project (CUP) with the Forest plan. CUP has had and will continue to have significant impacts on forest resources. We feel that the major impacts should be identified in the documents.

The CUP aspects are very difficult to find and to ascertain whether or not there would be any problems and/or conflicts with the forest plan. We would appreciate a statement that describes the substantial coordination between the Forest Service and Reclamation and the status of problems and/or conflicts.

We are concerned because the construction work on the high country reservoir stabilization will be in the wilderness area. We feel that there should be a statement made that the lakes can be stabilized under the constraints of the Utah Wilderness Act.

Finally, we suggest that all CUP features be identified and appropriately discussed as to both consistency with the Forest Plan and impacts on forest resources.

- a. The discussions of each ranger district in Chapter IV should include a description of relevant CUP features and their implications. We could not find reference to the North Fork Siphon, Hades Inlet and Pipeline, South Fork Inlet and Pipeline, and the Uintah Unit features.
- b. Chapter 5 should discuss CUP coordination.
- c. The discussion on Page III-42, paragraphs 4-9 should be revised to indicate that through a substantial program of coordination, the Forest Service does have significant influence on how CUP features are constructed.

National Natural Landmarks

Within boundaries of the Ashley National Forest are two proposed National Natural Landmark (NNL) areas. They are:

Castle Cliffs of the Duchesne

Crest of the Uinta Mountains

The NNL's have been studied and found to possess nationally significant ecological and geological features. Because of this recognition, proposed NNL areas should be managed so as to preserve their natural and cultural qualities to the greatest extent possible. Please consider measures to avoid impacts on these areas in subsequent editions of the Ashley National Forest Plan.

For information on these potential NNL's, you may contact Ms. Carole Madison, National Park Service, P.O. Box 25287, 655 Parfet Street, Denver, Colorado 80225, telephone 236-8699.

Central Utah Project

A description of the significant features of the CUP have been included in the EIS. Guidance for mitigation of the impacts of this project have also been included in the Plan. For CUP coordination, projects are covered by an EIS or a site specific Environmental Analysis for each planning unit.

Your lakes stabilization concern is covered under the Standards and Guidelines for wilderness.

National Natural Landmarks

The Crest of the Uinta Mountains National Natural Landmark is protected as part of the High Uintas Wilderness. We have requested additional information from the National Park Service regarding Castle Cliffs of the Duchesne. The map sent to us appears to be in error. We are currently resolving the exact location. If it remains as shown, at least a portion of this area now has an inverted siphon which is part of the Central Utah Project being carried out by the U. S. Bureau of Reclamation.

Mr. Duane G. Tucker

5

Utility Corridors

Page H-42 states that a 9-11 mile window should be established for utility corridors and that the proposal would "jibe with a similar planning direction on BLM . . . lands located to the south." This corridor would conflict with a BLM visual resource management decision for the adjacent BLM lands of the Vernal District. BLM also favors corridors which are much narrower in width (preferably one mile or less in width). This proposal needs to be further refined in consultation with the BLM.

Specific Comments

Additional specific comments on the Forest Plan and EIS are enclosed.

Sincerely,


Robert F. Stewart
Regional Environmental Officer

Enclosure

Utility Corridors

This is not a designated corridor, but a window. The current BLM visual resource classification for the area bordering this window is about 50% Class II (Retention) and 50% Class IV (Modification). Since the definition of a window is a "critical segment of terrain", this window is consistent with the current BLM visual resource plan.

The Vernal District agrees that utilities could be located within an area classified as Retention. If the classification was retained. Proposals could be located within the Forest Service window that would avoid BLM administered lands altogether or that would avoid BLM areas classified as Retention.

SPECIFIC COMMENTS - PROPOSED LAND AND RESOURCE MANAGEMENT PLAN

Page 11-9, second paragraph. We agree with the statement that the maintenance and enhancement of key plant communities such as aspen, sagebrush, willow and aquatic will be needed. However, we question that the greatest need is for the improvement of aspen. We regard high quality, free flowing wild trout streams and sage grouse nesting and strutting areas, riparian habitat and big game winter range as important or more so than aspen communities.

Elsewhere, the management plan recognizes the importance of the above mentioned habitat types and provisions for protecting these resources are addressed in a general way. However, we believe that they should receive additional emphasis here. Aspen provides important habitat for a variety of wildlife species and efforts to preserve and enhance it are needed. However, we believe this type could be restored more readily than some of the others mentioned.

Page 11-10, second paragraph and Pages 11-12 and 11-13. These mention water development projects, the potential for increasing water yields, and the fact that streamflows are transported by 687 miles of perennial streams within the Green and Colorado basins. Some of these streams provide important stream fisheries and riparian wildlife habitat values that warrant protection. The Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et. seq.) is applicable to water development projects that are planned, constructed, licensed or permitted by Federal agencies. The Act requires consultation with the FWS and the wildlife agency of any state wherein the waters of any stream or other water body are proposed or authorized to be impounded, diverted, channeled or otherwise controlled or modified by any Federal agency or any non-Federal agency under Federal permit or license. The objective of such consultation is to prevent loss of or damage to wildlife resources in connection with the project.

Page 11-18, last paragraph. It is stated that requests for special use permits for transmission lines for power, water, gas, gravel pits, roads and mineral exploration are increasing. The FS should coordinate with the FWS relative to water development activities and actions that may affect threatened and endangered species and various birds that are Federally protected. Such coordination would be helpful in developing terms and conditions for stipulations in special use permits to protect impacted species and their habitats.

Page 11-21, last paragraph. It states that an average 5.5 miles of new roads are constructed and about 9.4 miles of existing roads are rebuilt each year. Wildlife habitat in the right-of-ways for roads is directly impacted and quite often the indirect impacts (i.e. impairment of migration, road mortalities and disturbance) exceed the direct impacts. Designs for new roads should avoid big game migration corridors and the nest areas of Federally protected birds.

Page 11-24. It is stated that pesticides may be used to control the mountain pine beetles, grasshoppers, black grass bugs, mormon crickets and tent caterpillars. The toxicity of these chemicals to fish and wildlife and the potential for magnification of toxicity in species that prey on these insects must be considered. Prevention of the contamination of stream and riparian areas is necessary.

Page 11-8 Landownership Adjustments. The acquisition of private inholdings should be given high priority. Development of such areas for individual homesteads, condominiums, resorts, etc. impairs scenic quality and fish and wildlife resources on adjacent lands. A resident human population will probably result in increases in harassment of wildlife by

(Page 6)

Response to Specific Comments- Land and Resource Management Plan

The intent of the plan is not to deemphasize improvement activities in any critical habitat areas. The word "need" in the Draft Plan has been changed to "opportunity".

The specifics of management of all habitats will be or are included in applicable plans for that habitat type or area. The Forest Plan gives general or specific direction to these plans to be used in their preparation or revision. We feel the Forest's Plan provides adequate direction in these areas.

The "Introduction" to Chapter IV addresses the Ashley National Forest's intent to comply with the Fish and Wildlife Coordination Act and to consult with the US Fish and Wildlife Service and State wildlife agencies on water impoundment and transmission proposals on the Ashley National Forest. A standard in the plan states that the Ashley National Forest will consult with the Fish and Wildlife Service when T&E species may be impacted.

Whenever new roads are designed, input is requested from the Forest Wildlife Biologists and the Utah Division of Wildlife Resources pertaining to big game migration corridors, elk wallows and calving areas, sage grouse nesting and strutting areas, raptor nest sites, etc.

We agree that streams and riparian areas must be protected from pesticide contamination. A Forest Service Region-wide pesticide EIS is presently being prepared. When completed, it will be consulted before any pesticides are used on the Ashley National Forest.

Acquisition of private inholdings, as you indicate, would be preferable. However, funding for such acquisitions is not a high priority, at present, and the willingness of the seller is seldom supportive of this action.

dogs owned by the residents, increased use of ORV's, and other factors that disturb wildlife and impact the environment. Water taken from streams to provide municipal, industrial, and hydroelectric power to the residents of these lands will reduce the volume and impair the quality of downstream flows for the maintenance of fish and wildlife resources. The FS and/or state or county governments could be called upon to maintain main access roads where there are year-around residents. Potential administrative problems could result.

III. Plan Responses to Issues, Concerns and Opportunities. No mention is made of the problem of nutrient loading in Flaming Gorge Reservoir. Phosphorus from nonpoint sources has been identified as a major contributing factor. Eutrophication of the reservoir is recognized as a major problem by involved state and Federal agencies.

IV. Forest Management Direction. This entire section identifies laudable goals and objectives with respect to the multiple resources under consideration. Its purpose seems to be to advise the reader that the FS has considered measures needed to optimize all of the resources. A plan for multiple purpose management does not optimize conditions for any single type of resource involved. We suggest that a need exists to emphasize wildlife and recreation programs since the associated values contribute a major resource value to the Forest.

Page IV-32. Corridor plans for highways, pipelines, canals, transmission lines, etc. should consider the location of highly valuable fish and wildlife habitat areas. The avoidance of critical areas by alternative alignments is suggested. Burying pipelines and transmission lines is also an alternative for reducing impacts. Mounding soil over the top of pipelines that are above ground and providing facilities to permit game animals to cross canals may help to reduce the impediment to big game migration in some instances. Where power transmission lines are not buried, we recommend that designs be in accordance with guidelines contained in "Suggested Practices for Raptor Protection on Powerlines - State of the Art in 1981," Raptor Research Report No. 4 prepared for the Edison Electric Institute by the Raptor Research Foundation Inc., c/o Department of Veterinary Biology, University of Minnesota, St. Paul, Minnesota 55101. Areas disturbed by construction need to be revegetated with adaptable plants that are of value as food and cover for wildlife and the prevention of soil erosion.

IV. Management Area Standards and Guidelines. The standards and guidelines for fish and wildlife are very general and the reader does not know what the specific results will be.

Statements such as: "Forage increases will be available for wildlife utilization;" "Wildlife improvements permitted if not in conflict with recreation and administrative uses;" "Improvements for wildlife permitted if compatible with VQO and recreation;" "Improvements for wildlife permitted if they do not decrease timber yield or increase timber costs;" "Transitory forage increases from timber will be allocated to wildlife;" or "No wildlife improvements," are meaningful. These indicate that fish and wildlife are given low priority. Should incidental wildlife benefits from management of range and timber resources be realized, the benefits will be recognized.

(Page 7)

No mention is made of nutrient loading in Flaming Gorge Reservoir because it was not identified as a major issue or concern. It is, however, discussed in the Watershed Section of the EIS.

All proposed projects are analyzed to determine what the impacts on other resources will be. If any adverse or unacceptable impacts are identified, the project is either modified to eliminate those adverse effects or the project is dropped. This is especially true when considering wildlife values. If an area is identified as having significant values to wildlife for such factors as winter range, critical summer range, fawning and calving areas, or riparian zones, then timber harvesting may be either scheduled to not conflict with those wildlife uses, or it may be dropped.

All energy transmission systems have and will continue to recognize wildlife needs and habitat areas. Specific mitigations are identified early in the scoping and EIS process. Raptor protection is a standard requirement for all power transmission lines constructed on National Forest lands.

The standards and guidelines, including those for fish and wildlife, have been extensively revised.

Wildlife will not be given the highest priority in all management prescriptions. The examples you give where wildlife seem to be low in priority are prescriptions where the Forest will give priority to other resource values over wildlife.

Appendix A - FGNRA Supplemental Direction. As with previous chapters, a number of laudable endeavors are stated for the multiple resources that are under consideration. However, the plans are too general for an understanding of what is going to be done.

Page A-5 (2). Data from inventories and details for the protection and modification of habitat for endangered and threatened species should be provided to the FWS.

(Page 8)

Any actions that may effect T&E species will be coordinated with the FWS. This is addressed in the Standards and Guidelines.

SPECIFIC COMMENTS - DRAFT ENVIRONMENTAL IMPACT STATEMENT

While realizing that the analysis of nine alternatives is a complex and very difficult task, the presentation of the impact analysis does not provide a "... clear basis for choice among options . . .," (43 CFR 1502.14) based upon environmental impacts. The tables in Chapter II allow comparison of energy use, units of production, and dollars generated, but a comparison of alternatives for environmental effects cannot be easily determined from Chapter II tables or the narratives in Chapter IV.

Page S-7, third paragraph. It is stated that, "All alternatives except F and G allow for significant additional roads and trails and will create the potential for ORV opportunities and management challenges. It is anticipated that with creative management and good design (including location of roads and trails), along with the Forest travel plan, most environmental and social impacts can be mitigated." It is also mentioned that the arterial collector road system is in place except for two or three areas that are not accessible by road and that the construction of local roads will be related to the volume of timber harvested (Pages S-11-12). Two corridor windows are identified (Page S-12 and corridor map).

Details on the location of the additional roads that are quantified as significant are lacking. It seems likely that even with creative management and good design, there could be significant environmental impacts. There are usually direct impacts to fish and wildlife in right-of-ways for roads and often the indirect impacts exceed the direct losses. Indirect impacts may occur as a result of direct impacts caused by the ORV use, severed wildlife migration routes, road mortalities of wildlife and noise factors. We do not believe that the general treatment given to roads adequately addresses the impacts to wildlife.

Page S-8, Wildlife. It is mentioned that there are three birds, one mammal and one plant on the Forest that are Federally listed as endangered or threatened.

The peregrine falcon (*Falco peregrinus*), bald eagle (*Haliaeetus leucocephalus*), whooping crane (*Grus americana*), black-footed ferret (*Mustela nigripes*), and Uinta Basin hookless cactus (*Sclerocactus glaucus*) occur in the Forest. The EIS should recognize that activities by the FS or activities that are licensed or permitted by the FS that may affect the above species require consultation with the FWS.

This section of the Environmental Impact Statement says special emphasis will be given to such habitat as winter range, riparian zones, reproductive areas, cliff habitat, lakes, caves, snags, aquatic systems and old growth timber. Comments on the second paragraph of Page II-9 of the Land and Resource Management Plan expresses the FWS's feelings that these habitat types deserve emphasis. Without more specific detail on the location and measures that are planned, benefits attributable to the habitat improvement are unknown.

Page S-10, Soil and Water. It is stated that in all alternatives, through all decades, there would be an increase in water yield. Our comments on the Land and Resource Management Plan apply here.

From the figures, Pages II-20-37, it is seen that water meeting quality goals will increase by almost 100 M acre feet and yield will increase about 50 M acre feet. There will be about 3,000 miles of new or reconstructed road and 200 miles of new or reconstructed trails.

(Page 9)

Responses to Specific Comments - Environmental Impact Statement

Arterial and collector road locations are shown, but local road locations will not be known until field reconnaissance is completed. Roads will be located where activities allowed in the plan require roading. Standards and guidelines for location as well as design of roads where impacts on wildlife occur are included in the plan.

A standard in the Plan provides for coordination with the FWS on any action that may affect T&E species.

Revised standards and guidelines and the monitoring and scheduling portions of the plan provide specific direction for inventory and management of these special habitats.

The amount of roads to be constructed and reconstructed has been significantly reduced. The specific location of most roads are not known at this time but their impacts will be carefully evaluated and mitigated in site-specific environmental analyses.

We have already expressed our interest in assuring water needs for the protection of fish and wildlife habitat.

The construction of new roads will be largely a result of timber harvesting needs. The location of new roads and the trails that are mentioned or the impacts that will be realized are not clearly understood. However, impacts on deer, elk and wildlife and fish use attributed to the total plan are evaluated.

Table II-3. Acreage Assigned by Management Prescription shows the acreages, management emphasis and level of intensity of management (high, moderate, low and minimum level). This intensity designation is vague but should give the reader an idea of the intended emphasis. For Alternative B, the FS's recommended plan, it is expected that 35,497 acres would receive high intensity management for wildlife and 294 acres would receive moderate wildlife/timber management. Our comments are that we are not able to tell which resources will actually be given emphasis because incidental benefits to wildlife as a result of managing other resources are claimed.

Alternatives including the Proposed Action - Nine alternatives are identified. The FS recommended plan is Alternative B: Coordinated Resource Alternative. With this alternative, timber and livestock outputs are expected to increase and the capability to support deer and elk will decline. Considering the significant economic value of these species, it seems inappropriate to allow a decrease in wildlife resources to enhance resource programs that have questionable cost effectiveness because of required subsidization to achieve that enhancement.

Page III-19, last paragraph. It is stated that the peregrine falcon and whooping crane are migrants that only pass through the Forest for a short time in the spring and fall. It might also be mentioned that there are potential nesting sites for the peregrine falcon. These nesting sites could be utilized naturally or birds may be introduced as part of the recovery plan for this species.

Page III-20, Table III-13. The only habitat type shown to be of value to sage grouse is sagebrush. During the spring and summer, the riparian shrub and meadow habitat is extremely important to young sage grouse. The young use these areas for water and feeding.

Pages III-21-22, Golden Eagle. The golden eagle is a Federally protected species. It and all other raptors on the Forest are protected by the Migratory Bird Treaty Act, 16 U.S.C. 701-718h. This Act prohibits the unauthorized taking of migratory birds by any means or in any manner. This has been interpreted to include causing the loss of migratory birds through negligence or inadequate planning in development projects. Also, both the bald and golden eagles are protected by the Eagle Protection Act, 16 U.S.C. 668-669. This Act protects the nests from destruction and prohibits the disturbance of nesting activities.

Page III-39. It is mentioned also that opportunities exist to increase water yields but that the amount claimed by the FS will be limited to the amount needed for National Forest purposes. Should there be increased water yields that could be used to meet obligations of the February 27, 1980 Streamflow Agreement, this would certainly be a National Forest purpose.

(Page 10)

The Management Area Standards and Guidelines in Chapter IV for Management Areas (e), (f), and (r) give specific direction to the management practices that will occur in these wildlife emphasis areas.

A modified preferred alternative (J) has been recommended. It has less impact on deer and elk than Alternative B.

Wildlife standards and guidelines and the scheduling sections of the plan consider the peregrine falcon for habitat inventory and protection and potential reestablishment.

The riparian shrub and meadow habitats are important areas for watering and feeding of sage grouse and have been added to reflect use by the grouse.

Page III-41 indicates that the demand for hydroelectric projects is expected to increase and this will cause a loss of riparian ecosystems; however, Page III-43, second paragraph says National Forest water used for fisheries, wildlife and riparian will increase. Table III-25 indicates an increase in the present and future use assigned to wetlands and evaporation. Special use permits for hydroelectric and other facilities on the Forest that require water should contain conditions for the bypass of sufficient flows to maintain downstream public resources including high quality fish and wildlife habitat.

Page IV-11-12. Fluctuations in carrying capacity for big game animals because of timber management practices is recognized. The impacts of roads on hunting use is also recognized but impacts on habitat for big game as a result of roads are not.

Page IV-14, first paragraph. Sagebrush areas where sage grouse strut and nest should be preserved in preference to removal for increased forage production.

Page IV-14, 6th paragraph. It is stated that in some cases Pronghorn antelope and sage grouse habitat could be adversely impacted by the conversion of sagebrush habitat to grassland. How will alteration of these habitats affect these species? Will they become concentrated on adjacent areas? How many animals and what percentage of the total populations would be affected? How many hunter days would be affected? How would the effects vary between the alternatives? As previously pointed out, sage grouse nesting and strutting areas are in critically short supply. Range management plans that would affect such areas should be modified to protect sage grouse.

Page IV-14, 8th paragraph. We recommend that livestock fences be no greater than 42 inches in height and four strand barbed wire. We particularly encourage fences to protect riparian habitat along streams.

Page IV-15, 6th paragraph. It is stated that grazing allotment plans will identify site specific impacts in riparian areas and mitigation needs. This is a general statement that does not identify the impacts or degree of mitigation.

Page IV-29, first paragraph, Air Quality - "Alternative A would have temporary degradation from road construction, logging activity, and slash disposal." Would near source, maximum 24-hour average total suspended particulate concentrations approach or exceed the Class II Prevention of Significant Deterioration (PSD) allowances?

Page IV-46, Mitigation Measures. The mitigation measures listed for big game are directed toward reducing the number of animals harvested by hunters. Habitat improvements would be more appropriate to compensate for losses of habitat for these animals.

(Page 11)

Standards in Lands address mitigation requirements for hydroelectric facilities to ease conflicts with other Forest resources.

The golden eagle information has been added.

A revision has been made to include the impact of roads on big game habitat. A standard under Facilities requires considering adverse effects to wildlife areas in road design and construction.

Each project is covered by a site-specific environmental analysis which evaluates such needs as sagegrouse nesting and strutting areas and pronghorn antelope habitat as well as the needs for increased livestock forage.

Standards and guidelines for the riparian habitat will be used to provide direction to range allotment management plans. Use of these guidelines should provide adequate protection for this important habitat area.

Allotment Management Plans are also covered by a site-specific environmental analysis to identify impacts and needed mitigation measures.

We will meet air quality standards established by the states of Utah and Wyoming for all management activities.

Restricting public access makes more habitat available to wildlife because fewer wildlife are scared from the feeding areas into the hiding cover. Actual big game improvements are not needed in the lodgepole pine type except in the area of improving the forage-cover ratio.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VIII
ONE DENVER PLACE -- 999 18TH STREET -- SUITE 1300
DENVER, COLORADO 80202-2413

OCT 22 1985

Ref: 8PM-EA

Duane G. Tucker, Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40, Vernal, Utah 84078

Re: Ashley National Forest
Proposed Forest Plan and
Draft Environmental Impact
Statement (DEIS)

Dear Mr. Tucker:

In accordance with our responsibilities under the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the Region VIII office of the Environmental Protection Agency (EPA) has reviewed the referenced documents. Our enclosed detailed comments cover major concerns involving the alternative selection process, sedimentation and water quality impacts, and the proposed future monitoring programs.

Our major concern is with the selection of alternatives presented and how the selection process complies with the Council of Environmental Quality (CEQ) regulations on implementation of NEPA. We feel that several of the alternatives analyzed are not financially reasonable alternatives and the DEIS should be revised so a comparative analysis between reasonable alternatives is presented.

We are also concerned with the format which was used to present the Forest's goals, standards and guidelines in the Forest Plan. The simplified tabular format, such as used in recent National Forest Management Plans (see Wasatch-Cache National Forest Land and Resource Management Plan, 1985) has proven to be most useful to the reviewing agencies and public. We were disappointed to see the disjunct format which listed forest goals and management direction in one section and standards and guidelines to meet those goals and direction in another section of the plan. This disjunct system makes plan review difficult, especially for individuals unfamiliar with Forest Plans.

ASHLEY NATIONAL FOREST
RECEIVED

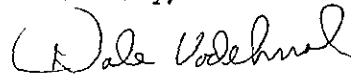
1 Response to Environmental Protection Agency

In regard to alternatives being financially reasonable, the mountain pine beetle epidemic was in full stride at the time the alternatives were developed. It was not considered unrealistic at that time to assume that budgets could be made available to salvage the beetle-killed timber.

We have made changes in the Final which will make it easier to review.

Based on our concerns and the criteria EPA has established for rating DEIS adequacy, we have rated the Ashley National Forest DEIS as Category EC-2 (environmental concerns-insufficient information). We have identified several areas where further information and discussion should be included in the Forest Plan and final EIS. We feel it is necessary to provide adequate environmental analysis for reasonable alternatives so that informed decisions can be made. If further EPA assistance is needed, please feel free to contact Dave Ruiter of my staff at FTS 564-1702 or (303) 293-1702.

Sincerely,



Dale Vodehnal, Chief

Environmental Assessment Branch

cc: J. S. Tixier, Regional Forester
William Dickerson, A-104 (OFA)

EPA Detailed Comments
on the Ashley National Forest
Proposed Forest Plan and DEIS

(page 3)

Alternative Selection Process

The Council on Environmental Quality regulations for implementing the National Environmental Policy Act (40 CFR Part 1502.14) direct the EIS preparers to present the environmental impacts of the proposed alternative and all other reasonable alternatives, including the no action alternative, in a comparative form. We do not feel several of the alternatives, including the proposed alternative, meet the CEQ goals of providing a clear basis of choice among options by the decision-maker and the public.

The No Action alternative assumes a continuation of current program management, yet it increases the available budget to 1.5 times the first 10 year average. How does the Forest Manager propose to obtain additional funding without expansion of the existing program? Why is this a reasonable no action alternative? How is this different, other than budget, from the current budget alternative?

The preferred action, or *Coordinated Resource Alternative*, assumes that the market will utilize the additional timber harvested and that the Forest budget will be sufficient to support the planned program. This was Forplan modeled using the no budget constraint assumption. We do not feel this is a reasonable alternative. The Forest Service does not have a past history of unlimited budgets and it is highly unlikely that this should change under the current, cost conscious administration. Additionally, the assumption of an unlimited budget in the preferred alternative, as well as the Accelerated Harvest Alternative, does not lend ready comparison to the other alternatives. We request that all alternatives be compared on an equal basis with a budget that could be reasonably expected to occur in the future.

Two alternatives, Current Budget and Reduced Budget, appear to result in decreases in water quality (page II-28, figure 2-16). The Forest goals are to maintain and improve water quality. The Ashley National Forest included "must not violate water quality standards" in the criteria for a viable alternative (page B-59, DEIS). It is unrealistic to include an alternative that is unacceptable to the Forest to begin with.

Soils and Water Quality

The DEIS, page II-28-29 indicates that there will be significant increases in sediment delivery to the streams. Additional discussion is necessary concerning the fate of this sediment, potential violations of Utah and EPA's water quality regulations and antidegradation policies, and the cumulative impacts of this sediment transport on the receiving streams. A detailed sediment management monitoring plan should be included in the Forest Plan which defines how and where sediment monitoring would occur, how monitoring results would be evaluated and how sediment controls would be implemented.

Your comment on the No Action Alternative could be the result of misunderstanding the discussion of constraints in Chapter II of the DEIS. While the FORPLAN constraint did limit the budget to a maximum of 1.5 times the past average, the Alternative A solution did not utilize all of this constraint.

We consider Alternative A a reasonable "No Action" alternative because it holds resource outputs, both commodity and amenity, at a basically constant or "No Change" level. However, the cost of producing this same level of outputs will increase over current budget levels.

As depicted in DEIS Table II-4 and II-5 and as described in Chapter II, outputs of Alternative B (Current Budget) differ considerably from the outputs of Alternative A (Current Program).

There are no decreases in water quality below state standards, but water quality would not be improved. There is no programmed restoration work for watershed so those areas identified as needing work would not be accomplished; they would be retained on a backlog.

In reference to Soils and Water Quality, the predictive models used in formulating the plan indicated that no alternative, when applying best management practices, would yield sediment that would exceed State water quality standards. The monitoring section of the Plan provides detailed studies that will take place to verify this prediction.

We feel it is especially critical to include a detailed plan to control non-point sedimentation to Flaming Gorge Reservoir in the Forest Plan and EIS. Other areas where a detailed sedimentation plan will be very useful is in documenting CUP construction activities, road construction and effects of the many pending hydroelectric projects. The sedimentation monitoring plan should be able to detect the instantaneous events often associated with construction activities as well as cumulative impacts which could occur on downstream receiving reaches.

The Corps of Engineers (COE) recently revised regulations under the Section 404 dredge and fill permit program (33 CFR Part 330.7) requiring that the COE be notified in advance of activities that formerly were allowed under the nationwide 404 permit without pre-notification. The pre-notification process will be used to determine whether an individual 404 permit is needed. The Ashley National Forest process for pre-notification and for coordination of applicable Forest Service and private individual projects with the Section 404 permit program, needs to be described in the Plan/EIS.

Management Indicator Species

We are pleased to see the monitoring programs designed to measure habitat and animal responses to the various Forest management objectives. We have several questions concerning the implementation of these programs and the ultimate use of the results. The EIS proposes to use several macroinvertebrates as indicators of habitat quality (page III-25). How were these taxa selected? It does not appear that the taxa selected will meet the stated goals. For example, Chironomidae, a family of Diptera with at least 2000 species in North America (Merritt R.W. and K.W. Cummins editors: An Introduction to the Aquatic Insects of North America, Second Edition. Kendall/Hunt, Dubuque, Iowa 1984. 722pp), are listed as highly tolerant to pollution. All Chironomidae are not highly tolerant to pollution. Resh and Unzicker (Journal of the Water Pollution Control Federation 47(1).9-19, 1975) point out the many errors in impact assessment where higher taxonomic levels of identification are used in the analysis. This section on aquatic management indicator species should be revised to reflect the current state of benthic ecological knowledge. Efforts should be made to insure that all selected management indicator species, both terrestrial and aquatic, are capable of meeting the stated goals and will not result in data analysis which misrepresents the habitat conditions being measured and protected.

The other concern with the monitoring program is how the Forest Service will remedy the environmental impacts which may occur as the result of a specific program and insure that the impacts do not occur in other areas of the forest. For example, if the water quality and cutthroat trout monitoring programs indicate that a particular timber operation has significantly reduced the trout populations and water quality of a receiving stream, what are the forest's plans to rehabilitate the stream and insure that these significant impacts would not occur in the future at another location? Who would fund the stream rehabilitation? We feel that this final step will insure that the implementation plan is enforceable, and is a critical part of the Forest Plan and should be included in the EIS process.

(page 4)

The Plan includes a general statement that all state and federal regulations will be followed. It is not appropriate to include the process that will be used in complying with Section 404 permits in the Plan.

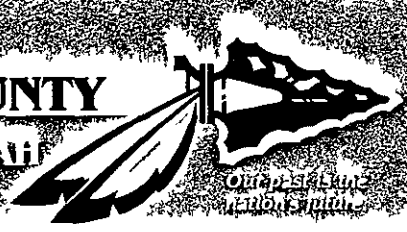
The aquatic macroinvertebrate management indicator species were selected for four reasons:

- (a) They monitor a wide range of conditions.
- (b) Their relatively large size facilitates identification.
- (c) Their limited mobility restricts them to a particular environment.
- (d) They have a lifespan of months or years which allows for response to impacts over time.

Baseline data using the selected identified species has already been established for most of the major streams on the Forest.

Information gained in monitoring of one area of the Forest will be used to guide management on other similar areas of the Forest. Rehabilitation practices will be completed through the appropriate available funding sources.

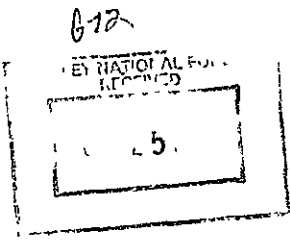
UINTAH COUNTY
STATE OF UTAH



COMMISSIONERS
Neal H. Dorngaard
Bryce Caldwell
Thomas Wardell
ASSESSOR Don M. Walker
AUDITOR Amy G. Pope
ATTORNEY Mark Nash
CLERK Dorothy C. Luck
RECORDER Lola Anderson
TREASURER Frances P. Southam
SHERIFF Arden W. Stewart
SURVEYOR Nelson Marshall

October 21, 1985

Ashley National Forest
1680 W. Highway 40
Vernal, Utah 84078



Dear Mr. Tucker,

The Uintah County Commission urges the Forest Service to support the proposed Forest Land and Resource Management Plan by also supporting the proposed road into Brown's Park.

This road would be of benefit to all the recreationists as well as the residents in that area. The present road system in that area of Daggett County is extremely difficult to maintain.

The Plan mentions increase of heavy maintenance in developed recreation sites and to maintain low to moderate wildlife improvement programs, as well as resolving conflict between recreation and other resources in favor of recreation and scenics. It further states that as the road system is expanded, many segments of the existing trail system will be replaced by roads. Taking these things into consideration, it appears that the Forest Service has mandated its alternatives.

Once again, I urge the Forest Service to support the Brown's Park road and make accessible one of the most scenic recreational areas in the State.

Sincerely,

Bryce Caldwell
Bryce Caldwell
Uintah County Commissioner

General Comments on Brown's Park Road Issue

Daggett County through funding by the State of Utah is evaluating a route which is commonly referred to as the Brown's Park Road. This route would connect Colorado Highway 318 with Utah Highway 260. At this time we have not been advised of the findings from this evaluation. Informal communication with the Utah Department of Transportation indicates a route is feasible but costs are extremely high. While this route study will deal with location and preliminary costs it is not an analysis that considers environmental consequences. An environmental document must be prepared before any decisions can be made regarding this route compared with other locations, including the existing road through Jesse Ewing Canyon and Clay Basin.

A document, "Final Wild and Scenic River Study and Final Environmental Statement", prepared by the National Park Service, April 1980 was submitted to the Congress by the Secretary of Interior in November 1983. This document recommends the Green River, in the location of the route currently being evaluated, be classified as a Wild and Scenic River. It further states that if the subject portion of the Green River is included in the Wild and Scenic Rivers System, road construction within the visual corridor will not be permitted if a feasible and prudent alternative exists.

Until action is taken by the Congress concerning this river's classification, we believe the corridor should be managed in its existing condition so as not to preclude the options of the Congress.

These considerations are the reason for our recommendation in the DEIS and now in our Final not to support road construction along the Green River until Congress has made a decision about the Wild and Scenic status proposal.

Response to Bryce Caldwell

Many of those who use this area do so because of its unroaded condition. If a road were built, certain characteristics and values of the area would change. Overuse may significantly detract from existing uses. It is also our understanding that residents in the area have expressed their opinion that they prefer the existing route through Clay Basin. We understand that a survey by a member of the Daggett County school board in November, 1985, indicated that over two thirds of the residents in eastern Daggett county prefer this existing route.

Your reference to heavy maintenance in developed recreation sites does not coincide with what exists in the area between Little Hole and Brown's Park. This area is undeveloped and we did not intend to maintain any roads there. Also there is no system trail that runs between Little Hole and Brown's Park. A low standard trail extends approximately 1 mile east of Little Hole for fishermen access. An unmaintained access way continues to the Forest boundary.

UINTAH COUNTY

STATE OF UTAH



COMMISSIONERS
Neal H. Dømggaard
Bryce Caldwell
Thomas Wardell
ASSESSOR Don M. Walker
AUDITOR Amy G. Pope
ATTORNEY Mark Nash
CLERK Dorothy C. Luck
RECORDER Lola Anderson
TREASURER Frances P. Southam
SHERIFF Arden W. Stewart
SURVEYOR Nelson Marshall

October 18, 1985

Ashley National Forest
1680 W Highway 40
Vernal, Utah 84078

Dear Mr. Tucker,

After reviewing the proposed Forest Land and Resource Management Plan, in regards to the Brown's Park Road issue, please consider the following.

We feel that the Forest Service has mandated its alternatives. One alternative, referred to as the preferred one, places emphasis on the increase of heavy maintenance in developed recreation sites and to maintain low to moderate wildlife and livestock improvement programs. It is further stated that in most situations where there is a conflict between recreation and another resource, that it will be resolved in favor of recreation and scenics. Given the information that as the road system is expanded, many segments of the existing trail system will be replaced by roads, it seems reasonable to build the Brown's Park Road.

It has been a difficult task for years for Daggett County to maintain the existing roads in that surrounding area. This new road would alleviate much of that problem. It is time to stop spending money investigating alternate routes, and pursue the building of this new road, which would complete an agreement made many years ago.

This proposed road would benefit all those who choose to recreate there as well as those who live there. It would open up a beautiful recreation area that could be enjoyed by the people already enjoying the Flaming Gorge area.

We ask the Forest Service to support their own Management Plan as well as the proposed road into Brown's Park.

Sincerely,

Thomas G. Wardell, Chairman
Uintah County Commission

Response to Thomas G. Wardell, Uintah County Commission

See general comments on Brown's Park Road with the response to letter G-12.

Your reference to heavy maintenance in developed recreation sites does not coincide with what exists in the area between Little Hole and Brown's Park. This area is undeveloped and we did not intend to maintain any roads there. Your second comment, referring to conflicts being resolved in favor of scenics, is in direct conflict when consideration is given to building a road in an undeveloped and proposed Wild and Scenic River Corridor.

The agreement you mention is between States to have a road that ties Colorado 318 with Utah 260. It does not specify location and clearly could be the existing route which the State and County have been upgrading continually through reconstruction and construction of new bridges. It is our understanding the proposed Brown's Park Route could cost \$15,000,000 and would certainly not be free of high maintenance costs.

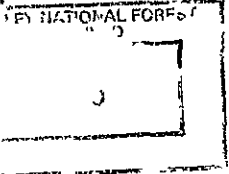
The proposed road would create considerable conflict with current uses of the area such as blue ribbon fishing, wildlife and the proposed Wild and Scenic River classification.

UINTAH COUNTY

STATE OF UTAH



COMMISSIONER
Neal H. Domgaard
Bryce Caldwell
Thomas Wardell
ASSESSOR Don M. Walker
AUDITOR Amy G. Pope
ATTORNEY Mark Nash
CLERK Dorothy C. Luck
RECORDER Lola Anderson
TREASURER Frances P. Southam
SHERIFF Arden W. Stewart
SURVEYOR Nelson Marshall



October 16, 1985

Ashley National Forest
Suite 1150 1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker,

In response to the proposed Forest Land & Resource Management Plan, the Uintah County Commission offers the following comments.

Once again, the issue of whether or not to build a road from Little Hole into Brown's Park has come up. It appears to be the position of the Forest Service to oppose this proposal.

In reviewing the Management Plan, we feel the purposes are clear and the alternatives are mandated. As stated on page S-2, alternative B, the preferred one, emphasis is put on the increase of heavy maintenance in developed recreation sites and to maintain low to moderate wildlife and livestock improvement programs. The proposed road would accomplish this.

Consider the high recreational use of that area of the Flaming Gorge. It is stated on page S-6 that in nearly all situations where conflict exists between recreation and another resource, it will be resolved in favor of recreation and scenics. It is further stated on page S-12, that as the road system is expanded, many segments of the existing trail system will be replaced by roads. The proposed road would be in line with this.

Regarding the scenic status for the portion of the Green River from Flaming Gorge dam downstream to the Gates of Lodore, although the recommendation was made for a Scenic status, no action has yet been taken. The building of this road cannot harm a Scenic status that does not exist.

The building of this road would not only benefit the recreation of the area, but also the residents. Let's not forget there are people living in that area. The roads in that area of Daggett County are next to impossible to maintain. A road through this section is the missing link to complete an agreement that was made several years ago, and would benefit all that recreate there as well as those that live there.

This road would make accessible one of the most beautiful recreation areas in the state, enjoyed by thousands of people each year. This resource should be utilized. It is time that money stop being spent on looking at alternate routes. There are no other alternatives. Therefore, we urge the Forest Service to stand behind their Management Plan, and support the proposed road to Brown's Park.

Sincerely,

Neal H. Domgaard, Uintah County Commissioner

NHD/11b

Response to Neal H. Domgaard, Uintah County Commission

See general comments on Brown's Park Road Issue with letter G-12.

Your reference to heavy maintenance in developed recreation sites does not coincide with what exists in the area between Little Hole and Brown's Park. This area is undeveloped and we did not intend to maintain any roads there. Your second comment, referring to conflicts being resolved in favor of scenics, is in direct conflict when some people are considering building a road in an undeveloped and proposed Wild and Scenic River Corridor.

There is no system trail that runs between Little Hole and Brown's Park. A low standard trail extends approximately 1 mile east of Little Hole for fisherman access. An unmaintained access way continues to the Forest boundary.

Congress should be given the opportunity to determine the status of the proposed Wild and Scenic River. If a road were built in the corridor, Congress would lose that option. To eliminate this option does not seem appropriate.

You state that we should consider the people who live in the area. However, we understand that a survey by a member of the Daggett County school board in November, 1985, indicated that over two-thirds of the people who live in eastern Daggett County favor the existing route through Clay Basin.

The agreement you mention is between States to have a road that ties Colorado 318 with Utah 260. It does not specify location and clearly could be the existing route which the State and County have been upgrading continually through reconstruction and construction of new bridges. It is our understanding the proposed Brown's Park Route could cost \$15,000,000 and would certainly not be free of high maintenance costs.

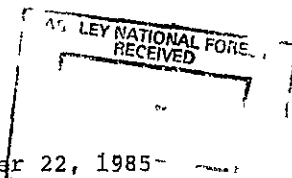
Many of those who use this area do so because of its unroaded condition. If a road were built certain characteristics and values of the area, would change. Overuse may significantly detract from existing uses.

COLORADO RIVER BOARD OF CALIFORNIA

107 SOUTH BROADWAY ROOM 8103
LOS ANGELES CALIFORNIA 90012
(213) 620-4480



October 22, 1985



Response to Colorado River Board of California

The preferred alternative (J) does not produce as much water yield as alternative B. However, water yields do increase both from the mountain pine beetle and from management activities designed to increase water yield (timber harvesting).

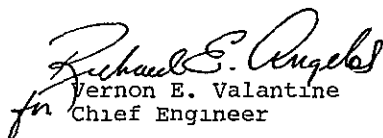
Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 West Highway 40
Vernal, Utah 84078

Dear Mr. Tucker:

We have received the Draft Environmental Impact Statement (EIS) and proposed Forest Land and Resource Management Plan for the Ashley National Forest sent to us by letter dated July 16, 1985. We appreciate the opportunity to review these documents, and the following are our comments:

1. We are pleased that the benefits from increased water yield have been adjusted to reflect the more recent value of \$58.38 per acre-foot, rather than the former value of \$5.00 per acre-foot. The adjusted value seems to be reasonable.
2. The preferred alternative, Alternative B, produces almost as much water yield in the fifth decade as the alternatives that were shown to have more water yield increase. Therefore, we support Alternative B as the preferred plan.

Sincerely,


for Vernon E. Valentine
Chief Engineer

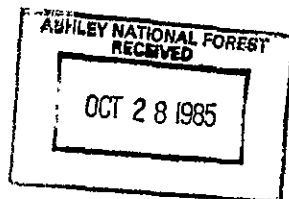


United States
Department of
Agriculture

Soil
Conservation
Service

P.O. Box 11350
Salt Lake City, UT 84147

October 22, 1985



Buane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 W. Highway 40
Vernal, Utah 84078

Dear Mr. Tucker:

We have reviewed the draft Environmental Impact Statement and Proposed Forest Land and Resource Management Plan for the Ashley National Forest, covering lands in Daggett, Uintah, and Duchesne Counties in the State of Utah. We have no comments.

We appreciate the opportunity to review the documents.

Sincerely,

Francis T. Holt (acting)

FRANCIS T. HOLT
State Conservationist

cc: Director of Ecological Sciences, SCS, Washington, DC
George Bluhm, Director, WNTC, SCS, Portland, Oregon



The Soil Conservation Service
is an agency of the
United States Department of Agriculture



U.S. Government Printing Office: 1983-420-629/1678

UJAR

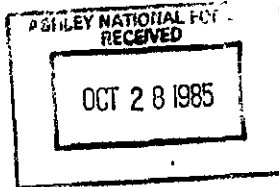
135 RUSSELL SENATE OFFICE BUILDING
TELEPHONE (202) 224-5251

United States Senate
WASHINGTON, DC 20510

GAT
CHAIRMAN
LABOR AND HUMAN
RESOURCES
JUDICIARY
INTELLIGENCE
BUDGET
OFFICE OF TECHNOLOGY
ASSESSMENT

October 25, 1985

Duane Tucker
Forest Supervisor
Ashley National Forest
1680 W Highway 40, Suite 1150
Vernal, Utah 84028



Dear Mr Tucker

I wish to make known to you my concerns with the Forest Management plan for the Ashley National Forest, specifically as it relates to the proposed Brown's Park Access Road.

As you are well aware, the State of Utah and Daggett County have committed a great deal of time and money to study the area of the proposed road. Until we have the results from the State Department of Transportation study, complete with routes available, cost considerations and the environmental impact, it is premature to make any prohibitions against building the road.

Reasonable public access to the beautiful areas of our state needs to be provided. I recognize the environmental considerations on all such proposals. By communicating together with open minds, I'm confident that the best decision will be made for the people of our state.

Sincerely yours,

Orrin Hatch
United States Senator

OH/jgp

cc. Stan Tixier, Regional Forester

Response to Senator Orrin Hatch

See general comments on Brown's Park Road Issue with letter G-12.

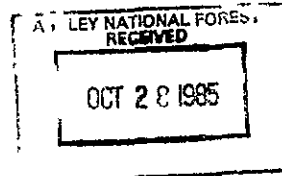
Direction contained in the Forest Service FEIS for Management of the Congressionally designated Flaming Gorge NRA, dated October 1977; another FEIS by the National Park Service, Final Wild and Scenic River Study, dated April, 1980, and the recently completed Green River Corridor Management Plan, dated December, 1984, all recommend not roading this scenic area. This direction was established prior to the recent study funded by the State through Daggett County.

The only irreversible decision would be to build a road. The Forest Service has pledged its willingness to work with Daggett County Commissioners in evaluating a route for the proposed road. To date we have not been asked for comments. We remain anxious to work with the County and communicate with them through the decision making process.

DAGGETT COUNTY COMMISSION

Manila, Utah 84046

Phone 801 784-3154



October 25, 1985

Ashley National Forest
1680 W. Highway 40
Suite 1150
Vernal, Utah 84078

Dear Mr. Tucker

In response to the proposed Forest Land and Resource Management Plan, the Daggett County Commission offers the following comments.

Once again, Daggett County is requesting that the Utah Department of Transportation build an oiled road from Dutch John to the Colorado state line in Brown's Park. However, it appears the Forest Service is opposed to such a route if it is to follow the river corridor, although this seems to be the only feasible route money-wise and also grade-wise.

In the management plan, your chief consideration is for recreational use on the Flaming Gorge. If conflicts arise between recreation and other resources, it will be resolved in favor of recreation.

The building of a road would not only benefit recreation for the entire Flaming Gorge area but also for county residents who are as deserving of a road as anyone else in the state. This road would save the Forest Service money by taking the maintenance off the road from Dutch John to Little Hole.

In your management plan on A8 you recommend locating and constructing all roads to standard that will compliment or enhance existing or potential recreational values as well as provide public access to shoreline areas for year long use, of which a road along the river would accomplish.

It is time the Forest Service takes a stand to implement their management plan and allow a road to be built along the river corridor into Brown's Park since this is the only feasible route and the only one the Utah Dept. of Transportation says that can be funded.

Sincerely,

DAGGETT COUNTY COMMISSION

Laray Sadler
Laray Sadler, Chairman

Response to Daggett County Commission

See general comments on Brown's Park Road issue with letter G-12.

Your comment referring to conflicts being resolved in favor of recreation is in direct conflict when considering building a road in an undeveloped and proposed Wild and Scenic Corridor.

You are correct that maintenance funds on a portion of the Dutch John to Little Hole road would be saved. We estimate this saving at about \$500 per year. The saving would probably be offset, however, by increased traffic on that portion. We would still have to maintain a portion of the road since the Brown's Park Road alignment would not replace the entire Little Hole Road.

The items you reference on Page A-8, 24, 25, and 26 are separate statements and do not apply to all roads, with the exception of road standards. Not all shoreline areas are proposed for public access nor are all roads designed for year-long use.

HOWARD C. NIELSON
3D DISTRICT UTAH

COMMITTEE ON ENERGY AND COMMERCE
SUBCOMMITTEES
ENERGY CONSERVATION AND POWER
HEALTH AND ENVIRONMENT
TELECOMMUNICATIONS, CONSUMER PROTECTION
AND FINANCE

COMMITTEE ON GOVERNMENT OPERATIONS
SUBCOMMITTEE
EMPLOYMENT AND HOUSING
RANKING MINORITY MEMBER

COAL CAUCUS
COPPER CAUCUS
STEEL CAUCUS
MILITARY REFORM CAUCUS

REPUBLICAN POLICY COMMITTEE

Duane Tucker
Forest Supervisor
Ashley National Forest
1680 W. Highway 40, Suite 1150
Vernal, UT 84028

Dear Mr. Tucker:

In reviewing your proposed Land and Resource Management Plan for the Ashley National Forest, I see that a recommendation has been made to not allow a road within the Green River corridor from Brown's Park to Little Hole. I feel it is premature to preclude this or any other road at this time.

The plan does not adequately address the various alternatives available for an improved transportation route through this area, which links the northeast corner of Utah with Colorado and Wyoming. The plan certainly does not demonstrate justification for recommendation either for or against any route in the area. Nor does it develop enough data to adequately assess the impact that would occur if a route were selected that included some distance along the Green River. I feel that before the Forest Service makes a recommendation on this issue, we need to at least review the various alternatives available with consideration for distances, cost estimates, economic values, and environmental considerations for each proposed route.

At present there is a great deal of interest and concern being expressed over this issue, which is commonly referred to as the Brown's Park road issue. Daggett County has secured commitments of \$94,000 from the Utah Community Impact Board and the Utah Department of Transportation for a study of this road.

There are a number of things that need to be considered on this issue, and complete consideration will take more time than is available before you need finalization of your proposed plan. To avoid delay in implementation of your plan and yet to remain fair and objective on the road proposal, I think the plan should recognize the desire and need for improved transportation through this area, but that it should be left open for further study on exact locations of the roads.

OCT 20 1985

6-19

WASHINGTON OFFICE
1229 LONGWORTH HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-7751

DISTRICT OFFICES
#105 FEDERAL BUILDING
88 WEST 100 NORTH
PROVO, UT 84601
(801) 377-1778

#2205 FEDERAL BUILDING
125 SOUTH STATE STREET
SALT LAKE CITY, UT 84138
(801) 524-6301

82 EAST CENTER STREET #1
MOAB, UT 84832
(801) 259-7118

UTAH TOLL-FREE NUMBER
1-800-245-1428

Response to Congressman Howard Nielson

See general comments on Brown's Park Road Issue with letter G-12.

Daggett County and the State are proposing the road that would tie with Wyoming and Colorado and they should present and evaluate alternative locations. If a proposal is identified, beyond the route analysis you mention, we will evaluate the environmental effects to the National Forest and work closely with them on evaluating each proposed route.

Direction contained in the Forest Service FEIS for Management of the Congressionally designated Flaming Gorge NRA, dated October 1977; another FEIS by the National Park Service, Final Wild and Scenic River Study, dated April, 1980, and the recently completed Green River Corridor Management Plan, dated December, 1984, all recommend not roading this scenic area of the State. This direction was established prior to the recent study funded by the State through Daggett County.

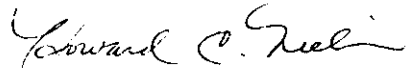
October 25, 1985
Duane Tucker
Page 2

It would be unfair at this time to have this long-term forest plan either support or preclude a road alignment anywhere in the area, including the Green River.

In the administration of federal land, we need to be extremely sensitive to the needs and desires of the local areas the land impacts. We need to be especially sensitive to the input of public officials who represent the local units of government--officials who have a charge to provide services on and near the land involved and to maintain viability for these services. These officials are elected and represent the people of the area; because of that, their voices should be considered to be much louder than a single voice. To the best of my knowledge, all of these officials have expressed support for better transportation in this area, and considerable dollars are already committed to this endeavor. We shouldn't shut the door on any solutions yet, nor should be Ashley Forest plan.

I appreciate the difficulty involved in developing a plan for our public lands that tries to juggle so many diverse interests. It is a monumental task, I'm sure, and I'm confident that you'll make the effort to seek a proper solution. I remain committed, as I'm sure you are, to hear any and all points of view and to consider as many solutions as possible before reaching a final one.

Sincerely,



Howard C. Nielson
Member of Congress

HCN/rrc

(page 2)

The only irreversible decision would be to build a road. The Forest Service has pledged its willingness to work with Daggett County Commissioners in evaluating a route for the proposed road. To date we have not been asked for comments. We remain anxious to work with the County and communicate with them through the decision making process.

You mention that local officials have expressed support for better transportation in the area. However, much comment has been made which shows support both against and for a new route. Of the local residents in eastern Daggett County, we understand that a survey by a member of the Daggett County school board indicated that two thirds prefer the existing route through Clay Basin.

Responses received on the Forest Plan and DEIS are not weighted. Each respondent's letter is carefully considered for substance and content. Comments from elected officials, who represent large numbers of the public, are given appropriate consideration.

JACK LEHMAN *Chairman*
ROBERT W BUGBEE *Vice Chairman*
JACK L STONEHOCKER *Director*

STATE OF NEVADA



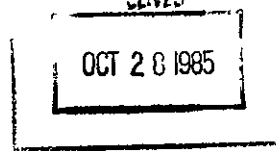
COLORADO RIVER COMMISSION

OF NEVADA
1515 E Tropicana, Suite 400
Las Vegas, Nevada 89158
(702) 739-1902

October 25, 1985

G-20

FRANK M SCOTT *Member*
LLOYD M TAGGART *Member*
ROBERT WEISE *Member*



Comment to Colorado River Commission

The preferred alternative (J) does not increase water yield as much as alternative B. However, increases in water yield will be accomplished through timber harvesting and other silvicultural methods as well as occurring naturally as a result of the beetle epidemic.

Mr. Duane G. Tucker
Forest Supervisor
Ashley National Forest
Ashton Energy Center, Suite 1150
1680 West Highway 40
Vernal, UT 84078

Dear Mr. Tucker:

We appreciate the opportunity to review and comment on the Draft Environmental Impact Statement and Proposed Forest Plan for the Ashley National Forest.

Water quantity is recognized as an issue of great importance in the western United States. In fact, the importance of water will become more apparent as municipal, industrial, agricultural, recreational and wildlife interests compete for the same resource. Because of the impending inability of current supplies to meet the increasing demands, the State of Nevada is very interested in increasing water yields in the Colorado River Basin. We, in concert with the six other Colorado River Basin states, are exploring various means to augment our water supply and thereby meet the current allocations as well as accommodate increasing demands on this vital resource.

We are pleased that the Proposed Forest Plan goals and objectives result in an increase in water yield of 55.7 million acre-feet per year by the year 2030 from the Ashley National Forest watersheds. According to the Proposed Forest Plan, this increase will be accomplished through timber harvesting and other silvicultural methods. We strongly support vegetation management as a method of enhancing surface water supplies thereby increasing the ability of the Colorado River to meet future water demands

Sincerely,

Handwritten signature of Jack L. Stonehocker.
Jack L. Stonehocker
Director



THE STATE OF WYOMING

Department of Environmental Quality
Water Quality Division

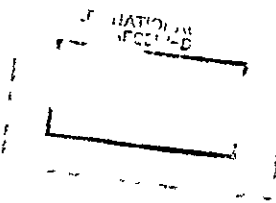
HERSCHLER BUILDING

CHEYENNE WYOMING 82002

MEMORANDUM

ED HERSCHLER
GOVERNOR

TELEPHONE 307 777 7781



TO: Randolph Wood, Director
FROM: Beth Wessel, Water Quality State Program Planning Coordinator
DATE: October 21, 1985
SUBJECT: Draft EIS and Proposed Forest Plan Review for Ashley National Forest

Having reviewed the Draft Environmental Impact Statement and the Proposed Forest Plan for the Ashley National Forest, I am providing the following comments:

- 1) The upper one-third of Flaming Gorge Reservoir is experiencing accelerated eutrophication due to heavy nutrient loading. Recreational activities such as fishing and boating are impacted, particularly during the months of August, September and October. Care should be taken to ensure that the selected management alternative does not further exacerbate the water quality problems in the upper one-third of the reservoir.
- 2) A task force comprised of several state, local and federal agencies is studying water quality problems in Flaming Gorge Reservoir. Because the recreational facilities and lands surrounding the reservoir are managed by the Ashley National Forest, it is imperative that forest personnel continue to participate in the study.
- 3) An implementation schedule of specific management responses to the goals and objectives outlined in the forest plan should be developed.

Response to Wyoming Dept. of Environmental Quality,
Water Quality Division

The eutrophication problem is acknowledged. Most pollution occurs from point sources outside the Flaming Gorge NRA. Until funding becomes available, the problem will continue under all alternatives.

The Forest Service desires continued participation in studies to quantify and determine sources of pollutants in Flaming Gorge Reservoir.

Page Two
Mr Duane G Tucker

notification of any Plan changes based on budget constraints Notification to the State is also needed in several other areas

Given the understandably general nature of many aspects of the Plan, and areas of planning that are still in the development stage, e g , fire management planning, transportation planning--roads and trails, and wilderness management, several areas of management will be dealt with more specifically in other documents It is in these areas, or others where events "trigger" a change in the Plan itself, that the State requests information. I suggest that arrangements be made whereby the Forest and the State Planning Coordinator mutually agree to what actions the State will be notified of and the form of appropriate documentation

Again, the State appreciates the opportunity to be involved in forest planning. It is hoped that through the public involvement process a number of issues and concerns may be rectified prior to publication of a Final Plan We hope that we have contributed to the production of a Forest Plan that is of the highest caliber in planning efforts Generation of these forest plans is nothing less than heroic, and the State sincerely appreciates the efforts the Forests are making to understand the natural resource base of Utah We hope to be involved in the continuing planning efforts of the Forest Service, and encourage continued involvement of the Forest Service in State planning efforts

Sincerely,


Norman H Bangerter
Governor

NHB/ras
Attachment

(page 2)

Whenever major changes occur to a Final Plan due to development or project planning, an amendment must be written to the plan. The amendment requires public notification and involvement. The State Planning Coordinator will be notified and given the opportunity to be involved if this occurs.

The Plan will be modified to meet changes in management requirements on a ten to fifteen year schedule or sooner, if needed. These modifications will be accompanied by appropriate NEPA documents and will involve public input.

COMMENTS OF THE STATE OF UTAH ON THE
PROPOSED ASHLEY LAND AND RESOURCE MANAGEMENT PLAN AND DEIS

I. PROPOSED LAND AND RESOURCE MANAGEMENT PLAN

A. Section II Comments

Page II-2, Paragraph 1: The importance of recreation is alluded to, but seems to be downplayed. This importance should be dealt with in all relevant sections of the document. By mentioning recreation as a possible influence in this discussion of economic development, it appears that the true importance of recreation on the Forest is NOT a primary consideration in the analysis.

Page II-3, Paragraph 4: "Ponderosa Pind" should read "Ponderosa Pine".

Page II-4, Paragraph 2: "Areas with existing or classifications, such as...". This statement is missing something. Perhaps it should read, "Areas with existing or proposed classifications, such as...".

Page II-4, Paragraph 2: The proposed Scenic River classification for the Green River is mentioned in this section. More information as to the current status of this proposal--beyond that information provided for on page II-19, paragraph 1--would be appreciated. On Page II-22, it is implied that both the FS and the BLM support the Scenic recommendation, but this is not explicitly stated. What are some of the management directions to ensure non-degradation of the riparian resource, pending a final decision? If a final decision is reached that favors the designation as a Scenic River, what steps will management take to deal with increasing recreational pressure?

Page II-5, Paragraph 4: In this discussion of the impact of CUP development on the recreation resource, it is stated that "With the completion of the Central Utah Project (CUP) reservoirs, this Forest will probably contain more acres of 'Flat Water' than any other Forest in the region, which is a major attraction in the arid west." What type of planning is presently being done in order to prepare for this trend of increasing recreation demand? If this type of recreation influx is expected in the near future, then today is the time to make preparations for maximizing resource utilization. Cooperative recreational developments with BOR or other agencies should be initiated, and other plans should be formulated to best provide for the demands of the recreating public.

Page II-5, Paragraph 7: This discussion of trails and the Forest's trail system discusses poor current condition, likely deterioration, closure of trails, and user conflicts. The result is summed up, "It is estimated that the ability of the trail system to serve the public will decline while demand continues to increase." This rather bleak picture again demonstrates that

(page 1 - Attachment)

As previously indicated, Alternative J would validate and support increased recreation emphasis.

The Proposed Wild and Scenic Green River Corridor has been studied; a report/recommendation has been prepared and approved by the Secretaries of Agriculture and Interior, and the document is now awaiting action by Congressional committees. Until Congress acts, riparian areas will be protected in accordance with the Standards and Guidelines section of the Plan. A joint plan for the Green River Corridor was prepared and signed by all agencies having administrative responsibilities, including the Utah Division of Wildlife Resources.

Several cooperative recreation plans are already in effect with the BOR to meet the expected demands of the recreating public at the new reservoirs. The campground facilities at Strawberry Reservoir are a current example. When future reservoirs are completed, dollars and plans for recreation use have already been coordinated with the Bureau of Reclamation and the Central Utah Project. The biggest problem facing the Forest is not in the planning for recreation areas - it is in maintaining those areas with a constantly decreasing budget after CUP and the BOR have withdrawn from their initial investments.

This section has been rewritten to more accurately reflect the trail situation on this Forest. Other sections of the plan and the EIS, as you have indicated, will be revised accordingly. The intent of this section of the plan is to provide a brief overview of the current management situation and not prescribe mitigations or possible solutions. Alternative J gives additional emphasis to recreation. The Forest's capability to expand the recreation resource base was thereby increased.

for the Ashley, recreation is not a very high priority in the multiple-use scheme. Some alternatives or mitigation or possible solutions should be suggested to minimize these negative effects on the recreation resource base. Also see DEIS comments on pages S-12 and IV-32.

Page II-7, Paragraph 3. The document states, "At the end of this planning period additional areas will be evaluated [for Wilderness designation]. What management guidelines will be used to manage areas that have attributes and characteristics that afford a wilderness type experience? Will they be managed to protect wilderness values or will development be allowed if the demand for such development is present?"

Page II-7, Paragraph 5. Distribution of use in Wilderness is discussed, and the need for such re-distribution is identified. Some possible methods for effecting that redistribution are discussed, such as strategic placement of facilities to channel users to certain areas. However, no definite plans are proposed, or even discussed in any detail. Such management strategies are critical to the character of the resource, and as such, belong in the Forest Resource Plan. At the very least, the problem should be addressed in terms of a future study or task force or other planning effort.

Page II-7, Paragraph 6. The growth in Wilderness use is assumed to be "similar" to the projected population rate in Utah and Wyoming. Other, unidentified factors will no doubt also affect the participation in Wilderness dependent activities. If these factors are not taken into account, it is likely that the estimates of Wilderness use will be grossly underestimated.

Page II-9, Paragraph 3 and Page II-26, Table II-5. The paragraph states, "Table II-5 outlines the projected demands for the wildlife resource through 2030". First, the table is difficult to locate, as are some other references to tables in this chapter. Table II-5 is eighteen pages removed from the reference to it, and no page number is offered to aid the reader in locating it. Second, it is not obvious exactly where the projected demands for the wildlife resource are to be found in the table, once you find the table. While the narrative discusses "Wildlife and Fish" as a separate section, the table lumps activities into Developed, Dispersed, and Wilderness Recreation Use categories. It is difficult to ascertain the "projected demands for the wildlife resource" as stated.

Page II-10, Paragraph 2. There is no mention here of possible conflicts between recreation and grazing activities. Some of the areas that recreationists may find most attractive are also heavily used by grazing livestock. Will such conflicts, as they are identified, be resolved in favor of grazing, or will the recreation interests be afforded a share of the resource base?

Page II-10, Paragraph 3, Line 7: ". restored through grazing systems along" should read ". restored through grazing systems alone"

(page 2 - attachment)

Alternative J was chosen because of its additional emphasis on recreation.

The EIS has no alternatives with changes in Wilderness. The Utah Wilderness Act designated Wilderness areas. The alternatives do show variations in degrees of development in unroaded areas. The preferred alternative J leaves a large portion of the unroaded area in a nondevelopment prescription.

Chapter II of the Plan explains the current situation. "Strategies" and "solutions" for wilderness, recreation increases, wildlife and fish, and livestock/wildlife conflicts are found in ensuing Chapters of the Plan and EIS, especially in the Alternatives section of the EIS and in the Standards and Guidelines section of the Forest Plan.

Management Guidelines for area q and other undeveloped areas of the Forest are in the Standards and Guidelines section of the Plan and do protect undeveloped characteristics.

Distribution of use is covered under the Limits of Acceptable Change concept shown in the Standards and Guidelines section of the Plan.

Use projections in wilderness are also dependent on wilderness designations on adjacent National Forests and BLM. Population estimates are the best way we can predict the future needs at this time.

The incidence of such conflicts on this Forest are rare. Existing allotment management plans have recognized this potential problem and have routed livestock away from heavily used recreational areas.

In response to yours and other's concerns, Alternative J especially deals with many of the recreation strategies.

Throughout the portion of your comments dealing with Chapter II, you seem to misunderstand the intent of this chapter. Chapter II explains the current situation. The other chapters deal with mitigations and opportunities to minimize impacts. The Standards and Guidelines provide more in depth analysis to all facets of Forest multiple uses. In addition, Chapter IV explains how the Forest was divided into Management Areas. (A more detailed explanation is found in the EIS, Appendix B). These areas have different resource emphasis and the standards and guidelines help show how conflicts between resources will be resolved.

Page Three
Attachment

Page II-11, Table at top of page (not numbered): The category "Forest land included in the High Uintas Wilderness" (*) is not marked with a single asterisk in the table itself--only the footnote is so marked.

Page II-11, Table at top of page (not numbered) One of the categories in the table is "Forest land--physically unsuitable" and the corresponding acreage is ZERO. How was this determined and what criteria is "physically unsuitable" based upon?

Page II-11, Paragraphs 3 and 4: The discussion on allowable timber cut is confusing. In paragraph 3, it is stated that the annual cut will be increased to the potential yield of 29 MMBF upon demand. The next paragraph states, "The preferred alternative has an allowable sale quantity of 7.5 MMCF per year during decade one, 7.2 MMCF per year during decade two, then drops to 4.8 MMCF per year until the thirteenth decade when it levels out at the long term sustained yield of 6.848 MMCF". Does the third paragraph only include fuelwood and "speculative new uses of wood products", while the fourth paragraph includes sawlogs or other marketable timber? It is not clear WHY the estimates of quantity of timber sales vary between paragraphs. Is it because of the differences in measuring units (MMBF vs. MMCF, neither of which are in the glossary).

Page II-12, Paragraph 3: This paragraph discusses timber sales at below cost. The discussion mentions that the causes of below cost timber sales are increased costs of road construction, logging, and milling. This statement seems to be comparing dissimilar causes that are borne by two different entities. While it is difficult to find the term "below cost timber sale" explicitly defined anywhere, a recent publication by the Forest Service Intermountain Research Station (General Technical Report INT-183, May 1985 -- Below-Cost Timber Sales: Analysis of a Forest Policy Issue, Ervin Schuster and Greg Jones) gives an idea of what is meant. ". . .there have been instances where receipts from some timber sales are less than what it costs to develop, implement, and administer those sales. This concern has become known as the Below-Cost Timber Sale issue". This statement from the Ashley Plan has implicitly modified this "definition", to include the costs borne by the purchaser of the timber. The enterprise which purchases the timber is responsible for the actual logging and milling costs, and these factors do not enter into the Below-Cost Timber Sale issue so far as the National Forest is concerned unless somehow these logging and milling costs are considered to be costs of implementation or administration of the timber sale.

Page II-12, Paragraph 5. The use of "even-age management" is noted as being the most effective method of solving the problems occurring as a result of partial cutting. It is implied that there are no disadvantages to using this clearcutting (even-age management) as a management tool. The only problems noted are those associated with the method not used (partial cutting). Some of the problems, negative impacts, and disadvantages to using even-age management should also be identified. Also, what is the source for these conclusions, how were these conclusions reached?

(page 3 - attachment)

"Physically unsuitable" is the same as those definitions listed in the Glossary under Timber Classification item 4, categories (2), (3), and (4).

The reason your confusion about allowable cut occurred was because we used board feet (old terminology) for some of our allowable timber cut projections and, in the next paragraph, we used cubic feet. The conversion is based on the factor of 4.

Further information about "below cost" sales is in general statements #1.

If the National Forest system did not spread logging activity among all forests - even those where costs exceed income - the logging would be concentrated in Washington and Oregon or similar areas where the larger, better quality, and hence more "profitable" timber grows. Those forests would have to carry the full load. Thus, the current distribution of all forests sharing, where possible, in the timber demands, is preferable to a few forests carrying the whole load. Our wildlife program doesn't make money, yet we recognize that it isn't supposed to pay for itself, nor is wilderness or other amenity values.

Even-age is the natural growth cycle of Lodgepole stands. During natural regeneration, the Lodgepole stands normally burn at the same time. Clearcuts replacing the role of fire achieve the same results. Partial cutting is a technique used best in Ponderosa Pine and other tree species requiring shade instead of intense sunlight for regeneration. Numerous Lodgepole studies and consistent successful regeneration tests throughout the country have proven even-age, clearcut management as the solution to management of decadent, beetle infested Lodgepole stands.

Page II-12, Paragraph 6. We agree that gathering of fuelwood has large potential for the benefits listed (economically attractive situations, opportunities to reduce fuel loading on the Forest, and opportunities to improve the timber growth potential and utilization) Further, this type of activity is desired by a number of people as a recreational activity, either alone or in conjunction with other Forest recreation activities. However, the harvesting of fuelwood should be strictly controlled and regulated. Areas for fuelwood harvest must be clearly identified and non-harvest in other areas should be actively enforced. The most desirable trees for harvest are usually those that are close to roads and easily accessible. Unfortunately, these are also the areas that are most likely to impact the casual recreator and other user in the Forest. As a large number of trees (especially live trees) are harvested in close proximity to roads, the aesthetic quality of that area diminishes and consequently, opportunities for various other uses are foregone.

Page II-12, Paragraph 7: The last sentence of this paragraph discusses in general terms the conditions that may necessitate a revision in the Forest Plan. These general terms should be expanded into a specific triggering mechanism which would describe the threshold levels of change which will lead to Plan revision. Possibilities for public involvement in this determination should also be addressed.

Page II-14, Riparian Areas: It is noted that "increased demand for hydroelectric purposes on the Forest will tend to reduce the quantity of water available for instream flows and will cause a loss of riparian ecosystems" This statement should be qualified by referencing the Forest's other planned actions, and responsibilities, to mitigate losses caused by hydro development, i.e., the Forest's intent to "identify and quantify instream flows for securing favorable conditions of flows on all streams impacted by hydroelectric power. ."(page IV-9), and to design special use permits, easements, right-of-ways, and similar authorizations to "contain conditions and stipulations to maintain instream flows" (page IV-27).

Page II-15, Paragraph 3. The lack of planning and control over various man-made developments in the Forest is described. Some process for up-front planning is desirable for these types of projects. Developments such as hydroelectric sites, transmission easements, and others have a high potential for multipurpose use, especially in terms of recreation. These types of concerns should be written into the easement and/or permit applications and agreements. These types of agreements will help the Forest in providing a "fair share" of recreation opportunity, and will also foster cooperation and involvement between the private and public sectors.

Page II-15, Paragraph 4. "Studies of project future demand. " should read "Studies of projected future demand .".

Page II-17, Paragraph 3, Line 4: " ..development for mineral recover . ." should read " . development for mineral recovery . ".

Page II-17, Paragraph 3: The discussion here is of the potential adverse

(page 4 - attachment)

Live trees are a very small portion of the firewood program. Most firewood will be the overmature, dead loddnose and ponderosa pine, killed by pine bark beetles. The aesthetics of an area will improve after the dead wood has been removed. Harvesting of fuelwood is strictly controlled and regulated.

The monitoring section discusses the conditions that necessitate a revision in the Forest Plan.

Public involvement is a required part of the process whenever there is a revision.

The issue of small hydro impacts was added to the Standards and Guidelines section of the Plan.

Page Five
Attachment

impacts from mineral development, but there is limited discussion of mitigation or methods to minimize impacts to other segments of the Forest. The impacts listed (soil, water, air, scenics, vegetation, and wildlife) are broadbased and may affect many of the other Forest uses. Perhaps this requires a more in-depth discussion than that offered.

Page II-27, Paragraph 4: The Plan indicates a need for modernization of logging methods and practices if the timber harvest levels are to be reached as planned. The inherent assumption here is that these advances will occur and the technology will develop. A later statement in that paragraph states that one goal of the Plan is to "get ahead in sale planning to aid in the modernization of practices." This seems to be a chicken vs egg question. Should the sales be planned on the assumption that the new technology will be developed, or should the sales be offered based on current and feasible technology? Comment also applies to statement on page III-3, paragraph 1 of the Plan.

Page II-27, Final Paragraph: The logical conclusion to the information presented in this paragraph needs to be stated: If the general public is not demanding major changes in the Forest direction, and, road development "will change the existing mix of ROS classes", and, construction of needed access is required, THEN, the public should be involved in any proposed transportation planning.

Page II-28, Paragraph 1: The statement is made that recreation demand projections indicate a shortage of developed site capacity beginning approximately 1990-1995. This is not consistent with the previous mentioned estimate that demands could be met through the next five decades (with improved management). Some of the problems with this are: timing of use, feasibility of improved management and human resource programs, etc. Additionally, it is far more cost effective to invest a small amount of resources into maintenance of facilities than to try to rebuild new facilities as the old ones wear out.

Page II-28, Paragraph 7: While it is stated that a national commitment has been made to complete a Soil Resource Inventory by the year 2000, it is further stated that this will probably not be accomplished. Was the original commitment unrealistic? What portion of that requirement can be completed by the deadline? Goals and objectives should be explicitly defined and constantly updated. Even if one goal is missed, a realistic estimate of a new goal should be developed.

Page II-28, E (5): The State wants to emphasize its support of Research Natural Areas. As more and more resource users compete for a smaller and smaller resource base, it is essential to preserve those few remaining areas that represent undisturbed native communities or that provide habitat for rare plants and animals.

(page 5 - attachment)

Chapter II only explains the current minerals situation. Ensuing chapters deal with mitigation and impacts, especially in the standards and guidelines sections.

We did not mean for you to conclude that the Forest was searching for better modernization of logging methods and practices. What we meant was that the Forest intends to use the existing modern logging methods and practices.

The public is always involved in road planning as required by the NEPA process.

Again, Chapter II explains the current situation as related to the "Need to Establish or Change Direction". Alternative J reflects the recreation emphasis and deals with mitigations such as timing and use of human resource programs. The statement that with current funding we will not be able to meet demand is a true statement. Other references to outputs, supply and demand in your question relate to other alternatives. Current funding is less than shown for any of the alternatives.

With budget and personnel cuts, targets that looked reasonable to achieve a few years ago may have to be adjusted. An assessment of what can be achieved with needed documentation will be done this year in regard to soil resource inventory. The scheduling section of the Plan shows what is programmed for the planning period. Reevaluation of the national commitment may be needed at that time. Every attempt will be made to meet the target within the imposed constraints.

B. Section III Comments

Page III-4, Paragraph 3 and Table II-2 There is only a cursory discussion of timing of facility use in relation to crowding and carrying capacity. The narrative states the dates that capacity of the Forest is expected to be reached, but there is only slight mention of when this use is occurring (seasonality). It would be quite useful if this distribution of use were compared to the supply of facilities in the Forest.

Page III-4, Paragraph 4. Potential conflicts between user groups should be dealt with in more detail. The statement, "Different types of users, such as snowmobilers and cross-country skiers, sometimes compete for use of a given recreation area", does not adequately address the magnitude of this problem, and no possible solutions or mitigations are offered.

Page III-3, Recreation Management. The section on Recreation Management (Issue #7) is not clear about level of funding. The first sentence reads, "Funding for operation and maintenance along with investment dollars for developed sites and dispersed areas are programmed to be significantly higher than for the current program". This implies that the levels of funding will increase dramatically for recreation. Later in the paragraph this is reiterated: "With the additional funding, there will be opportunities to improve the types and numbers of developed sites and increase the length of the management season". While these statements resound with a positive ring, so far as recreation is concerned, they are not consistent with the general tone of the document.

The following comments are illustrative. From the DEIS: Page S-12 (loss of trails), Page S-14 (change in ROS), Page II-18 (increased demand, use of improved management and volunteer programs), Page II-20 (graphs and charts), Page III-12 (no other agency as well suited as the NFS to provide these kinds of recreation opportunity), Page IV-3 (change in ROS), Page IV-6 (recreation not viewed as high priority, managed subservient to other uses [also Page IV-16]), Page IV-22 (change in ROS, user displacement, and "gradual" changes not significant), Page IV-30 (new roads), Page IV-32 and IV-45 (conversion of trails to roads), Page A-7 (importance of recreation, regional and national interests) and, Page A-10 (keeping maximum number of options open, management for wilderness values). The following references to comments are from the Plan: Page II-5, paragraph 2 (The narrative states, "It does not appear that there will be an opportunity for new construction of developed recreation sites in the near future. Current funding levels allow little more than minimum operation and maintenance") This statement seems inconsistent with the statement quoted above (Page III-3 of the Plan). Also see Page II-5, paragraph 7 (deteriorating trail conditions, closure of trails, user conflicts), Page II-7 (management of Uintas Wilderness), Page II-7, paragraph 6 (underestimate of wilderness use), Page II-10, paragraph 2 (grazing/recreation conflicts), and Page II-28 (recreation demand projections, supply shortage).

(page 6 - attachment)

As indicated, the timing of facility use is during May through September, with incidental use occurring outside this period on a limited basis. The peak month is July when facilities are used at or above capacity. Facilities are used at or near capacity of Flaming Gorge National Recreation Area during weekends but are at less than full capacity on weekdays. Holiday weekends exceed available capacity.

User conflicts occasionally occur, mostly between cross-country skiers and snowmobilers. The Standard and Guidelines section of the Plan provides guidance for resolving such conflicts through improved Travel Plans, signing, coordination with State agencies and enforcement.

This section has been revised. Alternative J validates and supports increased recreational emphasis; the entire tone of the document is revised accordingly.

As indicated previously, alternative J addresses these concerns through increased emphasis on recreation. Both the EIS and the Plan have been revised accordingly.

Page Seven
Attachment

Page III-3, Paragraph 3, Lines 10 and 13: On line 10, "recreation outputs in slightly below" should read "recreation outputs is slightly below", and, line 13 "wilderness which will probably be at capacity in." should read "wilderness which will probably be at capacity in."

C Section IV Comments

In general it appears that each category under the Forest Wide Standards and Guidelines exists as an island with no integration with other categories. From a multidisciplinary standpoint, this can lead to obvious conflicts as timber or range goals are played against fish and wildlife resources. Specific concerns are as follows:

Page IV-1, Forest-Wide Standards and Guidelines: The last sentence states that "where conflicts occur the conflict will be resolved in favor of the direction which produces the greatest degree of multiple use value." It is essential that non-monetary and non-market values be an integral component of this analysis. Value must not be construed as being only that which the market easily captures.

Page IV-4, Wilderness, Objective 1: The stated objective is to "manage the High Uintas Wilderness to accommodate 301 RVD's through 1990." This does not seem to be a reasonable figure, even though Table II-5 shows the same figure (301--no units). Is this supposed to be 301 million RVD's?

Page IV-8, Timber: The pinebeetle epidemic has been noted as a primary reason for the accelerated rate of timber harvesting proposed in the Plan. If this is indeed one of the driving forces behind the proposed direction, then it seems appropriate to at least mention the pinebeetle in this section on goals and objectives. Is one objective to reduce the losses of timber to the pinebeetle?

Page IV-11, Lands, Objective 1: No National Forest system lands are involved in Project BOLD. Case-by-case exchanges will be adequate to deal with the State land inholdings identified in the Plan (page II-17).

Page IV-12, Facilities: One listed objective is to "Construct/reconstruct approximately 40 miles of trail per decade through 2030." Is this a realistic objective? This is only 4 miles of trail per year, out of a system of trails that has been inventoried at 776 miles.

Another listed objective is to "close and/or obliterate all unneeded temporary or system roads." Road closures should be implemented only with public input and as part of a current transportation plan. Motorized recreation should be considered as a Forest recreation output, and ample opportunity should be provided for the motorized recreation enthusiast. If areas are not provided for motorized recreation, then pressures on other areas will develop, and non-motorized values may be lost.

(page 7 - attachment)

The multidisciplinary interplay between forest-wide standards and guidelines occurs on a case-by-case basis dealing with on-the-ground management area projects. Multiple use value is not only that which is marketable with monetary values.

The 301 RVD'S is in error and has been changed to show 301,000 RVD'S.

Alternative J does not have an accelerated rate of timber harvesting. Instead the amount offered will remain close to the level for the past few years.

Because of the high cost and large amount of time required per tree to combat the beetle, current technology precludes any opportunity to reduce losses to the natural cycle of the beetle epidemic in overmature trees - except in small selected areas such as campgrounds.

With Alternative J, trail construction/reconstruction has been increased from 4 to 8 miles per year. This is a realistic objective since only a minor portion of the existing trail system is in need of this treatment.

Road closures will continue to require public input and be consistent with Forest transportation planning. Motorized recreation is a recognized recreation activity, and there is ample opportunity for this with a ratio of 1.1 miles of road per square mile. The need for non-motorized recreation has also been recognized and provided for.

Page Eight
Attachment

Pages IV-14 and 15, Tables IV-1, IV-2, and IV-3 Are these tables referenced in the narrative anywhere?

Pages IV-14 and 15, Table IV-2 The emphasis on Local Road Construction is not sufficiently justified. The relative levels between Local Road Construction and Road Construction differ by a factor of 10. Public involvement (from local, regional, and national perspectives) should be solicited prior to implementation and planning additional access.

Page IV-16, Recreation: The State enthusiastically supports the philosophy and the guideline regarding the "pack in-pack out" program. Enforcement and education are necessary for the success of this program.

Some type of plan or implementation program should be offered that deals with minimizing recreation user conflicts. The Utah State Division of Parks and Recreation would like to participate in any research or program that is being developed regarding this issue.

Page IV-16, Number 12 ".conflicts such as between snowmobilers" should read ".conflicts such as those between snowmobilers ..".

Page IV-18, Number 5, Lines 1 and 2: ".coordinated bases" should read ".coordinated basis ..".

Page IV-18, Number 7: How is the use of live trees to be approved for the specified purposes? Will it be on a case by case basis or will a blanket permit be issued for groups who need this product? It is important to educate and enforce potential users of the importance of locating these cuttings away from the areas identified in the guidelines.

Page IV-19, Wildlife and Fish: Wildlife and Fish Standard and Guidelines imply quantifiable directives and an experimental design that governs data collection and analysis to achieve a set objective. Yet, the list provided is of very vague standards and guidelines with lack of definition.

Page IV-21, Number 6 This guideline states, "Invite permittees and others to participate in allotment analysis, management planning, and follow-up inspections." This is a commendable guideline, but it should be more specific as to exactly who these "others" are to be. Representatives from affected interests and user groups should be encouraged to participate, including recreation interests, wilderness users, wildlife representatives, and others. The Bureau of Land Management is currently involved in just such a program, the Experimental Stewardship Program, which may provide some insight into development of a user participation program.

Page IV-21, Number 15: This guideline states that a meeting should be held (at least annually) with permittees or livestock organizations to discuss current status and needs for the allotment. Similar to the guideline mentioned in paragraph 6, "others" should also be included in these meetings. The groups included in this category (others) should include the other

(page 8 - attachment)

The emphasis on local road construction is due to the fact that arterial and collector roads are largely in place to meet management objectives in the preferred alternative, and additional local roads are necessary to access specific timber stands, campgrounds, etc. Additional public involvement is part of project level NEPA analyses.

The Forest would welcome the assistance of the Utah State Division of Parks and Recreation in resolving user conflicts. We also recognize the need to involve the concerned user groups in resolving these conflicts.

Permission for use of live trees for building corduroy or bridges in the Wilderness is only for Forest Service administrative use, not for general public use.

Standards and guidelines for wildlife and fish were extensively rewritten. The standards and guidelines along with the monitoring and scheduling sections are intended to provide adequate definition for the specific activities.

These guidelines have been dropped. They were felt to be routine activities that did not need to be covered by specific direction in the Plan.

Page Nine
Attachment

interests and user groups of the Forest (recreation interests, wildlife interests, and wilderness users, and others). This guarantees ample public participation and involvement. If any decisions are expected to be made in these meetings, then it is not only appropriate, but necessary to include all interested parties

Page IV-23, Number 5. The final sentence of this guideline is not a complete sentence--"The intent being to provide a mosaic of stands at different conditions and ages"

Page IV-23, Number 16. The guideline states, "Make commercial fuelwood sales available to meet demand" The Division feels that this statement should be constrained somewhat Perhaps it would be appropriate to add the following, ". to meet demand, and to retain other resource values when appropriate"

Page IV-23, Number 19: This guideline identifies the need for an analysis of the cumulative effects of activities adjacent to natural openings by an interdisciplinary team The State strongly supports this concept and methodology

Page IV-27, Number 37 and Page IV-29, Number 5: These standards or guidelines should be more strongly worded Suggest changing "may" to "will" and "should" to "shall" respectively.

Page IV-29, Riparian Areas, Number 2: The "KV program" for riparian areas is mentioned, but is not defined or explained in the document or glossary Additionally, details are not provided nor are management practices outlined The success of riparian management cannot be measured without specific, quantifiable guidelines

Page IV-32, Facilities There are no provisions here to coordinate facilities with fish and wildlife needs. No time windows are identified for construction activities to minimize impacts to big game, raptors, etc No guidelines for culvert placement to provide for fish passage are presented

Page IV-37, Paragraph 1 The future condition is described as becoming a predominantly younger age class forest. Plantings should be chosen carefully in order to maintain a maximum of species diversity The benefits gained from such diversity will range from aesthetics to wildlife and disease resistance

Page IV-37, Paragraph 4. It is stated that "Both of these outputs [dispersed and developed recreation] will be about 3 times greater than at present by the end of the 5th decade The percentage mix of various activities are expected to stay about the same" What is the basis for these statements? Table II-5

(page 9 - attachment)

Since commercial fuelwood sales are the most cost effective way to remove and regenerate dead Lodgepole stands effectively, we intend to meet this demand. This does not mean we will increase the total board feet amounts for the Forest per year. Rather this means that percentages of the wood available will increase for commercial fuelwood sales if the demand increases.

It is standard practice to retain other resource values when appropriate.

Riparian standards and guidelines have been rewritten. The intent was to provide general direction to the management of this area and leave the specific direction to be developed as a part of management plans that are scheduled.

Standards and guidelines to coordinate facilities with fish and wildlife needs were included in the Draft Forest Plan in the fish and wildlife section. To avoid confusion, they have been moved to the facilities section in this revision.

(page II-26) does not document this growth rate. Rather, for recreation the figures of growth are.

	<u>1985</u>	<u>2030</u>	<u>Increase</u>
Developed	845 MRVD	1851 MRVD	2.2
Dispersed	666 MRVD	1458 MRVD	2.2
Wilderness Use	230 ????	504 ????	2.2

The figures given are estimated use for 1985, estimated use for 2030, and the increase between 1985 and 2030. By using any other figures from that table (i.e. supply potential or preferred alternative supply), the increase is smaller.

Page IV-40, Management Area Standards and Guidelines: It would be useful to have an index at the beginning of this section which listed each management area and its applicable prescriptions. This would eliminate the need to sort through all of the management areas and standard and guidelines when applying the prescriptions to the Districts.

In addition, overall, the standards and guidelines for fish and wildlife are too general to assess positive or negative implications.

Page IV-56, Paragraph 7: Why are sheep favored over cattle in lake basins in the High Uintas Wilderness Area?

D. Section V Comments

Page V-1, Environmental Analysis: The State is concerned that the process for obtaining an "analysis file and/or project file" be one that facilitates continuing involvement of concerned and affected parties. In the past there has been some confusion as to what planning and environmental documents are released to the State. As it currently stands, the State generally only receives environmental impact statements from the Forest and not environmental assessments. The State would like to work with the Forest to develop a procedure whereby the State is assured receipt of "analysis and project" files or EAs when appropriate.

Page V-2, Number 7, Line 2 "Includes some measure of sample size or number" is not a sentence.

Page V-4, Under MIH code A02 (trail condition) the "variation which would cause further evaluation and/or change in management direction" is given as "trail mileage classed as inadequate exceeds the current inadequate mileage". Does this imply that ANY decrease in the adequacy of the trail system will trigger the need for further evaluation or change management direction? How does the conversion of trails to roads fit into this monitoring and evaluation scheme?

Your RVD growth rate information has been considered in accordance with alternative J. See the new writeup in the EIS, Chapter II on Recreation and Wilderness.

Alternative J has been developed and corresponding sections of both the Plan and EIS revised. The Forest's capability to meet projected demands has likewise increased due to the increased emphasis given recreation. Management Areas and their prescriptions were added. All standards and guidelines were rewritten.

Sheep are commonly grazed in large enough herds to require a full time herder. Extensive fencing is not required for their control. To obtain proper distribution of cattle, more improvements are usually needed than with sheep. Improvements are not desired in the Wilderness lake basins; therefore, sheep are preferred over cattle in these areas.

We agree that coordination is necessary on some projects that do not result in EIS's. We presently work with local offices of State Agencies on many project level proposals and have an on-going policy of State Clearinghouse notification if proposals impact wetlands or floodplains. We also are careful to consider all interested publics when scoping proposed actions.

We have revised this to show that further evaluation and change in management direction would be triggered when 20% of the trail mileage falls below established management objectives and planned maintenance levels. The conversion of trails to roads is governed by criteria limiting change in ROS classes.

Attachment

Page V-4: Under the MIH code A08, the "variation which would cause further evaluation and/or change in management direction" is a 20 percent change in ROS class from projections. This seems like a very large change before further evaluation and/or management direction changes. The triggering level should probably be defined to be a smaller change than 20 percent.

E Appendix A Comments

Page A-14, Paragraphs 1 and 3 A "VIS" interpretation program is referred to. What is the "VIS" program? Is it defined anywhere in the documents?

Page A-20, Number 6 Roads that are built with appropriated funds should not be managed under a blanket policy that they will be closed to public travel. We agree with the statement that wherever possible harvest should be carried out using existing roads or winter logging, but if roads are constructed, and if those roads could be utilized by Forest recreators or users in a safe manner, then they should be made available to those users.

II DRAFT ENVIRONMENTAL IMPACT STATEMENT

A. Summary Comments

Because the summary section is often the only part of the Plan many readers will attempt, given the general complexity and volume of Forest Plans, it should be detailed enough to give the reader a complete picture of what the plan intends to accomplish. It is in light of this concern that the requests for greater detail, outlined below, are made.

Page S-4, Paragraph 1 It is not clear whether the 460,000 acre wilderness area is the total wilderness (both in the Ashley NF and the Wasatch NF) or just includes the Ashley portion. While later portions of the document do make this point clear, it probably should be noted here as well.

Page S-4, Wildlife and Fish Under the discussion of Wildlife and Fish, there is no mention of threatened or endangered (T&E) species. It should at least be mentioned in the summary that some T&E species are present on the Forest.

Page S-6, Recreation Several statements are made which are not supportable in paragraph 5, ". For all alternatives, there will be times when recreation uses will be displaced by other management activities for short periods of time, (up to seven or eight years). In popular areas, it may be necessary to intensify management of recreation uses to protect investments such as tree plantings." First, seven or eight years is not a "short period of time." Such a time period is a major portion of the planning period for the forest plan.

(page 11 - attachment)

You are correct. This has been revised to show that 10% will trigger the need for further evaluation and/or change in management direction.

VIS is an acronym for Visitor Information Services and will be shown in the abbreviation key preceding the EIS.

Roads are constructed to meet resource management objectives addressed in this Plan. Constant public access often does not meet the resource management objectives, and hence would not be in the public interest. Examples would be closing roads to protect wildlife habitat, soils, and watersheds. The Utah Department of Wildlife Resources has often expressed a desire to close roads after initial timber activities are completed.

The entire paragraph has been rewritten to more accurately reflect the preferred alternative J and references to time periods were removed.

Threatened and endangered species are listed in the summary under environmental consequences.

If the plan is expected to be revised and updated every 10-15 years or when the Forest Supervisor feels conditions warrant such a re-evaluation, then it is probably inappropriate to state that a loss of recreation opportunity for 7 years is short term. As recreation is one of the legitimate multiple uses of the National Forest resource base, any loss of recreation opportunity should be mitigated.

Page S-7, Recreation. With the information provided, it is not clear exactly where dispersed recreation fits into the preferred scenario. The summary of the document needs to describe important consequences and issues, instead of discussing bits and pieces of alternatives that are not seriously considered as part of a viable plan. It is not important to emphasize implications of an alternative that is not likely to be used. Instead, the document should concentrate on consequences of the preferred alternative, especially in the summary.

Additionally, The Division of Parks and Recreation prefers to use the terminology OHV (off-highway vehicle) instead of ORV. The term OHV seems to capture the essence of the sport of four-wheeling better than ORV. A significant portion of the driving occurs on roads, and not as cross country driving, which is implied by the term "off-road". See also pages IV-4 and A-7 of the DEIS and pages IV-3, IV-50, IV-52, and A-8 of the Plan.

Page S-8, Wildlife. Are there any AUM's (animal unit months) explicitly allocated for wildlife? Surely there is at least an implicit allocation, but in order for the assumptions to be validated they should be made explicit.

Page S-11, Roads. The statement "In all alternatives, road closures would be used to reduce costs of initial investment and maintenance" is misleading. The costs of initial investment will probably not be significantly reduced. Additionally, there are some benefits that will be "lost" when trails are converted to roads. As noted in other comments, an analysis of the recreational potential for the roads should be conducted before the road is closed. Also see comment page IV-30 (DEIS).

Page S-12, Trails. In this discussion, it is stated that ". many segments of the existing trail system will be replaced by roads. In some cases, the need or purpose of these existing trails will be changed. In some situations, these trails will be removed from the trail system". Given that the need for dispersed recreation available to the population along the Wasatch Front is well documented, and that this need is quite likely to become even more acute in the next few decades (and in the Forest planning period), elimination of trails or conversion to roads must be carefully analyzed. By PLANNING to eliminate trails, change purposes, and build roads, the situation will further deteriorate. It is not clear that replacing the trails with roads is an improvement, especially in terms of recreation opportunity. This "planned deterioration" of the recreation resource base is not acceptable in light of multiple-use mandates.

(page 12 - attachment)

The recreation section in the summary has been rewritten to reflect the preferred alternative J, which places additional emphasis on all types of recreation.

The term ORV is a nationally accepted terminology used by most natural resource agencies. Most natural resource agencies do not have highways in the resource areas they administer. Therefore, the term "off-road" better describes the situation for our agency.

Those analysis areas assigned to wildlife prescriptions allocate increases in forage to wildlife. These management areas receive special wildlife emphasis. Under all alternatives, the Utah Division of Wildlife Resources population objectives of 5,500 elk and 42,000 deer will be achieved.

Roads are planned to meet resource management objectives. If these objectives are short term, road standards are often reduced. Therefore costs of initial investments are reduced if the road is intended to be closed after short term activities are completed. It is true that some recreational benefits are lost when trails are converted to roads, but other benefits are gained; these tradeoffs are implicit in the analysis used to develop this Plan.

Whenever the conversion from trails to roads changes 10% or more, it triggers the need for further evaluation or a change in management direction.

Page S-13, Insects and Disease There is no mention of insecticide use or of integrated pest management programs. If these programs are to be used to any degree, they should be mentioned, especially in the summary section

Page S-14, Social/Economic Effects It is stated that "Changes in Recreation Opportunity Spectrum classes [under Alternative B] will affect traditional recreation attractiveness and activities" Greater detail as to the impacts resulting from this change should be provided in the summary. There should be some mitigating measures described which will deal with the ever-increasing demand on an ever-shrinking resource base. The National Forest system is the best (and often the ONLY) provider of certain kinds of "traditional " activities. By allocating resources to the detriment of these activities, it seems that irreversible impacts or irretrievable commitments of resources will occur. Such impacts require special consideration in analysis and may require mitigation

B Section II Comments

Page II-12, Alternative B: It is unrealistic to assume "no budget constraints" for the model. It is impossible to develop a meaningful scenario which is based on such unrealistic assumptions. Further, what is the rationale for assuming "conservative projected demands" for recreation?

Additionally, the discussion indicates that the preferred alternative would reduce habitat for deer and elk. Yet the Land and Resource Management Plan, which implements Alternative B, has as its goal maintenance or improvement of big game habitat. How valid are the Plan's goals in view of the projected environmental consequences of implementing the plan?

Page II-18, Recreation and Wilderness: Even by using "conservative" estimates of anticipated demand, the chart shows that capacity for recreation will not meet demand for the preferred alternative in any time period. Alternative D meets demand the first decade only, and Alternative I meets demand for the decades 3-5. The accompanying narrative states that demand can be met with "improved methods of management and using volunteer programs.. Even though projected demand is running ahead of reported use in decade 1 it is expected that demand and actual use should tend to equalize during the planning horizon" Also the chart on page II-26 of the Plan and footnote states with "improved management it is expected that demand could be met through decade 5", and, "demand and actual use should equalize during the planning horizon" Also, it is assumed that demand could be met for the first five decades

There is no evidence to support these assumptions. The assumption inherent in this is that technology will increase the carrying capacity of the area, and that volunteer programs will be budgeted. The truth of the matter is that it is unlikely that significant technology will evolve to justify these assumptions, demand will probably outpace even these conservative projections, and volunteer programs will be too costly to administer.

(page 13 - Attachment)

Insecticides, which are a form of Pesticides, are mentioned in the direction for use of pesticides in the Standards and Guidelines.

Under Alternative J, there will not be a significant change in ROS classes. See the EIS and Chapter IV of the plan for greater detail than is covered in the summary. Changes in ROS opportunity classes are also monitored in accordance with the trail above.

The mountain pine beetle epidemic was in full stride at the time the alternatives were developed. It was not considered unrealistic at that time to assume that budgets could be made available to salvage the beetle-killed timber.

The assumption of "conservative projected demands for recreation" was based on population projections for the States of Utah and Wyoming.

With the reduced levels of timber harvested provided for in Alternative J (proposed action) habitat capability for elk and deer would not decline during the planning period.

This section of the EIS has been rewritten to correspond more closely with alternative J (proposed action).

Volunteer programs are the most cost-efficient means of providing recreation and wilderness programs this Forest has available. There are presently 70-80 volunteers working on recreation programs annually.

Page II-20 through II-37 This set of graphs and charts is quite confusing. For example, figure II-2 shows the change in wilderness user-days. The footnote states "With the passage of the Utah Wilderness Act of 1984, all alternatives outputs are the same." The assumption implicit here is that regardless of the alternative chosen, wilderness usage will not be affected. This is probably not true. If the different alternatives indicate various changes in Recreation Opportunity Spectrum, then it is likely that a number of users would be displaced, some to the High Uintas Wilderness. The graphic depiction leads one to assume that by passage of the Utah Wilderness Act, the demand (recreation visitor days) is set and fixed, whereas in fact it is the supply that is fixed. If indeed no variance between alternatives is expected, I would assume that something is wrong with the analysis methodology. In general, all of these graphs are confusing and difficult to decipher. A simple explanation and narrative would be of immeasurable benefit.

Page II-65, Table II-6 The description of the responses to issues, concerns, and opportunities is especially well-done. It is easy to understand and seems to assess all of the pertinent issues and interest groups.

Page II-76, Final Paragraph "transportation" should be "transportation"

C Section III Comments

Page III-26, Wildlife Use Demand Despite projected increase in WFUD over the life of the plan, only minor investments are made into habitat improvement work. This is inconsistent with the goals and objectives outlined in the Plan \$40,000/yr (page II-21) for habitat improvement work, when compared to other expenditures for other resources, is grossly inadequate

Page III-5, Paragraph 2: ". experienced on" should be "experienced an"

Pages III 9 and 11 The Utah State Division of Parks and Recreation would like to be apprised of the development of the AMS demand data. Any survey research dealing with the recreational forest user would be useful to statewide comprehensive outdoor planning.

Page III-12, Trails: It is mentioned that "No other agency, public or private manages land in northeastern Utah so uniquely suited to providing trails with long, continuous stretches of high mountain land." Given the unique position of the Forest, and with growing pressures on backcountry, again serious consideration must be given to conversion of trails to roads or elimination of trails

Page III-15 What is the time frame for the inventory of potential candidate Research Natural Areas listed?

Page III-16, Table III-9: Why is an area classed as semi-primitive motorized but managed as wilderness?

This entire section was rewritten to simplify and clarify the comparisons of alternatives. Wildlife habitat projects are identified in the scheduling section of the plan. Forty thousand dollars annually is sufficient to meet the needs identified jointly by the Ashley National Forest and UDWR. To provide maintenance of existing improvements, the annual need for an additional \$5,000 has been included.

This information can be made available to you. It is tied directly to the State growth projections.

Elimination of trails in favor of roads has been addressed. A clarifying statement has also been made to this section.

An inventory schedule has been included in the EIS and scheduling portion of the plan.

This ROS was completed prior to the establishment of the High Uintas Wilderness. This table will be corrected to reflect the current acreages.

Attachment

Page III-16, Table III-10: Is the assumed standard 1 acre of "wilderness" per recreation visitor day? At this rate, it is estimated that demand will exceed supply in a little over one year. This also is "AMS" information.

Page III-24: "Minimum viable" and "potential" populations for the aquatic Management Indicator Species (MIS) seem to be arbitrarily defined at 50 percent below and 50 percent above, respectively. What is the rationale for choosing these figures?

Page III-45, Paragraph 1: Has the coal unsuitability criteria been applied?

Page III-48, Paragraph 1: Some estimate should be made of carrying capacity for the reservoir and river use in the Flaming Gorge District prior to permitting expansion.

Page III-52, Paragraph 7: Trails should be included as facilities. On the next page, statistics on road building are given through 1981. What has happened the last few years in the forest with road building?

Page III-55, Paragraph 2: It could be noted that the State is in the process of conducting a feasibility study for construction of this road.

D Section IV Comments

Page IV-1, Paragraph 5: "improved" should read "improvement".

Page IV-2, Paragraph 4: This is a good description of the "triggering" mechanism that will lead to a plan revision. Threshold levels should be explicitly set which will trigger this decision and the hopefully concomitant public involvement.

Page IV-2, Paragraph 5: This is a good description of the interrelationship between developed sites and dispersed areas. This "dual purpose" of the developed site should result in an increase in its value, and importance.

Page IV-3, Paragraph 6: The change in R.O.S. mix describes an "irreversible" process. The loss of semi-primitive motorized and non-motorized areas should be included as a cost. It is stated elsewhere in the Plan (page III-12) that no other agency administers an area as suited for these types of activities as the Forest Service. If the Forest Service does not supply this opportunity, then it probably will not be available.

Page IV-5, Paragraph 1: "Non of" should read "None of . . .".

Page IV-6, Paragraph 3: In the discussion of possible conflicts, it is always recreation that will be "managed" in order to enhance or protect the other uses (timber and livestock). Recreation is a valuable and legitimate use of the forest, and should not continually be discounted as a by-product of other, more "legitimate" activities.

(page 15 - Attachment)

Capacity of the High Uintas Wilderness Area is estimated to be 360,000 RVD's per season, occurring around the year 2000. This figures out to be slightly more than one RVD per acre.

The "minimum viable" and "potential" populations were arbitrarily set at 50 percent below and 50 percent above existing levels because we felt that at no time during the planning period would it be desirable to have less than 50% of the existing populations of aquatic MIS, and we felt that the potential exists to improve habitat for aquatic MIS by as much as 50%. There should be little or no change in the numbers of aquatic MIS regardless of the alternatives selected, and we felt that the 50% above and below existing populations provided acceptable and reasonable parameters. At a later date, if research proves these parameters are too broad, then we would change them accordingly.

The Bureau of Land Management, who administer mineral leases on all Federal lands, has determined that the Ashley National Forest is NOT in a KRCRA (Known Recovery Coal Reserve Area). Therefore, we have no need to apply additional coal unsuitability criteria.

The amount of road construction in the last few years has roughly stayed the same.

Carrying capacity for the Reservoir and river use in Flaming Gorge District has been addressed in the ROS and in Appendix A of the Management Plan.

We look forward to the completion of the State's feasibility study of the Brown's Park Road, and will consider its recommendations along with other public issues and concerns expressed in this plan.

This section of the EIS was in accordance alternative J (proposed action). References to a reduction of semi-primitive non motorized and semi-primitive motorized classes have been addressed in several of the previous responses.

This was rewritten as you suggest and in accordance with Alternative J. This discussion deals with a minor portion of the forest (18 to 20 thousand acres) and applies only to areas designated for intensive timber and livestock management.

Page IV-7: What is the management direction to deal with the problems described on this page? Will present management emphasis reflect the "retention" of 180,000 acres in primitive state? Is there any minerals planning presently going on? Are there plans to develop additional trails and trailheads in response to the documented need? What about the conflicts between horses and hikers, recreation and livestock interests, and garbage removal and maintenance problems.

Page IV-10, Paragraph 2: The ambiguity of the Plan is reflected in the DEIS. Maintenance of sage grouse habitat "could" be managed under Alternatives A, B, D, E and I. No specifics or commitments are outlined, as is the case in the Plan. How will livestock be managed along with improvement facilities to protect sage grouse. Is the Forest making a commitment to abide by the Sage Grouse Guidelines?

Page IV-11, Paragraph 4: What are the specifics? How will timber harvest be modeled to benefit big game? This is a rather general statement with questionable accuracy.

Page IV-12, Wildlife and Fish: Managing for a viable population implies a reduction to those population levels identified as minimum viable in Table III-14. Is this correct? Is this why Alternative B allows for a decline in habitat capability? How do the Utah Division of Wildlife Resource's population objectives fit within this context?

Page IV-14, Paragraphs 6 and 7: Will there be any mitigation for the loss of habitat for pronghorn antelope, sagegrouse, and nongame species? Alternatives that have the most potential for impact in these areas are not specified.

Page IV-14, Paragraph 8: What are the likely impacts from the preferred alternative (B) level of fence construction? Only other alternatives are mentioned.

Page IV-15: There is no mention of riparian areas and recreation. The focus here is on livestock use of riparian areas. Water sources are known to exert a "pull" or attraction factor on recreation visitors, yet this portion of the document does not recognize this potential use.

Page IV-17, Paragraph 5: "The Forest plans to harvest timber using primarily clear cutting methods." Using shelterwood and single tree or group selection cutting methods may be used where practical, but this would be the exception rather than the rule. "These practices are consistent throughout all alternatives." Alternatives should depict the full range of possible actions. Was it determined prior to analysis that the "best" method for timber harvest was clearcutting? Alternatives should be different enough to serve as a tool for decision making--not so limited in scope that it makes no difference which one is chosen.

Page IV-22, Paragraphs 4, 5, 6 and 7: Several issues are discussed which are important for recreation planning in the Forest. It is implied that because

(page 16 - attachment)

As previously indicated, this section has been revised along with corresponding sections in both the EIS and Plan. The preferred alternative J protects an area in excess of 200,000 acres. Additional trailhead facilities are programmed. Criteria for resolving user conflicts in Wilderness are in the Standards and Guidelines. Minerals planning in Wilderness is not needed since the area is withdrawn from mineral entry, subject to existing valid claims.

Sage grouse is a management indicator species and will be managed as such in line with the standards and guidelines in the Forest Plan. The monitoring section of the Forest Plan will assure that the standards and guidelines are followed.

Timber harvest is modeled to benefit big game through the interdisciplinary process. Modifications are made based upon such considerations as cover-forage ratios, forage needs during silvicultural treatment, road management (standards, timing for access, closures after use), timing, staging areas, winter and summer forage needs, habitat needs and calving areas.

Table III-14 shows the estimated minimum viable population of management indicator species either in populations or acres of habitat. Alternative B in the out decades shows a minor decline of existing populations toward minimum viable populations because of the loss of habitat through timber harvest. Alternative J shows no downward trend in population or habitat acres over the existing direction. The Utah Division of Wildlife Resource's population objectives for big game are met in all alternatives except Alternative C. In Alternative C, the reduction is 100 elk below their objective (5,400 vs 5,500) for the first decade, and 200 animals below the objective for the fifth decade.

This concern is addressed in the riparian section under watershed. Recreation use is a recognized activity in riparian areas, with potential impacts to the resource, especially from such uses as ORV's. The section you are referring to addresses only the aspect of range.

Clearcutting is the widely accepted practice in the management of lodgepole pine stands in all texts. Reasons for clearcutting in lodgepole pine are: (1) Lodgepole pine is shade intolerant and reproduces best when the stand is open; the young trees need intense sunlight. (2) Dwarf mistletoe is prevalent in most old growth stands and quickly reinfects the understory in partial cuttings; mistletoe stunts new growth. (3) Windthrow is common in partially cut stands because of the shallow root structure, and (4) Trees left as growing stock in old growth stands often will not release seeds from their closed cones unless the intense heat unlocks the resin.

Alternative J has been added to the list of alternatives included in the FEIS and it includes a map that identifies land that will remain undeveloped during the first planning period. The changes in ROS classes were displayed in the AMS and served as a base in the further development of the alternatives.

Page Seventeen
Attachment

changes in recreational setting are usually gradual over time, that the impacts caused by increased commodity production are acceptable. The accelerated rate of resource development will in fact lead to changes in the ROS that are not comparable to gradual changes over time that occur naturally. Under the preferred alternative (B), likely impacts are a limited recreation opportunity in favor of timber interests for "short" periods of time (5-7 years or longer?) and disruption of the visual resource. Some attempt should be made at estimating (quantifying) these impacts, instead of ignoring them as possible but unquantifiable.

Page IV-28, Paragraph 4, Line 4 "Additional search areas.. " should read "additional research areas ".

Page IV-30: It is stated that there is a need in all alternatives to finance road construction with appropriated money, especially for first entry into a drainage. Also that "road construction has one of the most significant impacts on the Forest, affecting most of the other resources and uses". In light of this discussion, the decision to build or not build a road should be the result of extensive analysis and significant public involvement from a variety of the Forest's "publics".

Previous comments relative to road closures and changes in recreational opportunities are also applicable here, see comments on pages S-12 and IV-22.

In the final paragraph on page IV-30, some of the areas that will not be roaded are discussed in general terms. "Natural hazards" and "the need to protect other resource values" are mentioned as criteria for "not-roading" an area. Does the Forest have more specific criteria it applies to determine incompatibility, such as that generally applied when identifying utility corridors?

Page IV-31, Paragraph 3. It is mentioned here that in the FORPLAN model it is assumed that 75 percent of all local roads constructed would be closed in order to analyze the impact on elk habitat. On the previous page it is stated that "about half of these [local] proposed roads would be used as short term facilities or intermittent facilities". Are these statements consistent?

Page IV-32, Paragraph 3. Many segments of the existing trails system can be expected to be converted to roads, with some removed from the trails system. In light of the reduced budgets (probably) available for new trail construction, the acute need for a trail system in the future, and the unique ability of the Forest to supply a trail system, conversion should be cautiously pursued. See comments on pages S-12 and III-12.

Page IV-45, Summary of Probable Adverse Environmental Effects that Cannot be Avoided. The previously mentioned considerations regarding road construction should be mentioned. On the same page the construction of roads is assessed as an irreversible or irretrievable commitment of resources. It seems that if these effects are mentioned as irreversible or irretrievable commitments of resources, then they are by definition probable adverse environmental effects that cannot be avoided as well.

(page 17 - attachment)

The cumulative effects of road construction is displayed in this EIS because of the impact on most other resources and uses. Considerations for additional public involvement on local road projects is part of the Forest Service NEPA process.

The decision to road or not road areas are implicit in the analysis used to develop this Plan. Project level decisions to construct roads will be based on this Plan along with specific area resource management objectives and environmental constraints which will be developed to meet this Plan.

Short term and intermittent facilities are closed after initial activities are completed, so these statements are consistent.

We believe that adequate constraints are provided in the ROS classifications to address this concern.

Construction of major roads which are to remain open can be considered as irreversible or irretrievable commitment of resources due to loss of soil productivity. However, we do not agree that this commitment is necessarily adverse, because positive benefits occur from increased access.

E Appendices A and B Comments

Page A-7, Recreation Management The importance of recreation is noted "Recreation is the dominant resource on the Ashley National Forest. The inclusion of the Flaming Gorge National Recreation Area and the close proximity to the Wasatch Front population centers raise the scope and intensity of this issue to the Regional and National level." The Forest should be cognizant, as it appears to be in this statement, of its rather unique role in terms of the recreational resource it manages. This role carries with it the responsibility to take the lead in development of those resources which it alone can provide, e.g., a high alpine trail system.

Page A-10, Issue Number 13. If the number of roadless areas on the Ashley is high, then even though the areas have been released for multiple-use, it may be prudent to not assume that roads must be built into these areas as quickly as possible. In order to keep maximum options open, each one should be analyzed on a case-by-case basis in order to determine the "best" prescription, both for present users and for future generations.

Page B-37 In the modeling of recreation benefits, the values given are probably too low. It is also not clear that the values "across activities" are additive, as is assumed by the Plan.

(page 18 - attachment)

The preferred alternative J provides the emphasis on recreation management that you indicate.

We heartily agree with your statement that "it may be prudent to not assume that roads must be built into (roadless) areas as quickly as possible." This Plan does not consider roading as quickly as possible. A map is included to display those areas that will remain undeveloped at the end of the planning period.

These values are consistent with existing National Resource Planning Act values, and are weighted values for each ROS type across the activities to determine a value for each ROS class.

stability, power flows, and cost. The results of the study will assist in selecting the most feasible system alternative to study in more detail. Several of the system alternatives include routing to the existing Flaming Gorge Switchyard, which contains a major interconnection to investor-owned utilities in the Pacific Northwest.

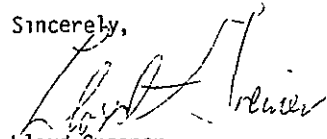
The right-of-way requirements for an extra-high voltage transmission line routed into the Flaming Gorge Switchyard cannot be precisely determined at present. Whether an existing transmission line would be paralleled or upgraded, the widths of the existing rights-of-way or, in the case of "WAPA Line 2", the allowable expansion of the existing right-of-way are not adequate to accommodate a transmission line such as the one tentatively proposed.

Rights-of-way widths for new uprated transmission lines are based on providing clearances specified in the National Electrical Safety Code (NESC). Typical rights-of-way widths do not, generally, provide adequate width for structures that require guy wires and additional limited right-of-way may be required in these cases. The width of a right-of-way is determined by line voltage, line configuration and horizontal phase spacing, conductor type and tension, span length and conductor sag, type of conductor support, and structure guying support. Assurance that proposed rights-of-way widths would be adequate for future development could probably be provided with the addition of two rights-of-way, each 165 feet in width, separate though adjacent and parallel to both of Western's existing rights-of-way.

For your information, we have enclosed a list of typical right-of-way widths for specific transmission line types and sizes. The list should be considered as a guide, with the knowledge that special construction, longer spans, and structure guying modify the requirements of right-of-way widths.

Again, we appreciate the opportunity to review and comment on the Forest Plan and DEIS for the Ashley National Forest. We look forward to working with you toward a resolution.

Sincerely,



Lloyd Greiner
Area Manager

Enclosure

III. MAILING LIST

A complete list of names and addresses of agencies, organizations, and persons to whom copies are sent is on file at the Forest Supervisor's Office, Vernal, Utah.

FEDERAL AGENCIES

Advisory Council on Historic
Preservation (ACHP)
Washington D.C.

Department of Agriculture

Animal and Plant Health Inspection
Service Washington D.C.

Rural Electrification
Administration (2)
Washington D.C.

Soil Conservation Service
Washington D.C.

Department of Defense
Deputy Assistant
Secretary of Defense
Washington D.C.

U.S. Air Force (USAF)
Washington D.C.

U.S. Air Force
Dallas, TX

Army Corps of Engineers (COE)
Washington D.C.

Department of Labor
Washington D.C.

Interstate Commerce Commission (ICC)
Washington D.C.

Federal Highway Administration
Denver, CO

Department of Transportation
Washington D.C.

Office of Economic Opportunity (OEO)
Washington D.C.

Department of Energy (DOE)
Washington D.C. (3)

Western Area Power Administration
Salt Lake City, UT

Environmental Protection Agency
Washington D.C.

EIS Review Coordinator EPA
Denver, CO (5)

Federal Energy Regulatory Commission
(FERC) Washington D.C. (3)

Dept. of Housing and Urban Development
Denver, CO (2)

Department of Interior

Director of Environmental Project Review
Washington D.C. (18)

Bureau of Indian Affairs
Ft. Duchesne, UT

Bureau of Land Management
Rock Springs, WY

Bureau of Land Management
Vernal, UT

Bureau of Reclamation
Salt Lake City, UT

National Park Service
Salt Lake City, UT

STATE OF UTAH

Governor's Office
State Planning Coordinator
Department of Health
Department of Transportation
Department of Commercial Affairs
Department of Land and Forestry
Department of Natural Resources
Division of Parks and Recreation
Division of Wildlife Resources
Division of Geology and Minerals
Division of Water Rights
Division of Water Resources

STATE OF WYOMING

State Planning Coordinator
State Historic Preservation Office
Department of Game and Fish
Department of Transportation
Department of Highways
Division of Forestry
State Engineers Office

ELECTED OFFICIALS

U.S. Senate
Honorable E. Jake Garn
Honorable Orrin G. Hatch
Honorable Allen Simpson
Honorable Malcolm Wallop

House of Representative
Honorable Howard Nielson (Utah)
Honorable David Monson (Utah)
Honorable James Hansen (Utah)
Honorable Richard Cheney (Wyoming)

INDIAN TRIBES

Ute Indian Tribal Council

PUBLIC LIBRARIES AND UNIVERSITIES

Uintah County Library
Institute of Ecology
Yale Law School-Forest Mngt. Study Group
University of Utah-Bureau of Economics and Business
University of Colorado Law School
Weber State College Library
University of Utah Library
Utah State University Library
Brigham Young University Library

OTHER STATES

Arizona Department of Water Resources
Colorado River Board of California
Pacific Southwest Interagency Commission
Department of Water and Power
City of Los Angeles

COUNTY/LOCAL GOVERNMENTS

Daqqett County Commission
Duchesne County Commission
Uintah County Commission
Summitt County Commission
Sweetwater County Commission
Vernal City Council
Uintah School District
Lincoln-Uinta Association
of Governments
Mayor of Manila
Mayor of Vernal
Mayor of Duchesne
Uintah Water Conservation District
Western Regional Council
Maeser Water District
Uintah County Surveyor

State of Utah
State Senator G. Sowards
State Representative
Gayle McKeachnie

ORGANIZATIONS AND INDUSTRY

Utah Wilderness Association
Utah Wool Growers Association
Utah Nature Study Society
Nature Conservancy
Cache Group, Sierra Club
Wilderness Society,
 Rocky Mountain Region
Wasatch Mountain Club
American Wilderness Alliance
Utah Wildlife Federation
National Outdoor Leadership School
Uintah Basin Flyfishers
Uintah Mountain Club

Southern California Edison Company
Champlin Petroleum Company
Texaco USA
Chevron USA
Rocky Mountain Oil and Gas Association
Great Lake Timber Company
Flaming Gorge Acres
Flaming Gorge Pines
Adrian K. and Ellen B. Reynolds
Reid D. Bench
Green and Berry
Deseret Generation and Transmission

INDIVIDUALS

R. Arhart
D. Baker
C. Benton
R. Berry
J. Bickford
L. Bornholdt
S. Borton
J. Buffa
H. Campbell
D. Chinn
P. Clevenger
N. Estes
M. Fraser
N. Gregas
M. Gregory
B. Grimes
D. Grunig
J. Gudmundsen

D. Hanscom
M. Hengesbaugh
C. Johnston
K. Kemp
T. Lyon
J. Major
M. Matteson
R.A. Maurer
M. McKeough
J. Miller
C. Morris
B. Neely
G. Nickas
M. Pearson
R.D. Pederson
J. Peterson
W. Peterson
M. Pettis

M. and P. Poulson
F. Riley
A. Schaffer
A.D. Shaw
G. Smith
V.J. Smith
V.T. Smith
D. Soackman
A. Stokes
J. Swanson
J. Veranth
G. Vesperman
R. Warnick
K. Welborne
L. West
R. Widenhouse
A.C. Wilkerson

CHAPTER VII

INDEX

timber
 -departure.....II-10
 -suitable lands.....II-37, III-34, IV-19

trails.....S-4, S-13, III-7, III-11, III-12, IV-8, IV-44

Utah Wilderness Act of 1984.....S-4, S-9, I-10, II-10, III-1, III-16, IV-7

visual resources.....S-9, III-2, IV-6-7

water.....S-6, S-11, S-17, II-8, II-11, II-42-44, III-6, III-39-45,
 IV-25-28, IV-31

Wilderness
 -High Uintas Wilderness...S-1, S-4, II-4, II-10, II-11, II-33, III-16,
 IV-7-8, IV-40, IV-46

wildlife and fish.....S-5, S-9, II-36, III-2, III-17-29, IV-10-13
 -management indicator species (MIS).....S-9, II-36, III-19, III-22-26,
 IV-10-11
 -threatened and endangered species.....S-9, II-7, II-11, II-18, III-27
 IV-10

FINAL ENVIRONMENTAL IMPACT STATEMENT

Volume II



for

LAND AND RESOURCE MANAGEMENT PLAN

UNITED STATES DEPARTMENT OF AGRICULTURE



FOREST SERVICE

APPENDIX A

APPENDIX A

ISSUES, CONCERNS, AND OPPORTUNITIES

A. Identification Process:

The process of identifying issues began with the management teams identification of public issues and management concerns based on : 1) early Regional advice, 2) past public involvement efforts, 3) other formal communications from concerned publics, and 4) personal knowledge of local attitudes, needs, and desires.

This preliminary list included 44 public issues and 69 management concerns that were staffed to determine scope, intensity, and duration of impact. These individually identified issues and concerns were then consolidated into 11 issues and 10 concern areas.

The preliminary list of issues was developed into a packet which was distributed to the public. Distribution included a Forest Mailing list which included 445 names of individuals, organizations, and agencies.

Copies of a news release announcing public involvement in the Ashley issues were sent to local newspapers and radio stations in the area adjacent to the forest.

A series of meetings to obtain public input was held in 7 towns adjacent to the Forest. The District Rangers and their staffs conducted these meetings and did the pre-meeting publicity. This included personal letters of invitation from the District Ranger to local citizens, news releases on meeting locations, times and dates, spot announcements on local community affairs radio programs, telephone and personal contacts by District personnel, and posters giving details on the meetings posted at Ranger Stations and other public locations.

In 1983 the Ashley National Forest requested public involvement to update the major issues and management concerns. This update was required in view of the 9th Circuit Court Decision on roadless areas. An additional issue on the Ashley National Forest concerning the mountain pine beetle epidemic had also surfaced during this time.

In November, 1983, an information packet containing the new issues of the mountain pine beetle epidemic and the reevaluation of the Roadless Area Inventory was sent out to the public for comment. This packet also contained the original issues and concerns that were developed in 1981. Distribution of the information packet included a Forest mailing list which included 485 names of individuals, organizations, and governmental agencies.

Public meetings to obtain issues input, and verification of the Roadless Area Inventory were held at the four District Ranger Offices and Green River, Wyoming on November 10, 1983.

In addition to public meetings held on the Ashley concerning the two above stated issues, a statewide public meeting on Roadless Areas was held in Salt Lake on November 2 and 3, 1983 with all National Forests in the State of Utah participating. This meeting was basically an information meeting consisting of questions and answers. No direct comments to the Ashley National Forest were received.

The Wilderness Act of 1984 designated the High Uinta Wilderness which is located on the Ashley and Wasatch National Forests and released other forest lands for multiple use management and for other purposes.

B. Public Response to Preliminary Issues:

Written responses to the preliminary issue packet were received from 127 individual, organizations, or agencies. Thirty-three written comments were returned with the update issue packet.

A register of attendance at the public meetings and comments received is contained in the 1981 public Issues and Management concerns, and the AMS revision documents on file in the Forest Supervisors office in Vernal, Utah.

The Core ID Team analysis of comments resulted in changes in wording; splitting Range Management (Livestock Use) and Wildlife Management into separate major issues; adding Developed Recreation and Dispersed Recreation together into a Recreation Management issue; combining Stream Flow Levels and Water Quality into a Watershed Management major issue; and adding an issue that deals with Minerals, Energy and Utility Corridors.

C. Screening Process

In order for an issue to be addressed in the planning process it had to pass screening criteria. These criteria included:

- a. Scope- is it an issue Forest-wide, state-wide, nationally, or only with a segment of the local population?
- b. Intensity- will the issue "simmer" along if not resolved or will it explode?
- c. Duration - will this still be an issue when the Forest Plan is published or is it a temporary item that will be forgotten or resolve itself in one to two years-
- d. Responsibility - can resolution of the issue result from Forest planning or must it be forwarded to the Regional Office or another agency for action.

Some issues raised by the public could not be dealt with in the Forest Plan. These are listed in the Public Issues and Management concerns document dated 1981.

D. Alternative Formulation:

The alternatives considered in the DEIS were developed in response to both legal requirements and public involvement.

In the fall of 1983 the public was given a second opportunity to point out any issues and concerns that may have been missed or that may have surfaced since the first round of public involvement. The workshops and all public input during this period has been documented in the planning files.

During this period of time, two new issues were added to the original 10 issues. These two issues concerned the roadless area reevaluation and the mountain pine beetle epidemic.

The role of issues and concerns in formulating alternatives is discussed in Chapter 11.

E. Consultation with Others:

Chapter VI of this document lists agencies, organizations, and individuals contacted as a part of the on-going public involvement during the Forest Planning effort on the Ashley Forest. Included in this listing are both members of the Ute Tribal Council and also Bureau of Indian Affairs personnel at Fort Duchesne. As noted earlier, pages A-1 and A-2, the mailing list and public meetings were used to identify and analyze issues and concerns as well as to provide progress up dates for various publics.

Beginning in 1981, formal and informal contacts were made with various agencies and with the Ute Tribe to see if there were existing land use plans that would be in conflict with the alternatives, and after 1982 specifically with the alternative that eventually is displayed on the preferred alternative (B). Specific contacts were made with : the Bureau of Land Management as a specific topic of annual coordination meetings in 1982, 1983, and 1984; Utah Division of Wildlife Resources on a continuing basis from 1982 to the present time; with the Ute Tribe and Bureau of Indian Affairs in 1982 and 1984; with the Utah Department of Natural Resources in 1981, and with the U.S. Fish and Wildlife Service in 1981, 1982, and 1984 in relation to threatened and endangered species. These contacts identified no conflicts with existing plans of the other entities. The purpose of these meetings with other agencies was to maintain an on-going dialogue on planning issues, test planning options, receive continuing input, validate issues, and obtain guidance and advice from these important publics.

From the beginning of the planning process, there have also been individual contacts by the Forest Supervisor, Forest Staff Officers, District Rangers and the Forest Planner with concerned members of the public. This has included one-to-one discussions as well as discussions with service organizations such as the Chamber of Commerce, Kiwanis Club, and the Rotary Club.

F. Selected Issues, Concerns and Opportunities:

To facilitate public recognition and trackability, the issues addressed in the DEIS are the same as the planning problems expanded in the following section. The descriptions reveal the complementary and conflicting relationships among resources. For example, timber harvest cannot be increased without affecting water yield, and livestock grazing may not be compatible with highly developed recreation sites.

All 13 of the issues on the final list are dealt with in the DEIS and Forest Plan. The issues which were screened out were referred to other National Forests or land managing agencies, resolved prior to implementation of the Forest Plan, or otherwise dealt with outside of the planning process.

Most issues are dealt with differently in each of the alternatives, but a few issues, or sections of, are treated the same way in all alternatives. See Chapter II for discussion of how issues and concerns were impacted by the various alternatives.

Issue #1 Transportation System Management

The Ashley National Forest contains many roads, trails and travel ways. The standards of location, design, construction and management of this system impact a number of different publics. Dollar costs, loss of access to a favorite hunting site, impacts to wildlife habitat and a number of other facets all contribute to making this a widespread public issue.

Management Question: How much and what type of access is needed on the Ashley National Forest?

The publics expressing interest in this issue were divided between those desiring more and easier access and those wanting limited or less access to National Forest lands. On the basis of the analysis in the AMS the Maximum Range Benchmark, the Maximum Water Benchmark and the Maximum Timber Benchmark provided for the most miles of road constructed by the year 2030 (3884 miles of road, 3842 miles of road, and 2552 miles of road respectively). The Minimum Level Benchmark and the PNW Benchmark provided for the least amount of roads constructed and reconstructed by the year 2030 (0 miles of road and 723 miles of road respectively).

Table II-6 displays the difference between the resolution by alternative in narrative format.

Issue #2 Fuelwood Management

Increasing energy costs for traditional home heating systems have generated an ever-increasing demand for fuelwood. Access for fuelwood removal, disposal timber harvest and road construction residues, wild-life habitat needs, conflicts with timber sales and control of fuelwood harvesting are some of the elements of this issue.

Management Question:

To what extent does the current Ashley Forest Fuelwood program, with both free use and charge permits in designated areas, meet public needs?

Fuelwood availability is a major issue with the local publics using the Ashley National Forest. Current demand equals approximately 2.1 MMCF. Based on the analysis in the AMS, the Maximum Water Benchmark, the Maximum Range Benchmark, and the Maximum Timber Benchmark provide for the largest amount of Fuelwood (approximately 16 MMCF for the Water and Range benchmark and 13 MMCF for the Timber Benchmark annually through the year 2000).

Table II-6 displays in graphic and written format the difference in resolution by alternative.

Issue #3 Watershed Management

Water quality, Water quantity, and in-stream flows combine to make this issue critical in the eyes of local publics. Off-Forest demands, both inter and intra-state, increase the scope and intensity of this issue. Conflicts with visual quality and wildlife/fisheries habitats can be easily generated by potential manipulation practices.

Management Question: To what extent should the Ashley use vegetative manipulation or other practices to augment water yields?

The publics expressing interest in this issue were concerned about water quality and water quantity. On the basis of the analysis in the AMS the Minimum Level Benchmark showed the least amount of sedimentation (30.9 tons annually) while the Maximum Timber Benchmark showed the most sedimentation (38.9 tons annually) in the first decade.. Water quantity outputs were the highest in the Maximum Water Benchmark and lowest in the Minimum Level Benchmark. The Maximum Water Benchmark provided for 1065 M Ac ft annually and the Minimum Level provided 955.8 M Ac ft annually by the year 2030.

Table II-6 displays in graphic and written format the difference in resolution by alternative.

Issue #4 Range Management

Use of the Ashley National Forest for livestock grazing is not only directly related to the well-being of a segment of the local economy but

the long history of livestock operations has established a culture and lifestyle that is much broader and socially important than indicated by the economic picture. Conflicts between recreation users and livestock operations, livestock use levels on big game range, protection of riparian habitats, and range improvement activities are all elements that make this issue of local importance.

Management Questions: What level of livestock grazing, forage manipulation, and range improvements should the Ashley National Forest strive to sustain?

The livestock use AUM's produced are of primary importance to the segment of the public involved in the ranching/livestock business. While large increases in AUM's produced may be relatively insignificant due to lack of demand, small decreases in production can be critical for local ranchers dependent upon National Forests allotments to round out their grazing season.

Based on the analysis in the AMS, the Maximum Range Benchmark provides for the most AUMS; 115 MAUM's through 1990 annually and 164 MAUM's by the year 2000.

Table II-6 displays in graphic and written format the difference in resolution by alternative.

Issue #5 and #12 Timber Management

Management of the timber resource on the Ashley Forest is important to a segment of the local economy and national demand projections indicate that increased timber output will be needed if future demands are to be met. The high visibility of timber management activities and the potential impacts such as water quality, soil erosion, wildlife habitat, visual quality, and recreation activities all contribute to the scope and intensity of this issue. The Ashley Forest is currently starting on an accelerated timber harvest to salvage or utilize beetle-killed timber.

Management Question: What level of timber harvest and what type of management practices should be used on the Ashley Forest? The volume of timber harvest is an issue of significance to that portion of the local economy that is timber related. In addition to the economic significance, the on-going mountain pine beetle epidemic has created a high level of concern both locally and regionally.

Based on the analysis in the AMS, the Maximum Water Benchmark, Maximum Range Benchmark, and the Maximum Timber Benchmark provide for the most timber (13 MMCF, 13 MMCF, and 12 MMCF respectively) provided annually through the year 2000.

Table II-6 displays in graphic and written format the difference in resolution by alternative.

Issue #6 Wildlife Management

This issue pertains to all wildlife including non-game and aquatic species. The potential for conflicts between wildlife habitat management and other resource uses such as recreation, grazing, and timber harvesting is high. The wildlife resource provides one of the major recreation attractions on the Ashley National Forest with fishing, big game hunting, and viewing wildlife contributing to public enjoyment of most recreation activities.

Some of the critical elements of this issue include habitat diversity, protection and enhancement of riparian areas, road closures to prevent harassment of wildlife, maintenance of stream flow levels, and coordination between wildlife management objectives and other resource activities.

Management Question: What level of wildlife management activities should the Ashley Forest emphasize in its wildlife habitat management program?

This issue is of main concern to the State Fish and Game Department who has the responsibility of Wildlife Management and goals for herd numbers.

Based on the analysis in the AMS, the Minimum Level Benchmark provides for the most big game capability; 8.5 M animals elk summer range capability, 2.0 winter range capability, and 58.0 summer range capability, 4.0 M animals winter range capability annually through the year 2000.

Table II-6 displays in graphic and written format the differences in resolution by alternative.

Issue #7 Recreation Management

This issue originally included all facets of recreation on the Ashley Forest. As of this time, wilderness types of recreation activity and wilderness management are broken out into a separate issue which is displayed later in this appendix. Recreation is the dominant resource on the Ashley National Forest. The inclusion of the Flaming Gorge National Recreation Area and the close proximity to Wasatch Front population centers raise the scope and intensity of this issue to the Regional and National level. Most of the other resource management activities either impact or are impacted by recreation management and objectives.

Increased demands for both dispersed and developed recreation when considered in light of static or decreasing budgets result in projections of a short supply of recreation facilities and some recreation diversity elements by 1995.

Management Question:

Should existing recreation facilities or developments be maintained to a high quality standard and new facilities constructed as needed to meet projected demands?

Management Question: Should more or less area of the Forest be made accessible by vehicle or is the present recreation access suitable? Based on the Analysis in the AMS, the Minimum Level Benchmark provides for the largest amount of MRVD's (982 Annually by the year 2000) and the MAX PNV Assigned Price Benchmark provides for the most Developed Recreation MRVD's (939 annually by the year 2000). Accessibility is addressed under the transportation issue.

Table II-6 displays in written and graphic format the differences in resolution by alternative.

Issue #8 Landownership Adjustment

While the Ashley National Forest does not have large amounts of private or other owned lands inside the Forest boundary, there are instances where management efficiency or public access may be improved through land exchange, purchase, or right-of-way acquisition.

Management Question: Should problems of public access to National Forest Lands be resolved through ownership adjustment and should it be a high Forest priority?

This issue received limited public interest. The Ashley Forest has only a small amount of private land in holdings and these have historically created little conflict and/or problems. In general, alienated lands within the Forest boundary will be obtained as opportunities arise and if budgets are sufficient. The Minimum Level Benchmark, having a tight budget limitation, would use the same priorities for acquisition of disposal of lands but over a longer time frame.

Table II-6 displays in written format the differences in resolution by alternative.

Issue #9 Fire Management Policy

This issue appears to be limited in scope to primarily those local publics who are knowledgeable and intimate with National Forest management such as range permittees, timber operators, water users and wild-life resource management personnel.

The use of prescribed fire as a management tool for habitat improvement, forage manipulation, and fuels abatement is considered by many to be a legitimate and efficient method of achieving management objectives. However, some publics view fire as an enemy and a destructive force that should be aggressively controlled at all times.

Management Question: To what extent should fire management strategies of less than immediate and aggressive control be applied on the Ashley Forest and in what areas?

This issue and concern is aggravated by the existing mountain pine beetle epidemic which is increasing fuel loading and the potential for catastrophic size fires.

Table II-6 displays in written format the differences in resolution by alternative.

Issue #10 Minerals and Energy

This issue recognizes the local to national significance of minerals and energy production. While most current minerals/energy activities occur off-Forest, the effects or impacts are felt through increased demands for recreation resources by increased population; through increased water needs for mineral activities, and through the needs for transportation facilities, or for transmission of mineral and energy products.

Significant areas of the Forest could be adversely impacted by improper facility and corridor location. Examples of areas where such facilities or locations might be limited include the National Recreation Area and the High Uintas Wilderness.

Management Question: Where should minerals and energy operations and facilities be constrained or limited on the Ashley Forest?

Table II-6 displays in written and graphic format the differences in resolution by alternatives.

Issue #11 Off-road Vehicle Management

The number of Off-Road-Vehicles (ORV's) and their use is increasing on public lands. The potential for resource damage and conflicts with other resources must be recognized. Some of the elements to consider in this issue are road and area closures, user conflicts, coordination with other landowners or agencies, and the cost in time and dollars to administer restrictions imposed.

Management Question: Are existing area and road closures acceptable or should there be less or more closures?

This issue did not receive intense public interest. It should be recognized that many road and area closures are, and will continue to be, temporary in nature since they are imposed primarily for resource protection. Examples are closures of areas and roads during big game hunting seasons to provide for escape cover.

Table II-6 displays in written format the differences in Resolution by alternatives.

Issue #12 Mountain Pine Beetle Epidemic

Since the beginning of the Ashley Forest Planning process in 1980, the mountain pine beetle population has reached epidemic proportions. Thousands of acres of lodgepole pine have been attacked and killed with resulting impact on timber volume, fuel loading, and visual quality. The Ashley Forest proposes to accelerate timber harvest activity to salvage the wood fiber while still usable, to reduce fuel loading the attendant potential for major forest fires, and to place some lodgepole pine stands in a managed condition to reduce the risk of future epidemics.

The proposed accelerated timber harvest has some potential for impacts on visual quality, wildlife habitat, water quality and yield, and on the rate of converting from roadless to roaded. It will also have socio-economic impacts locally by creating fluctuation in employment.

Management Question: If additional markets for lodgepole timber can be found, what level of harvest should the Ashley attempt to achieve?

This issue is discussed under the Timber Management Issue #5.

Issue #13 Wilderness vs. Non-Wilderness

The need to reevaluate roadless areas has arisen in view of the 9th circuit court decision. The Ashley National Forest has a number of roadless areas that are subject to this reevaluation. These roadless areas are discussed in detail in the November 1, 1983 packet on roadless areas that were sent to the public entitled "Ashley National Forest Roadless Areas Re-evaluation. Chapter II, III, and IV also contain narrative on the wilderness issue.

Management Question:

Which roadless areas, or parts thereof, should be recommended for inclusion in the National Wilderness System?

Management Question: For those areas or portions not recommended for Wilderness, what level of management, development or vehicle access should be proposed?

As mentioned in the introduction to this Appendix the Utah Wilderness Act of 1984 designated the High Uinta Wilderness and released other National Forest roadless areas for multiple uses other than wilderness. This action has been subsequently integrated into the Forest planning process.

For all issues, a more detailed discussion of the Benchmarks and the analysis can be found in the AMS at the Forest Supervisor's Office in Vernal, Utah.

APPENDIX B

APPENDIX B

DESCRIPTION OF THE ANALYSIS PROCESS

I. INTRODUCTION

A. General Planning Problem

The National Forest Management Act of 1976 (NFMA) charges each National Forest with the responsibility of developing a unit-wide management plan, or Forest Plan. This plan is to be based on a determination of how best to meet public needs and desires within the capabilities of the land to produce goods and services. The capabilities of the Ashley National Forest to produce the various goods and services are dependent on, and limited by, a short growing season, low precipitation level, high elevation, relatively low soil productivity, and a highly diverse landscape.

Public interests include diverse views about the relative importance of producing commodities such as timber and livestock forage and providing amenities such as dispersed recreation opportunities and wildlife habitat. The major planning goal of the Ashley is to display the information needed by decision makers to determine the mix of outputs that will maximize net public benefits. The term "net public benefits" includes non-market or non-priced attributes such as visual quality, wildlife habitat diversity, water quality, and a variety of recreation activity opportunity.

The National Forest Management Act (NFMA) and the regulations developed under NFMA (36 CFR 219) provide the analytical framework needed to provide the above information.

To meet the requirements of NFMA, the Ashley Forest organized as follows:

- Forest Management Team - direction and decision making;
- Core ID Team - analysis and plan preparation;
- Support Team - specialized input, clerical, and drafting support.

In the following discussion, reference to Core Team action includes the Support Team efforts and the Management Team guidance, review and direction.

B. The Planning Process:

The NFMA regulations describe a 10-step planning process to be used in determining the best mix or the maximum net public benefit. These steps are listed below for information:

1. Identification of Issues, Concerns, and Opportunities
2. Development of Planning Criteria
3. Inventory Data and Information Collection
4. Analysis of the Management Situation

5. Formulation of Alternatives
6. Estimated Effects of Alternatives
7. Evaluation of Alternatives
8. Preferred Alternative Recommendation
9. Plan Approval
10. Monitoring and Evaluation

Appendix B describes the analysis phase of this process including steps 3, 4, 5, and 6. The judgement phase, steps 1, 2, 7, and 8 is described in Chapters I, II, IV, and Appendix A of the EIS. The execution phase, steps 9 and 10, is presented in the proposed Forest Plan.

The following is a brief discussion on the ten-step planning process.

1. Identification of purpose and need: Through public participation including contacts with other Federal agencies, State and local governments, and contacts with a local Indian tribe, the Forest Interdisciplinary Team identified public issues, management concerns, and resource opportunities. These were evaluated and recommended to the Forest Supervisor who determined which were the major public issues, management concerns and resource opportunities that would be addressed in the planning process.
2. Development of planning criteria: Based on the selected issues, concerns, and opportunities, the forest Management Team developed criteria to direct the collection and use of inventory data, analysis of the management situation, and the design, formulation, and evaluation of alternatives.
3. Inventory Data and Information Collection: The Core Planning Team made a determination of what data was needed based on the identified Issues, Concerns and Opportunities. Most data requirements fit in to one of the following categories: resource capabilities, demands, benefits and costs. existing data was used whenever possible, however some supplemental information was developed to fill information gaps.
4. Analysis of the Management Situation: A simplified definition of this step is that it is a determination of the Forest's capability to provide the goods and services (supply) that comprise the public needs and desires (demand). The FORPLAN linear programming model was used at this stage to meet several specific requirements and also to define the feasible parameters (benchmarks) for production of several of the resource outputs; timber, water, and livestock forage. The specific requirements noted above include: (a) determining the maximum present net worth (PNW) the Forest can generate; (b) projecting the current management program; (c) evaluating the feasibility of meeting national production goals as expressed by the Resource Planning Act (RPA) targets; (d) displaying the minimum costs necessary to retain the lands in the National Forest system; and (e) providing a basis for formulating a broad range of reasonable alternatives.

The Analysis of the Management Situation (AMS) documents with revision is on file in the Ashley National Forest Supervisor's office.

5. Formulation of Alternatives: The AMS (Step 4) sets the stage for developing a range of alternative management plans for the Forest. This range of alternatives is within the resource capability parameters established in the benchmarks in the AMS. Public issues, management concerns and opportunities are reflected in the formulation of alternatives as well as several specific alternative requirements;
 - (a) alternatives were formulated to reflect a range of resource outputs and expenditure levels. The range of resource outputs, however, was restricted by their maximum and minimum potentials as determined by benchmark analysis;
 - (b) all alternatives were formulated to facilitate analysis of opportunity costs, environmental tradeoffs, and the effects on present net value, benefits and costs;
 - (c) alternatives were formulated to provide different ways to address major public issues, management concerns, and resource opportunities identified during the planning process. also reasonable alternatives which may require a change in existing law or policy were considered;
 - (d) the RPA Program tentative resource objectives for the Ashley were included in an alternative;
 - (e) each alternative was formulated so as to be the most cost efficient combination of management prescriptions examined to meet the objectives of the alternative;
 - (f) the current program projected through time would be used to display costs and benefits of no change, this is the No Action alternative;
 - (g) the current budget was used to determine the flow of goods and services under a constant budget at current levels;
 - (h) alternatives would display the High Uintas Wilderness as a constant;
 - (i) a reduced budget alternative was developed to display the costs, the benefits, and the flow of goods and services which could be provided if the budget were held to 75 percent of current;
 - (j) other alternatives were included to emphasize commodity production and amenity (non-market) production.
6. Estimation of Effects of Alternatives: The physical, biological, social, and economic effects of implementing each alternative were

estimated and analyzed to determine how the alternative meets the various goals and objectives, how the alternative responds to the public issues and management concerns, and how each alternative compares to the other alternatives. The output levels, benefits, and costs were generated through the use of the FORPLAN model.

7. **Evaluation of Alternatives:** Using the previously selected planning criteria, the Core Planning Team evaluated the significant physical, biological, economic, and social effects of each of the nine alternatives considered in detail. The evaluation was based on a comparative analysis of the forest-wide effects of the management alternatives including present net value, social and economic effects, outputs of goods and service, and overall condition of environmental resources. The analysis was done in a systematic manner that documented each step of the evaluation.
8. **Preferred Alternative Recommendation:** Using the evaluation described in the previous step, the Forest Supervisor recommended a preferred alternative to the Regional Forester. This preferred alternative is identified in Chapter II of this Environmental Impact Statement, and is displayed as the proposed plan which accompanies this EIS.
9. **Plan Approval:** After the issuance of the Final Environmental Impact Statement, the Regional Forester shall review the proposed plan and the Final Environmental Impact Statement and shall either approve or disapprove the plan in accordance with 36 CFR 219.10(c). In the case of plan approval, the Record of Decision shall include a summarized comparison of the selected alternative with 1) any environmentally preferred alternatives and 2) any other alternatives with a higher present net value.
10. **Monitoring and Evaluation:** At intervals established in the plan, implementation will be evaluated on a sample basis to determine how well the objectives of the plan are being met and how closely management standards and guidelines are being followed. Based upon this evaluation the Core Planning Team will recommend to the Forest Supervisor such changes in management direction, revisions, or amendment to the Forest Plan as are deemed necessary. The monitoring plan, which includes 1) the action, effects, or resources to be monitored, 2) the frequency of measurement, 3) the expected precision and reliability of the monitoring process, 4) the time when the evaluation will be reported, and 5) the allowable limits of variation; is included in Chapter V of the proposed Forest Plan.

II. INVENTORY DATA AND INFORMATION COLLECTED

A. Data Base:

The entire Ashley National Forest was mapped on 7½ minute orthophoto quads with transparent film to allow aggregation of several layers into capability areas.

1. Capability Areas

The capability area is the smallest delineation used in the analysis process on the Ashley Forest. Each capability area is an aggregate of contiguous acres of land with similar characteristics and with similar responses to management practices and activities. Each capability area is unique in that it is site specific and occurs only once throughout the entire Forest.

The delineation of capability areas was based on the following stratification:

a. Level 1 - Landtype Aggregations

1. GREFAT - Green River formation - under 35% slope
2. GRESEP - Green River formation - over 35% slope
3. CANYON - Steep (over 35%) sidewalls and canyon bottoms
4. PLATOW - Gentle (less than 35%) plateau lands
5. SOUFAC - South facing slopes generally over 35%
6. ALPINE - Subalpine and alpine lands above the PLATOW
7. BOLLIES - Crest of the Uintas - no commercial timber and often barren of vegetation.

b. Level 2 - Accessibility Zones

1. NRAROA - Roaded areas within the Flaming Gorge NRA
2. UNNRA - Unroaded areas in the NRA
3. ROADED - Roaded
4. UNROAD - Unroaded
5. SPECIAL - Special areas such as the Sheep Creek Geological Area
6. WILDERNESS - Those lands within the RARE II proposed High Uintas Wilderness area. This category was not used after passage of the Utah Wilderness Act of 1984.

c. Level 3 - Wildlife Designation

1. FWLSPE - Special fish and wildlife areas
2. OTHFWL - Other fish and wildlife areas

d. Working Group

1. NOTCOM - Noncommercial and non-forested lands
2. COMDIF - Douglas fir commercial forest lands
3. LPESAF - Lodgepole pine and associated species
4. COHARD - Aspen or other commercial hardwood
5. COMPPN - Ponderosa pine

e. Land Class

1. SHRUBR - Shrub-browse species

2. WATER - Water
3. BARVEG - Essentially barren-rock outcrops
4. N/CP-J - Non commercial pinyon-juniper
5. COMTIM - Commercial forest lands
6. MEADOW - Meadows - both wet and dry
7. N/CSOF - Non commercial softwoods
8. N/CHRD - Non commercial hardwoods

f. Condition Class

1. NONTIM - Non commercial forest land
2. STAGNA - Stagnated stands
3. NOSTOK - Non-stocked stands
4. SEDSAP - Seedling-sapling size commercial species
5. POLES - Pole sized commercial species
6. MATURE - Sawtimber sized (age) commercial species
7. PARCUT - Stands with previous partial cut entries

Using the above stratification, the possible combinations would total over 30,000. However, all combinations did not occur so the total capability areas are estimated to be under 20,000.

2. Analysis Areas

The Capability Areas were combined to form Analysis Areas. An Analysis Area is composed of one or more capability areas having similar characteristics. It is usually non-contiguous and no acre is part of more than one Analysis Area.

The final total for Analysis Areas on the Ashley National Forest is 171. This was done by:

1. Aggregating all similar capability areas;
2. Combining Capability Areas with small acreage;
3. Combining Analysis Areas previously identified as Wilderness in Level 2 with similar Analysis Areas as unroaded;
4. Fine-tuning the breaks between Special and Other fish and wildlife to more accurately define critical habitats;
5. Combining all meadow types instead of trying to differentiate between wet and dry meadows.

3. Production Coefficients

Scheduled outputs included in the FORPLAN model for the Ashley included:

- | | | |
|---|------------------|---------------------------------------|
| 0 | Timber | - Millions of cubic feet |
| 1 | Fuelwood | - Millions of cubic feet |
| 2 | Wildlife forage | - Millions of pounds |
| 3 | Recreation | - Thousands of recreation visitor day |
| 4 | Livestock forage | - Millions of pounds |
| 5 | Water | - Thousands of acre feet |
| 6 | Sediment | - Thousands of tons |

- 7 Livestock Investment - Thousands of dollars
- 8 Wildlife Investment - Thousands of dollars
- 9 Recreation Investment - Thousands of dollars

Production coefficients were developed for each scheduled output that could be produced on each analysis area. Coefficients are based on the production capability of an acre per year and entered in the model as coefficients for the decade. Existing timber coefficients are based on the 1978 Timber Management Plan for the Ashley National Forest. Fuelwood coefficients are based on a limited number of stand examinations and on existing timber inventory volume tables. Wildlife and livestock forage coefficients are based on range analysis figures in existing allotment management plans. Recreation coefficients are based on RIM (Recreation Information Management) reports and tied directly to projected population trends for the states of Utah and Wyoming. Water yield coefficient for background are tied to historical measured water yields. Sediment coefficients were based on upland erosion rates derived from the modified Universal Soil Loss Equation and on that portion of upland erosion delivered to live streams. The remaining production coefficients involve investments for range, wildlife, and recreation maintenance and construction, that are based on average costs incurred for similar activities in past years.

Further detail on production coefficients is available in the AMS document on file at the Ashley National Forest.

4. Lands Suitable for Management Activities

Determination of suitability is the process of ascertaining, "The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of economic and environmental consequences and the alternative uses foregone. A unit of land may be suitable for a variety of individual or combined management practices."

The Core Planning Team used existing resource data and local knowledge to determine those acres suitable for the application of management practices. All acres of the Forest were considered suitable for water production and for some types of recreation activities. Lands inventoried as Commercial Forest Land (capable of producing 20 cubic feet/acre/year) were considered suitable for timber management activities and for the production of fuelwood. Wildlife forage and livestock forage coefficients were developed for all areas that are inventoried in existing range analyses and for those areas such as timber stands that would produce forage species after timber harvesting. Originally, only those areas included in the 1979 RARE II High Uintas Wilderness proposal were considered suitable for wilderness. However, the analysis areas and suitability for wilderness were revised as a result of the Utah Wilderness Act of 1984.

Range

Determination of land available, capable, and suitable for range production follows instruction in U.S. Forest Service, Intermountain region, Range Analysis Handbook (FSH 2209.21).

Suitable range is land accessible or made accessible to livestock, which produces forage or has inherent forage producing capabilities, and can be grazed on a sustained yield basis under reasonable management goals (FHS 2209.21).
 Transitory range, which is timbered land made temporarily suitable for grazing through fire or as a result of timber management practices, exists on the Forest. However, it does not contribute a significant amount of forage to warrant inclusion in the evaluation. For a more detailed explanation of the range suitability see the Analysis of the Management Situation document, and/or the process records located in the Forest Supervisors office.

The following table displays range suitability:

TABLE B-1

* Total Forest Area =	1,373.2 M acres
Acres Suitable (current livestock mix) =	455.3 M acres
Area closed to livestock to protect other resources =	19.1 M acres
Net Suitable Range =	436.2 M acres

Timber

Determination of land available, capable and suitable for timber production is as follows:

Alternative

Classification	A	B	C	D	E	F	G	H	I	J
1. Non-Forest Land (Includes Water)	536.4 M Acres - all alternatives									
2. Forest Land	836.8 M Acres - all alternatives									
3. Forest Land Withdrawn*	147.7 M Acres - all alternatives									
4. Forest Land Not Capable**	96.7 M Acres - all alternatives									
5. Forest Land Physically Un-suitable	0 Acres - all alternatives									
6. Forest Land - Inadequate Inform***	61.9 M Acres - all alternatives									
7. Tentatively Suitable	530.5 M Acres - all alternatives									
8. Forest Land not approp **** (M acres)	154.8	29.7	0.9	139.8	0.9	141.4	206.6	49.8	2.5	38.7
9. Unsuitable Forest Land (M Acres)	461.1	336.0	307.2	446.1	307.2	447.1	512.9	356.1	308.8	345.0
10. Total Suitable (M Acres)	375.7	500.8	529.6	390.7	529.6	389.1	323.9	480.7	528.0	491.8
11. Total National Forest Land	1373.2 M Acres - all alternatives									

* Forest land included in the High Uintas Wilderness
 ** Pinyon-Juniper
 *** Forest land producing less than 20 cubic feet per acre per year
 **** Includes RNA's, Sheep Creek Geological Area and other non development prescription

5. Allocation and Scheduling

In the FORPLAN model, prescriptions with timber harvesting activities were freed to allow a wide range of scheduling and allocation opportunities. Other prescriptions were limited to implementation in the early decades of the planning time period.

6. Monitoring

The planning data provides a base from which changes can be measured and as a control for the monitoring actions which are detailed in the Forest Plan.

7. Plan Implementation

The physical and biological data contained in the planning data base provides starting point information for programming and plan implementation. As monitoring and use provide more accurate information, the data base will be improved and updated.

B. Sources of Data

Data used in the analysis was developed from the following sources:

1. Definitions of outputs, activities and effects - Forest Service Manual, Management Information Handbook (MIH 1309.11).
2. Administrative boundaries and landownership - Ashley National Forest base map - 1971 edition as revised.
3. Capability and analysis area stratification base - orthophotos prepared from 1976 aerial photography.
4. Existing timber yield coefficients - Ashley National Forest Timber Management Plan - 1978.
5. Regenerated timber yield tables from lodgepole pine, Englemann spruce, sub-alpine fir and ponderosa pine - RMYLD Model.
6. Regenerated timber yield tables for Douglas fir - Prognosis Model.
7. Recreation coefficients in RVD's - Recreation Information Management (RIM) reports.
8. Recreation Opportunity Spectrum was mapped on USGS quads.
9. Forage production potential was calculated from average yields contained in existing allotment management plan analyses.

10. Wildlife habitat stratification was originally done by Utah Division of Wildlife Resources personnel in Vernal. This work was later modified to reflect "critical" habitat areas by Forest personnel.
11. Economics. Timber costs and values were obtained from the R-4 TIMBERVAL study. Other resource values were based on the 1980 RPA values as adjusted for local (R-4) conditions.
12. Water yield coefficients developed from WRENSS Hydrology methods, WRENSS Procedural Handbook EPA and U.S. Forest Service, Chapter 3 1980; 1941-1970 base data from 28 measurement stations; WET program and background hydrographs.
13. Sediment delivery rates developed by applying WRENSS method to surface soil loss figures from the modified universal soil loss equation.

III. THE FOREST PLANNING MODEL (FORPLAN)

A. Overview:

FORPLAN (short for FORest PLANning model) was the Linear Programming (LP) model used in the development and evaluation of benchmarks and alternatives. FORPLAN is a third-generation configuration of a series of LP models developed by the Forest Service to aid in resource management planning. Timber RAM and MUSYC, two predecessors, are single resource models designed to evaluate timber allocation problems. FORPLAN, on the other hand, is designed to evaluate problems involving "multi-resource" outputs.

In general, linear programming is a mathematical optimization technique which seeks to assign values to decision variables in such a way as to simultaneously satisfy a set of linear constraints and maximize or minimize a linear objective function. Linear programming has been applied to a diverse set of problems involving the allocation of scarce resources in an optimal manner. In the FORest PLAN resource allocation model, management prescriptions (the decision variables) are allocated to areas of land (analysis areas) in a manner which maximizes present net value (the objective function) while satisfying certain conditions such as minimum or maximum levels of some Forest products (constraints). A brief description of the major components of the FORPLAN model follows.

1. Basic FORPLAN Concepts:

ANALYSIS AREAS

As formulated, analysis areas represent both contiguous or noncontiguous areas of land. Noncontiguous analysis areas are generally representative of scattered areas of land possessing similar characteristics such as site productivity, cover type,

degree of access, or some combinations thereof. The principal reason for this type aggregation is to group areas with uniform response functions in biological and/or financial terms. Contiguous analysis areas seldom, if ever, occurred in the Ashley Forest stratification process.

In the model, analysis areas form the basic units on which management decisions are made. A hierarchy of analysis area identifiers categorize these land units and provide a structure for formulating or describing resource allocation problems through the use of constraints and objective functions. The design of such a hierarchy is critical to the correct specification of production possibilities on the Forest. For a detailed break-down of analysis area identifiers see sections II A 1 and II A 2 of this appendix.

MANAGEMENT PRESCRIPTIONS

Management prescriptions represent a set of management practices or activities and their associated standards and guidelines. They are designed to produce a mix of outputs through time. Each prescription contains components of a production function for jointly produced outputs. Different analysis areas may utilize the same "prescription", however different output levels, costs, or benefits would occur do to inherent differences between analysis areas. Management prescriptions are commonly identified by two factors, Management Emphasis and Management Intensity, within the FORPLAN data file. Timing and scheduling options are defined as an integral part of each prescription. This has been previously noted under II A 5 of this appendix.

ACTIVITIES

Activities represent active or passive management of the land. Further, activities incur costs; hence, represent choices for the use of capital outlays. Activities may be specific, such as: harvest one acre of mature lodgepole pine by clearcutting using a tractor logging method. Alternatively, the activity may be general, such as: increase heavy maintenance in developed recreation sites to reduce facility deterioration rate. The activities associated with each management prescription are further defined by standards and guidelines. These are described in detail in the Analysis of the Management Situation (AMS) on file at the Ashley National Forest headquarters and in the Forest Plan.

OUTPUTS AND ENVIRONMENTAL EFFECTS

Outputs and environmental effects result from the activities modeled. Generally, as more money is applied to the activity set, more outputs are produced from the land. Outputs may be priced directly in the model or may be included without prices where estimation of prices is not practical. Environmental

effects included in the model represent quality differentials and will typically be represented through the use of constraints.

Constraints

Constraints are used to ensure that the assignment of prescriptions to analysis area conforms to the emphasis of a particular alternative. FORPLAN constraints fall into four categories: (1) constraints for technical implementability, (2) constraints to ensure conformance to the minimum management requirements, (3) general timber policy constraints; i.e., nondeclining yield and harvest of timber stands generated at or beyond mean annual increment, and (4) discretionary constraints designed to achieve various levels of outputs and expenditure levels. The first three categories of constraints define production limits common to most alternatives. The fourth category completes the specification of the production surface and an objective function are sufficient conditions for the FORPLAN model to achieve an efficient assignment of prescriptions to analysis areas.

OBJECTIVE FUNCTION

The objective function guides the linear programming algorithm to an optimal solution. In Forest planning alternatives, the objective function is "maximize present net value" of all priced outputs. Nonpriced outputs and qualitative environmental effects are portrayed with specified constraint sets. Since constraints must always be satisfied, the objective function will never locate optimal solutions outside the scope of the constraints specified for outputs and environmental effects (whether or not they are priced). For this reason, it is desirable to consider marginal changes in solutions as constraint sets are adjusted. This 'sensitivity analysis' is quite expensive, given the scope of the Forest planning problem, and will be performed only where a major issue or concern suggests that the benefits from the additional analysis will outweigh the costs of the analysis.

2. Prescription Development:

Management prescriptions were developed by the Core Planning Team for all analysis areas. Each analysis area, and its characteristics, was reviewed for all the activities and outputs that were considered probable under existing technology, issues, and demands. Then a full set of prescriptions was developed to fit the output types, levels, costs, and benefits that could be attained under various management philosophies. Basic assumptions used in developing prescription sets for each analysis area include:

- a. Every acre of the Ashley Forest is available for assignment under one or more management prescriptions;

- b. Every option possible should be retained for every analysis area so a wide range of choices would be available to the model in reaching a cost-efficient solution.

B. Analysis Process and Analytical Tools:

1. Analysis prior to FORPLAN

Analysis conducted prior to FORPLAN modeling included items described above such as: stratification of the Forest into capability and analysis areas; design or development of management prescriptions to fit all analysis areas; projecting costs and benefits for practices included in the management prescriptions; predicting levels for the various scheduled outputs for each resource and prescription; and determining the linkage between the various outputs, commonly called "joint production functions".

An example of the "joint production function" or linkage between resource outputs is the relationship that exists between harvesting one acre of mature lodgepole pine and receiving benefits from increased water yield, increased forage production for wildlife and for livestock, and increased opportunity for fuelwood harvesting while incurring costs in terms of dollar expenditures, increased sediment, and possibly reduced visual quality or wildlife habitat diversity.

Major assumptions used in the above analysis include:

- a. Activities will conform to standards and guidelines;
- b. Riparian areas will receive special emphasis and protection;
- c. Activities in timbered analysis areas for wildlife, livestock, or water yield improvements will be done through commercial timber sales;
- d. Coordination through interdisciplinary team analysis and action will be necessary to mitigate adverse effects for most activities that modify environmental conditions;
- e. Demand for all resource outputs is equal to or greater than supply (elastic) except for recreation. Recreation capacity coefficients are "capped" or limited so they do not exceed demand projections.

2. FORPLAN Analysis:

The FORPLAN model was used to determine the optimal management prescription and scheduling for each analysis area within each alternative. This process resulted in the selection of the most cost-efficient prescriptions that meet a given set of limits (constraints) and an objective function of maximizing present net value.

3. Analysis done outside the FORPLAN model:

There were two major areas where analysis was done outside the FORPLAN Model: these were (1) the estimation of effects for non-quantified elements such as aesthetics or wildlife habitat diversity; and (2) the social and economic effects resulting from the alternative solution. In most cases the unquantified (1) effects were analyzed as consequences or results of other activities that are shown in the FORPLAN solution. For instance, the acres treated by clearcutting in an analysis area during any given time period affect the wildlife habitat diversity so a relatively straightforward explanation can be made. The social/economic effects (2) were calculated by using FORPLAN solution output levels as variables in the IMPLAN model (Input/Output). This analysis is described in detail in Section IV and V of this appendix.

C. Analysis Area Delineation:

The process used to delineate the analysis areas was described in Sections IIA1 and IIA2 above. Rationale for the stratification follows:

Level 1 Land Type Aggregation Criteria - provides some spatial and the elevational stratification. These factors were most critical in developing water yield and sediment coefficients. They also contribute to defining logging methods, costs of various management practices, and to the analysis of non-quantified effects such as wildlife habitat diversity and visual quality.

Level 2 Accessibility Zones Criteria - provided some special area delineation such as the Flaming Gorge National Recreation Area or the proposed High Uintas Wilderness Area (later changed when the Utah Wilderness Act was passed). Provided a tool for differentiating road construction needs and costs to link with timber harvest activity.

Level 3 Wildlife Designation Criteria - provide some spatial definition as it is applied to wildlife needs, primarily big game. Used in defining logical areas for wildlife habitat improvement investments.

Level 4 Working Group Criteria - provides species grouping for tentatively suitable timber lands. Used to develop yield, value, and cost coefficients.

Level 5 Land Class Criteria - primarily used in the definition of forage production coefficients. Used with Level 1 identifiers in generating water yield and sediment yield coefficients.

Level 6 Condition Class Criteria - this criteria defines the size or age classes of timber stands on tentatively suitable timber lands. Used in the FORPLAN model to help develop yield, value and cost coefficients and also to guide the timing choices for implementation of prescriptions.

D. Identification of Prescription:

1. Overview

The National Forest Management Act (NFMA) Regulations define management prescriptions as "management practices and intensities selected and scheduled for application to a specific area to attain multiple-use and other goals and objectives" (36 CFR 219.3). In general, the management prescriptions used by the Ashley in its formulation of the FORPLAN model are designed to achieve a given objective of producing some combination of outputs or some level of resource protection on a given area (analysis area).

The prescription as modeled in FORPLAN is based on two discrete factors, management emphasis and management intensity. Management emphasis could be defined as the objective or goal to be achieved by the prescription and management intensity is the amount of investment, skill, or concern (costs) that would be applied to achieving the objective. The Ashley model commonly uses management intensity to differentiate between prescriptions with similar objectives but different projected output levels.

The various combinations of management emphasis and management intensities are designed to comply with direction in 36 CFR 219.27 a. through g. by providing a number of options (prescriptions) that will fit each analysis area.

2. Prescription Objective, Criteria and Assumptions

a. Minimum Level (Management Emphasis 1 - Management Intensity 1)

1. Objective - this prescription is designed to display the costs and benefits of custodial level management.

2. Criteria and Assumptions

Assigned to all analysis areas.

Maintain land base in National Forest status.

Provide protection for land but investment (cost) limited to protection.

No production of management induced goods and services.

Minerals and mining claim activities are "outside" generated and will occur, but at reduced levels.

Assume no cost for "buying" out of existing contracts or cost of mothballing facilities. Only livestock grazing would be to meet the commitment to the Ute Tribe.

b. Moderate Timber (Management Emphasis 2 - Management Intensity 3)

1. Objective - this prescription is designed to attain as high a level of sawtimber production as possible with moderate levels of investment for timber cultural practices.

2. Criteria and Assumptions

Assigned to all analysis areas identified as tentatively suitable, outside the Flaming Gorge National Recreation Area. Even-aged management will be permitted, including clearcutting. Harvest openings will not exceed 40 acres in size except for epidemic occurrence where major losses are imminent. Cultural activities such as pre-commercial and commercial thinning entries will be utilized to increase fiber production. Visual quality objective of Maximum Modification is acceptable. Forage created or increased as a result of harvest activities may be used as transitory range, but fencing, herding, or exclusion may be used as necessary to protect regenerated stands.

Dispersed recreation will be managed at full-service level to protect the timber resource. Recreation will generally be in the Roded Natural ROS class.

Seasonal road closures on arterial/collector roads as needed to protect facilities or investments in resources.

Local roads usually closed after fuelwood removal unless needed for timber management activities.

Fire suppression shall be fast, thorough, with a minimum cost consistent with land management objectives and regard for the public and fire fighter safety.

c. High Timber (Management Emphasis 2 - Management Intensity 4)

1. Objective - this prescription is designed to maximize the production of sawtimber.

2. Criteria and Assumptions

Assigned to all analysis areas outside the NRA identified as tentatively suitable for commercial timber production.

Assumptions are similar to b. above, except that regeneration of harvested stands will generally be by planting instead of natural regeneration.

Additional cultural treatment entries will be made to hold growth rates at highest possible level. This prescription is necessary to allow the model freedom of choice in solution, particularly in the Maximum Timber Benchmark.

d. High Range (Management Emphasis 3 - Management Intensity 4)

1. Objective - this prescription is designed to achieve and maintain a high level of forage production and utilization by livestock.

2. Criteria and Assumptions

Assigned to all forage producing analysis areas outside the NRA including those timbered analysis areas where temporary conversion from timber to forage production may be desirable.

Moderate to high investments in range improvement can be expected.

Harvest area (clearcut) size in timbered analysis areas allowed up to 60 acres.

Recreation use may be limited or discouraged to reduce conflicts with livestock use.

Recreation will generally fall into the Roaded Natural ROS class.

Road closures may be used to protect or enhance the livestock utilization.

Vegetative treatment, including burning and herbicide use, will be common in non-timbered analysis areas.

Fire will be commonly used as a management tool, fire prescriptions will consider the impacts on range facilities and the impacts on forage production and utilization.

e. High Wildlife (Management Emphasis 4 - Management Intensity 4)

1. Objective - this prescription is designed to emphasize the protection, enhancement or rehabilitation of habitat for featured species of wildlife.

2. Criteria and Assumptions:

The prescription is applied to analysis areas outside the NRA and may include both timbered and non-timbered areas.

May be assigned in such areas as key ranges (winter or summer), identified sage grouse strutting grounds, important fish spawning areas, fawning and calving areas, or T and E species habitat.

On timbered AA's, harvest and cultural activities will be located, designed, and timed to maintain or enhance habitat.

Some timber stands may be held beyond normal rotation ages to provide "old growth" habitat.

Livestock grazing may be limited or excluded to enhance wildlife.

No new recreation development sites would ordinarily be allowed. Dispersed recreation would be managed at full service level to insure protection of wildlife needs.

Road closures will be common during stress seasons for the featured species.

Use of fire as a vegetative manipulation tool will be common.

f. Moderate Dispersed Recreation (Management Emphasis 5 - Management Intensity 3)

1. Objective - this prescription is designed to maintain a high level of dispersed recreation opportunity in a roaded environment.

2. Criteria and Assumption:

The prescription may be applied to any analysis area outside the NRA.

Dispersed types of recreation activities will be favored over other resources.

Even-aged management will be commonly used in timbered analysis areas with openings created by harvesting limited to a maximum of 40 acres.

Cultural treatments for timber will generally be limited to one pre-commercial and one commercial entry prior to harvest cuts.

Wildlife is considered an integral part of many recreation activities in the Forest so habitat improvements will be permitted if compatible with recreation.

Dispersed recreation will be managed at the full service level. Visual quality objectives (VQO) will be maintained at inventoried standards. ORV use, road closures, etc. to be delineated based on resource protection needs.

Fire suppression and prevention costs increased to protect the resources under heavy use levels.

g. High Dispersed Recreation (Management Emphasis 5 - Management Intensity 4)

1. Objective - this prescription is intended to provide opportunities for dispersed recreation in an undeveloped environment.

2. Criteria and Assumptions

May be assigned to any unroaded analysis area outside the NRA.

Low level recreation facilities permitted for user enjoyment and convenience.

No scheduled timber harvest permitted.

Vegetative manipulation permitted to create or maintain wildlife openings and for enhancement of recreation activities. Man-made openings for above purposes generally less than 20 acres.

Recreation opportunities will be in the Semi-Primitive Motorized to Primitive ROS classes.

No new road construction permitted - existing low standard roads closed or restored to natural conditions.

ORV use permitted on seasonal basis and where resource damage will be minimal. Motorized and non-motorized use areas delineated on a resource capability basis.

Fire commonly used as a management tool. Fire prescription to be based on prevention of conflagration and on protection of investment.

h. Developed Recreation (Management Emphasis 6 - Management Intensity 4)

1. Objective - this prescription is designed to enable the management of developed recreation and administrative sites for their designed uses and capacity.

2. Criteria and Assumptions

The prescription would only be applied to developed recreation sites and administrative sites.

No scheduled timber harvest allowed - individual tree removal and other treatments as needed to meet safety and design standards.

No commercial livestock use permitted. Administrative and recreation stock use limited to designated areas.

Manage sites at full service level.

Area to be withdrawn from mineral entry and from minerals leasing.

Transportation facilities designed, constructed, and maintained to meet site objectives. Traffic controls and gating used to aid administration.

Aggressive fire control to be used on all ignitions.

No scheduled timber harvest allowed - individual tree removal and other treatments as needed to meet safety and design standards.

No commercial livestock use permitted. Administrative and recreation stock use limited to designated areas.

Manage sites at full service level.

Area to be withdrawn from mineral entry and from minerals leasing.

Transportation facilities designed, constructed, and maintained to meet site objectives. Traffic controls and gating used to aid administration.

Aggressive fire control to be used on all ignitions.

i. Wilderness Moderate (Management Emphasis 7 - Management Intensity 3)

1. Objective - this prescription is designed to provide for the management, administration, and protection of roadless areas that were classified under the Wilderness Act of 1984.

2. Criteria and Assumptions

This prescription is assigned to those portions of analysis areas included in the High Uintas Wilderness, as

classified in the Utah Wilderness Act of 1984. Management would be under the direction of the Wilderness Act, FSM 2320, and the High Uintas Interim Management Plan. Area would be unavailable for timber harvest.

Livestock utilization of forage permitted.

Range improvements permitted for protection of the wilderness resource.

Wildlife habitat manipulation by natural means only (fire windthrow, etc.) Recreation opportunities will fall into Semi-Primitive and Primitive ROS classes.

No developed recreation sites allowed.

Only dead and down materials to be used for fuelwood in on-site use.

Entrance permits or other types of management tools may be necessary to prevent over-use of fragile sites. Visual quality objective to be met is preservation.

Establish fire management areas to allow some use of fire as a management tool to reduce fuel loading and to maintain or enhance the wilderness resource.

j. High Wilderness (Management Emphasis 7 - Management Intensity 4)

1. Objective - this prescription was originally designed to provide for the rehabilitation, protection, and management of existing heavy use (over-used) areas in the High Uintas Wilderness. In the numerous FORPLAN runs for both benchmarks and alternatives, this prescription never came into solution.

Assumptions and objectives same as for Wilderness - Moderate

2. Criteria and Assumptions

This prescription would be applied only to those analysis areas within the High Uintas Wilderness that have a history of past over-use and site deterioration. In the High Uintas this has occurred in limited areas, usually lake basins.

Other criteria and assumptions similar to i. above except that some facilities would be provided to protect the wilderness resource, trail construction would be used to disperse users, and administrative activities such as visitor contact would be expanded.

k. High Water Yield (Management Emphasis 8 - Management Intensity 4)

1. Objective - this prescription is designed to maximize water yield while protecting soil productivity and water quality.

2. Criteria and Assumptions:

Water yield augmentation methods for the Ashley will be limited to vegetative manipulation in timber analysis areas.

This prescription can be applied to analysis areas in Canyon, Platow, Soufac, and Alpine (Level 1) areas outside the NRA. Vegetative manipulation would be done by location, shape, size, and orientation of timber harvest units.

Increased forage (transitory range) created as a result of timber harvest to manipulate water yield may be available for livestock utilization.

Dispersed recreation opportunities generally in the Roaded Natural ROS class.

Manage dispersed recreation at reduced service levels.

Visual quality objectives will generally be reduced to modification or maximum modification due to harvesting activities.

Transportation system design standards and maintenance levels based on protection of water quality.

Use of fire as a management tool determined by water quality and soil protection needs and by the need to protect any investments in water monitoring and yield facilities.

1. Wildlife-Timber (Management Emphasis 9 - Management Intensity 3)

1. Objective - this prescription is designed to optimize wildlife habitat diversity while providing timber outputs at moderate levels.

2. Criteria and Assumptions

The prescription can be applied to timbered analysis areas throughout those portions of the Forest outside the NRA. Wildlife habitat diversity manipulation will generally be accomplished through timber harvesting activities.

Manage timber stands to retain at least 5% of the area in "old-growth" condition throughout the rotation.

Visual quality objectives will generally be met at inventoried levels but may be reduced if needed to meet the prescription objectives.

Fuels managed to reduce conflagration potential. Fire commonly used as a management tool

m. Riparian High (Management Emphasis 10 - Management Intensity 4)

1. Objective - this prescription is designed to protect, enhance or rehabilitate riparian areas.

2. Criteria and Assumption

The prescription can be assigned only to those analysis areas that are composed of riparian eco-types, outside the NRA.

This prescription builds onto the general riparian guidelines that are to be applied to all analysis areas.

No scheduled timber harvest, vegetative manipulation such as timber harvest only done to maintain or enhance riparian qualities.

Forage utilization by livestock but improvements may be needed to protect riparian qualities.

Non-structural improvements for both livestock and wildlife preferred over structural.

Developed recreation sites will generally be precluded unless special protection, design and construction practices are applied. Dispersed recreation opportunities may occur in all ROS classes. At least 80% of full service level recreation management will be necessary to protect the riparian qualities.

Road construction generally excluded; if roads are unavoidable, design and maintain to fully protect water quality, soil productivity, and riparian vegetation.

ORV use prohibited, except that seasonal use would be permitted when soil, water, and wildlife values would not be reduced. All activities to be designed to meet at least a rating of "good" for vegetation, "good" to "excellent" for soil condition, and "good" to excellent" for stream channel condition (Range Analysis Handbook and WRENNS Handbook).

Fire suppression shall be fast, thorough, with a minimum cost consistent with land management objectives and with regard for public and firefighter safety.

n. Existing Low (Management Emphasis 11 - Management Intensity 2)

1. Objective - this prescription is designed to depict the current management direction contained in unit plans and multiple-use plans.

2. Criteria and Assumptions

The prescription is applicable to all analysis areas throughout the Forest.

Commodity production modified for amenity protection.

On timber analysis areas, traditional tractor/skidder logging methods used for all harvesting. Timber cultural practices only applied on small percentage of harvested acres. Natural regeneration depended on for all regeneration.

Wildlife habitat diversity would remain stable. Some vegetative manipulation and structural improvements on a low investment level basis.

Developed recreation use is high with management at less than full service level over most of the Forest.

Dispersed recreation use is high with management at less than 50% of full service level.

Recreation opportunities fall into all ROS classes.

Aggressive fire suppression action is taken on all ignitions.

o. Special Area (Management Emphasis 12 - Management Intensity 4)

Note: Research Natural Areas are in prescription a. This prescription did not come into solution.

1. Objective - this prescription is intended to provide management direction for those areas identified for special management such as the Sheep Creek Geological Area, Research Natural Areas, Wild and Scenic Rivers, etc.

2. Criteria and Assumptions:

This prescription would be applied only to analysis areas within the identified "special" areas.

Detailed management direction would be developed on a site specific basis.

Timber harvest usually precluded but may be used on limited basis to meet site specific needs.

Livestock use may be precluded or limited for protection of the unique characteristics of the specific area.

Area may be withdrawn from mineral entry or may require site specific stipulations for area protection.

Fire management prescriptions developed to meet area objectives.

p. NRA Timber (Management Emphasis 13 - Management Intensity 4)

1. Objective - this prescription is designed to optimize timber production from the NRA while meeting the intent and direction of the classification act (PL90-540).

2. Criteria and Assumptions

This prescription may be applied to any analysis areas within the NRA that are identified as tentatively suitable for timber production.

Timber stands will generally be managed on an uneven-aged basis. This is interpreted to mean that "stands" will generally contain two or more age classes of trees. This age spread may be attained by harvesting in small units as opposed to single tree removal.

Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal. Transitory range created as a result of timber harvesting will generally be assigned to wildlife use.

Livestock utilization will be permitted when wildlife needs have been met.

Dispersed recreation opportunities will be in the Roded Natural ROS class. Use will continue at high levels. Recreation activities will be managed at full service levels.

Minerals activities permitted in compliance with Public Law 90-540. Use stipulations for minerals activities will be applied as needed to protect the recreation resource and aesthetics.

Local roads will be closed after use and arterial/collector roads may be closed seasonally to protect facilities and resource quality.

Fire may be used as a management tool. Prescriptions based on protection of VQO and facilities.

- q. NRA Forage (Management Emphasis 14 - Management Intensity 4)
1. Objective - this prescription is designed to manage forage producing areas within the NRA.
 2. Criteria and Assumptions
- The prescription may be applied to those analysis areas with forage production capability within the NRA.
- On timbered analysis areas assigned to this prescription, transitory forage increases resulting from harvest activity may be assigned to livestock utilization.
- Range and wildlife improvements permitted if compatible with dispersed recreation needs and aesthetics.
- Minerals, transportation systems, and fire management assumptions would be same basis as in p. above.
- Most other assumptions and criteria would be similar to those contained in p. above.
- r. NRA Wildlife (Management Emphasis 15 - Management Intensity 4)
1. Objective - this prescription is designed to maintain or increase wildlife species diversity and numbers while meeting the direction for protection of recreation and visual resources as noted in Public Law 90-540.
 2. Criteria and Assumptions
- The prescription may be applied to those analysis areas identified as having special or critical wildlife habitat capabilities.
- On timbered analysis areas transitory forage increases resulting from harvest activities would be assigned for wildlife use. Livestock utilization may be curtailed or precluded to enhance or maintain the wildlife resources. Habitat improvements common, both structural and non-structural.
- ORV travel restrictions may be used to protect wildlife.
- Fire commonly used as a management tool, fire prescriptions based on wildlife needs modified to meet VQO and recreation criteria.
- Other criteria and assumptions would be similar to those noted in prescription p. above.
- s. NRA Recreation (Management Emphasis 16 - Management Intensity 4)

1. Objective - this prescription is intended to emphasize the opportunities for water oriented recreation within the NRA.

2. Criteria and Assumptions

The prescription would be applied to those analysis areas adjacent to the Flaming Gorge Reservoir and the Green River. Commodity production activities precluded. Vegetative manipulation would be done only to enhance or maintain VQO and recreation opportunities.

Wildlife improvements permitted only if compatible with the recreation and visual resources.

Developed recreation sites common and site modification may be extensive.

Manage recreation at full service level.

Area is generally withdrawn from mineral entry and leasing. No surface occupancy stipulated in areas not withdrawn. Fire suppression shall be fast, thorough, with a minimum cost consistent with land management objectives and with regard for the public and firefighter safety.

More detailed descriptions of each of the above prescriptions may be found in the Analysis of the Management Situation on file at the Ashley National Forest Supervisor's Office and in the Forest Plan

3. Cost Efficiency of Prescriptions:

Each of the above prescriptions was developed into a FORPLAN prescription by developing scheduling and output level tables to fit the standards and guidelines. Costs and benefits of producing the schedule outputs were also based on the standards and guidelines for the prescription. The total FORPLAN prescription was allowed to come into solution in the benchmark and alternative runs against an objective function of maximizing present net worth.

4. The following table displays a comparison of selected standards for each of the above prescriptions:

TABLE B-2

MANAGEMENT PRESCRIPTION COMPARISON

Prescription	Recreation		VQO	Harvest System	Timber		Max. Opening
	ROS Class	Service Level			PCT Entries	CT Entries	
a. Minimum Level	All	Reduced	As Inventoried	None	NA	NA	NA
b. Moderate Timber	RN	Full	M-MM	Clearcut	1	1+	40 a
c. High Timber	RN	Full	MM	Clearcut	2+	2+	40 a
d. High Range	RN	Full	Variable	Clearcut	1	1+	60 a
e. High Wildlife	Usually RN	Full	Variable	Clearcut	1	1+	20 a
f. Moderate Dispersed Recreation	RN	Full	As Inventoried	Clearcut	1	1+	40 a
g. High Dispersed Recreation	SPM-P	Full	As Inventoried	None	NA	NA	NA
h. Developed Recreation	Rural	Full	As Inventoried	None	NA	NA	NA
i. Wilderness Moderate	SP-P	Full	Preservation	None	NA	NA	NA
j. High Wilderness	SP-P	Full	Preservation	None	NA	NA	NA
k. High Water Yield	RN	Reduced	M-MM	Clearcut	1	1+	Variable
l. Wildlife - Timber	RN	Full	As Inventoried	Clearcut	1	1+	40 a
m. Riparian High	All	Reduced	As Inventoried	None	NA	NA	NA
n. Existing Low	All	Reduced	As Inventoried	Clearcut	0	0	40 a
o. Special Area	All	Full	As Inventoried	Usually Excluded	NA	NA	NA
p. NRA Timber	RN	Full	As Inventoried	Uneven Age	1	1	Variable
q. NRA Forage	RN	Full	As Inventoried	Uneven age	1	1	Variable
r. NRA Wildlife	RN	Full	As Inventoried	Uneven Age	1	1	Variable
s. NRA Recreation	RN	Full	As Inventoried	Excluded	NA	NA	NA

TABLE B-2 CONTINUED

Prescription	Range Livestock Use	Improvement	Forage Increase (Transitory)	Wildlife Improvements	Road Closures	Fire Mgmt Strategy
a. Minimum Level	Tribal Only	None	NA	None	Yes	Suppression
b. Moderate Timber	Yes	Permitted	Livestock	Permitted	A/C Seasonal- Local Yes	Suppression
c. High Timber	Yes	Permitted	Livestock	Permitted	A/C Seasonal- Local Yes	Suppression
d. High Range	Yes	Yes	Livestock	Permitted	Seasonal for resource prot.	Prescription may allow containment
e. High Wildlife	Permitted	Permitted	Wildlife	Yes	Common during stress periods	Prescription may allow containment
f. Moderate Dispersed Recreation	Permitted	Permitted	Wildlife	Yes	Seasonal	Usually suppression
g. High Dispersed Recreation	Permitted	Permitted	Wildlife	Yes	No roads	Prescription may allow confinement
h. Developed Recreation	None	None	NA	Permitted	Administration Tool	Suppression
i. Wilderness Moderate	Permitted	Permitted	NA	Permitted	No roads	Prescription may allow confinement
j. High Wilderness	None	NA	NA	Permitted	No roads	Suppression for man-caused
k. High Water Yield	Yes	Permitted	Livestock	Permitted	For resource pro- tection	Suppression
l. Wildlife - Timber	Permitted	Permitted	Wildlife	Yes	Common during stress periods	Usually suppression
m. Riparian High	Permitted	Permitted	Wildlife	Yes	Exclude roads or special design	Suppression
n. Existing Low	Permitted	Permitted	Wildlife	Permitted	For resource pro- tection	Suppression
o. Special Area	Usually excluded		NA	Permitted	Site specific standard	Site specific prescription
p. NRA Timber	Permitted	Permitted	Wildlife	Permitted	A/C seasonal - Local Yes	Usually suppression
q. NRA Forage	Yes	Permitted	Livestock	Permitted	A/C seasonal - Local Yes	Usually suppression
r. NRA Wildlife	Permitted	Permitted	Wildlife	Yes	A/C seasonal - Local Yes	Usually suppression
s. NRA Recreation	None	None	NA	Permitted	Administrative tool	Suppression

Note: The term "permitted" as used in the above table means the activity is permitted if it does not conflict with the major objective of the prescriptions.

E. Development of Timber Harvest Prescriptions

Timber management options and accompanying yield tables were developed in several stages. These are listed below with a more detailed description of the process to be found in the Analysis of the Management Situation (AMS) on file at the Ashley National Forest Supervisor's Office.

Stage 1: Existing yield tables were based on data contained in the 1972 inventory and 1978 Timber Management Plan for the Ashley. Commercial timber species were divided into four working groups.

1. Lodgepole - Englemann spruce - sub-alpine fir.
2. Ponderosa pine
3. Douglas fir
4. Aspen

Data was not available for site index mapping so a generalized break-down of site productivity was based on the criteria that site index 50 would generally be found at the elevational extremes; commercial forest lands below the 8,000 foot elevation and above 10,000 feet. The mid-elevation lands between the 8,000 and 10,000 foot elevations were assigned site class 60.

Empirical data is lacking in aspen so yields were based on professional judgement.

The result of Stage 1 was a set of existing yield tables as follows:

LPESAF - Site Class 50 poles
LPESAF - Site Class 50 mature size classes
LPESAF - Site Class 60 poles
LPESAF - Site Class 60 mature size classes
PP - Site Class 50 poles
PP - Site Class 50 - mature size classes
PP - Site Class 60 - poles
PP - Site Class 60 - mature size classes
DF - Site Class 50 - poles
DF - Site Class 50 - mature size classes
Aspen - All-mature

Stage 2: Yield tables for regenerated stands were developed as follows:

LPESAF and PP yields are based on the RMYLD model (Edminster, 1978) calibrated to Ashley National Forest conditions by use of existing stand data and on professional judgement. After calibration, numerous runs (approximately 300 for lodgepole and ponderosa pine) were made to test the validity of the model for application to local timber stands and to develop a wide range of possible silvicultural regimes for wood fiber production and cost.

RMYLD model results were adjusted from gross to net volumes with a total estimated defect of 13% for intermediate harvests and 20% for regeneration harvests.

Yields were also reduced 15% for non-stockable areas based on "Yield Difference Between Research Plots and Managed Forests", David Bruce, Journal of Forestry, January 1977.

Douglas fir regenerated stand yield tables were based on Prognosis model results obtained by Wasatch-Cache National Forest personnel using data furnished by the Ashley National Forest. After calibration to Ashley National Forest base data, runs were made using silvicultural prescriptions which had given the Wasatch results depicting maximum PNW, maximum cubic foot volume, and maximum board foot volume.

Neither of the the above models handles aspen and, as noted earlier, empirical growth data is lacking so regenerated stands were assumed to represent existing stands. Data for existing stands were obtained from 1972 inventory summaries for the 80-100 year age class.

Stage 3: The RMYLD model runs for LP, ESAF, and PP were evaluated with an economic screening to select the best combination of fiber production and economic efficiency. Results were the inclusion of a yield table maximizing wood fiber production which required several intermediate entries; a yield table that was most economically efficient and had no intermediate entries; and a yield table that reduced the economic efficiency but increased yields over empirical levels.

Results were three regenerated yield tables for each site class in each species grouping except aspen which, had the single yield table.

F. Development of Yield Tables and Coefficients

The process used to develop yield coefficients has been described in Section IIA3 and in III E above.

IV. ECONOMIC EFFICIENCY ANALYSIS

A. Process and Reliability

In recent years, the Federal Government has become increasingly aware of and committed to the economic efficiency of Federal actions. The NFMA regulations (36 CFR 219) and ensuing Washington Office (WO) and Department of Agriculture direction reflect that the Forest Service should consider economic efficiency in developing and choosing between Forest Plan alternatives.

The NFMA regulations specify that "each alternative shall represent to the extent practicable the most cost-efficient combination of management prescriptions examined that can meet the objectives established in the alternatives." (36 CFR 219.12 (F)(8)). An alternative or program is said to be cost efficient if it maximizes present net value subject to achieving specified levels of outputs and inputs. (36 CFR 219.3).

Present Net Value (PNV) is a means for measuring economic efficiency used in Forest Planning. It represents the dollar difference between the discounted value of priced outputs and costs within the FORPLAN model.

In complying with the above mentioned regulations, this Forest has used the following procedure:

Maximizing PNV in FORPLAN. This will provide the levels of priced outputs in FORPLAN at an "efficient" point, given the objectives of the alternative as reflected in the model.

Using PNV as one criteria for choosing prescriptions or activities not incorporated in the FORPLAN model (but which have an established benefit value); e.g., campground development, wildlife and fish projects, etc.

Using "least cost" as one criteria in choosing prescriptions or activities incorporated in the FORPLAN model which do not have an established benefit model.

It should be noted that the Present Net Value (PNV) which is calculated by FORPLAN is but one of a variety of factors used to describe a benchmark or alternative. It is not possible to include all costs and benefits in the calculation of PNV for an alternative. The reason for this is due to uncertainty related to such problems as:

1. Not all outputs are explicitly valued; e.g., visual quality, protection of threatened and endangered species, etc. These outputs are often constrained to a specified level and are therefore achieved independent of the PNV calculation.
2. Estimation techniques for valuing goods may not be accurate.
3. Values for non market goods provided by RPA often reflect national averages which may differ significantly with local values.
4. Quality differences between priced non market outputs typically are not valued explicitly; e.g., congestion differentials are often not considered for recreation.
5. Demand curves for priced outputs may not be identified at the Forest level.

Due to these uncertainties surrounding the calculation of PNV, it should be cautioned that this criteria shouldn't be weighted too heavily in the comparison of alternatives. Still the discounted benefits and costs can be used to make comparisons between alternatives.

1. Pricing Estimated in FORPLAN

All priced benefits were estimated for all benchmarks and alternatives covering a 150 year time period. Resource benefit values in the FORPLAN model are expressed in first quarter 1978 dollars.

Once benefits, costs and PNV are calculated, the GNP implicit price deflator index is used to inflate these figures to first quarter, 1982 dollars.

Resource prices used in the FORPLAN data base reflect onsite values for all resources, i.e., the value of the resource on the Forest. Benefit values are classified as market values (timber range, and developed recreation) or non market values, dispersed recreation, increased water yield, fuelwood, and wildlife forage. All resource values are assumed to have a horizontal demand curve except for recreation. Below are the values for resources incorporated into the FORPLAN model and a brief summary of their development.

a. Timber Benefits

1. Sawtimber Values

Sawtimber values were developed to reflect the market value for the final product minus the production costs from the stump on the Forest to the final product.

The procedure in developing these values involved three distinct steps. In step one, historical sale data was used to estimate prices and costs by species group. Sale data from the Wasatch National Forest and this Forest were combined to enable more statistically consistent estimates to be made. A linear regression analysis was used to estimate stumpage value as a function of average diameter, haul time, selling price (LT), harvest methods and other related variables. Average values of the explanatory variable are substituted into the regression equation giving a final equation:

$$Y_i = -33.46 + .25 P_i$$

Y_i = Stumpage value of species i

P_i = Average selling price of the final product of species i

With this equation, production costs were obtained by subtracting the stumpage value from the selling price. This is displayed below.

Species	Selling Price		Stumpage Value		Production Costs	
	\$ / MBF	<u>A/</u>	\$ / MBF	<u>B/</u>	\$ / MBF	<u>C/</u>
LP	265		32.79		232.21	
ES	272		34.54		237.46	
AF	265		32.79		232.21	
PP	308		43.54		264.46	
DF	300		41.54		258.46	

A/ Average historical sale price, final product
B/ Predicted stumpage value from regression equation
C/ Selling price minus stumpage value.

Step two involved developing weighted averages for each working group in the FORPLAN model so that prices and costs for each group reflect actual species composition. This is displayed below:

Work Group	Selling Price \$ / MBF	Production Cost \$ / MBF
LPESAF	266.40	233.26
Ponderosa	308.00	264.46
Douglas Fir	300.00	258.46

Also in this step, weighed average board foot to cubic foot conversions were performed to allow for this data to be used in the FORPLAN model. Information on the procedures used for this conversion can be obtained in planning records.

Step three completes the price and cost calculations for the sawtimber products. Selling prices and production costs are converted to prices and costs per thousand cubic feet (MCF) units. The conversion is done for two harvesting methods: tractor logging and cable logging. The prices and costs for each logging method is displayed in Table B-3. The sawtimber values are the same for the two harvesting methods.

TABLE B-3

SAWTIMBER VALUES AND COST USED IN FORPLAN
(1978\$/MCF)

Diameter Class	Working Group								
	LPESAF			PONDEROSA			DOUGLAS FIR		
	Tractor	Cable		Tractor	Cable		Tractor	Cable	
	Value	Cost1/ Cost2/		Value	Cost1/ Cost2/		Value	Cost1/ Cost2/	
7	660.67	578.48	712.40	308.00	264.46	318.46	813.00	700.43	846.77
8	727.27	636.80	784.22	308.00	264.46	318.46	936.00	806.40	974.88
9	828.50	725.44	893.38	428.12	367.60	422.66	1137.00	979.56	1184.22
10	935.06	818.74	1008.28	548.24	470.74	566.86	1338.00	1152.73	1393.57
11	1118.88	979.69	1206.49	794.64	682.31	821.63	1596.00	1375.01	1662.29
12	1228.10	1075.33	1327.51	1041.04	893.87	1076.39	1851.00	1594.70	1927.88
13	1225.44	1073.00	1321.40	1155.00	991.73	1194.23	1842.00	1586.94	1918.50
14	1222.78	1070.66	1318.52	1265.88	1086.93	1308.87	1830.00	1576.61	1906.01
15	1217.45	1066.00	1312.78	1305.92	1121.31	1350.27	1830.00	1576.61	1906.01
16	1214.78	1063.67	1309.91	1349.04	1158.33	1394.85	1830.00	1576.61	1906.01
17	1209.46	1059.00	1304.16	1370.60	1176.85	1417.15	1806.00	1555.93	1881.01
18	1204.13	1054.34	1298.42	1419.88	1219.16	1468.10	1782.00	1535.25	1856.01
19	1201.46	1052.00	1295.54	1441.44	1237.67	1490.39	1776.00	1530.08	1849.76
20	1198.80	1049.67	1292.67	1463.00	1256.19	1512.69	1770.00	1524.91	1843.51
21	1190.81	1042.67	1284.05	1469.16	1261.47	1519.05	1765.00	1511.91	1827.89
22	1182.82	1035.67	1275.43	1475.32	1266.76	1525.42	1737.00	1496.48	1809.14
23	1177.49	1031.01	1269.69	1493.90	1282.63	1544.53	1719.00	1480.98	1790.40
24	1174.82	1028.68	1266.82	1515.36	1301.14	1566.82	1701.00	1465.47	1771.65

^{1/} Applies to commercial forest land analysis areas in 1, 4 and 6 of Level 1 (FORPLAN Model)

^{2/} Applies to commercial forest land analysis areas in 2, 3 and 5 of Level 1 (FORPLAN Model)

b. Other Roundwood Products and Fuelwood

Trees 3"-5" dbh = \$0.20/tree
 Trees 5"-7" dbh = \$0.50/tree
 Fuelwood \$2.50/cord

Demand for these products is directly related to accessibility and in those analysis areas which are not expected to be roaded for sometime, poles and other roundwood products will be assumed to be in excess of demand.

Due to poor sale data of such products, private costs of production are not known. Therefore, actual received stumpage prices are used and assumed to be the net benefit for these products.

Fuelwood will be offered for personal use at \$2.50 a cord actual price received. Commercial fuelwood sales will be offered on a bid basis.

c. Range Benefits

Production of livestock forage on the Ashley National Forest is assumed to have no significant effect on the price of a unit of grazing and it is also assumed that all grazing produced on the Ashley will be purchased. The value of livestock forage per AUM is \$10.17 which was converted to \$13.04 per MLBS of forage. This value is assumed constant over the planning period.

d. Water Benefits

The value for increased water yield used in the FORPLAN model is \$5.00/acre foot. This value is derived from the RPA 1980 Assessment. This benefit value is based on the assumption that it is equal to the marginal utility of the last increment of water in the lowest consumptive use which is irrigation.

The \$5.00 per acre foot value for water has recently been modified to more nearly reflect actual water values. Benefits for increased water yield have been adjusted in this statement to reflect more realistic values. The adjusted value is \$58.38 per acre foot, which is applied only to those acre feet increases over background water yield.

e. Recreation Benefits

In FORPLAN, there are three areas for which recreation benefit values must be developed. The first area is Flaming Gorge NRA. It is divided into a roaded portion (Roaded Natural - RN) and an unroaded portion (Semi-Primitive Non Motorized - SPNM). The second area is the proposed wilderness area which is classified as unroaded. The last area is the balance of the Forest which has not been allocated to the previously mentioned areas. The Balance of the Forest (BOF) area is divided into roaded (RN) and unroaded (Semi-Primitive Motorized - SPM and Non Motorized - SPNM).

The general procedure for computing benefit values for RVD's is to use historical data covering a five year period (1976-1980) to estimate the proportion of RVD's in each area attributable to each recreational activity. This proportion is then multiplied by the RPA benefit value per RVD of that recreational activity. Summing these values gives a total \$/RVD value for that area. Below are the tables which display the benefit values developed for each area.

TABLE B-4
BENEFIT VALUES FOR FGNRA AREA - SPNM AND RN ROS CLASSES

1 Recreation Activities	2 MRVD's (1976-80)		3 Weights		4 1980 RPA \$/RVD	5 Rec. Value (\$/RVD)		
	FGNRA	SPNM	RN	SPNM		RN	SPNM	RN
Fishing	377.4	0	377.4	0	.105	17.85	0	1.87
Big Game	32.0	1.0	31.0	.028	.009	25.20	.71	.23
Small Game	6.6	.2	6.4	.006	.002	26.80	.16	.05
Upland Birds	6.6	.2	6.4	.006	.002	27.20	.16	.05
Waterfowl	6.1	.2	5.9	.005	.002	32.00	.16	.06
Nonconsumptive Wildlife	3.4	.1	3.3	.003	.001	29.00	.09	.03
Developed Recreation	2102.6	0	2102.6	0	.587	3.00	0	1.76
Other Rec.	1081.9	34.5	1047.4	.952	.293	3.00	2.86	.88
TOTAL	3616.6	36.2	3580.4	1.000	1.000		\$4.13	\$4.93

Column 2 Consists of total MRVD's in FGNRA and RVD's allocated to each ROS class

Column 3 Consist of the proportion of each activity comprising total recreation in the SPNM and RN class of the FGNRA. They are derived by dividing the RVD's of each Rec. activity by total RVD's for each ROS class. Example: Big Game Weight = 1.0 MRVD ÷ 36.2 MRVDs = .028

Column 5 Gives the weighted recreation value for each ROS class

TABLE B-5
BENEFIT VALUES FOR WILDERNESS

1 Recreation Activities	2 MRVD's (1976-80)	3 Weights	4 1980 RPA \$/RVD	5 Rec. Value \$/RVD
Fishing	173.1	.160	17.85	2.86
Big Game	35.8	.033	25.20	.83
Small Game	1.4	.001	26.80	.03
Nonconsumptive Wildlife	31.3	.129	29.00	.84
Wilderness	842.7	.777	8.00	6.22
TOTAL	1084.3	1.000		\$10.78

Column 3 figures were developed by same method as above table

TABLE B-6
BENEFIT VALUES FOR BALANCE OF FOREST - SPNM, SPM, RN ROS CLASSES

1 Recreation Activities	2 MRVD's			3 Weights		4	5	
	Total	SPM	SPNM	RN	SPM&NM	RN	1980 RPA \$/RVD	Rec. Value (\$/RVD) SPM&SPNM
Fishing	220.1	127.8	92.3	.203	.050	17.85	3.62	.90
Big Game	259.5	151.1	108.4	.240	.059	25.20	6.05	1.49
Small Game	5.9	3.1	2.8	.005	.002	26.80	.13	.05
Upland Birds	9.8	5.7	4.1	.009	.002	27.20	.24	.05
Waterfowl	5.2	3.1	2.1	.005	.001	32.00	.16	.03
Nonconsumptive Wildlife	11.5	6.9	4.6	.011	.003	29.00	.32	.08
Developed Recreation	1387.0	0	1387.0	0	.758	3.00	0	2.27
Other	570.5	331.9	238.6	.527	.138	3.00	1.58	.39
TOTAL	2469.5	629.7	1839.9	1.000	1.000		\$12.10	\$5.26

Column 3 figures were developed from same methodology as in Table B-4.

TABLE B-7
SUMMARY OF RECREATION BENEFIT VALUES

Area	Weighted Value \$/RVD	RVD/Acres	\$/Acre
FGNRA - RN	4.93	4.3	21.20
FGNRA - SPNM	4.13	1.4	5.78
Wilderness	10.78	.8	8.62
Balance of Forest - RN	5.26	.7	3.68
Balance of Forest SPM and SPNM	12.10	.4	4.84

f. Wildlife Forage Benefits

In the production of forage on this Forest there are basically two benefits. One is the benefit received from livestock use and the other benefit is assumed to be from wildlife use. The benefit value for wildlife forage is derived from the net value for livestock forage which is \$8.19. The total value for wildlife forage is estimated to be \$8.80.

The use of net livestock forage value as a net wildlife forage value is based on the assumption that since we are willing to assign forage to wildlife use, it has at least a value equal to what it could be "sold" for as livestock forage.

B. Cost Estimates Used in FORPLAN

All costs were estimated for the 150 year planning period for all benchmarks and alternatives. This section discusses how costs were developed and used in the FORPLAN model.

1. Cost Development Process

Costs were developed by Forest personnel in conjunction with developing standards and guidelines for management prescriptions. The costs were based on historic data and professional judgement, and approximate the minimum funds needed to achieve the standards and guidelines in the management prescriptions. Cost data were used in developing feasible and cost-efficient prescriptions.

Costs dependent on land allocation and timber harvest schedule were modeled in FORPLAN by entering them in the economic tables. By setting the FORPLAN objective function to maximize PNV, the cost-efficient level of agency expenditures for each allocation was estimated for 150 years. The only cost estimate not included in the FORPLAN model dealt with fixed costs.

2. Cost Categories

Fixed Forest Service costs are the minimum expenditures necessary to ensure public safety, service, and environmental protection. These costs were developed from past budget data, discounted over 150 years using INVEST III program and then added to the FORPLAN discounted costs under 4% and 7% rates. The fixed costs estimates do not significantly vary between alternatives and do not affect land management decisions.

Variable costs vary with the controlled output level specified in each benchmark or alternative. They include capital investments (the costs of creating or enhancing capital assets over time), planning and inventory, and operations costs (including annual costs of administration, management, and protection of existing resources and capital assets). Variable costs include the costs necessary to meet minimum management requirements which are in the standards and guidelines of planned activities.

3. Cost Increases

None of the basic unit costs are expected to increase above inflation over time. However, the average unit costs of many activities will increase through time as more expensive management activities are scheduled. For example, the average road construction cost increases in the first few decades as the more rugged land classes are accessed.

4. FORPLAN Cost Data by Resource

Costs are associated with each resource output for timber, range, recreation, wildlife forage, water and fuelwood.

Calculating present net value by individual resource may be misleading because the costs include expenditures required to produce, enhance, or mitigate more than one resource. For example, forage improvement costs contain some costs that are attributed to wildlife management. These costs are included under the livestock forage category. Thus, the costs by resource output do not always have a direct relationship with the benefits by resource.

Below, costs are displayed for each resource in Table B-8. For the timber resource there is a more detailed display of costs and benefits which were included into the FORPLAN model in Table B-3.

TABLE B-8

FORPLAN COST DATA BY RESOURCE	
Resource Output	Cost/Unit (1978 \$)
Timber	
Road Costs	133 - 200/AC
Site Prep	31 - 67/AC
Cultural Treatment	
Nonstocked	175/AC
Other	112 - 127/AC
Sale Prep	
Existing	2.42-79.00/MCF
Regeneration	2.42-79.00/MCF
Logging (includes local roads)	
Existing	318 -1918/MCF
Regeneration	264 -1918/MCF
Fuelwood	2.42/MCF
Wildlife Forage	.61/MLBS
Wildlife Investments	9/AC
Recreation	
General	.26-1.70/RVD/YR
Maintenance, Construction and Investments	0 - 968 M/YR
Range (Livestock Forage)	
Allotment Management	4.85/MLBS
Forage Improvement	9-50/AC
Water (sediment monitoring costs included)	.19/AC FT

C. Demand Assumptions

Demand for all resources except recreation were considered to be constantly elastic in order to develop the FORPLAN model. This assumes that price does not vary with changes in output levels (horizontal demand curve). The only downward sloping demand curve was used for recreation and wildlife/fish user days. The methodology used to estimate the demand curves is one where price is assumed to be constant up to the projected use level and zero for output levels beyond. Recreation production (RVD and WFUD) in the FORPLAN model was constrained to projected use levels which were tied to population growth rates in the states of Utah and Wyoming.

D. Trend Assumptions

It is assumed for this analysis that real prices and costs remain constant over the planning period. Inflation was not included in the discount rates, benefits, and costs due to the difficulty of estimating future inflation rates and because inflation would equally affect both costs and prices.

E. Interest Rate (Discounting) Assumptions

Two discount rates representing the cost of money over time were used in the FORPLAN model. For evaluation of long term investments in land and resource management, a 4 percent real discount rate is used. A 7-1/8 percent rate, which is consistent with the 1980 RPA, is used on all benchmarks and alternatives. This was done to determine the sensitivity of alternatives, particularly the preferred alternative to variations in the discount rate.

V. SOCIO-ECONOMIC IMPACT ANALYSIS

A. Introduction

Forest Service land management activities affect local, regional, and national economies in two ways. First, the Forest Service purchases goods and services from the local or regional economy in order to conduct National Forest management activities. In turn, the flow of forest resource outputs from these management activities influence market transactions at the local, regional, and national levels. This relationship between the Forest and local or regional economies affects employment, income, and state and local government revenues. These economic impacts further affect the social well being of people in the impact area.

The Forest Service has been directed by Congress to estimate the social effects of different Forest management alternatives under NFMA (36 CFR 219.5(g)) and NEPA (40 CFR 1508.14).

This analysis using a regional input/output model will estimate changes in employment, income, and population brought on by different forest management alternatives. The analysis will also look into whether these

economic changes affect social variables such as lifestyles, attitudes, beliefs, and values, social organizations and population and land use within the impact area.

Determination of Impact Area (ZOI)

It was determined from the Socio-Economic Overview in the Forest's AMS document what the primary Zone of Influence would be for the Ashley National Forest. This Zone of Influence (ZOI) consists of Daggett, Duchesne, and Uintah Counties in Utah and Sweetwater County in Wyoming. This four county area was designated as the Primary Zone of Influence not just because the location of the National Forest lies within these county boundaries but also because they would receive the direct impacts from National Forest management activities and outputs. There are two other reasons for this delineation of the impact area (ZOI). One was to make the IMPLAN (Input/Output) models as simple as possible without sacrificing the quality of the analysis. Second, most of the Ashley National Forest is contained within these four counties.

Up until the 1950's, the local economies for Uintah and Duchesne Counties were based on farming and livestock grazing. Since that time there has been a vast expansion in population due to the increased activity in energy development and the construction of the Central Utah Project. The major population centers in Uintah County are Vernal, Maeser, Jensen, Naples and Ashley Valley. For Duchesne County, the population centers are Roosevelt, Duchesne, Ft. Duchesne, Altamont and Myton.

Sweetwater County, Wyoming, has undergone change similar to Uintah County. Initially, the area had a strong agricultural economy until the establishment of the transcontinental railroad. This increased the population and economic activity. After the 1950's the area grew significantly due to mineral and energy development.

Daggett County is mostly rural and sparsely populated. There is little evidence that this would change, due to a lack of industrial development in the area.

B. Economic Impact Model

1. Introduction:

An input/output economic model (IMPLAN) was developed and used in response to several of the 36 CFR 219 regulations dealing with socio-economic impact analysis.

IMPLAN uses economic input/output analysis to develop interindustry models that assist in estimation of local or regional impacts from various land management programs.

Economic input/output (I/O) analysis is widely accepted as a procedure for describing the structural interdependencies of regional economies or impact areas. It also serves as a short term

predictive model for evaluating the effects of shifts in exogenous demand (changes in Forest outputs and activities) on regional or local economies.

I/O analysis is based upon the interdependence of production and consumption sectors in the impact area. Industries must purchase imports from other industries, as well as primary sources like natural resources, for use in the production of outputs which are sold either to other industries or to final consumers. These flows of inputs and outputs are traced to show linkages between the industries composing a regional or local economy. An input/output matrix describing these linkages can be transformed into a system of simultaneous equations which permits the prediction of economic effects that would result from a change in exogenous demand (Forest outputs or activities). The use of these simultaneous equations can indicate changes in employment, income, and population in the impact area.

Input/Output analysis is based on a number of assumptions that limit the accuracy of projections. Therefore, the numbers presented are relative indicators rather than absolute projections.

2. IMPLAN Data Base

The data base for the IMPLAN model consists of two major parts: 1) a national level technology matrix and 2) estimates of sectorial (466 sectors) activity for final demand, final payments, gross output, and employment on a county by county basis.

The national technology matrix denotes sectorial production functions which are used to estimate local purchases and sales. This matrix is based on a 1972 Commerce Department I10 model converted to an industry by industry basis and updated to 1977 by relative price changes and RAS procedure.

1977 estimates of the 466 industrial sectors on a state and county level was developed by Engineering Economics Associates of Berkeley, California.

By using the national technology matrix and the estimates of sectorial activities on a county by county basis, more localized production functions are developed to estimate local purchases and sales.

3. Impact Area Models Derived from IMPLAN

For the purpose of performing the economic impact analysis on the identified Primary Zone of Influence (ZOI), it was necessary to develop three sub models from the IMPLAN model. This would allow for localized projections of employment, income and population brought on by changes in Forest outputs and activities (final demand).

The first sub-model (ASH) was developed for Daggett County, Utah. It was felt that this county's economy was more dependent upon the Forest's outputs, particularly recreation, due to the presence of a National Recreation Area. By constructing a separate model for this county, it was believed that this hypothesis would be proven.

It was not necessary to modify the data within the REGION and ALTER programs nor aggregate industries in the SMASH program for this sub model.

The second sub model (M04) was constructed for Sweetwater County, Wyoming. It was believed that because this county's economy is so diversified, changes in the Forest's output and activities would not significantly impact the area. Also, it was felt that if this county were combined with the Daggett model, the results of the analysis would be distorted. For this sub model, it was necessary to aggregate some similar industrial sectors in order that there be a clearer understanding of impacts on the local economy. The SMASH program for IMPLAN aggregated seventy-eight industrial sectors to fifty-five. Data within the REGION or ALTER programs were not modified for this sub model.

The third sub model (M03) was constructed for Duchesne and Uintah Counties, Utah. There were two reasons why this was done. One was to make the IMPLAN sub models as simple as possible without sacrificing the quality of the analysis. Second most of the Forest is contained within these two counties. It was believed that changes in the Forest's outputs would not significantly impact the local economy. The SMASH program was used for this sub model to aggregate seventy-five industrial sectors into fifty. The data from the REGION and ALTER programs were not modified for this sub model.

C. Final Demand Expenditures

The I/O model translates Forest outputs and activities into employment and income impacts. An intermediate step is the translation of outputs into final demand dollars. Final demand expenditures represent consumer's willingness to pay for finished goods derived from Forest outputs. Final demand expenditure data were estimated for those industrial sectors which would be directly affected by a change in a Forest output or activity.

For the IMPLAN sub models, expenditure data were developed for five outputs produced on this Forest. These outputs are Forage, Timber, Developed Recreation, Dispersed Recreation, and Forest Service expenditures. The final demand expenditures are based on dollars per unit of Forest output which are linked to those industrial sectors where the direct expenditure takes place. Information on the development of final demand expenditures is contained in planning records.

1. Estimated Impacts on the Primary Zone of Influence

Table B-9 displays the overall impacts on population, employment, income, and state and local expenditures and revenues. For Alternatives B thru I and the two benchmarks, the IMPLAN estimates are based on the difference in Forest outputs from Alternative A - Current Management. For Alternative A, the estimates are based on differences from outputs in 1977. This procedure allows for the comparison of alternatives to the Current Management for the first decade.

TABLE B-9
 PROJECTED POPULATION, EMPLOYMENT, INCOME, AND STATE AND LOCAL GOVERNMENT
 EXPENDITURES IMPACTS WITHIN THE ZONE OF INFLUENCE.
 PROJECTIONS ARE BASED ON DIFFERENCES FROM ALTERNATIVE A - CURRENT MANAGEMENT)

	Alternatives		C	D	1990					MAX PNV	MIN LEVEL	
	A ^{1/}	B			E	F	G	H	I			
Population	512	501	190	94	265	-530	-189	365	108	521	-895	
Total Employment	134	125	49	26	66	-133	-43	91	28	134	-227	
Minority Employment	15	14	5	3	7	-15	-5	10	3	15	-25	
Total Income (\$MM 1982)	2 631	2 589	1 327	543	1 435	-2 944	-1 334	.655	655	2 750	- 6 557	
State and Local Government Expenditures and Revenues (\$MM 1982)	^{2/}	.011 .007	.011 .007	.004 .003	.001 .001	.006 .004	-.011 -.008	-.004 -.003	.008 .006	.003 .001	.011 .007	- .020 -.014
	Alternative		C	D	1995					MAX PNV	MIN LEVEL	
	A ^{1/}	B			E	F	G	H	I			
Population	909	364	147	176	252	-616	-400	44	54	385	-1726	
Total Employment	229	93	41	46	65	-157	-100	13	15	99	-422	
Minority Employment	25	10	4	5	7	-17	-11	1	1	11	-46	
Total Income (\$MM 1982)	4 626	1 826	1 278	1 163	1 572	-3 094	-2 534	.837	528	2 274	-10 324	
State and Local Government Expenditures and Revenues (\$MM 1982)	^{2/}	.020 .014	.008 .006	.003 .001	.004 .003	.006 .004	-.014 -.008	-.008 -.006	0 0	.001 0	.038 .006	-.008 -.028

^{1/} Alternative A projections are based on differences from the IMPLAN 1977 data base.

^{2/} These projections do not include revenues received under 25% fund.

Note that the Input/Output model was not rerun to generate population, employment, and income projections for Alternative J. However, a comparison of the output levels for the three major resources would indicate that Alternative J would have impacts between Alternative's D and I and would probably be close to Alternative E in overall effect.

TABLE B-10

Energy: 2000 Projections, Sweetwater Projections and IMPLAN Projections								
	Energy: 2000 Medium Scenario ^{3/}		Sweetwater County Land Use Projections ^{4/}		High and Low IMPLAN Projections			
	Population	Employment	Population	Employment	Population High*	Population Low*	Employment High*	Employment Low*
1980 ^{5/}	33,894	12,430	41,723	21,736	---	---	---	---
1990	66,745	27,751	61,102	27,450	+521	-895	+134	-227
1995	60,888	23,637	N/A	N/A	+909	-1726	+229	-422

* High and Low IMPLAN projections were estimated from the Max PNV (Assigned) Benchmark and the Minimum Level Benchmark. For 1995 IMPLAN projections, estimates were obtained from Alternative A - Current Program (High projection) and Minimum Level Benchmark (Low Projections).

^{3/} Energy: 2000, the Impacts of Energy Development in Eastern Utah, Office of the State Coordinator, Utah, November 1980.

^{4/} Sweetwater Land Use and Housing Projections, THK Associates, December 1979

^{5/} 1980 U.S. Census.

Table B-10 displays the total population and employment estimates for 1990 and 1995 from two other socio-economic studies which focus on the approximate area of the Primary Zone of Influence. This Table also contains IMPLAN high and low projections which are based on different management scenarios from the Current Management Alternative.

In estimating the significant impact of various Forest Management Alternatives and Benchmarks on the Primary Zone of Influence, it was decided to use the highest and lowest IMPLAN projections. For 1990, these projections show an increase in population and employment of 521 people and 134 jobs. The low projection shows a loss of 895 people and 227 jobs. The potential impact on population and employment using the Energy:2000 and Sweetwater County, Wyoming estimates is less than a 1% increase or decrease in total population or employment. For 1995, using only the Energy:2000 estimates, the potential impact is less than a 3% increase or decrease in total population or employment. If population and employment estimates for Sweetwater County were added to the calculation, the potential impacts would significantly be less than 3%.

It was concluded after reviewing all the IMPLAN projections for the Alternatives and Benchmarks that there would be no significant impact on the overall economy within the Primary Zone of Influence. It should be noted that this conclusion may not be true for localized economies that are significantly dependent on Forest Resources.

2. Social Impact Analysis

Social impact analysis estimates how Forest policies and actions affect the quality of life in the identified area. Future social conditions if current management were continued were compared with the potential impacts from other management alternatives.

Social impacts were measured by social variable such as lifestyles, attitudes, beliefs and values, social organizations, and population and land use.

It was observed that Alternative A, Current Management Alternative would have little impact on these variables within the identified area. This is particularly true due to impact of energy development that is still proceeding in most of the impact area.

a. Lifestyles

It does not appear that any of the alternatives would significantly impact the stability of lifestyles in comparison to the Current Management Alternative. Some alternatives such as the commodity oriented ones as Proposed Action (Alt. B), 1980 RPA Program (Alt. E), High Productivity (Alt. H), and Accelerated Harvest (Alt. I) would be beneficial to timber and grazing interests and fuelwood gatherers. Those alternatives with limited budgets, Alternatives F and G appear to have a greater potential to impact this social variable in comparison to the current management alternative.

b. Attitudes, Beliefs and Values

In comparing the alternatives to the current management in regard to this social variable, Current Budget (Alt. F) and Reduced Budget (Alt. G) have the greater potential for negative impacts. The remaining alternatives do not appear to be significant either positively or negatively in regard to impacting an individual's sense of freedom, self sufficiency, and certainty or uncertainty with the Forest resources.

c. Social Organization

It does not appear that any of the alternatives would significantly effect community cohesion except possibly Current Budget (Alt. F) and Reduced Budgets (Alt. G) on some communities.

Community stability could be disrupted by the above mentioned alternatives.

d. Population and Land Use

There would be little to no impact on this variable by any of the alternatives. Any effects on population and land use would be related by energy or mineral development which would occur off the Forest.

Under current management, this Forest has little impact on local, regional, or national needs except for the possibility of providing recreation. The local economies and social structures within the Primary Zone of Influence are more influenced by the current or planned energy development. In regard to recreation, the alternatives vary in this output from 2% to 15% and it is difficult at this time to determine how significant this variance would be on the social variables. It is generally believed that any change from current management would create concerns by some individuals or groups. Still, it is doubtful that any of the alternatives would significantly impact the local economies or the social structure within the Primary Zone of Influence.

IV. ANALYSIS PRIOR TO ALTERNATIVE DEVELOPMENT

A. *Introduction*

The Analysis of the Management Situation (AMS) was the major analysis step prior to beginning the development of management alternatives. In summary, the AMS provided the parameters for formulating a broad range of alternatives by:

1. Examining the Forest's capability of providing goods and services in a series of "Benchmarks", or minimum-maximum displays;
2. Projecting the demands for goods and services;
3. Analyzing the potential to resolve issues and concerns; and
4. Determining the need to change management direction.

The results of the AMS form the "sideboards" or framework within which viable alternatives can be formulated.

B. *Minimum Management Requirements (MMR)*

Minimum management requirements are defined in the NFMA Regulations (36CFR219.27). A summary listing of these MMR's follows:

1. Conserve soil and water resource productivity.
2. Minimize hazards from natural physical forces such as fire and flood.
3. Prevent or reduce hazards and damage from pest organisms.
4. Protect riparian areas.
5. Maintain or enhance plant and animal diversity.
6. Provide fish and wildlife habitat needed to maintain viable populations.
7. Protect threatened and endangered species habitat.
8. Provide for transportation and utility corridors.
9. Develop road design and construction guidelines and standards.
10. Provide for revegetation of temporary roads.

11. Maintain air quality.
12. Assure that harvested lands can be adequately re-stocked within 5 years.
13. Limit harvest openings to 40 acres maximum.
14. Adhere to multiple use and environmental protection laws (Multiple-Use Sustained Yield Act of 1960 and the National Environmental Policy Act of 1969).

Several methods were used to meet the above listing of minimum management requirements (MMR). These include:

- Development of standards and guidelines for each prescription;
- Development of a variety of prescriptions for each analysis area so a range of management options was available;
- Applying FORPLAN modeling constraints for individual or groups of analysis areas to limit access, set scheduled output levels, or to assign specific prescriptions.

1. Modeling Constraints

Very few modeling constraints were used by the Ashley in meeting MMR. This low usage was partially due to the availability of a wide range of possible prescription assignments, but also was a result of the perceived desirability of allowing the model to freely reach optimal solutions for the objective function.

The constraints commonly used for meeting MMR's were:

- a. Application of accessibility limits for all timber harvesting prescriptions. The constraint was applied to the first five decades and allowed for harvesting up to 25% of the AA in decade 1, up to 50% in decade 2, up to 75% in decade 3, up to 90% in decade 4, and up to 100% by the end of decade 5. The application of this constraint is responsive to several of the listed MMR's; 1, 2, 4, 5, 6, 13, and 14. This constraint was used in all alternatives.
- b. Setting scheduled output yields equal to, greater than, or less than specified levels. While this set of constraints generally does not relate directly to MMR's, it does affect such factors as creating or maintaining wildlife habitat and visual diversity. It is considered to be indirectly responsive to MMR 1, 2, 3, 4, 5, 6, 11, 13, and 14. Use of this type of constraint varied from alternative to alternative, based on the alternative objective.

There is one set of scheduled output constraints that varies from the above. This was the use of a maximum limit for sediment release. This set of constraints is responsive to meeting state water quality standards and was used as a constant constraint, or given, for all benchmarks and alternatives. The calculation of limits (constraint) was based on

sediment delivered to live streams per unit of water yield which is directly correlated to water turbidity levels. This "set" is directly responsive to MMR 1, 2, 4, 9, 10, and 14.

- c. Assigning specific prescriptions to analysis areas or groups of analysis areas. This type of constraint was generally not directly responsive to MMR. It was used primarily to assign area to the High Uintas Wilderness. However, some use of this type of constraint was also made to identify high priority areas for livestock and wildlife habitat investments. Another use was in identifying and "locking in" areas such as potential Research Natural Areas. A third use of the Management Emphasis-Management Intensity constraints was to "lock out" or prevent prescriptions from being applied to particular analysis areas. Indirectly, the Management Emphasis-Management Intensity constraints were responsive to MMR 3, 5, 6, and 14.

Minimum Management Requirements 7, 8 and 12 were responded to by the development of the standards and guidelines and by the development of the wide range of prescriptions for each analysis area.

2. The various constraint sets listed in 1 above were used simultaneously in most or all benchmarks and alternatives. While several different combinations were used, incompatible combinations resulted in infeasible solutions or "crashed" runs when logic checks in the model prevented even infeasible solutions. The use of three different methods of meeting MMR's and the low number of modeling constraints used prevented accidental compounding of constraint effects.

C. Benchmarks

Seven "benchmarks" were developed to define the capability of the Ashley Forest to produce goods and services, to provide some economic comparison control points for comparing various management philosophies or strategies (alternatives), and to determine the ability to be responsive to the major issues and concerns.

These benchmarks are described in the AMS document (as revised March 1984) on file in the Supervisor's Office of the Ashley National Forest. A list of the numbers and names follows:

1. Minimum Level
 2. Current Level
 3. Maximum PNV using Market Prices
 4. Maximum PNV using Assigned Prices
 5. Maximum Timber
 6. Maximum Range
 7. Maximum Water
-
1. Objectives, Constraints, and Assumptions

A common constraint for maximum sediment delivered is used for all benchmarks. Similarly, one assumption is common to all benchmarks; that markets are available for all goods and services produced except for recreation. (Recreation production coefficients used in the model are limited to demand projections).

a. Benchmark 1 - Minimum Level

Objective: This benchmark is intended to display the minimum cost to maintain the National Forest status of the Ashley Forest. It is, in effect, a custodial or near custodial management philosophy.

Objective Function: The objective function used for the FORPLAN solution is to maximize PNW for 15 periods (150 years).

Constraints: In addition to the common constraint for sediment delivery, all analysis areas were "locked-in" to the minimum level (Management Emphasis 1 - Management Intensity 1) prescription except the area within the High Uintas Wilderness which was "locked-in" to the wilderness prescription.

Assumptions: In addition to the demand assumption, it was assumed that no commodity production costs would be incurred except to meet the livestock use agreement made in 1906 with the Ute Tribe. As in most other benchmarks, it is assumed that Threatened and Endangered (T&E) species habitat can not be impaired.

b. Benchmark 2 - Current Level

Objective: This benchmark is intended to display the effects over time of continuing the current direction at current budget levels.

Objective Function: The objective function used for this run is to Minimize Deviation from a PNW goal. The objective function of maximizing PNW over 15 periods was attempted for this benchmark. Results were an infeasible solution due to the budget constraint in decade 1.

Constraints: Constraints for the Minimum Deviation objective function are expressed in the FORPLAN model as goals but they are treated here as constraints.

The common set of sediment delivery totals was applied.

A budget goal of 3.0 MM dollars (1978) was set for decade 1.

Timber production goal was set at 3.8 MMCF per year with non-declining sustained yield and ending inventory constraints (goals).

The High Uintas Wilderness was assigned to the wilderness prescription, (Management Emphasis 7 - Management Intensity 3) while all other analysis areas were locked into the existing

situation prescription (Management Emphasis 11 - Management Intensity 2). A goal of 28 M dollars (1978) per year was set for investment for both range and wildlife habitat improvements. This latter goal is similar to average investment over the 3-5 year period prior to 1980.

Assumptions: In addition to the demand assumption, it was assumed that T&E species would not be adversely impacted and that no major changes would occur in current direction and policy.

c. Benchmark 3 - Maximum PNV-Market

Objective: This benchmark is designed to display the maximum present net value attainable if market goods, commodity, production was emphasized. To facilitate meeting this objective, a market prescription was developed for every analysis area that had commodity production potential, livestock forage or timber.

Objective Function: The objective function for this benchmark was to maximize PNV for 15 periods.

Constraints: Only market level (Management Emphasis 2 or 3 - Management Intensity 5) or minimum level (Management Emphasis 1 - Management Intensity 1) prescriptions were allowed to come into solution for areas outside the High Uintas Wilderness. Timber yield was allowed to "float" from 30 MMCF per decade under sequential upper and lower bounds of 25%. The ending inventory constraint was applied. The common sediment constraint was applied.

Assumptions: In addition to the common assumptions about demand and T and E species, it was assumed that budget levels would fluctuate and that while no values (benefits) were assigned to non-market outputs such as water and dispersed recreation, costs incurred for these non-market outputs must be included.

d. Benchmark 4 - Maximum PNV Assigned

Objective: This benchmark is intended to display the maximum present net worth that can be attained through management of the Ashley National Forest. In effect, this benchmark sets the outer parameter for economic efficiency for the Forest.

Objective Function: This benchmark was run against an objective function of Maximize PNV for 15 periods.

Constraints: Standard sediment constraint used. Market (Management Intensity 5) prescriptions not allowed, wilderness required for the High Uintas Wilderness. Timber yield allowed to "float" under 130 MMCF per decade with a sequential upper and lower bounds applied at 25%. Ending inventory constraint used.

Assumptions: The common assumptions that all goods and services produced are marketable and that T and E species habitat will not be impaired are applicable. It is assumed that no budget limitations are needed.

e. Benchmark 5 - Maximum Timber

Objective: This benchmark is intended to display the maximum amount of timber that can be produced from the Ashley and at what PNV.

Objective Function: Maximize Timber yield was the objective function used.

Constraints: The standard sediment constraint was applied. Other constraints are similar to those used for Benchmark 4, d. above, except that timber yield was allowed to "float" between 30 MMCF and 130 MMCF per decade.

Assumptions: The same assumptions apply as were described under Benchmark 4, d. above.

f. Benchmark 6 - Maximum Range

Objective: This benchmark displays the maximum levels of Livestock forage that can be produced from the Ashley Forest.

Objective Function: The objective function for this run was to Maximize Livestock Forage production.

Constraints: The same set of constraints was applied as was used for Benchmark 5, e. above.

Assumptions: The same assumptions apply as were applicable for Benchmark 5, e. above, with the additional assumption that production from transitory range resulting from timber harvest is needed to maximize forage. Therefore the timber harvest level should be allowed to fluctuate.

g. Benchmark 7 - Maximum Water

Objective: This is an optional benchmark and was run to determine the maximum water yield that could be obtained from the Ashley Forest. Water yield is a major issue on this Forest, so this benchmark is directly responsive to that issue.

Objective Function: The objective function was to maximize water over 15 periods.

Constraints: The same set of constraints was applied to this benchmark as was used in Benchmarks 5 and 6 above.

Assumptions: The assumptions made for Benchmark 6 are applicable, with one addition. It is assumed that water yield augmentation would only be accomplished by vegetative manipulation, no weather modification or snow deposition structures are included.

D. Constraint Analysis by Benchmark:

This discussion summarizes the impacts of applying the various "sets" of constraints used for each benchmark in terms of changes in PNV. Tables displaying the outputs results of each benchmark run are included in F. below. These tables will provide the reviewer an easy comparison of the benchmarks which can then be directly related to changes in the Benchmark Objectives and the Constraints applied to reach that Objective.

The PNV figure shown for each benchmark is in 1982 dollars discounted at 4% and 7.1% rates over the 150 year planning period.

Sediment delivery constraints are applied to all benchmarks so no changes would occur between the various benchmarks as a result of this constraint "set".

The High Uinta Wilderness is common to all benchmarks.

1. Minimum Level Benchmark - the net PNV reached for this custodial level objective is 358.6 MM dollars at 4% and 203.7 MM dollars at 7.1%.
2. Current Situation Benchmark - net PNV at 4% equals 497.7 MM dollars and PNV at 7.1% equals 260.6 MM dollars.
3. Max PNV - Market Prices - net PNV at 4% equals 348.1 MM dollars and PNV at 7.1% equals 193.0 MM dollars.
4. Max PNV - Assigned Prices - net PNV at 4% equals 600.0 MM dollars and PNV at 7.1% equals 307.3 MM dollars.
5. Max Timber - net PNV at 4% equals 395.1 MM dollars and PNV at 7.1% equals 206.4 MM dollars.
6. Max Range - net PNV at 4% equals 529.7 MM dollars and PNV at 7.1% equals 274.4 MM dollars.
7. Max Water - net PNV at 4% equals 465.1 MM dollars and PNV at 7.1% equals 248.3 MM dollars.

The term net PNV is used to define the Present Net Value remaining after the discounted value for background water yield is subtracted and the discounted fixed costs are included.

The trend apparent in the above discussion is that high commodity production does not result in comparably high PNV. This can be attributed to constraints that force production of relatively low value and

high cost commodities, particularly timber. This result is aggravated when high initial cost road construction is necessary to remove the commodities. The high cost of commodity production is at least partially offset by the interaction of joint production functions. For instance, timber harvest and road construction costs are partially offset by increase values generated by increased water yield and increased dispersed recreation output.

E. Comparison of PNW Market and PNW Assigned Benchmarks

The tables in F. below display the output comparisons between the two PNW benchmarks.

F. Benchmark Results

The following tables display the various scheduled outputs for each benchmark as well as displaying costs, benefits, and prescription assignments:

See Chapter II, Table II-4 for benchmark and alternative comparisons.

TABLE B-11 Annual Timber Output by Benchmark Level (MMC)

LEVEL	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Minimum	0	0	0	0	0
Current Situation	4.9	4.9	4.9	4.9	4.9
PNW - Market	3.0	2.2	1.7	1.3	0.9
PNW - Assigned	12.8	9.6	7.2	5.4	4.1
Max Timber	13.5	13.3	13.4	7.0	5.7
Max Range	13.0	9.9	8.5	5.1	2.9
Max Water	14.3	11.2	7.9	4.9	3.0

TABLE B-12 Annual Water Yield by Benchmark Level (M Acre Ft.)

LEVEL	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Minimum	955.0	958.6	957.7	955.8	954.3
Current Situation	961.6	976.1	996.3	1,003.9	1,010.9
PNW - Market	960.5	969.8	972.1	971.6	969.2
PNW - Assigned	971.0	1001.4	1,020.3	1,029.5	1,029.4
Max Timber	962.9	982.7	1,003.9	1,016.4	1,017.0
Max Range	970.2	997.7	1,023.5	1,038.2	1,035.5
Max Water	970.0	998.9	1,024.3	1,038.1	1,034.6

TABLE B-13 Annual Range Output by Benchmark Level (MAUM's)

LEVEL	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Minimum	2	2	2	2	2
Current Situation	77	79	82	84	86
PNW - Market	11	19	20	22	22
PNW - Assigned	78	107	97	113	100
Max Timber	51	60	76	87	101
Max Range	115	164	153	171	149
Max Water	32	43	56	69	75

TABLE B-14 Annual Fuelwood Potential by Benchmark Level (MMCF)

LEVEL	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Minimum	0	0	0	0	0
Current Situation	9.9	7.9	10.3	8.5	5.8
PNW - Market	2.0	1.8	1.0	0.3	0.1
PNW - Assigned	11.0	11.9	7.6	3.0	2.3
Max Timber	13.5	13.3	13.4	7.0	5.7
Max Range	15.8	13.1	8.5	5.1	2.9
Max Water	14.3	11.2	7.9	4.9	3.0

TABLE B-15 Annual Developed Recreation Output by Benchmark Level (MRVD's)

LEVEL	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Minimum	0	0	0	0	0
Current Situation	805	927	1,038	1,170	1,283
PNW - Market	583	526	460	396	334
PNW - Assigned	787	917	1,089	1,262	1,432
Max Timber	677	665	701	727	769
Max Range	757	843	952	1,081	1,199
Max Water	673	632	648	696	754

TABLE B-16 Annual Dispersed Recreation Output by Benchmark Level (MRVD)

LEVEL	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Minimum	1,497	1,432	1,400	1,368	1,336
Current Situation	710	821	921	1,036	1,138
PNW - Market	517	466	407	351	292
PNW - Assigned	999	1,173	1,325	1,479	1,629
Max Timber	901	949	981	1,004	1,042
Max Range	972	1,107	1,204	1,318	1,424
Max Water	897	921	935	977	1,028

Note that TABLE B-16 includes wilderness RVD's.

TABLE B-17 Annual Sediment Release by Benchmark Level (M Tons)

LEVEL	Decade 1	Decade 2	Decade 3	Decade 4	Decade 5
Minimum	31.1	31.1	31.1	31.0	31.0
Current Situation	32.7	34.6	33.1	35.0	37.6
PNW - Market	32.6	35.0	34.9	35.8	33.9
PNW - Assigned	33.7	35.1	36.1	39.2	47.1
Max Timber	40.3	47.7	48.1	51.9	52.8
Max Range	40.9	47.0	50.0	52.4	53.6
Max Water	37.8	46.3	50.6	53.9	53.3

TABLE B-18 Long Term Sustained Yield by Benchmark Level

LEVEL	MMCF/Year	MMBF/Year
Minimum	0	0
Current Situation	5.61	20.20
PNW - Market	1.46	5.26
PNW - Assigned	4.44	15.98
Max Timber	11.82	42.55
Max Range	7.60	27.36
Max Water	7.51	27.04

Yield in BF is calculated by multiplying CF by 3.6

Economic impacts showing employment and income are shown in Tables B-9 and B-10

TABLE B-19 Prescription Assignments by Benchmark (In M Acres)

	Min Lvl	Current Situation	Max PNV Market	Max PNV Assigned	Max Timber	Max Range	Max Water
Min Lvl 1-1	1,119.8	20.0	1,039.5	34.4	425.6	90.1	500.6
Tbr Mod 2-3	-----	-----	-----	16.1	408.6	199.4	165.4
Tbr High 2-4	-----	-----	-----	5.0	69.3	16.9	17.3
Tbr Markt 2-5	-----	-----	80.0	-----	-----	-----	-----
Range High 3-4	-----	-----	-----	152.1	80.9	349.7	25.7
Range Mrkt 3-5	-----	-----	-----	-----	-----	-----	-----
Wildlife High 4-4	-----	-----	-----	9.5	2.0	-----	0.9
Dis Rec Mod 5-3	-----	-----	-----	86.5	21.9	-----	33.6
Dis Rec High 5-4	-----	-----	-----	135.4	0.6	-----	-----
Dev Rec 6-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wilderness Mod 7-3	273.4	273.4	273.4	273.4	273.4	273.4	273.4
Wilderness High 7-4	-----	-----	-----	-----	-----	-----	-----
Water High 8-4	-----	-----	-----	-----	11.7	16.0	7.0
Wildlife Timber 9-3	-----	-----	-----	0.3	1.8	-----	-----
Riparian High 10-4	-----	-----	-----	-----	0.0	-----	0.0
Exist Low 11-2	-----	1,099.8	-----	658.0	9.4	290.7	308.9
Special Area 12-4	-----	-----	-----	-----	0.6	-----	2.1
NRA Tbr 13-4	-----	-----	-----	0.4	12.4	13.7	1.5
NRA Tbr (Mrkt) 13-5	-----	-----	0.4	-----	-----	-----	-----
NRA Range 14-4	-----	-----	-----	5.5	2.0	100.3	13.3
NRA WL 15-4	-----	-----	-----	16.6	73.1	-----	0.5
NRA Rec 16-4	-----	-----	-----	-----	-----	43.0	43.0

Note that the 20,000 acres shown in Table B-19 as assigned to the Developed Recreation prescription in all alternatives is comprised of two 10,000 acre "dummy" analysis areas. These two areas were added to provide a means for expressing recreation investments for heavy maintenance or new construction.

VII. FORMULATION OF ALTERNATIVES

A. Introduction

A Forest Plan alternative can be defined as the mix of management activities and practices (prescriptions) needed to achieve a given set of management goals and objectives. It is specific as to amounts, time scheduling, and location within the limits of non-contiguous analysis areas.

As defined in 36 CFR 219.12 f, alternatives.

- Shall be within the land capability for the Forest to produce.
- Shall be formulated to facilitate the analysis of trade-offs in resource use, opportunity costs, and environmental effects between alternatives.
- Shall be formulated to facilitate the evaluation of the effects on benefits, costs and present net value.
- Shall provide a variety of responses to issues and concerns.
- Shall represent the most cost efficient combination of management prescriptions to meet the specific alternative's objectives.
- Shall state the condition, uses, goods and services produced, timing and flow of outputs, and associated costs and benefits.
- Shall state the alternative objective and the standards and guidelines proposed.
- At least one alternative shall reflect the current level of goods and services produced by the unit as projected over time. This alternative shall be considered the "No Action" alternative pursuant to NEPA procedures.

The Ashley Forest has supplemented the above direction by the addition of several alternative development criteria. These are.

To be viable, an alternative:

- Should meet budget limitations specified in the R-4 LMP Checklist dated 2/13/84, unless it is a departure.
- Must not violate the classifying legislation for the Flaming Gorge National Recreation Area, P.L. 90-540.
- Must not violate water quality standards.
- Must recognize the High Uintas Wilderness as classified by the Utah Wilderness Act of 1984

B. Constraints

The common constraint for sediment delivery that was used in the benchmark development was carried over into all alternatives.

One additional constraint set is used in developing all alternatives. This is the application of analysis area access constraints for the first five decades. This set of constraints is applied to all timbered

analysis areas and limits harvest activities to 25% of the area in each of the first three decades, 15% in the fourth decade, and the remaining 10% in decade five. The constraint is cumulative and must equal 100% by the end of the five decades. The rationale for using this constraint (set) is to: 1) spread the typically "lumpy" results of an LP, 2) to enhance wildlife habitat diversity, 3) to aid in meeting visual quality objectives; and 4) because sediment delivery and water yield increase coefficients were based on the assumption that timber harvesting in any analysis area would be spread over at least a 40-50 year time period.

If this constraint was not used, the common sediment constraint would still limit total sediment for analysis area groupings, but coefficients used to create this limit would be erroneous so total delivery from any analysis area would be drastically increased.

Other constraints used for single alternatives are listed under the discussion for that alternative.

Alternative	System or Output	Constraints Common to all Alternatives				Time Binding	Time Period	Rationale
		Type of Constraint	Constraint	Units				
All	Acreage	Equal to	Varies by analysis area	Acres	Yes	All	Requires all acres in every analysis area to be used.	
All	Timber	Inventory	Ending Inventory Constraint	MMCF	Yes	15	Insures that total inventory volume left at the end of the planning horizon is equal to or exceeds the volume that would occur in a regulated forest.	
All	Sediment	Equal to or Less Than	Maximum Sediment	Tons	Yes	All	Protects water quality by limiting the amount of sediment allowed.	
All	Access	Equal to or Less Than	Varies by Analysis Area	Percent of Analysis Area	Yes	1-5	Limits harvesting access to timbered analysis areas by increasing percentage of total available.	
All	Prescriptions	None	No Intensity Prescriptions	5 Acres	Yes	All	Eliminates Market Level prescriptions which have no values for amenities.	

- C. Alternatives: See Chapter II, Table II-4 for a comparison of benchmarks and alternatives outputs, costs, and benefits.

1. Current Direction - Alternative A

Objective: To display the costs/benefits and output levels that would occur if current management were projected through the planning period.

Assumptions: No major changes would occur in policy, direction, or public demand. Current programs such as wildlife and range forage improvements would continue at present levels. T&E habitat and wildlife habitat diversity would not be impaired.

FORPLAN Constraints: Budget held to 1½ times the 10 year average in decade 1. Timber yield held to current level on a non-declining sustained yield basis. High Uintas Wilderness is locked-in.

2. Coordinated Resource - Alternative B

Objective: To display the cost, benefits, and resource output levels of accelerating timber harvest (departure from even-flow) to salvage beetle-killed lodgepole and ponderosa pine while providing a continuing program of management for the other facets of multiple-use management.

Assumptions: Markets will be available for increased timber harvest. Budget will be sufficient to support the costs of the increased harvest. Demands for other goods and services will continue at projected levels. T&E species habitat can be protected. Scheduling, location and spatial arrangement of harvest units can be manipulated through intensive interdisciplinary team work to protect water quality, wildlife habitat diversity needs, and visual quality.

FORPLAN Constraints: In addition to the common constraints of sediment delivery and analysis area access, the following constraints are applied:

No budget constraint applied.

Timber harvest levels pushed to 75 MMCF in decade one and 72 MMCF in decade two then allowed to go to a non-declining sustained yield level of 50 MMCF per decade. This alternative meets the technical definition of a "Departure".

Investments made in recreation heavy maintenance and new construction to reduce facility deterioration rate and to partially meet projected demand.

Investments made in wildlife and livestock improvements to continue current program levels.

The High Uintas Wilderness is assigned to a wilderness prescription. Those analysis areas within the 1979 proposal but outside the 1983-1984 proposal for the High Uintas are assigned to the Dispersed Recreation High (ME 5 MI 4) prescription. Potential Research Natural Areas are locked into a custodial prescription (ME 1 MI 1).

After this alternative was identified as the "preferred" additional FORPLAN runs were made which included several constraints designated to smooth out wide fluctuations in such areas as acres of timber cultural work, proportions of tractor and other logging systems, and proportions of intermediate to final harvests.

3. Market Opportunity - Alternative C

Objective: To display the output levels and cost/benefits that would occur if commodities such as timber, livestock forage, and developed recreation were emphasized throughout the 50 year planning period.

Assumptions: Demand exists for all market value outputs. T&E habitat and wildlife habitat diversity would not be emphasized but viable population levels could be maintained. Some wildlife improvement investments would continue but on a reduced level from current.

FORPLAN Constraints: Budget held to 1½ times the 10 year average for decade 1. Timber set on non-declining sustained yield but at high level. The High Uintas Wilderness set as wilderness. Livestock improvement investments doubled from existing levels. Developed recreation investments set to meet a minimum of moderate demand projections. Commercial aspen harvest not allowed in first two decades. Harvest levels for Douglas-fir and ponderosa pine constrained in decade 1 to meet local demand but also to emphasize lodgepole pine harvest.

4. Non-Market Opportunity - Alternative D

Objective: To display the output levels and costs/benefits that would occur if the non-market services such as dispersed recreation, wildlife, and water were emphasized throughout the 50 year planning period.

Assumptions: Demand would utilize all outputs produced. T&E habitat and wildlife habitat diversity would be protected and enhanced through improvements where highly to moderately feasible. Investments in livestock improvements would need to continue but at reduced levels from current. Timber harvesting would be needed to augment water yields.

FORPLAN Constraints: Budget held to 1½ times the 10 year average for decade 1. Timber set on non-declining sustained yield at current level. Wilderness prescribed for the High Uintas Wilderness. Wildlife habitat investment set at high level. Moderate to high investments prescribed for developed recreation to maintain and increase dependent dispersed recreation use levels.

5. 1980 RPA - Alternative E

Objective: To display the costs/benefits over the planning period of meeting the RPA 80 output targets.

Assumptions: Demand would utilize all goods and services produced. T&E habitat and wildlife habitat diversity would be protected. Investments in livestock improvements would need to be at high levels. Stocking of range allotments with the proper class of livestock is possible.

FORPLAN Constraints: Budget held to 1½ times the 10 year average for decade 1 and then limited to RPA 80 levels for remaining four decades in the planning period. Timber yield set to RPA 80 targets on a non-declining sustained yield basis. Wilderness prescribed for the High Uintas Wilderness. No level prescribed for recreation maintenance and construction investment.

6. Current Budget - Alternative F

Objective: To determine the level of goods, services, and costs/benefits that could be produced if budget levels remain constant over the planning period.

Assumptions: Activities requiring investments would be limited to current level or less. Some demands by the public may not be met. Those roadless areas currently producing moderate to high levels of dispersed recreation should not be prescribed as wilderness. The Ashley should try to provide a mix of goods and services even under this level of financing.

FORPLAN Constraints: Budget constraint straight-line 10 year average over the planning period. Timber production on a non-declining sustained yield basis. No prescribed investment levels for wildlife, livestock, or recreation improvements. Wilderness prescribed for the High Uintas Wilderness.

7. Reduced Budget - Alternative G

Objectives: To determine the output levels of goods and services if budget levels were reduced 25% from the 10 year average.

Assumptions: Roadless areas with moderate to high commodity production potential, and therefore, with needed investment would

cost less to retain as wilderness. Some level of commodity production is desirable. Land base would be retained in National Forest system ownership.

FORPLAN Constraints: Budget level constrained to 75% of the 10 year average over the entire planning period. Timber set on a non-declining sustained yield basis. Wilderness selection prescribed for the High Uintas Wilderness. No investments prescribed for livestock improvements, wildlife improvements, or recreation maintenance and construction.

8. Livestock - Timber Emphasis - Alternative H

Objective: To determine the feasibility and the costs/benefits of meeting Draft 1985 RPA Alternative 9 targets for timber production and livestock grazing.

Assumptions: Some mix of uses and outputs is desirable under this alternative. Only those roadless acres with low commodity production potential should be prescribed as wilderness. Proper class of livestock available for all allotments.

FORPLAN Constraints: Budget is constrained to 1½ times the 10 year average for decade 1. Timber yield allowed to fluctuate for first three decades then go on non-declining sustained yield basis. Timber harvest level declined after the first two decades, constituting a "Departure". High investment prescribed for livestock improvements. No prescribed investment for recreation maintenance and construction. Low investment level prescribed for wildlife habitat improvements. Wilderness prescribed for the High Uintas Wilderness.

9. Accelerated Harvest - Alternative I

Objective: To display the costs, benefits, and resource output levels for goods and services under an accelerated timber harvest. This alternative is similar to alternative B except for the proposal for wilderness prescription.

Assumptions: Same as B above.

Constraints: Same as B above.

10. Preferred - Alternative J

Objective: The objective of this alternative is to display the outputs and cost/benefits that would occur while salvaging beetle killed lodgepole pine where practical, maintaining existing commodity outputs, and giving emphasis to recreation and wildlife resources.

Assumptions: Same as B above.

FORPLAN Constraints: Under this alternative no budget constraints were imposed. The timber harvest levels are limited to 21 MMBF during the first decade. Harvesting in aspen stands and on 40% slopes during decade 1 are constrained along with cable logging. There are high investments proposed for recreation development sites. Also investments are proposed for livestock and wildlife resources.

The High Uintas Wilderness is assigned to a wilderness prescription. Those areas within the 1979 wilderness proposal but outside the 1983-1984 proposal for the High Uintas are assigned to Dispersed Recreation High (ME 1 MI 1) or prescription g. Potential Research Natural Areas are locked into prescription a.

D. Alternatives Considered but Rejected

In October 1982 an "Array of Alternatives" was compiled for Forest and Regional Office reviews. This array included several optional alternatives that emphasized objectives such as maintain ROS diversity, increasing livestock use, and emphasizing big game habitat improvements. The above trial alternatives were found to have similar costs, benefits and output levels as other alternatives in the array. No re-runs were made of these options during the current (1983-1984) effort. See Chapter II for a more detailed description of alternatives considered but rejected.

Two additional alternatives were considered during this current round, these are:

1. Timber Departure - this alternative raised the timber harvest levels in decade 1 and 2 to 100 MMCF and 75 MMCF respectively. to accomplish this high harvest level, the analysis area accessibility constraint had to be released. The unknown consequences of this release on sediment delivery and water quality, the high potential for wildlife habitat and visual quality degradation, and the high budget costs all contributed to the decision to reject this as a viable alternative.
2. Base Sale Schedule for Alternative B - this alternative was developed "after the fact" as a sensitivity testing for the preferred alternative.

The same set of constraints applied for alternative B were used for this BSS run, except that timber harvest levels were run at non-declining yield with no specified volume and the long-run sustained yield calculation from alternative B set as a target.

A comparison summary of the preferred alternative (B) and the BSS run shows that there is no significant change in recreation, water, wildlife, and livestock forage output levels; the BSS run has a two percent increase in PNV over 150 years at the 4% discount rate; the BSS run has a four percent reduction in Long Term Sustained Yield

capability; timber harvest levels decrease 40% in decade 1 and 38% in decade 2 from the alternative B levels; and fuelwood availability fluctuates on a decade basis but has a similar total for five decades.

Non-priced effects such as VQO and cores in ROS classes for the BSS run would be similar to these described for alternative A, the current program.

It was not included as an "alternative considered in detail" since it is not responsive to the major issue, concern, or objective of "doing something about the bug killed trees".

E. Alternative Development Process:

The alternative development process used by the Ashley was relatively simple in concept.

1. Benchmarks were used to establish PNV and resource output level parameters. No attempts were made to exceed the limits established by benchmark runs for any output.
2. Required alternatives were formulated based on Region 4 and Washington Office direction.
3. Several optional alternatives were formulated and run in 1982.
4. Output levels, costs, and benefits from the various required and optional alternative runs were compared to determine if a "range" of outputs was included and how responsive these alternatives were to issues and concerns.
5. Optional alternatives B and I were run in 1983-1984 to add responsiveness to the wilderness and insect epidemic issues and concerns.
6. All alternatives were re-run after passage of the Utah Wilderness Act of 1984 to incorporate the High Uintas Wilderness.

VII. COMPARISON OF EFFECTS FOR BENCHMARKS AND ALTERNATIVES

A. Introduction:

The comparison of benchmarks and alternatives is intended to openly display the levels of outputs, costs, benefits, and environmental impacts. This open display will provide the general public and decision-makers the information needed to recommend and finally select a proposed action.

B. Constraint Evaluation

As discussed in Appendix B VI and VII, few common constraints were used in the Ashley's analysis of benchmarks and alternatives. These were designed to meet legal and/or 36 CFR 219 requirements and therefore were not considered optional. No "sensitivity" analysis was done for the common constraints.

C. Trade-offs Between Alternatives

A trade-off analysis is required for national forest planning. Trade-offs between outputs can be computed with the same linear programming model of the forest used to prepare land-management alternatives. Trade-offs cannot be reliably computed from the differences between land-management alternatives. Trade-offs may be overstated when inputs such as land are manipulated instead of outputs. A similar overstatement of trade-offs may occur when a sufficiently wide range of management regimes is not provided to the model. Since a trade-off analysis is only as good as the fundamental production relationships on which it is based, misleading trade-offs can result for alternatives producing a mix of outputs outside the range of historical experience and supporting data.

The tables below provide an easy means of comparing the quantifiable "trade-offs" between the various benchmarks and alternatives.

There are also "trade-offs" between alternatives in responsiveness to issues and concerns. Every alternative cannot be fully responsive to every issue and concern. In fact, most issues cannot be resolved to all public satisfaction since they are issues created by conflicting opinions and needs.

More detailed discussion and comparison is available in FEIS Chapter II.

TABLE B-20 Annual Timber Yield in MMCF

Benchmark or Alternative	Decade				
	1	2	3	4	5
1. Min Lvl Benchmark	0	0	0	0	0
2. Current Situation Benchmark	4.9	4.9	4.9	4.9	4.9
3. Max PNV-Mrkt-Benchmark	3.0	2.2	1.7	1.3	0.9
4. Max PNV-Assigned-Benchmark	12.8	9.6	7.2	5.4	4.1
5. Max Timber - Benchmark	13.5	13.3	13.4	7.0	5.7
6. Max Range - Benchmark	13.0	9.9	8.5	5.1	2.9
7. Max Water - Benchmark	14.3	11.2	7.9	4.9	3.0
A. Current Program	3.8	3.8	3.8	3.8	3.8
B. Coordinated Resources	7.5	7.2	4.8	4.8	4.8
C. Market Opportunity	6.0	6.0	6.0	6.0	6.0
D. Non-Market Opportunity	3.8	3.8	3.8	3.8	3.8
E. 1980 RPA	5.3	5.8	5.8	5.8	5.8
F. Current Budget	1.0	1.0	1.0	1.0	1.0
G. Reduced Budget	3.1	3.1	3.1	3.1	3.1
H. Livestock-Timber Emphasis	6.8	6.8	4.4	4.4	4.4
I. Accelerated Harvest	11.1	7.2	5.0	5.0	5.0
J. Preferred	5.3	5.3	4.8	4.8	4.8

Note that Table B-20 includes softwood sawtimber, hardwood sawtimber, and roundwood products.

TABLE B-21 Annual Water Yield in M Acre Feet

Benchmark or Alternative	1	2	Decade		
			3	4	5
1. Min Lvl Benchmark	955	959	958	956	954
2. Current Situation Benchmark	962	976	991	1,004	1,011
3. Max PNV-Mrkt-Benchmark	960	970	972	972	969
4. Max PNV-Assigned-Benchmark	971	1,001	1,020	1,030	1,029
5. Max Timber - Benchmark	963	983	1,004	1,016	1,017
6. Max Range - Benchmark	970	998	1,024	1,038	1,036
7. Max Water - Benchmark	970	999	1,024	1,038	1,035
A. Current Program	960	972	982	989	993
B. Coordinated Resources	963	981	996	1,005	1,010
C. Market Opportunity	961	976	992	1,006	1,016
D. Non-Market Opportunity	971	983	995	1,004	1,009
E. 1980 RPA	963	979	995	1,007	1,016
F. Current Budget	966	969	972	975	976
G. Reduced Budget	959	970	979	985	988
H. Livestock-Timber Emphasis	963	981	996	1,006	1,009
I. Accelerated Harvest	967	989	1,004	1,011	1,014
J. Preferred	959	972	985	996	1,002

TABLE B-22 Annual Range Output in MAUMs

Benchmark or Alternative	1	2	Decade		
			3	4	5
1. Min Lvl Benchmark	2	2	2	2	2
2. Current Situation Benchmark	77	79	82	84	85
3. Max PNV-Mrkt-Benchmark	11	19	20	22	22
4. Max PNV-Assigned-Benchmark	78	107	97	113	100
5. Max Timber - Benchmark	51	60	76	87	101
6. Max Range - Benchmark	115	164	153	171	149
7. Max Water - Benchmark	32	43	56	69	75
A. Current Program	77	80	82	83	84
B. Coordinated Resources	82	85	91	99	108
C. Market Opportunity	95	100	105	109	115
D. Non-Market Opportunity	69	71	72	73	74
E. 1980 RPA	84	87	91	93	95
F. Current Budget	63	64	64	64	64
G. Reduced Budget	52	54	57	59	59
H. Livestock-Timber Emphasis	95	101	104	109	112
I. Accelerated Harvest	83	86	89	92	92
J. Preferred	81	84	91	99	108

TABLE B-23 Annual Developed Recreation in MRVDs

Benchmark or Alternative	Decade				
	1	2	3	4	5
1. Min Lvl Benchmark	0	0	0	0	0
2. Current Situation Benchmark	805	927	1,038	1,170	1,283
3. Max PNV-Mrkt-Benchmark	583	526	460	396	334
4. Max PNV-Assigned-Benchmark	787	917	1,089	1,262	1,432
5. Max Timber - Benchmark	677	665	701	727	769
6. Max Range - Benchmark	757	843	952	1,081	1,199
7. Max Water - Benchmark	673	632	648	696	754
A. Current Program	779	881	1,045	1,210	1,374
B. Coordinated Resources	798	920	1,083	1,257	1,426
C. Market Opportunity	792	909	1,075	1,242	1,397
D. Non-Market Opportunity	978	1,005	1,069	1,147	1,276
E. 1980 RPA	765	862	1,021	1,182	1,341
F. Current Budget	749	801	907	1,004	1,136
G. Reduced Budget	709	732	814	887	972
H. Livestock-Timber Emphasis	794	916	1,080	1,251	1,274
I. Accelerated Harvest	803	925	1,092	1,417	1,444
J. Preferred	809	940	1,119	1,300	1,476

TABLE B-24 Annual Dispersed Recreation in MRVDs *

Benchmark or Alternative	Decade				
	1	2	3	4	5
1. Min Lvl Benchmark	1,497	1,432	1,400	1,368	1,336
2. Current Situation Benchmark	710	821	921	1,036	1,138
3. Max PNV-Mrkt-Benchmark	517	466	407	351	292
4. Max PNV-Assigned-Benchmark	999	1,173	1,325	1,479	1,629
5. Max Timber - Benchmark	901	949	981	1,024	1,042
6. Max Range - Benchmark	972	1,107	1,204	1,318	1,424
7. Max Water - Benchmark	897	921	935	977	1,028
A. Current Program	992	1,141	1,287	1,434	1,579
B. Coordinated Resources	1,008	1,176	1,320	1,475	1,625
C. Market Opportunity	1,003	1,167	1,313	1,462	1,598
D. Non-Market Opportunity	1,003	1,160	1,299	1,450	1,603
E. 1980 RPA	979	1,125	1,266	1,408	1,549
F. Current Budget	965	1,070	1,165	1,251	1,367
G. Reduced Budget	930	1,009	1,082	1,146	1,222
H. Livestock-Timber Emphasis	1,006	1,172	1,317	1,469	1,616
I. Accelerated Harvest	1,013	1,180	1,328	1,490	1,641
J. Preferred	1,018	1,194	1,353	1,513	1,668

* These figures include dispersed recreation, wilderness recreation, and all wildlife and fish user days (WFUD).

TABLE B-25 Discounted Benefits, Costs, and PNV for 150 Years
in MM (1978) Dollars

	Benefits	4% Costs	PNV	Benefits	7.1% Costs	PNV
1.	426.2	49.4	376.8	242.5	41.3	201.2
2.	638.4	181.7	456.7	345.1	101.0	244.1
3.	637.9	221.1	416.8	366.5	138.4	228.1
4.	751.8	260.9	490.9	424.3	163.6	260.7
5.	631.8	271.5	360.3	364.9	168.6	196.3
6.	728.2	288.6	439.6	412.5	177.8	234.7
7.	629.2	236.0	393.2	366.3	150.7	215.6
A.	641.2	169.3	471.9	345.2	94.3	250.9
B.	674.2	225.4	448.8	365.9	128.1	237.8
C.	685.8	247.9	437.9	368.9	136.9	232.9
D.	644.2	186.6	457.6	346.7	102.6	244.1
E.	672.8	219.7	453.1	361.5	122.1	239.4
F.	557.8	116.5	441.3	298.8	61.8	237.0
G.	566.8	127.7	439.1	312.6	74.0	238.6
H.	687.3	224.1	463.2	374.2	128.7	245.5
I.	711.6	232.8	458.8	393.9	150.9	243.0
J.	663.6	204.2	459.4	357.0	113.7	243.3

Note that PNV's shown in Table B-25 include values for background water.

TABLE B-26 Long Run Sustained Yield for Timber

	MMCF	MMBF
1. Minimum Level	0	0
2. Current Situation	5.61	20.20
3. PNV - Market	1.46	5.26
4. PNV - Assigned	4.44	15.98
5. Max Timber	11.82	42.55
6. Max Range	7.60	27.36
7. Max Water	7.51	27.04
A. Current Program	4.73	17.0
B. Coordinated Resources	6.85	24.66
C. Market Opportunity	8.74	31.46
D. Non-Market Opportunity	4.84	17.42
E. 1980 RPA	7.13	25.67
F. Current Budget	7.30	26.28
G. Reduced Budget	4.37	15.73
H. Livestock-Timber Emphasis	5.71	20.56
I. Accelerated Harvest	6.54	23.54
J. Preferred	6.32	22.75

In Table B-26 MCF is converted to MBF by a factor of 3.6.

TABLE B-29
Discounted (4%) Costs, Benefits and PNV (Compared to Highest PNV
(Displayed in MM Dollars 1982)

Benchmarks	PVC	PVC	PVB	PVB	PNV	PNV
4. Net PW (Assigned)	365.3	----	964.0	----	598.7	----
I. Accl. Harv.	353.9	-11.4	892.9	-71.1	539.0	-59.7
D. Non Market	259.0	-106.3	793.8	170.2	534.8	-63.9
H. Live-Tbr Emphasis	313.7	-51.6	847.7	-116.3	534.0	-64.7
A. Current Program	237.0	-128.3	765.9	-198.1	528.9	-69.8
E. 1980 RPA	307.6	-57.7	829.4	-134.6	521.8	-76.9
J. Preferred	285.7	79.6	803.2	-160.8	517.5	-81.2
C. Market	347.1	-18.2	844.1	-119.9	497.0	-101.7
B. Coord. Resources	315.5	-49.8	805.6	-158.4	490.1	-108.6
F. Current Budget	163.2	-202.1	645.5	-318.5	482.3	-116.4
G. Reduced Budget	178.8	-186.5	657.3	-306.7	478.5	-120.2
1. Min Level	69.1	-296.2	427.7	-536.3	358.6	-240.1

In both Tables B-28 and B-29 above, the changes in discounted present value of costs and benefits are attributable to several factors.

Variations in investment from one alternative to another. For instance, the least cost benchmark (Minimum Level) has no investment for road construction, no investment for range and wildlife improvements, and no investment for recreation facilities. Therefore, alternatives (such as B, C, E, H, I and J) which include these activities have increasingly higher PVC figures.

Output levels for the various scheduled resources also contribute directly to variations in costs and benefits from one alternative to another. Since many costs are accrued on a unit basis, increased levels of output increases costs. In a similar manner, the scheduled outputs carry a unit value or benefit that increases total benefits as output levels increase.

TABLE B-27 FORPLAN Prescription Assignment for Alternatives (In M Acres)

Prescription	A Current Program	B Coord. Resources	C Market Opport	D Non-Mrkt Opport	E 1980 RPA	F Current Budget	G Reduced Budget	H Live-Tbr Emp	I Accl. Harv.	J
Min Lvl 1-1	23.0	2.0	2.0	2.0	22.0	22.0	216.7	-----	2.0	1.9
Tbr Mod 2-3	15.7	34.0	120.8	10.1	29.7	-----	-----	13.9	25.4	11.4
Tbr High 2-4	29.9	-----	66.9	32.0	54.9	-----	-----	32.3	27.1	-----
Tbr Mrkt 2-5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Range High 3-4	64.3	73.1	125.6	46.5	79.8	2.3	2.3	177.3	66.8	64.6
Range Mrkt 3-5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Wildlife High 4-4	20.4	20.4	-----	34.9	34.9	28.3	24.6	19.3	21.2	28.6
Disp Rec Mod 5-3	67.8	155.4	120.9	60.9	111.9	245.8	110.0	79.0	111.3	155.8
Disp Rec High 5-4	159.9	69.4	6.1	145.8	7.0	147.3	180.2	53.8	7.2	83.7
Dev Rec 6-4	0.0	20.0	20.0	20.0	0.0	0	-----	20.0	20.0	20.0
Wilderness Mod 7-3	273.4	273.4	273.4	273.4	273.4	273.4	273.4	273.4	273.4	273.4
Wilderness High 7-4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Water High 8-4	3.0	3.1	3.0	0.7	3.0	-----	0.1	2.3	3.0	3.0
WL-Timber 9-3	0.3	0.3	0.3	0.3	2.2	89.5	43.1	0.3	0.3	1.8
Riparian High 10-4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Exist Low 11-2	719.3	725.1	647.9	706.6	741.5	523.6	542.4	689.3	820.6	734.0
Spec Area 12-4	-----	-----	-----	0.0	-----	-----	-----	-----	-----	-----
NRA Tbr 13-4	0.1	0.5	0.4	0.1	0.0	-----	-----	0.1	0.1	0.1
NRA Tbr (Mrkt) 13-5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
NRA Range 14-4	-----	1.5	0.9	-----	0.0	-----	-----	13.9	-----	-----
NRA WL 15-4	16.2	15.1	5.8	59.9	32.9	62.4	0.4	16.2	14.9	14.6
NRA Rec 16-4	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Note: A comparable prescription table for Benchmarks is B-19.

TABLE B-28
Discounted (4%) Costs, Benefits and PNV Compared to Least Cost Benchmark.
(Displayed in MM 1982 Dollars)

	PVC	PVC	PVB	PVB	PNV	PNV
1. Min Lvl	69.1	---	427.7	---	358.6	---
F. Current Budget	163.2	94.1	645.5	217.8	482.3	123.7
G. Reduced Budget	178.8	109.7	657.3	229.6	478.5	119.9
K. Current Program	237.0	167.9	765.9	338.2	528.9	170.3
D. Non Market	259.0	189.9	793.8	366.1	534.8	176.2
E. 1980 RPA	307.6	238.5	829.4	401.7	521.8	163.2
J. Preferred	285.7	238.5	803.2	401.6	517.5	233.5
H. Live-Tbr Emph	313.7	244.6	847.7	420.0	534.0	175.4
B. Coord. Resources	315.5	246.4	819.1	391.4	503.6	145.0
C. Market	347.1	278.0	844.1	416.6	497.0	138.4
I. Accl. Harv.	353.9	284.8	892.9	465.2	539.0	180.4
4. Max PNV (Assigned)	365.3	296.2	964.0	536.3	598.7	240.1

COMPARISON OF ECONOMIC EFFECTS BY ALTERNATIVES
TO THE MAX PNV (ASSIGNED) BENCHMARK

Below is a general narrative comparison between the alternatives and the Max PNV (assigned) Benchmark based upon Tables B-28 and B-29. For comparison of differences in resource benefits and costs see Table IV-7 and 8 in Chapter IV.

Min Level Benchmark - The present value costs (PVC) for this benchmark is 296.2 million dollars less than the Max PNV (Assigned) Benchmark. It has the least PVC cost and PNV of any of the benchmarks or alternatives. This is primarily due to the custodial management level established for this benchmark.

Alternative I Accelerated Harvest - This alternative has the highest present net value (PNV), the highest present value benefits (PVB), and the highest present value costs (PVC) of the nine alternatives. It is 59.7 million dollars less than the Max PNV (Assigned) Benchmark and 284.8 million greater than the Min Level Benchmark. The benefit value is primarily due to an increase in dispersed recreation and water yield which is associated with the high timber harvest level. The high costs are involved with the increased timber harvest and the related road construction/reconstruction.

Alternative D Non Market - The PNV of the alternative is 63.9 million dollars less than the MAX PNV (Assigned) Benchmark (ranked third in highest PNV) but is ranked fifth in least PVC (189.9 MM\$ greater than Min Level). Due to emphasis on non market resources, investments tend to be higher for those resources but correspondingly so are the benefits. Also, timber and road costs are not as high for this alternative.

Alternative H Livestock-Timber Emphasis - The alternative is ranked fourth highest PNV out of twelve (64.7 MM\$ less than Max PNV) and is ranked eighth least PVC out of eleven (244.6 MM\$ greater than Min Level). The emphasis to meet 1985 RPA output targets result in higher investment levels for recreation, timber, road construction, range, and wildlife. Benefits for recreation, timber, and water yield falls in comparison to the Max PNV (assigned) Benchmark.

Alternative A Current Program - The PNV of this alternative is ranked as the fifth highest (69.8 MM\$ less than Max PNV). The PVC of this alternative is ranked fourth under the least PVC comparison (167.9 MM\$ greater than Min. Level). Benefits from timber, range, and water yield decrease significantly. Investment levels have decreased particularly in road construction and range.

Alternative E 1980 RPA Program - The PNV of this alternative is ranked as the sixth highest (76.0 MM\$ less than Max PNV) and sixth in the least PVC ranking

(238.5 MM\$ greater than Min Level). Benefits from timber, water yield, and range decline significantly. Timber investments increase for this alternative and this is due to an increase in early cultural treatments to maintain a long term sustained yield of timber. Range investments for this alternative also decline significantly.

Alternative C Market - This alternative was ranked the eighth highest out of twelve in PNV (101.7 MM\$ less than Max PNV) and tenth in the least PVC ranking (278.0 MM\$ greater than Min Level). Benefits decline from timber, water yield, and wildlife forage. Fuelwood's contribution to present value benefits increases under this alternative. Again, timber investments increase significantly and this is due to maintaining a long term sustained yield by implementing cultural treatments early in the planning horizon. Recreation investments are significantly higher and this is due to maintaining developed recreation sites. Wildlife investments decline under this alternative.

Alternative B Coordinated Resource - The PNV of this alternative is ranked as the ninth highest out of twelve (108.6 MM\$ less than Max PNV) and eighth in the least PVC ranking (246.4 MM\$ greater than Min Level). Benefits increase for some resources such as wilderness and wildlife/fish user days while timber, water yield, and range decline. Investments in recreation, roads, and timber are higher in this alternative. The reasons for higher recreation and timber investments are the same as in alternative C and E. Range investments decline under this alternative.

Alternative F Current Budget - The PNV of this alternative is ranked as the tenth highest out of twelve (116.4 MM\$ less than Max PNV) and second in the least PVC ranking (94.1 MM\$ greater than Min level). Benefit values for all the resource decline except for fuelwood which slightly increases. This alternative has a budget constraint which limits the amount of investments for resource management programs. Investments have declined from 60% to 23% in comparison to the Max PNV (Assigned) Benchmark. This decline in investments is reflected in the resource benefits.

Alternative G Reduced Budget - Other than the Min Level Benchmark, this alternative has the lowest PNV of all the alternatives. It is ranked third under the least PVC category. Like alternative F, it has a budget constraint which limits the amount of investments during the planning period. The benefit values decline between 65% to 15%. The investment levels correspondingly decline at roughly the same amount as Alternative F in comparison to the Max PNV (Assigned) Benchmark.

Alternative J the preferred alternative is ranked seventh 81.2 MM\$ less than Max PNV and seventh with a PVC of 238.5 MM\$ greater than minimum level. This alternative which places emphasis on recreation and wildlife programs and reduces road construction and timber harvesting costs compared with alternatives H, B, C, and I. Cable logging is limited in the first decade.

APPENDIX C

APPENDIX C

ROADLESS AREA RE-EVALUATION

The Forest Plan Roadless Area Evaluation was conducted in response to direction from the Secretary of Agriculture that each National Forest evaluate Roadless areas within its boundaries as part of developing a forest plan. Earlier nationwide reviews of National Forest roadless areas were completed in 1974 (RARE I) and 1979 (RARE II), but legal challenges to RARE II resulted in the order for the new, Forest-by-Forest review. The purpose of RARE I, RARE II, and the current evaluation was to recommend suitable roadless areas for addition to the National Wilderness Preservation System.

The Ashley National Forest roadless area evaluation began with the mapping of all previously inventoried roadless areas (both RARE I and RARE II). This enabled the Forest to delineate composite boundaries where the two previous inventories overlapped. The new mapping also identified development activities that had inadvertently been included in the original inventory or that had occurred since the studies had been completed.

The new inventory was presented to the public for review and comment at an open house at the Tri-Arc Lodge in Salt Lake City and at each of the ranger district offices and in Green River, Wyoming in November of 1983. These meetings were heavily publicized in local news media. An information packet containing the details in the inventory was also mailed to the people and organizations on the Forest Plan mailing list.

The result of the inventory was the identification of twelve roadless areas within the Ashley National Forest boundary plus the High Uintas Roadless Area which is partially on both the Ashley and Wasatch National Forests.

With the passage of the Utah Wilderness Bill, the need for the re-evaluation process is eliminated. Information and data pertaining to this roadless area evaluation is on file at the Ashley National Forest Supervisor's Office in Vernal, Utah.

APPENDIX D

APPENDIX D ALTERNATIVE MAPS

This appendix contains maps showing all analysis areas and a matrix which displays the assignment of each analysis area to one or more management prescriptions.

For detailed discussion of the management prescriptions, see Appendix B of this DEIS. Chapter II, Table II-3 displays the total acreage assignment to the various management prescriptions (management areas) by alternative.

Note that many of the analysis areas are split between two or more prescriptions. This is displayed in the matrix by a slash (/) between the letters which designate the prescriptions. The splits between prescriptions are listed in order of acreage, the largest acreage first and smallest acreage last. For example: n/f/i indicates that an analysis area is assigned to three prescriptions with the largest acreage assigned to prescription n and the smallest acreage assigned to prescription i.

Prescriptions are lettered as follows:

a Minimum Level	k Water High
b Timber Moderate	l Wildlife Timber
c Timber High	m Riparian High
d Forage High	n Existing Low
e Wildlife High	o Special Areas
f Dispersed Recreation Moderate	p NRA Timber
g Dispersed Recreation High	q NRA Forage
h Developed Recreation	r NRA Wildlife
i Wilderness Moderate	s NRA Recreation
j Wilderness High	

Where dual numbers are shown, such as 21(104), the analysis area numbered in parentheses has been combined with the unbracketed analysis area.

TABLE D-1 Management Prescription Application by Alternative

Analysis Area	ALTERNATIVES									
	A	B	C	D	E	F	G	H	I	J
1	n	n	n	n/r	n	r	a	n	n	n
2	n	n	n	n	n	n	a	q/n	n	n
303	n	n	n	r/n	r/n	n	n/a	n	n	n
6	e	e	d	e	e	e	e	e	e	e
7	n/e	n/e	n	e	e	n	e	d	n/e	e
8	d/n	d/n	d	n/d	d	n	a	d	d/n	d
9	n	n/a	n	n	n	f	f	n	n/a	n/a
10	n	n	f/c	n	n	l	n/a	c	n	n
11	n/b	f/n	f/c	n/c	f/n	l	n/a	c	n/c	n
12	n	f/n	n	n	n	f	f/n	n	f/n	n/f
13	f	f/b	f	f	f/l	f	l/f	f	f	f
15	n	n	n	e	e	e	e	d	n	n
16	d	d	d	d	d	n	n	d	d	d
17	n	n/a	n	n	n	g	g	n	n/a	n/a
18	f	f/a	f	n/f	f	g/f	g/f	f	f/a	f/a
19	n	n	n	r	n	r	a	n	n	n

ALTERNATIVES

Analysis Area	A	B	C	D	E	F	G	H	I	J
20	n	n	n	n	n	n	a	n	n	n
304	n	n	n	n	n	r	a	n	n	n
21(104)	n	n	n	n	n	n	n	n	n	n
22	n	n	n	r	r	n	n	n/r	n	n
25	f	f	f	e	e	f	f	d	f	f
28	d	d	d	d	d	n	a	d	d	n/d
29	n	n	n	n	n	n	n	d/n	n	n
30	n	n	n	n	n	f	f	n	n	n
301	n	n	n	n	n	n	n	n	n	n
32	n	f/n	f	n	f/n	n	n	n	f/n	f/n
33	n	f/n	f	n	f/n	n	n	n	f/n	f/n
34	n	n	n	n	n	n	n	n	n	n
35	f	f	f	f	f	f	f	f	f	f
40	d	d/a	d	d/n	d	n	n	d	d/a	d/a
41	n	n	n	n	n	n	n	d	n	n
42	n	n	n	n	n	n	n	n	n	n
302	n	n	n	n	n	n	n	n	n	n
43	g/n	n	f	g/n	n	g/l	g/n	n/g	n	n
44	n/g	n/f	f	n/g	f/n	l/g	n/g	n/g	n/f	n/f
45	f	f	f	g/f	n/f	g/f	g/f	f/g	f/n	f
46	r	r	r	r	r	n	a	r	r	r
47	n	n	n	r	n	r	a	n	n	n
48	n	n	n	n	n	n	a	n	n	n
305	n	n	n	n	n	n	a	n	n	n
306	n	q	n	n	n	n	n	q	n	n
307(54)	n	n	n	n	n	n	a	n	n	n
49	n	n	n	n	n	n	a	n	n	n
50	r/n	p/r/n	r	r/n	r/n	n	n/a	r/n	r/n	r
51	p/n	p/n	p	n/p	n	n	n/a	n/p/r	n/p	n/p
53	n	n	n	r	r	n	n	q	n	n/r
55	f	f	f	f	f	e	f	f	f	f
56	n	n	n	e	e	e	n	d	e	e
57	n	a/n	f/b	n	f/b/n	f	n	n	a/b/n	a/n
58	n	n	c	n	n	e	n	n	n	n
59(60)	n/i	n/i	d/i	n/i	n/i	n/i	n/i	d/i	n/i	n/i
308	n	n	n	n	n	n	n	d	n	n
61	n	n	n	n	n	n	n	n	n	n
62	n	n	n	n	n	n	n	n	n	n/f
63	n	n/f	n	n	n	n	n	n	n	n/f
64	n	n	n	n	n	n	n	n	n	n
65	n/i	d/n/i/a	f/b/i	n/i	f/c/n/i	f/i	n/i	n/l	b/n/i/a	n/b/i/f/a
66	n	n	b	n	b	l	n	n	n	n
67	n	n	b	n	b	l	n	n	n	n
68	n	n	n	n	n	f	n/a	n	n	n
69	n/i	n/i	n/i	n/i	n/l	f/l	a/n/i	n/i	n/i	n/i/f
70	n/i	n/i	b/n/i	n/i	n/i	f/i	n/i	n/i	n/i	n/i/f
71	b/i	b/k/i	b/c/i	b/i	b/c/i	f/i	a/f/i	b/i	b/c/l	f/i
72	n	n	b	n	n	n	n	n	n	n/f
73	e	e	g	e	e	g	g	e	e	e
74	e	e	n	e	e	n	n	e	e	e
76	g	g	g	g	g	g	g	g	g	g
77	g	g	n	g	g	n	n	g	g	g

ALTERNATIVES

Analysis Area	A	B	C	D	E	F	G	H	I	J
144	f	f	f	g/f	f	l	g/f	f	f	f
145	n	d/b	b	n	b	g/n	g/n	n	n	n
146	g/n	n	n	n/g	n	l/g	g/n	n/g	n	n
147	g/f	n/g	f	g/n	f	g/l	g/n	f/g	f	f/g
148	g/n/l	n/g/f/l	n/f/i	g/n/i	n/i	g/l/i	g/n/i	n/g/i	n/i	n/f/g/i
149	n	n	n	n	n	g/n	g/n	n	n	n
150	g/f	f	f	g/f	f	g/l	g/l	f/g/b	f	f/g
152	n	n	n	n	n	r	n	n	n	n
153	n	n	n	n	n	r	a	n	n	n
154	r/n	r/n	n	r	r	n	n	q	n/r	r
155	e	e	d	e	e	e	e	e	e	e
156	n	n	n	e	e	e	n	d	n	n
157	n	n	n	n	n	e	n	n	n	n
158	f	f	f	f	f	e	a	f	f	f
162	n	n	n/d	n	n	n	n	d	n	n
314	n	n	n	n	n	n	n	d	n	n
163	n	n	n	n	n	n	n	n	n	n
164	n	f/n	f	n	f/n	n	n	n	f/n	f/n
165	n	n	n	n	n	n	n/a	n	n	n
166	n	b/n	n/b	n	n	n	n	n	n	n
167	n	n	n	n	n	l	l	n	n	n
316	n	n	n	n	n	n	n/a	n	n	n
168(187)	n	n	n	n	n	n	n	n	n	n
169	n	n	n	n	n	n	n	n	n	n
170	e	e	n	e	e	e	e	e	e	e
171	e	e	n	e	e	n	n	e	e	e
173	n	n	d	n	n/d	n	n	d	n	n
315	f	f	f	f	n	f	n	d	f	f
174	n/g	f/n	f	g/n	f/n	g/n	n/g	g/n	f/n	f/n
175	k	k	k	g/k	k	l	g/k	k/g	k	k
317(172)	f	f	f	f	f	n	f	f	f	f
177	n	n	n	n	n	n	n	n	n	n
178(180)	d	d	d	d	d	d	d	d	d	d
179	n	n	n	n	n	n	n	n	n	n
181	n	b	b	n	b	l	n/a	n	n	n
182	n/a	n	n	n	n	l	l/a	n	n	n
183	n	n	b	n	n	l	a/n	n	n	n
184(176)	n/l	n/b/a/i	b/i	n/i	n/b/i	l/i	l/n/l	n/i	n/a/i	n/i/a/f
185	n	n	b	n	n	l	n/a	n	n	n
186	f	f	f	f	f	l	l	f	f	f
189(196)	n/i	n/i/g	n/i	n/l	n/i	n/i	n/i	n/i	n/i	n/i/g
190(192)	i/n	i/n/g	i/n	i/n	i/n	i/n	i/n	i/n	i/n	i/g/n
191(198)	i/n	i/g/n	i/n	i/n	i/n	i/n	i/n	l/n	i/n	i/g/n
193	g/i/n	n/i/g	n/i	g/l/n	n/i	g/i/n	g/i/n	n/i/g	n/i	n/g/i
194(188)	i/g/n	i/n/g/b/a	i/b/n	l/g/n	i/n/f	i/g/n	i/g/n	i/n/g	i/n/a	i/n/g/f/a
195	f	f/g	f	g/f	f	l	g	f	f	f/n/g
203	n/l	n/i	n/i	n/i	n/i	n/i	n/i	n/i	n/i	n/i/f
204	n	n	d	n	n	n	a	d	n	n
205	n	n	n	n	n	n	a	n	n	n/f
206	i/n	i/g/n	i/n	i/n	i/n	i/n	i/n	l/n	i/n	i/g/n
207(211)	i/n	i/n/g	i/n	i/n	i/n	i/n	i/n	i/n	i/n	i/n/g
208	i/n	i/g/n	i/n	i/n	i/n	i/n	i/n	l/n	i/n	l/g/n

Average annual cut - The volume of timber harvested in a decade, divided by 10; used as a basis for comparison of alternatives, not as a measure of nondeclining yield.

Avoidance areas - Areas having one or more physical, environmental, institutional, or statutory impediments to corridor designation.

B

Background - The visible terrain beyond the foreground and middleground where individual trees are not visible but are blended into the total fabric of the stand. (See "Foreground" and "Middleground").

Basal area - The area of the cross-section of a tree stem near the base, generally at breast height and inclusive of bark.

Base sale schedule - A timber sale schedule formulated on the basis that the quantity of timber planned for sale and harvest for any future decade is equal to or greater than the planned sale and harvest for the preceding decade, and this planned sale and harvest for any decade is not greater than the long-term sustained yield capacity. (This definition expresses the principle of nondeclining flow.)

Baseline - With respect to soils, the amount of erosion and sedimentation due to natural sources in the absence of human activity.

Benchmark - Reference points that define the bounds within which feasible management alternatives can be developed. Benchmarks may be defined by resource output or economic measures.

Benefit - The total value of an output or other effect.

Benefit cost/ratio - Measure of economic efficiency computed by dividing total discounted primary benefits by total discounted economic costs.

Best Management Practices (BMP) - A practice or combination of practices that are the most effective and practical (including technological, economic, and institutional considerations) level compatible with water quality goals.

Big game - Those species of large mammals normally managed as a sport hunting resource.

Big game winter range - The area available to and used by big game through the winter season.

Biological (potential) - The maximum possible output of a given resource, limited only by its inherent physical and biological characteristics.

Board feet - The amount of wood equivalent to a piece of wood one foot by one foot by one inch thick. Generally, five board feet log measure is approximately equivalent to one cubic foot of round wood.

Board foot/cubic foot conversion ratio - Both board foot and cubic foot volumes can be determined for timber stands. The number of board feet per

cubic foot of volume varies with tree species, diameter, height, and form factors. This factor is applied to the cubic foot FORPLAN outputs to give board foot estimates.

Broadcast burn - Allowing a prescribed fire to burn over a designated area within well-defined boundaries for reduction of fuel hazard or as a silvicultural treatment, or both.

British Thermal Unit (BTU) - The amount of heat required to raise the temperature of one pound of water one degree Fahrenheit.

Browse - Leaves, and young shoots of trees and shrubs on which animals feed; in particular, those shrubs which are utilized by big game animals for food.

C

Canopy - The more-or-less continuous cover of branches and foliage formed collectively by the crown of adjacent trees and other woody growth.

Capability area - A site specific area of land with inherent characteristics when combined with similar areas become analysis areas.

Capable lands - Those portions of the Forest that have an inherent ability to support trees for timber harvest and produce at least 20 cubic feet/acre/year of wood fiber.

Capability - The potential of an area of land to produce resources, supply goods and services, and allow resource uses under an assumed set of management practices and at a given level of management intensity. Capability depends upon current conditions and site conditions such as climate, slope, landform, soils and geology, as well as the application of management practices, such as silviculture or protection from fire, insects, and disease.

Capital investment costs - Those associated with construction or development of improvements; includes road construction, reforestation, campground construction, range improvements, etc.

Carrying capacity - The maximum use rate possible without incurring damage to vegetation, facilities, or related resources.

Cavity - The hollow excavated in trees by birds or other natural phenomena; used for roosting and reproduction by many birds and mammals.

Clearcutting - The cutting method that describes the silviculture system in which the old crop is cleared over a considerable area at one time. Regeneration then occurs from (a) natural seeding from adjacent stands, (b) seed contained in the slash or logging debris, (c) advance growth, or (d) planting or direct seeding. An even-aged forest usually results.

Climax - The highest ecological development of a plant community capable of perpetuation under the prevailing climatic and edaphic conditions.

Closure - The administrative order restricting either location, timing, or type of use in a specific area.

Coliform bacteria - Any of several bacteria found in the large intestine of man and animals, the presence of which indicates fecal pollution.

Collector roads - See Roads.

Commercial Forest Land (CPL) - See "Timber classification".

Commodities - Products produced from a parcel of land; e.g., outputs of wood, livestock forage, and minerals.

Community lifestyles - The ways in which residents conduct their everyday routines and how the "way they live" is associated with the National Forest.

Community stability - The capacity of a community to absorb and cope with change without major hardship to institutions or groups within the community.

Concern - See "Management concern."

Confinement - To restrict fire within determined boundaries established either prior to the fire, during the fire, or in an escaped fire situation analysis. The normal tactic is surveillance only.

Congressionally classified and designated areas - Areas which require Congressional enactment for their establishment, such as National Wilderness, National Wild and Scenic Rivers, and National Recreation Areas.

Conifer - Those cone-bearing trees, mostly evergreen, including the pine spruce, fir, etc.

Constraint - In FORPLAN modeling, constraints are the bounds or limits placed on outputs, costs, and activities to help achieve alternative objectives.

Consumptive use - A use of resources that reduces the supply, such as logging and mining. See also "Nonconsumptive use".

Containment - To surround a fire, and any spot fires therefrom, with control line, as needed, which can reasonably be expected to check the fire's spread under prevailing and predicted conditions. The normal tactic is indirect attack and burn to human-made or natural barrier with little or no mop-up.

Control - To complete the control line around a fire, any spot fires therefrom, and any interior islands to be saved, burn out any unburned area adjacent to the fire side of the control line, and cool down all hot spots that are immediate threats to the control line, until the line can reasonably be expected to hold under foreseeable conditions. The normal tactic is direct attack on the fire, if possible, and mop-up.

Corridor - A linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries.

Cost effectiveness - Achieving specified outputs or objectives under given conditions for the least cost.

Cost-efficiency - The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring cost efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved at specified levels in the least cost manner. Cost efficiency is usually measured using present net value, although use of benefit-cost ratios and rates-of-return may be appropriate.

Cover/forage ratio - The ratio of cover (usually conifer types) to foraging areas (natural openings, clearcuts, etc.)

Created opening - See "Tree opening."

Critical habitat - Areas designated by Secretary of the Interior or Commerce for the survival and recovery of federally listed threatened or endangered species.

Critical minerals - Minerals essential to the National defense, but show procurement, while difficult in case of war, is less serious than those of strategic minerals.

Cubic foot - The amount of timber equivalent to a piece of wood one foot by one foot by one foot. The estimated conversion ratio for all species on the Ashley National Forest to board feet is 4.

Culmination of mean annual increment - The point where the mean annual growth increment (the basal area of a stand of trees divided by their age) ceases to increase prior to decline.

Cultural resource - The remains of sites, structures, or objects used by humans in the past--historical or archaeological.

Cultural sensitivity - Refers to the likelihood of encountering significant cultural volumes (quantity and/or quality) which may affect and be affected by ground-disturbing activities.

Cutting cycle - The planned lapse of time between successive cuttings in a stand.

D

dbh - Diameter at breast height. Diameter of a tree measured 4 feet 6 inches above the ground.

Decision criteria - Essentially the rules or standards used to evaluate alternatives. They are measurements or indicators that are designed to assist a decisionmaker to identify a preferred choice from the array of possible alternatives.

Deficit timber sale - A timber sale where the costs associated with producing the primary product(s) plus profit margin are greater than the selling value of the same product(s).

Demand - The quantity of goods or services called for at various prices, holding other factors constant.

Departure - The temporary deviation from the non-declining even-flow policy.

Dependent communities - Communities whose social, economic, or political life would become discernably different in important respects if market or nonmarket outputs from the National Forests were cut off.

Design capacity - The maximum theoretical amount of use a developed recreation site was built to accommodate.

Design standard - Approved design and construction specifications mainly used for recreation facilities and roads--includes specified materials, colors, dimensions, etc.

Designated corridor - A linear area of land with defined and recognized boundaries identified and designated by legal public notice.

Developed recreation site - Relatively small, distinctly defined area where facilities are provided for concentrated public use on a planned basis; e.g., campgrounds, picnic areas, swimming areas.

Direct outputs - Resource outputs that are caused by the action and occur at the same time and place.

Direction - See "Management direction".

Discount rate - An interest rate that represents the cost or time value of money in determining the present value of future costs and benefits.

Discounting - An adjustment, using a discount rate, for the value of money over time so that costs and benefits occurring in the future are reduced to a common time, usually the present, for comparison.

Dispersed recreation - A general term referring to recreation use outside the developed recreation site; this includes activities such as scenic driving, hunting, backpacking, and recreation in primitive environments.

Distance zone - Areas of landscapes denoted by specified distances from the observer. Used as a frame of reference in which to discuss landscape characteristics or activities of man. The three categories are:

Foreground - The detailed landscape found within 0 to 1/4-1/2 mile from the observer.

Middleground - The space between the foreground and the background in a picture of landscape. The area located from 1/4-1/2 to 3-5 miles from the viewer.

Background - The distant part of a landscape, picture, etc.; surrounding, especially those behind something and providing harmony or contrast; surrounding area or surface. Area located from 3-5 miles to infinity from the viewer.

District - See "Ranger District".

Diversity - The distribution and abundance of different plant and animal communities and species within the area covered by a land and resource management plan. See also "Edge", "Horizontal Diversity", and "Vertical Diversity".

E

Early forest succession - The biotic community that develops immediately following the removal or destruction of the vegetation in an area.

Economic efficiency - The usefulness of specified inputs (costs) to produce specified outputs (benefits). In measuring economic efficiency, some outputs, including environmental, economic, or social impacts, are not assigned monetary values but are achieved as specified levels in the least cost manner. Economic efficiency is usually measured using present net values, although use of benefit-cost ratios and rates-of-return may be appropriate.

Economic efficiency analysis - An analytical method in which incremental market and nonmarket benefits are compared with incremental economic costs.

Economic growth - Increased economic output in real terms over time.

Ecosystem - An interacting system of organisms considered together with their environment; for example, marsh, watershed, and lake ecosystems.

Edge - Where plant communities meet or where successional stages or vegetation conditions within the plant communities come together. See also "edge contrast" and "horizontal diversity".

Effects - Environmental consequences as a result of a proposed action. Included are direct effects, which are caused by the action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems. Effects and impacts as used in this statement are synonymous. Effects include ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic quality, historic cultural, economic, social, or health, whether direct, indirect, or cumulative. Effects may also include those resulting from actions that may have both beneficial and detrimental effects even if on balance the agency believes that the effects will be beneficial (40 CFR 1508.8).

Electronic sites - Areas designated for the operation of equipment which transmit and receive radio signals, excluding television aerials and antennas, for local pickup of programming and passive reflectors.

Endangered species - Any species of animal or plant that is in danger of extinction throughout all or a significant portion of its range. Plants or animals species identified by the Secretary of Interior as endangered in accordance with 1973 Endangered Species Act.

Endemic plant - A plant confined to a certain country or region and with a comparatively restricted geographic distribution.

Environmental analysis - An analysis of alternative actions and their predictable short-and long-term environmental effects, which include physical, biological, economic, social, and environmental design factors and their interactions.

Environmental Assessment - The concise public document required by the regulations for implementing the procedural requirements of NEPA (40 CFR 1508.9).

Environmental documents - A set of concise documents to include, as applicable, the Environmental Assessment, Environmental Impact Statement, Finding of No Significant Impact, or Notice of Intent.

Environmental Impact Statement (EIS) - A statement of the environmental effects of a proposed action and alternatives to it. It is required for major Federal actions under Section 102 of the National Environmental Policy Act (NEPA) and released to the public and other agencies for comment and review. It is a formal document that must follow the requirements of NEPA, the Council on Environmental Quality (CEQ) guidelines, and directives of the agency responsible for the project proposal.

Ephemeral streams - Streams that flow only as a direct response to rainfall or snowmelt events. They have no base flow.

Escape cover - Usually vegetation dense enough to hide an animal; an area used by animals to escape from potential predators.

Evaluation criteria - Standards developed for appraising alternatives.

Even-aged management - The application of a combination of actions that results in the creation of stands in which trees of essentially the same age grow together. Managed even-aged forests are characterized by a distribution of stands of varying ages (and, therefore, tree sizes) throughout the forest area. The difference in age between trees forming the main canopy level of a stand usually does not exceed 20 percent of the age of the stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand at harvest rotation age. Regeneration in a particular stand is obtained during a short period at or near the time that a stand has reached the desired age or size for regeneration and is harvested. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

Even-aged silviculture - The combination of timber management actions that result in the creation of stands where trees of essentially the same age grow together.

Clearcutting - The removal, in a single cut, of all trees in stands larger than seedlings.

Seed tree cutting - Similar to clearcutting, except that a few of the better trees of the desired species are left scattered over the area to provide seed for regeneration.

Shelterwood cutting - The removal of all trees in a series of two or more cuts over a period of not more than 30 years.

Even-aged systems - Product stands in which all trees are of about the same age. (A spread of 10 to 20 years is generally considered one age class). Cutting methods producing even-aged stands are clearcut, shelterwood, or seed tree systems.

Even-flow - Maintaining a relatively constant supply of timber from decade to decade.

Exclusion areas - Areas having terminated to be unavailable for corridor allocation or facility siting for reasons of unsuitability, legislative classification, or prior, unalterable allocation of uses incompatible with the proposed use.

Extensive grazing - Management seeks full utilization of forage allocated to livestock. Cost-effective management systems and techniques, including fencing and water development, are designed and applied to obtain relatively uniform livestock distribution and use of forage and maintain plant vigor.

F

Facilities - Improvements that are used for shelter or support of Forest Service programs. Examples include Ranger Station compounds, leased offices, housing areas, work centers, recreation complexes, and utility systems.

Facility condition class - The rating system used in the Recreation Information Management System to classify the condition of repair that a specific facility is in and maintenance needs of recreation facilities. Used for planning and budget request.

Family unit - A developed site or picnic spot that usually includes a table, fireplace, tent pad, and parking spot designed to handle a family or small group of people.

Federal Register - Published document that provides a uniform system for making available to the public regulations and legal notices issued by federal agencies.

Fee site - A Forest Service recreation area in which users must pay a fee. Fee sites must meet certain standards and provide certain facilities as specified in the Forest Service Manual.

Final cut - Removal of the last seed bearers or shelter trees after regeneration is considered to be established under a shelterwood system.

Fire hazard - The fuel in which a fire will ignite and burn.

Fire management - All activities required for protection of resources from fire and use of fire to meet land management goals and objectives.

Fire risk - The potential cause of a fire.

Firewood - See "Fuelwood."

Fisheries habitat - Streams, lakes, and reservoirs that support fish.

Flood plains - The lowland and relatively flat area adjoining inland waters, including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

Forage - All browse and nonwoody plants that are available to livestock or wildlife for grazing or harvested for feeding.

Forb - Any herbaceous plant other than true grasses, sedges, or rushes.

Forest and Rangeland Renewable Resources Planning Act of 1974 - An Act of Congress requiring the preparation of a program for the management of the National Forests' renewable resources and of land and resource management plans for units of the National Forest System. It also requires a continuing inventory of all National Forest System lands and renewable resources.

Foreground - A term used in visual management to describe the stand of trees immediately adjacent to the high-value scenic areas, recreation facility, or forest highway. See "Background" and "Middleground".

Forest development roads and trails - A legal term for Forest roads or trails that are under the jurisdiction of the Forest Service.

Forest land - See "Timber classification."

Forest Supervisor - The official responsible for administering the National Forest System lands in a Forest Service administrative unit, which may consist of two or more National Forests or all the Forests within a state. He reports to the Regional Forester.

Forest development transportation system - Roads that are part of the Forest development transportation system, which includes all existing and planned roads, trails, and airfields, as well as other special and terminal facilities designed as Forest development transportation facilities. (See arterial roads, collector roads, and local roads.)

Forest-wide standard - A performance criterion indicating acceptable norms, specifications, or quality that actions must meet to maintain the minimum considerations for a particular resource. This type of standard applies to all areas of the Forest regardless of the other prescriptions applied.

FORPLAN - A linear programming system used for developing and analyzing Forest planning alternatives.

Fuel break - A zone in which fuel quantity has been reduced or altered to provide a position for suppression forces to make a stand against wildfire. Fuel breaks are designated or constructed before the outbreak of a fire. Fuel breaks may consist of one or a combination of the following: natural barriers, constructed fuel breaks, manmade barriers.

Fuel model - A simulated fuel complex for which all the fuel descriptions required by the mathematical fire spread model have been specified.

Fuel treatment - The rearrangement or disposal of natural or activity fuels to reduce the fire hazard. Fuels are defined as both living and dead vegetative materials consumable by fire.

Fuels - Include both living plants and dead, woody vegetative materials which are capable of burning.

Fuel management - The practice of planning and executing treatment or control of any vegetative material that adversely affects meeting fire management direction based upon resource management goals and objectives.

Fuelwood - Wood--round, split, or sawed, and generally otherwise refuse material--cut into short lengths for burning. Includes firewood.

Full service management (FSM) - Full service management or standard management is achieved in recreation when signing, cleanup, maintenance, and administration are accomplished according to standards and objectives established in approved management plans.

G

Game species - Any species of wildlife or fish for which seasons and bag limits have been prescribed and which are normally harvested by hunters, trappers, and fishermen under state or Federal laws, codes, and regulations.

Goal - A concise statement that describes a desired condition to be achieved sometime in the future. It is normally expressed in broad, general terms and is timeless in that it has no specific date by which it is to be completed. Goal statements form the principal basis from which objectives are developed.

Goods and services - The various outputs, including on-site uses, produced from forest and rangeland resources.

Grass/form - An early Forest successional stage where grasses and forms are the dominant vegetation.

Grazing allotment - See "Range allotment."

Group selection cutting - The cutting method that describes the silvicultural system in which trees are removed periodically in small groups, resulting in openings that do not exceed an acre or two in size. This leads to the formation of an uneven-aged stand in the form of a mosaic of age-class groups in the same forest.

Growing season - The months of the year during which a species of vegetation grows.

Growing stock level - The number or volume of trees growing in a Forest or in a specified part of it.

Guideline - An indication or outline or policy or conduct; i.e., any issuance that assists in determining the course of direction to be taken in any planned action to accomplish a specific objective.

H

Habitat - The place where a plant or animal naturally or normally lives or grows.

Habitat Condition Index (HCI) -

Habitat diversity - See "Wildlife habitat diversity."

Habitat diversity index - A measure of habitat diversity improvement expressed as a percentage of optimum size class distribution that is achieved over time.

Habitat effectiveness - See "Wildlife habitat effectiveness".

Habitat grouping - Grouping of habitat types in logical categories to facilitate resource planning.

Habitat type - The aggregate of all areas that support or can support the same primary vegetation at climax.

Herbicide - A chemical compound used to kill or control growth of undesirable plant species.

Hiding area - Includes vegetation capable of hiding 90 percent of an adult elk or deer from a human's view at a distance equal to or less than 200 feet (61 m.).

Horizontal diversity - The distribution of wildfire as required by fuels and associated risk conditions.

Implementation - Those activities necessary to respond to the approved Land and Resource Management Plan.

Improvement cutting - Removing trees of undesirable species, form, or condition from the main canopy in strands past the sapling stage to improve the composition and quality.

Incidental grazing - Grazing use that occurs on lands not managed for the production of domestic livestock. May occur as a result of natural herd movement, trailing of livestock, or the use of domestic livestock in recreation.

Induced outputs - Outputs in the private sector induced by the direct outputs produced on the Forest.

Indicator species - A plant or animal species adapted to a particular kind of environment. Its presence is sufficient indication that specific habitat conditions are also present.

Individual tree selection cutting - Involves the removal of selected trees from specified age classes over the entire stand area in order to meet a predetermined goal of age distribution and species in the remaining stand.

Input/output analysis - a quantitative study of the interdependence of a group of activities based on the relationship between inputs and outputs of the activities. The basic tool of analysis is an input-output (IMPLAN) for a given period that shows simultaneously for each economic sector the value of inputs and outputs, as well as the value of transactions within each economic sector. It has especially been applied to estimate the effects of changes in Forest output levels on local economic activity.

Insecticide - An agent used to control insect populations.

Instream flow - Those nonconsumptive in situ quantities of water necessary to meet seasonal stream flow requirements to accomplish the purposes of the National Forests, including, but not limited to, maintenance of favorable conditions of water flow, fisheries, visual quality, and recreational opportunities at acceptable levels.

Integrated pest management - A process for selecting strategies to regulate forest pests in which all aspects of a pest-host system are studied and weighted. The information considered in selected appropriate strategies includes the impact of the unregulated population on various resource values, alternative regulation tactics and strategies and benefit/cost estimates of those alternative strategies. Regulatory strategies are based on sound consist of a combination of tactics such as timber stand improvement plus selective use of pesticides.

Intensive grazing - Grazing management that controls distribution of cattle and duration of use on the range, usually by fences, so parts of the range are rested during the growing season.

Intensive management - A high investment level of timber management that includes use of precommercial thinnings, commercial thinnings, genetically improved stock, and control of competing vegetation.

Interdisciplinary approach - The utilization of individuals representing two or more areas of knowledge and skills focusing on the same task, problem, or subject. Team member interaction provides necessary insight to all stages of the process.

Intermediate cutting - Any removal of trees from a stand between the time of its formation and the regeneration cut. Most commonly applied intermediate cuttings are release, thinning, improvement, and salvage.

Intermittent streams - A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow in mountainous areas.

Intermountain Region - That part of the National Forest System which encompasses National Forests within the Intermountain Region (Utah, southern and central Idaho, western Wyoming, and Nevada).

Interpretive services - Visitor information services designed to present educational and recreational values to Forest visitors to enhance their understanding, appreciation, and enjoyment of the Forest.

Interpretive site - A developed site at which a broad range of natural or cultural history is interpreted or discussed for the enjoyment of the public.

Inventory data and information collection - The process of obtaining, storing, and using current inventory data appropriate for planning and managing the Forest.

Irretrievable - Applies to losses of production, harvest, or commitment of renewable natural resources. For example, some or all of the timber production from an area is irretrievably lost during the time an area is used as a winter sports site. If the use is changed, timber production can be resumed. The production lost is irretrievable, but the action is not irreversible.

Irreversible - Applies primarily to the use of nonrenewable resources, such as minerals or cultural resources, or to those factors that are renewable only over long time spans, such as soil productivity. Irreversible also includes loss of future options.

Issue - A point, matter, or question of public discussion or interest to be addressed or decided through the planning process.

J

K

Key summer range - That portion of the summer range essential for the continuation of both the pre- and post-reproductive cycles for all wildlife species.

Key winter range - The portion of the year-long range where big game find food and/or cover during severe winter weather.

L

Land class - The topographic relief of a unit of land. Land classes are separated by slope, which coincides with the timber inventory process. The three land classes used in the Forest Plan are defined by the following slope ranges: 0 to 35 percent; 36 to 55 percent; and greater than 55 percent.

Land exchange - The conveyance of non-Federal land or interests in the United States in exchange for National Forest System land or interests in land.

Landing - Any place where round timber is assembled for further transport, commonly with a change of method.

Landline - For Forest Plan purposes, National Forest property boundaries.

Landline location - Legal identification and accurate location of National Forest property boundaries.

Landownership pattern - The National Forest System resource land base in relation to other landownerships within given boundaries.

Limits of Acceptable Change - A framework for establishing acceptable and appropriate resource and social conditions in recreation settings.

Limited surface occupancy - A mineral lease clause that recognizes an opportunity for occupancy but that requires further revaluation based on site-specific proposals.

Linear programming - A mathematical method used to determine the cost-effective allocation of limited resources between competing demands when both the objective; e.g., profit or cost, and restrictions on its attainment are expressible as a system of linear equalities or inequalities; e.g., $y=x+bx$.

Local dependent industries - Industries relying on National Forest outputs for economic activity.

Local roads - See Roads.

Logging residues - The unused portions of pole timber and sawtimber trees remaining after logging.

Long-term sustained yield timber capacity - The highest uniform wood yield from lands being managed for timber production that may be sustained under a specified management intensity consistent with multiple-use objectives.

M

Management action - Any activity undertaken as part of the administration of the Forest.

Management area - An area of land with similar management goals and a common management prescription.

Management concern - An issue, problem, or a condition which constrains the range of management practices identified by the Forest Service in the planning process.

Management direction - A statement of multiple-use and other goals and objectives, the associated management prescriptions, and standards and guidelines for attaining them.

Management intensity - A management practice or combination of management practices and associated costs designed to obtain different levels of goods and services.

Management emphasis - An identifier used in FORPLAN modeling to reflect allocation choices for the analysis areas. used in the Ashley FORPLAN model to identify the major resource objective.

Management Indicator Species (MIS) - A species selected because its population changes indicate effects of management activities on the plant and animal community. A species whose condition can be used to assess the impacts of management actions on a particular area.

Management opportunity - A statement of general actions, measures, or treatments that address a public issue or management concern in a favorable way.

Management practice - A specific activity, measure, course of action, or treatment.

Management prescription - Management practices and intensity selected and scheduled for application on a specific area to attain multiple-use and other goals and objectives.

Management standards and guidelines - See standards and guidelines.

Mature timber - Trees that have attained full development, particularly height, and are in full seed production.

Market-value outputs - Goods and services valued in terms of what people are willing to pay for them as evidenced by market transactions.

Maximum modification - See "Visual quality objectives".

Middleground - The visible terrain beyond the foreground where individual trees are still visible but do not stand out distinctly from the stand. (See "Foreground" and Background".)

Mineral development - The preparation of a proven deposit for mining.

Mineral entry - The filing of a mining claim for public land to obtain the right to any minerals it may contain.

Mineral entry withdrawal - The exclusion of the right of exclusive possession by the locator, of locatable mineral deposits and mineral development work on areas required for administrative sites by the Forest Service and other areas highly valued by the public. Public lands withdrawn from entry under the general mining laws and/or the mineral leasing laws.

Mineral exploration - The search for valuable minerals on lands open to mineral entry.

Mineral production - Extraction of mineral deposits.

Minerals, common variety - Deposits which, although they may have value for use in trade, manufacture, the science, or in the mechanical or ornamental arts, do not possess a distinct, special economic value for such use over and above the normal uses of the general run of such deposits. May include sand, stone, gravel, pumicide, cinders, pumice (except that occurring in pieces over 2 inches on a side), clay, and petrified wood.

Minerals, leasable - Coal, oil, gas, phosphate, sodium, potassium, oil shale, sulphur, and geothermal stream.

Minerals, locatable - Those hardrock minerals which are mined and processed for the recovery of metals. May include certain nonmetallic minerals and uncommon varieties of mineral materials such as valuable and distinctive deposits of limestone or silica. May include any solid, natural inorganic substance occurring in the crust of the earth, except for the common varieties of mineral materials and leasable minerals.

Minimum level management - The management strategy that would meet only the basic statutory requirements of administering unavoidable, nondiscretionary land uses; preventing damage to adjoining lands of other ownerships; and protecting the life, health, and safety of incidental users.

Minimum streamflow - A specific level of flow through a channel that must be maintained by the users of streams for biological, physical, or other purposes.

Mining claims - That portion of the public estate held for mining purposes in which the right of exclusive possession of locatable mineral deposits is vested in the locator of a deposit.

Mitigation - Actions to avoid, minimize, reduce, eliminate, or rectify the impact of a management practice.

Modification - See "Visual quality objectives".

Monitoring and evaluation - The periodic evaluation on a sample basis of Forest Plan management practices to determine how well objectives have been met and how closely management standards have been applied.

Mortality - Trees of commercial species, standing or down, that have died during a specified period, and were not cull trees at the time of death.

Mountain Pine Beetle - A tiny black insect, ranging in size from 1/8 to 3/4 inch, that bores its way into the tree's cambium and cuts off its supply of food, thus killing the tree.

Multiple Use - The management of all the various renewable surface resources of the National Forest System so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some lands will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output.

N

National Environmental Policy Act (NEPA) - An Act to declare a National policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, to enrich the understanding of the ecological systems and natural resources important to the Nation and to establish a Council on Environmental Quality.

National Forest Land and Resource Management Plan - A Plan developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given National Forest.

National Forest landscape management system - The art and science of planning and administering the use of Forest lands in such ways that the visual effects maintain or upgrade man's psychological welfare. It is the planning and design of the visual aspects of multiple-use land management.

National Forest Management Act (NFMA) - A law passed in 1976 as an amendment to the Forest and Rangeland Renewable Resources Planning Act requiring the preparation of Regional Guides and Forest Plans and the preparation of regulations to guide that development.

National Forest System (NFS) lands - National Forests, National Grasslands, or purchase units, and other lands under the management of the Forest Service, including experimental areas and Bankhead-Jones Title II lands.

National Recreation Trails - Trails designated by the Secretary of the Interior or the Secretary of Agriculture as part of the National system of trails authorized by the National Trails System Act. National Recreation Trails provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.

National Register of Historic Places - A listing (maintained by the U.S. National Park Service) of areas which have been designated as being of historical significance. The Register includes places of local and state significance as well as those of value to the Nation.

National Wilderness Preservation System - All lands covered by the Wilderness Act and subsequent Wilderness designations, irrespective of the department having jurisdiction.

Natural barrier - A natural feature that will restrict livestock movements such as a dense stand of trees or downfall.

Natural catastrophic condition - A significant change in Forest conditions on the area that affects the Forest plan resource management objectives and their projected and scheduled outputs, uses, costs, and impacts on local communities and environmental quality.

Net public benefits - An expression used to signify the overall long-term value to the nation of all outputs and positive effects (benefits) less all associated inputs and negative effects (costs) whether they can be quantitatively valued or not. Net public benefits are measured by both quantitative and qualitative criteria rather than a single measure or index. The maximization of net public benefits to be derived from management of units of the National Forest System is consistent with the principles of multiple use and sustained yield.

No action alternative - The most likely condition expected to exist in the future if current management direction were to continue unchanged.

No surface occupancy - A mineral lease clause that permits passive activities such as seismic exploration or directional drilling from adjacent areas, but prohibits drilling or the occupancy of the surface.

Noncommodity outputs - A resource output that cannot be bought and sold.

Nonconsumptive use - That use of a resource that does not reduce the supply. For example, nonconsumptive use of water includes hydroelectric power generation, boating, swimming, and fishing.

Nondeclining flow - The principle expressed by the definition of the base sale schedule.

Nonforest land - See "Timber classification".

Nongame - Species of animals which are not managed for sport hunting resource.

Nonpoint source pollution - Sources of pollution that are diffuse in origin, their transportation into receiving water not well defined or constant, their discharge occurring at many diffuse locations, and depending heavily on weather conditions such as rainstorms or snowmelt. Pollution from Forest management is of this type.

Nonmarket valued outputs - Goods and services not generally traded in the marketplace, but valued in terms of what reasonable people would be willing to pay from them rather than go without. Those obtaining the actual outputs do not necessarily pay what they would be willing to pay from them

Nonwinter ranges - Any area of the Forest not included in the definition of big game winter range.

Notice of Intent - Written notice to the affected District Ranger, by those who intend to engage in mining activity on the Forest, of proposed prospecting, exploration, mining, and mineral processing activities. Also, a notice in the Federal Register of intent to prepare an environmental statement on a proposed action.

Noxious farm weeds - Those pernicious plant species occurring unnaturally on National Forest System lands that have the greatest potential of contributing to an unfavorable economic impact on crop or pasture land downstream.

0

Objective - A concise, time-specific statement of measurable planned results that respond to reestablished goals. An objective forms the basis for further planning to define the precise steps to be taken and the resources to be used in achieving identified goals.

Occupancy trespass - The illegal occupation or possession of National Forest land or property.

Off-road vehicle (ORV) - Vehicles such as motorcycles, all-terrain vehicles, four-wheel drive vehicles, and snowmobiles.

Old growth - A stand of trees that is past full maturity and showing decadence; the last stage in forest succession.

Old growth habitat - Habitat for certain wildlife that is characterized by overmature coniferous forest stands with large snags and decaying logs.

Operational costs - Those costs associated with administering and maintaining National Forest facilities and resource programs.

Operational Plan - A written document approved by the Forest Supervisor which provides specifically, at the project level, for implementation of the management direction established in the Forest Plan.

Opportunity - See management opportunity.

Optimum - A level of production that is consistent with other resource requirements as constrained by environmental, social, and economically sound conditions.

Outputs - The goods, services, products, and concerns which are measurable and capable of being used to determine the effectiveness of programs and activities in meeting objectives. Goods, end products, or services that are purchased, consumed, or utilized directly by people. A broad term for describing any result, product, or service that a process or activity actually produces.

Overmature timber - Trees that have attained full development, particularly in height, and are declining in vigor, health, and soundness.

Overstory - That portion of the trees, in a Forest or more than one story, forming the upper or uppermost canopy.

Overthrust belt - A narrow zone extending from Alaska to Mexico, which resulted from compressional stresses within the earth, and which is characterized by abundant large thrust faults.

P

PAOT - See "persons-at-one-time (PAOT)".

Partial retention - See "Visual quality objectives".

Particulates - Small particles suspended in the air and generally considered pollutants.

Patented mining claim - A patent is a document which conveys title to land. When patented, a mining claim becomes private property and is land over which the United States has no property rights, except s may be reserved in the patent. After a mining claim is patented, the owner does not have to comply with requirements of the General Mining Law or implementing regulations.

Payment in lieu of taxes - Payments to local or state governments based on ownership of Federal land and not directly dependent on production of outputs or receipt sharing. Specifically, they include payments made under the Payments in Lieu of Taxes Act of 1976 by U.S. Department of the Interior.

Permitted grazing - Use of a National Forest range allotment under the terms of a grazing permit.

Personal use - Normally used to describe the type of permit issued for removal of wood products (firewood, post, poles, and Christmas trees) from National Forest land when the product is for home use and not to be resold for profit.

Persons-at-one-time (PAOT) - A recreation capacity measurement term indicating the number of people who can use a facility or area at one time.

Person-year - Approximately 2,080 working hours. May be filled by one person working year long or several people filling seasonal positions.

Planned ignitions - A fire started by a deliberate management action.

Planning area - The area of National Forest land covered by a REgional Guide or Forest Plan.

Planning corridor - A general broad linear area of land used to evaluate where a specific right-of-way could be placed.

Planning criteria - Standards, tests, rules, and guidelines by which the planning process is conducted and upon which judgments and decisions are based.

Planning period - The 10-year time frame for which goods, services, and effects were projected in the development of the Forest Plan.

Planning questions - A major policy question of long-range significance, derived from the public issues and management concerns, to be decided when selecting among alternative Forest Plans.

Planning records - A system that records decisions and activities which result from the process of developing a Forest Plan, revision, or significant amendment.

Pole/sapling - A Forest successional stage in which trees between 5- and 7-inch diameter are the dominate vegetation.

Pole timber - Line trees of at least 5 inches in diameter at breast height, but smaller than the minimum utilization standard for sawtimber.

Policy - A guiding principle which is based on a specific decision or set of decisions.

Practices - Those management activities that are proposed or expected to occur.

Precommercial thinning - The practice of removing some of the trees less than merchantable size from a stand so that the remainign trees will grow faster.

Predator - One that preys, destroys, or devours--usually an animal that lives by preying on other animals.

Preferred alternative - The alternative recommended for implementation in the Forest Plan.

Preparatory cut - The removal of trees near the end of a rotation, which permanently opens the canopy and enables the crowns of seed bearers to enlarge, to improve conditions for seed production and natural regeneration. Typically done in the shelterwood system.

Prescribed fire - A wildland fire burning under specified conditions which will accomplish certain planned objectives. The fire may result from either

planned or unplanned ignitions. Plans for use of unplanned ignitions for this purpose must be approved by the Regional Forester.

Prescription - A predesignated set of criteria established for the use of prescribed fire to accomplish specific land and resource management objectives. See "management prescription".

Present Net Value (PNV) - The difference between the discounted benefits and the discounted costs over a given time period.

Preservation - A visual quality objective that allows for only ecological changes.

Presuppression - Activities organized in advance of fire occurrence to assure effective suppression action.

Primitive (ROS) - Recreation and wilderness opportunity spectrum classification characterized by an essentially unmodified environment, where trails may be present but structures are rare, and where probability of isolation from the sights and sounds of man is extremely high.

Primitive roads - Roads constructed with no regard for grade control or designed drainage, sometimes by merely repeatedly driving over an area. These roads are single lane, usually with native surfacing and sometimes passable with 4-wheel drive vehicles only, especially in wet weather.

Productive forest lands - Forest lands that are capable of producing crops of industrial wood and have not been reserved or deferred.

Production potential - The capability of the land or water to produce a given resource.

Program - When capitalized, the Renewable Resource Program required by the RPA. Generally, sets of activities or projects with specific objectives, defined in terms of specific results and responsibilities for accomplishment.

Program Budget - The fiscal planning document for estimating short- and long-range dollar needs by program area.

Program development and budgeting - The process by which activities for the Forest are proposed and funded.

Programmed harvest - The part of the potential yield that is scheduled for harvesting. It is based on current demand, funding, and multiple use considerations.

Project administrative site - A site with facilities such as guard stations, project work cabins, and other facilities primarily existing for project purposes.

Project design - The process of developing specific information related to location, timing, activities, accountability, and control that result in the achievement of an objective or desired future condition.

Projects - Work schedule prescribed for a project area to accomplish management prescriptions. Projects can be for operation maintenance and protection (OMP) or for investment purposes. OMP projects are for ongoing work and are generally considered 1 year at a time. Investments can be of multiyear duration. A project is organized for managerial convenience, and is described by location, activities, outputs, effects, work force, dollars, time, and responsibility for execution.

Public access - Usually refers to a road or trail route over which a public agency claims a right-of-way for public use.

Proposed action - In terms of the National Environmental Policy Act, the project, activity, or decision that a Federal agency intends to implement or undertake.

Public issue - A subject or questions of widespread public interest relating to management of the National Forest System

Public participation - Meetings, conferences, seminars, workshops, tours, written comments, responses to survey questionnaires, and similar activities designed and held to obtain comments from the public about Forest Service planning.

Q

R

Range - Land producing native forage for animal consumption and lands that are revegetated naturally or artificially to provide forage cover that is managed like native vegetation, which are amenable to certain range management principles or practices.

Range allotment - An area designated for use of a prescribed number and kind of livestock under one management plan.

Range condition - The state of health of the range based on what it is naturally capable of producing.

Ranger District - Administrative subdivisions of the Forest supervised by a District Ranger who reports to the Forest Supervisor.

Raptors - Bird of prey with a strong notched beak and sharp talons, such as the eagle, hawk, owl, etc.

RARE II - See Roadless Area Review and Evaluation II.

Real dollar value - Monetary value that compensates for the effects of inflation.

Receipts - Money collected from timber stumpage, livestock grazing, campgrounds, and special use permits, which returns to the federal treasury.

Record of Decision - A document separate from but associated with an Environmental Impact Statement that publicly and officially discloses the responsible official's decision on which alternative assessed in the Environmental Impact Statement to implement.

Recreation capacity - The number of people, based on planning and design, that can take advantage of the recreation opportunity at any one time without substantially diminishing the quality of the experience sought after.

Recreation experience level - A classification (using a 1 to 5 scale) of the level of development in camp and picnic sites as to the types of recreation opportunities and modifications to the environment that can be expected.

Recreation Information Management (RIM) - The Forest Service computer-oriented system for the management of recreation information; i.e., use, costs, facility conditions, inventories, etc.

Recreation opportunity - Availability of a real choice for a user to participate in a preferred activity within a preferred setting, in order to realize those satisfying experiences which are desired.

Recreation Opportunity Spectrum (ROS) - Land classification system which categorizes land into six classes, each being defined by its setting and by the probable recreation experiences and activities it affords. The six management areas are: urban, rural, roaded, natural, semiprimitive motorized, semiprimitive nonmotorized, and primitive.

Recreation (PAOT) - Refers to people at one time that occupy a given campground, picnic area, or any other developed recreation area.

Recreation residences - Houses or cabins on National Forest land that are not the primary residence of the owner.

Recreation visitor day (RVD) - Twelve visitor hours, which may be aggregated continuously, intermittently, or simultaneously by one or more persons.

Recreational livestock - Animals used primarily in conjunction with recreation such as horses, mules, etc.

Reforestation - The natural or artificial restocking of an area with forest trees.

Reduced service management (RSM) - Reduce service management, or less than standard management, refers to recreation administration, operation, and maintenance at a level below established standards and management objectives (due to inadequate funding).

Regeneration - The renewal of a tree crop, whether by natural or artificial means. Also, the young crop itself, which commonly is referred to as reproduction.

Region - For Regional planning purposes, the standard administrative Region of the Forest Service, administered by the official responsible for preparing a Regional Guide.

Regional Forester - The official responsible for administering a single Region.

Regional Guide - The guide developed to meet the requirements of the Forest and Rangeland Renewable Resources Planning Act of 1974, as amended, that guides all natural resource management activities and establishes management standards and guidelines for the National Forest System lands of a given Region. It also disaggregates the RPA objectives assigned to the Region to the Forests within the Region.

Regulations - Generally refers to the Code of Federal Regulations, Title 36, Chapter II, which covers management of the Forest Service.

Removal cut (final cut) - The removal of the last seed bearers or shelter trees after regeneration is established under a shelterwood method.

Research Natural Areas (RNA) - An area in as near a natural condition as possible which exemplifies typical or unique vegetation and associated biotic, soil, geologic, and aquatic features. The area is set aside to preserve a representative sample of an ecological community primarily for scientific and educational purposes; commercial and general public use is not allowed.

Residual stand - The trees remaining standing after some even such as selection cutting.

Residual utilization - Removal and use of forest residue (such as slash, litter, brush, snags) for energy production, home heating, or wood products.

Resource allocation model - A mathematical model using linear programming which will designate land to prescriptions and schedule implementation of those prescriptions simultaneously. The purpose of the model is to find a schedule and allocation that meets the goals of the Forest and optimizes some objective function such as "minimize costs".

Resource element - A major Forest Service mission-oriented endeavor which fulfills statutory or executive requirements and comprises a collection of activities from the various operating programs required to accomplish the mission. The twelve resource elements are: Recreation, wilderness, wildlife and fish, range, timber, water-soil-air, minerals, human and community development, lands, facilities, protection, and general administration.

Resource Management Plan - A Plan developed prior to the Forest Plan that outlines the activities and projects for a particular resource element independently of considerations for other resources. Such Plans are superseded by the Forest Plan.

Resource use and development opportunities - A possible action, measure, or treatment and corresponding goods and services identified and introduced during the scoping process which subsequently may be incorporated into and addressed by the Land and Resource Management Plan in terms of a management prescription.

Responsible official - The Forest Service employee who has been delegated the authority to carry out a specific planning action.

Retention - See "Visual quality objectives".

Right-of-way - An accurately located strip of land with defined width, point of beginning, and point of ending. It is the area within which the user has authority to conduct operations approved or granted by the landowner in an authorizing document, such as a permit, easement, lease, license, or Memorandum of Understanding (MOU).

Riparian Areas - Geographically delineable areas with distinctive resource values and characteristics that are comprised of the aquatic and riparian ecosystems.

Riparian ecosystems - A transition between the aquatic ecosystem and the adjacent upland terrestrial ecosystem and is identified by soil characteristics and distinctive vegetation communities that require free or unbounded water.

Road - A general term denoting a way for purposes of travel by vehicles greater than 40 inches in width.

Forest arterial road. Provides service to large land areas and usually connects with public highways or other Forest arterial roads to form an integrated network of primary travel routes. The location and standard are often determined by a demand for maximum mobility and travel efficiency rather than specific resource management service. It is usually developed and operated for long-term land and resource management purposes and constant service (FSM 7710.51).

Forest collector road. Serves smaller land areas than a Forest arterial road and is usually connected to a Forest arterial or public highway. Collects traffic from Forest local roads and/or terminal facilities. The location and standard are influenced by both long-term multi-resource service needs, as well as travel efficiency. May be operated for either constant or intermittent service, depending on land use and resource management objectives for the area served by the facility (FSM 7710.51).

Road maintenance levels - Levels are described as follows:

- Level 1. Road normally closed to vehicle traffic.
- Level 2. Road open for limited passage of traffic but not normally suitable for passenger cars.
- Level 3. Road open for public traffic including passenger cars, but may not be smooth or comfortable.
- Level 4. Road suitable for all types of vehicles, generally smooth to travel, and dust may be controlled.
- Level 5. Road is smooth and dust free, and the surface is skid resistant if paved.

Roaded natural - Recreation opportunity spectrum classification that characterizes a predominately natural environment with evidence of moderate

permanent resource alteration and utilization. Evidence of the sights and sounds of man is moderate, but in harmony with the natural environment. Opportunities exist for both social interaction and moderate isolation from sights and sounds of man.

Roadless Area and Evaluation II (RARE II) - The national inventory of roadless and undeveloped areas within the National Forests and Grasslands. This refers to the second such assessment which was documented in the Final Environmental Impact Statement of the Roadless Area Review and Evaluation, January 1979.

Rotation - The planned number of years between the formation of a regeneration of trees and its final cutting at a specified stage of maturity.

Roundwood - Timber and fuelwood prepared in the round state--from felled trees to material trimmed, barked, and crosscut (logs, transmission poles, etc.)

RPA Program - The Forest and Rangeland Renewable Resource Planning Act of 1974. Also refers to the National Assessment and Recommended Program developed to fulfill the requirements of the Act. The most recent recommended program was done in 1980.

Rural (ROS) - Recreation opportunity spectrum classification that characterizes an area in which the sights and sound of man are prevalent and the landscape has been considerably altered by the works of man.

S

Sale schedule - The quantity of timber planned for sale by time period from an area of suitable land covered by a Forest Plan. The first period, usually a decade, of the selected sale schedule provides the allowable sale quantity. Future periods are shown to establish that long-term sustained yield will be achieved and maintained.

Saleables - See "Minerals, common variety".

Salvage cutting - The exploitation of trees that are dead, dying, or deteriorating because they are overmature or have been materially damaged by fire, wind, insects, fungi, or other injurious agencies, before their timber becomes worthless.

Sanitation cutting - The removal of dead, damaged, or susceptible trees, done primarily to prevent the spread of pests or pathogens and so promote Forest hygiene.

Sawtimber - Live trees that equal or exceed the minimum utilization standard for sawtimber.

Scenic easement - An interest in the land of another which allows the easement hold specified uses or rights without actual ownership of the land. In this cause, control of the use of land adjacent to public highways, parks,

and rivers. It may provide something attractive to look at within the easement area, an open easement itself, or a screen to block out an unsightly view beyond the easement area.

Scoping process - A continuing process throughout the environmental analysis for planning and management activities. It may involve a series of meetings, telephone conversations, or written comments from different interested groups.

Second growth - Forest growth that has become established after some interference with the previous Forest crop; e.g., cutting, serious fire, or insect attack.

Security area - Habitat which, because of its size, topography, and vegetation, is capable of holding animals during periods of stress. The size of area varies with the combination of space and hiding cover necessary for animals to be psychologically secure in relation to the degree of human access.

Seed tree cutting - Removal in one cut of the mature timber crop from an area, except for a small number of seed bearers left singly or in small groups.

Seedlings and saplings - Live trees less than 5 inches in diameter at breast heights.

Selected alternative - The alternative recommended for implementation as the Forest Plan based on the evaluation completed in the planning process.

Selection - See "Group selection" and "Individual (single) tree selection".

Semiprimitive motorized (ROS) - Recreation opportunity spectrum classification characterized by few or subtle changes by man, and with a moderate probability of isolation from the sights and sounds of man, except for the evidence of primitive roads and/or trails.

Semiprimitive nonmotorized (ROS) - Recreation opportunity spectrum classification characterized by few or subtle changes by man, with a high probability of isolation from the sights and sounds of man.

Sensitive species - Plant or animal species which are susceptible or vulnerable to activity impacts of habitat alterations.

Sensitivity level - A particular degree of measure of viewer interest in scenic qualities of the landscape. Three sensitivity levels are employed, each identifying a different level of user concern for the visual environment:

- Level 1 - Highest sensitivity
- Level 2 - Average sensitivity
- Level 3 - Lowest sensitivity

Shade-intolerant plants - Plant species that do not germinate or grow well in the shade.

Shade-tolerant plants - Plants that grow well in shade.

Shelterwood - The cutting method that describes the silvicultural system in which, in order to provide a source of seed and/or protection for regeneration, the old crop (the shelterwood) is removed in two or more successive shelterwood cuttings. The first cutting is ordinarily the seed cutting, though it may be preceded by a preparatory cutting, and the last is the final cutting. Any intervening cutting is termed removal cutting. An even-aged stand results.

Seral condition - The unique characteristics of a biotic community which is a developmental, transitory stage in an orderly ecologic succession involving changes in species, structure, and community processes with time.

Shrub/seedling - A Forest successional stage in which shrubs and seedling trees are the dominant vegetation.

Sight distance - The distance at which 90 percent or more of a deer or elk is hidden from an observer. Hiding cover exists when 90 percent or more of a standing deer or elk is hidden at a distance of 200 feet or less.

Silvicultural system - A management process whereby Forests are tended harvested, and replaced, resulting in a Forest of distinctive form. Systems are classified according to the method of carrying out the fellings that remove the mature crop and provide for regeneration and according to the type of Forest thereby produced.

Single-tree selection - See "Individual (single) tree selection".

Site index - A numerical evaluation of the quality of land for plant productivity.

Site preparation - A general term for removing unwanted vegetation, slash, roots and stones from a site before reforestation.

Site productivity - Production capability of specific areas of land.

Size class - For the purposes of Forest planning, size class refers to the three intervals of tree stem diameter used for classification of timber in the Forest Plan data base.

- less than 5-inch diameter = seedling/sampling
- 5- to 7-inch diameter = pole timber
- greater than 7-inch diameter = sawtimber

Skidding - A loose term for hauling loads by sliding, not on wheels as developed originally from stump roadside, deck skidway, or other landing.

Slash - The residue left on the ground after timber cutting and/or accumulation as a result of storm, fire, or other damage. It includes unused logs, uprooted stumps, broken or uprooted stems, branches, twigs, leaves, bark, and chips.

Small game - Birds and small mammals normally hunted or trapped.

Snag - A nonliving standing tree. The interior of the snag may be sound or rotted.

Social variables - Social conditions which can be identified, observed and measured for Forest planning. The variables used for the social impact analysis are: lifestyles, attitudes, beliefs, and values, social organization and population and land use.

Soil Compaction - Reduction of soil volume which results in alternation of soil, chemical, and physical properties.

Soil productivity - The capacity of a soil to produce a specific crop such as fiber, forage, etc., under defined levels of management. Productivity is generally dependent on available soil moisture and nutrients and length of growing season.

Soil profile - A progression of distinct layers of soil from the surface to bedrock.

Soil surveys - Systematic examinations of soils in the field and in laboratories; such examinations are at differing "orders" and interpretation according to their adaptability for various crops, grasses and trees; there are five classed orders of surveys, with order 1 being the highest intensity through order 5 (lowest intensity).

Special interest areas - Areas established and managed for their unique special features.

Special Use Permit - A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest land for some special purpose.

Stand (tree stand) - An aggregation of trees or other vegetation occupying a specific area and sufficiently uniform in composition (species), age arrangement, and condition as to be distinguishable from the Forest or other vegetation or other land cover on adjoining areas.

Stand examination surveys - Procedures consisting of seven types of surveys used to collect data on Forest stands. Types 1 through 4 are conducted by using intensive specified standard procedures. Types 5 through 7 are less intensive examinations consisting of modifications to procedures used in Type 1 through 4 surveys.

Stand size class - A classification of forest land based on the predominant size of trees present; that is sawtimber, pole timber, seedling-sapling.

Standard and guideline - A principle, requiring a specified level of attainment, a rule to measure against; a mandatory requirement.

State Air Quality Regulations - The legal base for control of air pollution sources in that state. Prescribed burning is generally covered under these regulations.

State Implementation Plan - A State Plan that covers implementation, maintenance, and enforcement of primary and secondary standards in each air quality control region, pursuant to Section 110 of the Clean Air Act.

Strategic minerals - Those minerals of which the U.S. imports 50 percent or more from foreign sources (based on 1978 U.S. Bureau of Mines figures).

Stream - A water course having a distinct natural bed and banks; a permanent source which provides water at least periodically; and at least periodic or seasonal flows at times when other recognized streams in the same area are flowing.

Successional stage - A stage or recognizable condition of a plant community that occurs during its development from bare ground to climax.

Suitability - The appropriateness of applying certain resource management practices to a particular area of land, as determined by an analysis of the economic and environmental consequences and the alternative use foregone. A unit of land which may be suitable for a variety of individual or combined management practices.

Suitability analysis - Process of identifying lands to be managed for timber production. Stage I identifies the biologically capable, administratively available, and technically suitable lands. Stage II consists of an economic analysis of costs and benefits of timber management on the lands identified in Stage I. Stage III provides the final allocation of suitable lands based on Forest objectives and economic efficiency. Stages II and III are completed with the FORPLAN model.

Suitable Forest land - Lands allocated to timber management as a result of the three-stage suitability analysis.

Supply - A schedule of the quantity of a product or Forest output that will be produced at various prices.

Supply potential - The output production possible from the available resources.

Suppression - An act extinguishing or confining fire.

Surface resources - Renewable resources located on the earth's surface in contrast to ground water and mineral resources located below the earth's surface.

Sustained yield of products and services - The achievement of maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the National Forest without impairment of the productivity of the land.

T

Targets - A quantifiable output. Assignments made to the Forest by the Regional Forester.

Technically suitable forest land - Land for which technology is available that will ensure timber production without irreversible resource damage to soils, productivity, or watershed conditions. There is a reasonable assurance that such lands can be adequately restocked as provided in 36 CFR 219.27(c)(3).

Temporary road - A road that will be physically obliterated and seeded after its primary use is completed; e.g., spur road for logging.

Thermal cover - Cover used by animals to ameliorate effects of weather; for elk, a stand of coniferous trees 40 feet or taller with an average crown closure of 70 percent or more.

Thinning - A felling made in an immature stand primarily to maintain or accelerate diameter increment and also to improve the average form of the remaining trees without permanently breaking the canopy. An intermediate cutting.

Threatened species - Those plant or animal species likely to become endangered species throughout all or a significant portion of their range within the foreseeable future.

Tiering - Refers to the coverage of general matters in broader Environmental Impact Statements (Such as National program or policy statements) which subsequent narrower statements or environmental analyses (such as Regional or Basin-wide program statements or ultimately site-specific statements) incorporating, by reference, the general discussions and concentrating solely on the issues specific to the statement subsequently prepared.

Timber base - The lands within the Forest capable, available, and suitable for timber production.

Timber classification - Forested land is classified under each of the land management alternatives according to how it relates to the management of the timber resource. The following are definitions of timber classifications used for this purpose:

1. Nonforest land - Lands never having or incapable of having greater than 10 percent of the area occupied by forest trees and lands formerly forested and currently developed for nonforest use.
2. Forest land - Land at least 10 percent occupied by forest trees of any size or formerly having such tree cover and not currently developed for nonforest use. Lands developed for nonforest uses include areas for crops, improved pasture, residential, or administrative areas, improved roads of any width and adjoining road clearings and powerline clearing of any width. The term occupancy when used to define forest land will be measured by canopy cover of live forest trees at maturity. The minimum area for classification of forest land is one acre. Unimproved roads, trails, streams, and clearings in forest areas are classified as forest if they are less than 120 feet in width.
3. Suitable forest land - Land that is managed for timber production on a regulated basis.

4. Unsuitable forest land (not suited) - Forest land that is not managed for timber production because: (1) the land has been withdrawn by Congress, Secretary, or Chief; (2) technology is not available to prevent irreversible damage to soils, productivity, or watershed conditions; (3) there is no reasonable assurance that lands can be adequately restocked within 5 years after final harvest based on existing technology and knowledge; (4) there is at present, a lack of adequate information to responses to timber management activities; or (5) timber management is inconsistent with or not cost-efficient in meeting the management requirements and multiple-use objectives specified in the Forest Plan.
5. Tentatively suitable (commercial forest land) - Forest land which is producing or is capable of producing crops of industrial wood and (1) has not been withdrawn by Congress, the Secretary, or Chief; (2) existing technology and knowledge is available to ensure timber production without irreversible damage to soils, productivity, or watershed conditions; and (3) existing technology and knowledge provides reasonable assurance that adequate restocking can be attained within 5 years after final harvesting.

Timber harvest schedule - See "Sale schedule".

Timber production - The purposeful growing, tending, harvesting, and regeneration of regulated crops of trees to be cut into logs, bolts or other round sections for industrial or consumer use. For purposes of Forest planning, the term "timber production" does not include production of fuelwood or harvest of unsuitable lands.

Timber stand improvement (TSI) - Measures such as thinning, pruning, release cutting, prescribed fire, girdling, weeding, or poisoning of unwanted trees aimed at improving growing condition of the remaining trees.

Tractor logging - Any logging method which uses a tractor as the motive power for transporting logs from the stumps to a collecting point--whether by dragging or carrying the logs.

Tradeoff Evaluation Process (TEP) - A process whereby factors, issues, elements, etc., are evaluated with regard to the tradeoffs that would occur.

Trail maintenance level - One of the categories outlined in the Management Information Handbook describing the type and intensity of maintenance for trails.

Transitory range - Land that is suitable for livestock use of a nonenduring nature over a period of time. For example, on particularly disturbed lands, grass may cover the area for a period of time before being replaced by trees or shrubs not suitable for forage.

Travel management - The administrative decisions on the location and timing of road and trail closures.

Tree opening - An opening in the forest cover created by the application of even-aged silvicultural practices.

Type conversion - The conversion of the dominant vegetation in an area from forested to nonforested or from one tree species to another.

U

Understory - The trees and other woody species growing under a more-or-less continuous cover of branches and foliage formed collectively by the upper portion of adjacent trees and other woody growth.

Uneven-aged management - The application of a combination of actions needed to simultaneously maintain continuous high-forest cover, recurring regeneration of desirable species, and the orderly growth and development of trees through a range of diameter or age classes to provide a sustained yield of forest products. Cutting is usually regulated by specifying the number or proportion of trees of particular sizes to retain within each area, thereby maintaining a planned distribution of size classes. Cutting methods that develop and maintain uneven-aged stands are single tree selection and group selection.

Uneven-aged silviculture systems - The combination of action that results in the creation of forests or stands of trees, in which trees of several or many ages grow together. Cutting methods that develop and maintain uneven-aged stands are individual tree and group selecting cutting methods:

Individual tree selection cutting. The removal of selected trees of all size classes on an individual basis.

Group selection cutting. The removal of selected trees of all size classes in groups of a fraction or an acre up to two or three acres in size.

Unpatented mining claim - See "Mining claim".

Unplanned ignition - A fire started at random by either natural or human causes, or a deliberate incendiary fire.

Unregulated harvest - This harvest is not charged against the allowable sale quantity, and includes occasional volumes removed that were not recognized in calculations of the allowable sale quantity, such as cull or dead material and noncommercial species and products. It also includes all volume removed from nonsuitable areas. Harvests from nonsuitable areas will be programmed as needed for objectives such as research on experimental Forests, to meet multiple use objectives other than timber production, and for improvement of administrative sites.

Unsuitable lands - See "Timber classification".

Utilization standards - Standards guiding the use and removal of timber. They are measured in terms of diameter at breast height (DBH) and type of the tree inside the bark (top DIB), and percent "soundness" of the wood.

V

Variety class - A classification system for establishing three landscape categories. This classification system is based on the premise that all landscapes have some visual values, but those with the most variety or diversity of visual features have the greatest potential for high scenic value. A particular level of visual variety or diversity of landscape character.

Vegetative management - Activities designed primarily to promote the health of the Forest cover for multiple-use purposes.

Vertical diversity - The diversity in a stand that results from the complexity of the above-ground structure of the vegetation; the more tiers of vegetation.

Visitor day - One visitor day equals 12 hours (one person for 12 hours or any combination thereof).

Visual absorption capability - The ability of the landscape to conceal evidence of human modifications. Rated as high, moderate, and low.

Viable populations - A number of individuals of a species sufficient to ensure the long-term existence of the species in natural self-sustaining populations adequately distributed throughout their region.

Visitor Information Service (VIS) - Activities which interpret for visitors, in layman's language, Forest management, protection, utilization, and research. It also includes interpreting the local botany, geology, ecology, zoology, history, and archaeology.

Visual quality objective (VQO) - A desired level of excellence based on physical and sociological characteristics of an area. Refers to degree of acceptable alteration of the characteristic landscape.

Enhancement - A short-term management alternative which is done with the express purpose of increasing positive visual variety where little variety now exists.

Maximum modification - A visual quality objective meaning man's activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Partial retention - A visual quality objective which, in general, means man's activities may be evident but must remain subordinate to the characteristic landscape.

Preservation - A visual quality objective that provides for ecological change only.

Rehabilitation - A short-term management alternative used to return existing visual impacts in the natural landscape to a desired visual quality.

Retention - A visual quality objective which, in general, mens man's activities are not evident to the casual forest visitor.

Visual resource - The composite of basic terrain, geologic features, water features, vegetative patterns, and land use effects that typify a land unit and influence the visual appeal the unit may have for visitors.

W

Water rights - Rights to divert and use water or to use it in place.

Water yield - The measured output of the Forest's streams.

Water yield increase - Additional water released to the Forest streams as a result of Forest management activities.

Watershed - The entire area that contributes water to a drainage system or stream.

Wetlands - Areas that are inundated by surface or ground water with a frequency sufficient to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction.

Wilderness - Areas designated by congressional action under the 1964 Wilderness Act. Wilderness is defined as undeveloped Federal land retaining its primieval character and influence without permanent improvements or human habitation. Wilderness areas are protected and managed to preserve their natural conditions, which generally appear to have been affected primarily by the forces of nature with the imprint of man's activity substantially unnoticeable; have outstanding opportunities for solitude or a primitive and unconfined type of recreation; include at least 5,000 acres or is of sufficient size to make practical their preservation, enjoyment, and use in an unimpaired condition; and may contain features of scientific, educational, scenic, or historical value as well as ecologic and geologic interest.

Wildlife - Any wildland fire that is not a prescribed fire.

Wildlife habitat diversity - The distribution an abundance of different plant and animal communities and species within a specific area.

Window - A critical segment of terrain through which right-of-way could pass in traversing from point of origin to destination.

Winter range - See "Big game winter range".

Withdrawal - An order removing specific land areas from availability for certain uses.

Wood fiber production - The growing, tending, harvesting, and regeneration of harvestable trees.

Woodland products - Harvestable items obtained from pinyon-juniper woodlands, such as fuelwood, posts, pine nuts, and Christmas trees. The products can be commercially harvested or taken for personal use.

Work center - A facility where crews assemble and are directed toward their various work assignments. A work center can be located at an administrative site. A work center normally will include storage and warehousing facilities and may include crew housing.

X

Y

Z

Zone of influence (ZOI) - The area influenced by Forest Service management activities. The zone of influence consists of a primary and secondary zone. The primary zone are areas which are directly influenced by Forest Service management activities whereas the secondary zone are areas which are indirectly impacted.

APPENDIX G

APPENDIX G

REFERENCES

- Allotment Management Plans and assorted Environmental Analysis reports dealing with actual or potential forage competition, on file at the Ashley National Forest Supervisor's Office, Vernal, Utah.
- Analysis of the Management Situation (AMS), on file at the Ashley National Forest Supervisor's Office, Vernal, Utah.
- Ashley National Forest Timber Management Plan, 1978, Supervisor's Office, Vernal, Utah.
- Connaughton, Kent P. and Roger D. Fight. "Applying Trade-Off Analysis to National Forest Planning", Journal of Forestry, November 1984.
- Council of Environmental Quality (CEQ) Regulations.
- Edminster, D.B. "RMYLD: Computation of Yield Tables for Even-Aged and Two Storied Stands", USDA Forest Service Research Paper RM-199, 1978.
- Federal Land Policy and Management Act of 1976.
Flaming Gorge National Recreation Area Final EIS and Management Plan, 1977.
Forest and Rangeland Renewable Resource Planning Act (RPA) of 1974.
- Forest Service Handbooks
- Forest Service Manuals
- Johnson, K. Norman, Daniel B. Jones and Brian Kent, 1980, "A Users Guide to the Forest Planning Model (FORPLAN)", Land Management Planning, USDA Forest Service, Ft. Collins, CO.
- Minerals Leasing Act of 1920.
- Moon Lake Power Plant Project, Draft EIS, 1981.
- National Environmental Policy Act (NEPA) of 1969.
- National Forest Management Act of 1976
- National Trails System Act of 1968.
- Palmer, Charles J. and Greg Alward, "Implan User Guide", USDA Forest Service, Ft. Collins, CO, 1980.
- Regional Forester, "Regional Guide for the Intermountain Region", 1984.
- Schwarzbart, Gideon and Patrick L. Schmitz, "Methods for Evaluating Energy Effects of Forest Management Alternatives." USDA Forest Service, Berkley, CA 1982.

Suhr, J. "TEP - A Trade-Off Evaluation Procedures", Ogden, Utah, 1979.

TIMBERVAL - Statistical Regression Program used to estimate stumpage values for the Ashley National Forest, 1981.

THK Associates, "Sweetwater County Land Use and Housing Projections", 1979.

USDA Forest Service, "Roadless Area Review and Evaluation (RARE II)", 1979.

USDI, Bureau of Census, Census of Population, 1980.

U.S. Mining Law of 1872.

Utah Department of Employment Security, "Employment Statistics", 1984.

USDA Forest Service Agriculture Handbook No. 553 "Wildlife Habitats in Managed Forests in the Blue Mountains of Oregon and Washington", 1979.

Utah State Planning Coordinators Office, "Energy 2000: The Impacts of Energy Development of Eastern Utah", 1980.

Utah Wilderness Act of 1984.

Wild and Scenic River Act of 1968.

Wilderness Act of 1964.

APPENDIX H

APPENDIX H

TRANSPORTATION & UTILITY CORRIDOR ANALYSIS

TABLE OF CONTENTS

	Pages
INTRODUCTION	H-4
DEFINITIONS.	H-4
OBJECTIVES	H-5
MANAGEMENT DIRECTION FOR ACHIEVING OBJECTIVES.	H-5
GENERAL MANAGEMENT DIRECTION	H-5
UTILITY SIZES AND RIGHTS-OF WAY USED IN THE EVALUATION PROCESS (SPECIFIC MANAGEMENT DIRECTION) . . .	H-5
APPROACHES FOR CORRIDOR/WINDOW EVALUATION AND SELECTION	H-6
INVENTORY OF EXISTING ROW THAT MEET STANDARDS FOR POTENTIAL CORRIDOR/WINDOW EVALUATION	H-7
EXISTING ELECTRICAL TRANSMISSION LINES (TABLE A)	H-8
EXISTING PIPELINES. (TABLE B)	H-9
EXISTING STATE ROADS AND HIGHWAYS (TABLE C)	H-9
INVENTORY OF PLANNING WINDOWS EVALUATED AS POTENTIAL CORRIDORS/WINDOWS	H-10
INVENTORY OF EXCLUSION AREAS	H-10
INVENTORY OF AREAS EVALUATED AS POTENTIAL AVOIDANCE AREAS	H-10
EVALUATION CRITERIA	H-11
EVALUATION PROCESS (TABLES D THROUGH G)	H-13
EVALUATION RESULTS - PROCEDURES AND RECOMMENDED DESIGNATIONS . .	H-29
SUMMARY OF MANAGEMENT DIRECTION FOR EXISTING ELECTRICAL TRANSMISSION LINE AND HIGHWAY ROUTES, PLANNING WINDOWS AND AVOIDANCE AREAS (TABLE H)	H-30

TABLE OF CONTENTS (CONTINUED)

	Pages
NARRATIVE BACKUP FOR RECOMMENDED DESIGNATIONS	H-33
ATTACHMENTS.	
EXHIBIT NO. 1 - APPROACHES FOR CORRIDOR/WINDOW SELECTION .	H-44
EXHIBIT NO. 2 - MITIGATION MEASURES REQUIRED OF APPLICANTS BY FEDERAL AGENCIES FOR HIGH VOLTAGE/EXTRA HIGH VOLTAGE ELECTRICAL TRANSMISSION LINES (MOON LAKE POWER PROJECT DRAFT EIS, January 1981)	H-47
EXHIBIT NO. 3 - REQUIRED GENERAL FEDERAL MEASURES, RE- CLAMATION PROCEDURES, AND CONSTRUCTION AND OPERATION PROCEDURES FOR PIPELINES (CHEVRON PHOSPHATE PROJECT DRAFT EIS, January 1983)	H-53
EXHIBIT NO. 4 - ENERGY TRANSPORTATION AND UTILITY CORRIDOR MAP	H-63

APPENDIX H

TRANSPORTATION and UTILITY CORRIDER/WINDOW EVALUATION

INTRODUCTION

The Forest planning process recognizes transportation and utility corridor/window evaluation and designation at the national, state, and local level for meeting future linear right-of-way (ROW) needs. The planning process specifically recognizes the demand for major energy related east-west and north-south energy transportation corridors in Northeastern Utah, Southwestern Wyoming, and Northwestern Colorado.

Because of this, the Ashley National Forest has identified energy transportation and utility corridor/window evaluation and designation as a key element in the Forest planning process. This element is addressed as a resource use in the Forest Land and Resource Management Plan and associated Environmental Impact Statement.

Selecting routes for linear facilities within the Forest area is complicated by numerous restrictions within certain land areas. Foremost among these areas are the High Uintas Wilderness, Flaming Gorge National Recreation Area (NRA), Proposed Wild and Scenic Classification of the Green River, and municipal watersheds. The planning process includes firm direction for protecting sensitive resource values within and adjacent to such constrained land areas.

Regarding the corridor/window designation, the planning direction follows the Forest Service Manual and Regional Plan guidelines for energy transportation and utility corridor planning. These guidelines have been written to assist National Forests in addressing the complications encountered in corridor/window evaluation and designation.

DEFINITIONS OF UTILITY DESIGNATION TERMS

1. Corridor - A linear strip of land which has ecological, technical, economic, social or similar advantages over other areas for the present or future location of energy transportation or utility rights-of-way within its boundaries.
2. Rights-of-way - Land authorized to be used or occupied for the construction, operation, maintenance, and terminous of a project facility passing over, upon, under or through such land.
3. Window - A critical segment of terrain through which rights-of-way could pass in traversing from points of origin to designation.
4. Exclusion area - An area having a statutory prohibition to rights-of-way for linear facilities or corridor/window designation.
5. Avoidance area - An area that poses particular environmental, institutional or statutory effects wich would be difficult or impossible to mitigate or has characteristics which impose unusual engineering constraints.

OBJECTIVES

The objectives in applying the Servicewide and Regional direction for energy transportation and utility corridor/window planning are to: (listed in a planning sequence)

1. Inventory and field check existing pipelines, electric transmission lines, and major transportation routes which are located on the Forest; (Transportation routes are inventoried as potential corridor for electrical transmission and pipeline facilities; not for expansion of or addition to the State/Interstate Road/Highway System)
2. Identify criteria which will be used to evaluate potential corridors/windows;
3. Analyze suitability of routes or areas to handle new or additional facilities and the suitability of the routes or areas for overhead vs. underground vs. surface linear right-of-way facilities;
4. Evaluate and designate areas suitable for corridors/windows on the Ashley National Forest within the land management planning process;
5. Consolidate right-of-way alignments into designated corridors/windows to avoid the proliferation of separate linear rights-of-way.

MANAGEMENT DIRECTION FOR ACHIEVING OBJECTIVES

General Direction - Generally where the purpose of the transportation, transmission, or pipeline route is to accommodate or service a particular end use on the Forest, the route followed is not considered as a potential corridor. Where existing rights-of-way pass into or through Forest lands, within an identifiable strip of land, and where the probability exists that other energy transportation systems may be located within, the strip is considered for designation as a corridor.

Before new corridors/windows or widening of existing corridors/windows are approved, consideration will be given to wheeling, uprating or multiple circuiting of transmission lines; increasing pipeline capacity by addition of compressors or looping; or utilizing existing highway transportation rights-of-way.

Specific Direction - Specific directions is related to utility sizes, existing rights-of-way, and restrictions on future corridor locations.

1. The description of general utility sizes and rights-of-way to be used in the evaluation process are:
 - a. Electric transmission lines 66 kv and above; 1/
 - b. Oil, gas, or slurry pipelines 10 inches in diameter or larger; 1/
and
 - c. Federal, State, and Interstate Highways. 2/

1/ Inclusion of lower rated transmission lines or smaller pipelines within designated corridors/windows would be permitted.

2/ Federal, State and Interstate Highways routes are considered as potential corridors for energy transportation facilities.

2. Identification and designation of existing energy transportation rights-of-way as corridors that:
 - a. Comply with evaluation criteria for determination of corridor/window suitability; and
 - b. Are desirable for retention, but not capable of further widening; or
 - c. Are desirable to retain and have widening potential for future uses; and
 - d. Agree with the potential corridor/window designations on public or state lands and the corridor/window designations of adjacent National Forests.

3. Based on the most current planning information from utility and power administrations, the Ashley National Forest has directed planning for future energy/transportation rights-of-way and associated corridors by:
 - a. Designating planning windows ^{3/}; or
 - b. Identifying constrained areas where future energy transportation rights-of-way will be discouraged or denied - such areas are identified as:
 - 1) Avoidance areas ^{3/}; ^{4/}
 - 2) Exclusion areas ^{4/}

APPROACHES FOR CORRIDOR EVALUATION AND SELECTION

Three approaches for evaluating and designating corridors will be followed in this corridor evaluation report. These are:

1. Direct (where facilities can be placed)
 - Identification/evaluation of land areas for designation as long linear corridors or windows.

2. Indirect (where facilities can not be placed)
 - Identification/evaluation of land areas where facilities may not or will not be placed, by classifying the areas as avoidance areas or exclusion areas.

3. Direct and Indirect Combined
 - Combination of the above to: a) identify, evaluate, and designate important right-of-way areas; and b) identify, evaluate, and designate areas exhibiting important natural, cultural, and social values.

^{3/} Windows and avoidance areas are to be evaluated and designated upon application of evaluation criteria for determining corridor suitability.

^{4/} Applications for linear rights-of-way within avoidance areas would be processed by the Forest if, after project evaluation, it was determined that proposed mitigation measures would meet the management standards and guidelines for the various resources within the areas.

^{5/} Applications for linear rights-of-way within exclusion areas would not be processed, due to the statutory prohibitions applicable to the area in question.

(Refer to Attachments, Exhibit 1 for a detailed discussion on these three approaches.)

INVENTORY OF EXISTING RIGHTS-OF-WAY THAT MEET STANDARDS FOR POTENTIAL CORRIDOR DESIGNATION (See Energy Transportation and Utility Corridor Map page 85)

Electrical transmission lines, gas pipelines, and major state road and highway rights-of-way currently existing on the Ashley National Forest are displayed in tables A, B, and C, respectively.

Table A
Existing Electrical Transmission Lines

Name	Location Beginning-Ending	Size (KV)	R/W Width (Feet)	Length (Miles)	Area (Acres)
Moon Lake Electric	Flaming Gorge Dam to Dutch John Substation ^{a/} (Flaming Gorge R.D.)	69	80	1.6	15.5
Bridger Valley Electric	Manila Substation to Dutch John Substation ^{a/} (Flaming Gorge R.D.) ^{b/}	69	80	12.0	87.0
Pacific Power and Light	Flaming Gorge Dam to Rock Springs, Wyo. via Dutch John Mtn. (Flaming Gorge R.D.)	230	100	3.6	43.2
Western Area Power Admin. Line 1	Flaming Gorge Dam to Ashley Substation via State Road 44, (Flaming Gorge & Vernal R.D.s)	138	80	19.8	240.1
Western Area Power Admin. Line 2	Flaming Gorge Dam to Vernal Substation via Davenport Draw (Flaming Gorge & Vernal R.D.s)	138	100	5.6	54.2
Utah Power and Light Co.	From Carbon Power Plant to Ashley Substation via Sowers Canyon (Duchesne R.D.)	138	100	10.4	126.0

Source: 2720 Case File Folders

^{a/} The Moon Lake Electric and Bridger Valley Electric rights-of-way will be considered as a single unit for future planning purposes, i.e., a transmission line route from the Flaming Gorge Dam to Manila Substation via Dutch John Substation.

^{b/} R.D. = Ranger District

Table B
Existing Pipelines

Name	Location Beginning-Ending	Size (Inches)	R/W Width (Feet)	Length (Miles)	Area (Acres)
Colorado Interstate Gas Co.	Big Dry Creek Compressor Station to Green River, Wyo.	26	50	1.1	6.7
Mid America Pipeline Co.	From S.W. Wyoming to Hobbs, NM via Davis Bottom, Flaming Gorge NRA ^{a/} (Flaming Gorge R.D.)	10	50	1.5	9.0
Pacific North- west Pipeline	Washington/Canadian border to San Juan Basin, New Mexico via Flaming Gorge NRA (Flaming Gorge R.D.)	22-26	50-75	6.8	42.6

Source: 2720 Case File Folders.

^{a/} NRA = National Recreation Area
R.D. = Ranger District

Table C
Existing Major State Roads/Highways

Name	Location	R/W Width (Feet)	Length (Miles)	Area (Acres)
<u>UTAH</u>				
SR 33 (US191)	Indian Canyon (Duchesne R.D.) ^{a/}	Variable	12.5	225.0
US 191 ^{b/}	Vernal to Dutch John to Utah/Wyoming border (Flaming Gorge & Vernal R.D.s)	Variable	30.0	545.0
SR 44	Greendale Jct. to Manila (Flaming Gorge R.D.)			
<u>WYOMING</u>				
State Hwy 530	Utah/Wyoming border at Manila to Green River, Wyo. (Flaming Gorge R.D.)	Variable	5.4	86.0

Source: Forest Land Status and Road Atlas records.

^{a/} R.D. = Ranger District

^{b/} State Road 44 is designated as US 191 only from Vernal, Utah to its junction with State Road 260. US 191 then follows the State Road 260 route while State Road 44 heads west to Manila, Utah.

PLANNING WINDOWS THAT WERE EVALUATED FOR POTENTIAL WINDOW DESIGNATION

An inventory of planning windows resulted in the following areas being identified for potential window designation: (These sites are shown on the Energy Transportation and Utility Corridor Map.)

1. Red Mountain/Taylor Mountain Plateau to Carter Dugway via Carter Military Road
2. South Unit

EXCLUSION AREAS

The following areas have been identified as exclusion areas:

1. Flaming Gorge National Recreation Area, south of the Pacific Northwest Pipeline reservoir bridge
2. High Uintas Wilderness
3. Sheep Creek Geological Area
4. Proposed Research Natural Areas
 - Sims Peak
 - Gates of Birch Creek
 - Pollen Lake
 - Cow Hollow
5. Recommended Wild and Scenic River Zone
 - Green River (From Flaming Gorge Dam to Forest Service/BLM eastern boundary)
6. National Recreation Trail Zones
 - Little Hole Trail (From Flaming Gorge Dam to Little Hole --- within Green River Wild and Scenic River Zone)
 - Fish Creek Trail (From Moon Lake to Center Park)

Refer to Energy Transportation and Utility Corridor Map for location of these exclusion areas.

AREAS EVALUATED AS POTENTIAL AVOIDANCE AREAS

Four general descriptions of potential avoidance areas have been identified. These descriptions are based on a geographical division of the Forest into southern, west central, east central, and northern land areas.

1. Southern Forest Division
 - block of National Forest System lands between Duchesne and Price, Utah --- excluding the South Unit Window Area described above.

2. West Central Subdivision

- National Forest System lands adjoining and south of the High Uintas Wilderness , bounded by the Uinta and Wasatch National Forest on the west and the Vernal/Roosevelt District boundaries on the east --- excluding the Fish Creek Trail Zone, which is an exclusion area located within this general avoidance area.

3. East Central Subdivision

- National Forest System lands located between the High Uintas Wilderness and the Flaming Gorge NRA, and
- Ashley National Forest System lands located northeast and south of the NRA --- excluding the Sheep Creek Geological Area and the three Proposed Research Natural Areas, which are exclusion areas located within this general avoidance area.

4. North Area

- Flaming Gorge NRA lands located north of the existing Pacific Northwest Pipeline reservoir bridge.

NOTE: An Avoidance Area designation, instead of an Exclusion Area designation, for this portion of the NRA is consistent with Flaming Gorge Management Plan direction.

Refer to Energy Transportation and Utility Corridor Map for location of these potential avoidance areas.

EVALUATION CRITERIA

Factors used by the Forest to determine suitability of the inventoried rights-of-way and planning windows as designated corridors/windows are presented in this section. The same factors were also used to establish avoidance area designations.

The factors are:

1. Compliance with Federal, State and local land-use/land management plans and applicable Federal and State Laws.
2. Reasonable mitigation would prevent unacceptable impacts to natural resources, including soil, water, fish, wildlife, vegetation, cultural resources, and visual quality.
3. Few or no physical restrictions on corridor/window placement or rights-of-ways placed therein would exist due to geology, hydrology, soil or land forms.
4. Existing and future right-of-way uses would be engineeringly and technologically compatible.

5. Reasonable mitigation would prevent unacceptable social and economic impacts to adjacent landowners and other groups or individuals.
6. Few, if any, potential health and safety hazards to National Forest users and the general public would result due to materials or activities within the right-of-way corridors/windows.
7. Off-road-vehicle administrative costs for right-of-way corridors would not exceed Forest budget constraints for alternative management programs.
8. Economic efficiency would be achieved by placing a right-of-way within a corridor/window. Consideration would be given to costs of construction, operation and maintenance, and costs of modifying or relocating existing facilities in a proposed corridor/window.
9. National Security risks would be minimized by location of proposed corridors.
10. Potential adverse impacts to threatened or endangered species or their habitats would not occur.
11. Acceptable mitigation could be formulated for disturbances to wetlands, flood plains, and all riparian areas.
12. Maximum use of existing electric transmission, pipeline and transportation routes would occur.

EVALUATION PROCESS

Each right-of-way route, "the existing right-of-way and terrain immediately adjacent to the right-of-way", and each planning window area was evaluated by analyzing how each of the 12 criteria would be met or affected under a corridor or window designation and eventual right-of-way use. The results of this analysis are shown in tables D through G, pages H-10 through H-25.

The listed Avoidance Areas were also evaluated by applying the 12 criteria. See page H-29 for analysis results.

EVALUATION PROCESS
TABLE D

RIGHTS-OF WAY (Electric Transmission Lines)

EVALUATION CRITERIA	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admin. Line 1	e. Western Area Power Admin. Line 2	f. Utah Power & Light Co. Sowers Canyon
1. Land Use/Management Plans and Laws	In conflict with Flaming Gorge NRA Management Plan direc- tion to 1) manage the unit to maintain its scenic qualities, provide for public outdoor recreation benefits, and provide for wildlife and undeveloped area uses, 2) permit no uses that significantly degrade or destroy the esthetic backdrop values, and 3) permit no new road or trail construc- tion except where temporary roads might be required to remove insect infected timber.	-----	-----	a. through e. -----	-----	No Conflict
	Upgrading, uprating or replacing existing facilities or addition of new facilities would be permitted within the existing ROW only if such work or additions were not feasible in locations outside the NRA.	-----	-----	a. through e. -----	-----	No Conflict

TABLE D (Continued)

EVALUATION CRITERIA	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admin. Line 1	e. Western Area Power Admin. Line 2	f. Utah Power & Light Co. Sowers Canyon
	<p>In conflict with Little Hole National Recreation Trail, i.e. new proposals would detract from visuals and recreation experience.</p> <p>In conflict with Green River as a recommended Wild and Scenic River i.e., new proposals would detract from visuals and recreation experience.</p>	<p>No conflicts</p> <p>No conflicts</p>	<p>In conflict with <u>Little Hole National Recreation Trail</u></p> <p>In conflict with <u>Green River Wild and Scenic River</u> recommendation</p>	<p>No conflicts</p> <p>No conflicts</p>	<p>d., e., and f.</p> <p>d., e., and f.</p>	
<p>2. Affects on Resource Values</p>	<p>1) Recreation/Visuals - important scenic values adjacent to Green River and NRA.</p> <p>2) Cultural -moderately high prehistoric values exist.</p>	<p>1) Recreation/Visuals - important scenic values north of Dutch John and at crossing of reservoir at the "Gorge".</p> <p>-Crosses existing recreation facilities.</p> <p>2) Cultural -moderately high prehistoric values exist.</p>	<p>1) Recreation/Visuals - important scenic values associated with Green River crossing.</p> <p>- - - b., c., & d. - - -</p>	<p>1) Recreation/Visuals - important scenic values associated with State Road 44 and 260 travel zones and with vistas near the Dam.</p> <p>2) Cultural -moderate prehistoric values exist.</p>	<p>1) Recreation/Visuals - important scenic values associated with vistas near the Dam.</p> <p>2) Cultural -moderate prehistoric values exist.</p>	
<p>*Discussion on following resource areas/values where considered critical or sensitive.</p>						
<p>1) Recreation/Visuals 2) Cultural 3) Wildlife/Fish 4) Timber 5) Soil/Vegetation 6) Water Quality 7) Minerals</p>						

TABLE D (Continued)

EVALUATION CRITERIA	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admn. Line 1	e. Western Area Power Admn. Line 2	f. Utah Power & Light Co. Sowers Canyon
<p>Note A "no entry" for a particular resource under a particular ROW indicates that no major effects exist or would be anticipated.</p>	<p>3) Wildlife/Fish - important fishery associated with the Green River --- classified as a "blue ribbon" Class A fishing stream by Utah DWR.</p>	<p>3) Wildlife/Fish - crosses key winter range for antelope, deer and elk. - Crosses through a transplant area for Big Horn Sheep on Bear Top Mtn.</p>	<p>3) Wildlife/Fish - crosses key winter range for deer and elk</p>	<p>3) Wildlife/Fish - winter range for deer and elk on southern and northern portions of the route.</p>		<p>3) Wildlife/Fish - winter range for deer and elk.</p>
		<p>5) Soils/Vegetation - shallow soils on Dutch John Mountain -- would be difficult to reestablish vegetation on disturbed areas.</p>	<p>5) Soils/Vegetation - shallow soils on Dutch John Mountain -- would be difficult to establish vegetation on disturbed areas.</p>	<p>4) Timber - important values on northern half of the route.</p>		<p>5) Soils/Vegetation - crosses unstable shale soils, exhibiting considerable amount of natural geologic erosion -- would be difficult to revegetate.</p>
	<p>6) Water Quality - quality of Green River considered critical.</p>		<p>6) Water Quality - quality of Green River considered critical.</p>	<p>6) Water Quality - quality of Green River considered critical.</p>	<p>6) Water Quality - quality of Green River considered critical.</p>	
		<p>7) Minerals - Areas of known phosphate deposits in Horseshoe Canyon oil and gas leasing area.</p>	<p>7) Minerals - Oil and gas leasing area.</p>	<p>7) Minerals - areas of known phosphate deposits on southern end.</p>		<p>7) Minerals - oil and gas lease activities ongoing.</p>

TABLE D (Continued)

EVALUATION CRITERIA	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admin. Line 1	e. Western Area Power Admin. Line 2	f. Utah Power & Light Co. Sowers Canyon
2. Affects to Resource Values (continued)	Adverse effects to above resources <u>would be difficult</u> to mitigate.	-----	a. through e.	-----	-----	Adverse effects to above resources <u>could be</u> mitigated.
3. Geology, Hydrology, Soil, and Landform Restrictions	Steep canyon side slopes associated with Green River.	Extensive rock outcrops and steep slopes on the Dutch John mountain area.	Extensive rock outcrops and steep slopes on the Dutch John mountain area.	Steep canyon side slopes associated with the Green River.	Steep canyon side slopes associated with the Green River.	Adjacent NF land is characterized by steep slopes and incised side-canyons. Route itself is located in a narrow canyon area. The adjacent slopes are susceptible to landslide activity.
4. New and Existing Uses Would be Engineeringly and Technologically Compatible	Locations for new facilities would be constrained by the following -existing ROW facilities, -adjacent recreation facilities, -critical visual concerns, and -steep terrain in and around the Dam and the Green River below the Dam or in the Dutch John Mtn. and Bear Mtn. areas.	-----	a. through e.	-----	-----	- Steep restrictive terrain adjacent to existing ROW route, would cause compatibility problems. There would also be compatibility problems within the ROW, due to the confined canyon bottom area and the location of the existing transmission facility.

TABLE D (Continued)

EVALUATION CRITERIA	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admin. Line 1	e. Western Area Power Admin. Line 2	f. Utah Power & Light Co. Sowers Canyon
	----- a. through e. -----					
	These four constraints could limit location of new facilities to existing ROW areas; engineering and technical compatibility problems could exist between new and existing uses if placed within existing ROW widths.					
5. Socioeconomic Effects on Adjacent Landowners and Other Groups or Individuals	Decisions to expand ROW width would affect existing and future community developments within Dutch John.	-- a. and b. --	Expansion of ROW widths would adversely affect recreation qualities within the NRA.	-- c. d. and e. --		No major problems.
	In addition, expansion of ROW width would adversely affect recreation user perceptions of the scenic values and recreation qualities within the NRA.		No major problems outside the NRA	No major problems outside the NRA		
6. Health and Safety Hazards to National Forest Users and General Public.	Some long-term hazards could result to residents of Dutch John, with expansion of the ROW.	-- a. and b. --				Oil and Gas activities could be limited due to proximity of transmission lines.
	Some short-term hazards could result during the construction of ROW facilities			-- a. through f. --		
	Few hazards would exist outside the ROW			-- a. through f. --		

TABLE D (Continued)

EVALUATION CRITERIA	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admin. Line 1	e. Western Area Power Admin. Line 2	f. Utah Power & Light Co. Sowers Canyon
7. Off-Road Vehicle Administrative Costs	No major changes would result in present off-road vehicle use.	Would increase administrative costs in the Dutch John Mtn. and Bear Mtn. areas, if existing ROWs were expanded.	Would increase administrative costs in the Dutch John Mtn. area if existing ROW were expanded.	Administrative costs would increase with route parallels existing State Road 260.	Administrative costs would increase in the NF area, north of Davenport Draw.	Would have additional administrative costs in the southern (upper) portion of the canyon, if existing ROW were expanded.
8. Economic Efficiency of Constructing, Operating, and Maintaining ROW and Costs of Relocating Existing Facilities in a Proposed Corridor	(Refer to Criterion No. 4.) Existing ROWs are presently located along the most cost efficient routes, from initial construction, operation, and maintenance standpoint. Constraints, listed under Criterion No. 4 would limit expansion potentials and/or relocation of existing facilities.	-----	-----	a. through e. -----	-----	Poor economic efficiency and high costs of modifying or relocating existing facilities outside the existing ROW in the southern (upper) portion of the canyon.
9. National Security Risks	Existing routes pose no major problems to energy security.	-----	-----	a. through f. -----	-----	-----
10. Threatened or Endangered Species and Habitat	Crosses known golden and bald eagle habitat in the NRA area.	-----	a., b., & c. -----	No problems within existing ROW or on adjacent areas.	-----	d., e., & f. -----

TABLE D (Continued)

EVALUATION CRITERIA	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admin. Line 1	e. Western Area Power Admin. Line 2	f. Utah Power & Light Co. Sowers Canyon
11. Wetlands, Flood Plains and Riparian Areas	No major problems within route or on lands immediately adjacent to route.	----- a. through e. -----				Northern (lower) portion of canyon within an active flood plain.
12. Maximum Use of Existing ROWs	Parallels existing transmission lines for 100 percent of length.	Parallels power line and gas pipelines ROWs for 60 percent of length.	70 percent of line parallels other power lines.	Less than 15 percent of the route is located immediately adjacent to State Roads 44 and 260.	Less than 20 per- cent of the route is located immedi- ately adjacent to other line ROWs.	Approximately 50 per- cent of route is located next to a FS system road.

EVALUATION PROCESS
TABLE E

RIGHTS-OF-WAY (Gas Pipelines)

EVALUATION CRITERIA	a. Colorado Interstate Gas. Co.	b. Mid America Pipeline Co.	c. Pacific Northwest Pipeline
1. Land Use/Mgt. Plans and Laws	No conflict.	No conflict.	<p>In conflict with <u>Flaming Gorge NRA Management Plan</u> direction to.</p> <ol style="list-style-type: none"> 1) manage the unit to maintain its scenic qualities and provide for wildlife and undeveloped area uses, 2) permit no uses that significantly degrade or destroy the aesthetic backdrop values, and 3) permit no new road or trail construction, except where temporary roads might be required to remove insect infested timber. <p>Upgrading, uprating, or replacing existing facilities or addition of new facilities would be permitted within the existing ROW but only if such work were not feasible in locations outside the NRA.</p> <p>In conflict with <u>Little Hole National Recreation Trail</u> i.e., new proposals would detract from visuals and recreation experience.</p>
2. Effects to Resource Values	<ol style="list-style-type: none"> 1) Recreation/Visuals <ul style="list-style-type: none"> - important visuals associated with Wyoming State Road 530 travel zone. 2) Cultural <ul style="list-style-type: none"> - potential for moderately high prehistoric values in the route area. 	<ol style="list-style-type: none"> 1) Recreation/Visuals <ul style="list-style-type: none"> - important within the Flaming Gorge NRA. Popular landing location for rafter and canoe enthusiasts who float the Green River. Deer, antelope and waterfowl hunting opportunities. 2) Cultural <ul style="list-style-type: none"> - potential for moderately high prehistoric values in the route area. 	<ol style="list-style-type: none"> 1) Recreation/Visuals <ul style="list-style-type: none"> - important recreation/scenic values adjacent to the Green River -- Little Hole Campground, popular fishing area. Existing pipeline route is visible from Red Canyon Visitor Center. - important recreation/scenic values where existing pipeline crosses the Flaming Gorge Reservoir. 2) Cultural <ul style="list-style-type: none"> - moderately high prehistoric values exist.

TABLE E (Continued)
RIGHTS-OF-WAY (Gas Pipelines)

EVALUATION CRITERIA	a. Colorado Interstate Gas, Co.	b. Mid America Pipeline Co.	c. Pacific Northwest Pipeline
<p>Note: A "no entry" for a particular ROW indicates that no major effects exist or would be anticipated.</p>	<p>3) Wildlife/Fish - crosses antelope range.</p>	<p>3) Wildlife/Fish - crosses deer, elk, and antelope range. Crosses sagegrouse and prairie dog range. Actual river crossing is part of an important fish habitat.</p>	<p>3) Wildlife/Fish - crosses deer, elk, and antelope range. River crossing is part of an important fishery habitat associated with the Green River below Flaming Gorge Dam.</p>
<p>2. Effects to Resource Values (continued)</p>	<p>7) Minerals - areas of known Trona deposits in Blacks Fork River area.</p>	<p>5) Soils/Vegetation - crosses sensitive soils, i.e., high erosion hazard, unfavorable soil properties, and low precipitation.</p>	<p>5) Soils/Vegetation - shallow soils and rocky outcrops - between the Green River and Dutch John Mountain --- would be difficult to revegetate, if disturbed.</p> <p>6) Water Quality - quality of Green River below Dam considered critical.</p>
<p>3. Geology, Hydrology, or Landform Restrictions</p>	<p>Adverse effects to above resources <u>could</u> be mitigated</p>	<p>Adverse effects to above resources <u>would be difficult</u> to mitigate.</p>	<p>Adverse effects to above resources <u>would be difficult</u> to mitigate.</p>
<p>4. New and Existing Uses would be Engineeringly and Technologically Compatible</p>	<p>No major problems.</p> <p>Could have engineering problems, if facilities crossed under or near the present bridge crossing on the Blacks Fork River.</p>	<p>Steep sideslopes on both sides of the reservoir. Potential exists for water level fluctuation at the reservoir crossing.</p> <p>Location of new facilities would be constrained by the following:</p> <ul style="list-style-type: none"> - existing ROW facilities - critical visual concerns, and - steep terrain on both sides of the reservoir area. 	<p>Steep canyon side slopes associated with the Green River.</p> <p>Location of new facilities would be constrained by the following:</p> <ul style="list-style-type: none"> - existing ROW facilities (including roads), - critical visual concerns, and - steep terrain south of the Green River and across Dutch John Mtn.

TABLE E (Continued)
RIGHTS-OF-WAY (Gas Pipelines)

EVALUATION CRITERIA	a. Colorado Interstate Gas. Co.	b. Mid America Pipeline Co.	c. Pacific Northwest Pipeline
		These three constraints could limit location of new facilities to existing ROW areas, and some compatibility problems could exist with existing ROW facilities.	These four constraints could limit location of new facilities to existing ROW areas, engineering and technical compatibility problems could exist between on-going uses and new proposals, if placed within existing ROW widths.
5. Socioeconomic Effects on Adjacent Landowners and Other Groups or Individuals	No major problems, other than traffic delays that could result during construction of utilities -- such delays could be substantial.	Could temporarily affect recreation uses within the immediate area.	Expansion of ROW widths would adversely affect user perceptions of the recreation and scenic qualities within this unit of the NRA.
6. Health and Safety Hazards to National Forest Users and General Public	Hazards would exist during construction period.	Hazards would exist during construction period.	Hazards would exist during construction period.
7. Off-Road Vehicle Administrative Costs	No major changes would result in present off-road vehicle use.	Would increase costs in this portion of the NRA.	Would increase costs in the NF area north of Davenport Draw, the Dutch John Mtn. area, and where the route parallels existing roads located north of Dutch John Mountain.
8. Economic Efficiency of Constructing, Operating and Maintaining ROW and Costs of Relocating Existing Facilities in a Proposed Corridor	No major problems within or adjacent to existing ROW.	Refer to Criterion No. 4. Existing ROW is presently located along the most efficient route, from an initial construction, operation, and maintenance standpoint. Constraints listed under Criterion No. 4 would limit expansion potentials or relocation of existing facilities.	Existing ROW is presently located along the most efficient route, from an initial construction, operation, and maintenance standpoint. Constraints listed under Criterion No. 4 would limit expansion potentials or relocation of existing facilities.
9. National Security Risks	Existing routes pose no major problems to energy security.	Existing routes pose no major problems to energy security.	Existing routes pose no major problems to energy security.
10. Threatened or Endangered Species and Habitat	Crosses potential blackfooted ferret territory.	No known habitat.	Crosses known golden and bald eagle habitat in the NRA areas.

TABLE E (Continued)
 RIGHTS-OF-WAY (Gas Pipelines)

EVALUATION CRITERIA	a. Colorado Interstate Gas. Co.	b. Mid America Pipeline Co.	c. Pacific Northwest Pipeline
11. Wetlands, Flood Plains, and Riparian Areas	No major problems within ROW or on NF lands immediately adjacent to route	Flood plain and important riparian vegetation is located at the reservoir crossing.	No major problems within route or on NF lands immediately adjacent to route.
12. Maximum Use of Existing ROWs	Parallels existing pipeline and highway for total route length on NF lands.	Parallels an existing pipeline for total route length on NF lands.	Parallels existing pipeline and FS roads for total route length on NF lands.

EVALUATION PROCESS
TABLE F

RIGHTS-OF WAY (Roads and Highways)

EVALUATION CRITERIA	a. Utah State Road 33 (US 191)	b. US 191 (State Roads 44 & 260)	c. Utah State Road 44	d. Wyoming State Highway 530
1. Land Use/Mgt. Plans and Laws	Approval and coordination would be required by State Department of Transportation (DOT) during planning, design, construction, and maintenance work for utilities and other energy transportation facilities within the road ROW. Forest Service would also have to review and approve use.	Utility proposal would conflict with Ashley NF Highway Corridor Plan, which emphasizes protection of visuals and recreation values adjacent to the highway.	a. through d.	b. and c.
	Proposals outside ROW would conflict with Avoidance Area designation for the area being crossed.	Proposals outside ROW would conflict with Avoidance and Exclusion Area designations for areas being crossed.	b. and c.	Proposals outside ROW would conflict with Exclusion Area designation for area being crossed.
2. Effects to Resource Values	1) Recreation/Visuals - important scenic values associated with travel zone.	1) Recreation/Visuals - important recreation areas and scenic values associated with travel zone.	b., c., & d.	
* <u>Discussion on following resource areas/values where considered critical or sensitive.</u>	2) Cultural - potential for moderate density of prehistoric values outside ROW on northern half of route.	2) Cultural - potential for moderately high prehistoric values outside ROW north of Dutch John.		2) Cultural - potential for moderately high prehistoric values outside ROW.
1) Recreation/Visuals				
2) Cultural				
3) Wildlife/Fish				
4) Timber				
5) Soil/Vegetation				
6) Water Quality	3) Wildlife/Fish - crosses winter range for deer and elk.	3) Wildlife/Fish - crosses key winter range for deer and elk on the southern and northern	3) Wildlife/Fish - crosses key winter range for deer and elk in the Sheep Creek and Spring Creek areas of the NPA.	3) Wildlife/Fish - crosses antelope range.
7) Minerals				
NOTE.				
A "no entry" for a particular resource under a particular ROW indicates that no major effects exist or would be anticipated.				
		4) Timber - important values on northern half of route.	4) Timber - important values along route from US 191 junction to Deep Creek intersection	

TABLE F (Continued)

EVALUATION CRITERIA	a. Utah State Road 33 (US 191)	b. US 191 (State Roads 44 & 260)	c. Utah State Road 44	d. Wyoming State Highway 530
5) Soils/Vegetation - crosses unstable shale soils, exhibiting considerable amount of natural geological erosion -- would be difficult to revegetate.				
2. Effects to Resource Values (Continued)	Adverse effects to above resources <u>could be</u> mitigated.	7) Minerals - areas of known phosphate deposits on southern end. Adverse effects to above resources <u>would be difficult</u> to mitigate.	7) Minerals - areas of known phosphate deposits above Sheep Creek Bay. Adverse effects to above resources <u>would be difficult</u> to mitigate.	7) Minerals - areas of known Trona deposits in Blacks Fork River area. Adverse effects to above resources <u>would be difficult</u> to mitigate.
3. Geology, Hydrology, Soil, and Landform Restrictions.	Canyon bottom is very narrow in places; adjacent slopes are steep. Slides are evident on the adjacent slopes.	The Dutch John Gap area would be geologically restrictive to ROW expansion.	A potential mass failure area exists below Sheep Creek Overlook.	No major problems.
4. New and Existing Uses Would be Engineeringly and Technologically Compatible	Uses and areas of use would be limited in the southern (upper) portion of route, due to confined area and restrictive terrain features.	Uses and areas of use would be limited in the "Hole in the Wall Canyon" area, the "Cart Creek Arm" area, and on the north side of Flaming Gorge Dam, due to confined areas and restrictive terrain features.	Uses and areas of use would be limited in the "Sheep Creek Gap" area, due to the confined area and restrictive terrain features.	Approval and coordination would be required by Wyoming Highway Department, if the highway ROW were to be crossed or followed. The narrow, confined bridge crossing on Blacks Fork River would create problems.
	Vehicle transportation flows would be disrupted for substantial periods of time during construction of utilities and transportation facilities.	- - - - - a., b., and c. - - - - -		

TABLE F (Continued)

EVALUATION CRITERIA	a. Utah State Road 33 (US 191)	b. US 191 (State Roads 44 & 260)	c. Utah State Road 44	d. Wyoming State Highway 530
5. Socioeconomic Effects on Adjacent Landowners and Other Groups or Individuals	No major problems other than the traffic delays that would result during construction of utilities -- such delays could be substandard.	-----	a. through d. -----	-----
6. Health and Safety Hazards to National Forest Users and General Public	Hazards would exist during utility construction period.	-----	a. through d. -----	-----
7. Off-Road Vehicle Administrative Costs	No major changes would result in present off-road vehicle use.	-----	a. through d. -----	-----
8. Economic Efficiency of Constructing, Operating and Maintaining ROW and Costs of Modifying or Relocating Existing Facilities	No major problems within existing ROW.	Poor economic efficiency and high costs of modifying or re-locating existing ROW facilities and adjacent recreation facilities on NF land.	--- b. and c. ---	No major problems within existing ROW.
9. National Security Risks	Existing routes would pose no major problems to energy security.	-----	a. through d. -----	-----
10. Threatened or Endangered Species and Habitat	No major problems within existing routes or on areas of possible expansion.	-----	a., b. and c. -----	Crosses potential black-footed ferret territory.
11. Wetlands, Flood Plains, and Riparian Areas	Important riparian areas exist along portions of the ROW -- areas are important as wildlife habitat.	Wetland type areas exist along ROW, north of Lodgepole Campground -- these areas are important as wildlife habitat.	An important riparian area exists along the portion of road adjacent to Sheep Creek. This area is important as wildlife and fish habitat.	No major problems within ROW or on NF lands immediately adjacent to route.
12. Maximum Use of Existing Linear ROWs	Meets criterion since actual transportation ROW would be fully or partially utilized, if used as utility ROWs.	-----	a. through d. -----	-----

EVALUATION PROCESS
TABLE G

WINDOW AREAS

EVALUATION FACTORS	a. Red Mountain to Carter Dugway via Carter Military Road	b. South Unit
1. Land Use/Mgt. Plans and Laws.	No known conflict.	No known conflict.
2. Effects to Resource Discussion on following resource areas/values where considered critical or sensitive.	<p>1) Recreation/Visuals</p> <ul style="list-style-type: none"> - important scenic values along total length. - important dispersed recreation values along total length. - crosses one developed recreation area at Kaler Hollow. <p>2) Cultural</p> <ul style="list-style-type: none"> - crosses and adjacent to Carter Military Road, presently recommended to National Register of Historic Sites. - prehistoric values moderate density along north end -- from Forest boundary to Youngs Spring. <p>3) Wildlife/Fish</p> <ul style="list-style-type: none"> - very important deer and elk yearlong habitat. - some fishery values on North Slope. - sage grouse habitat on southern most portion. <p>4) Timber</p> <ul style="list-style-type: none"> - crosses prime timber areas along 75 percent of route -- considered as important timber production areas. <p>5) Soils/Vegetation</p> <ul style="list-style-type: none"> - some problems with revegetating disturbed soils in the Taylor Mountain Plateau area, i.e., south face of plateau. <p>6) Water Quality</p> <ul style="list-style-type: none"> - important watershed values associated with Ashley Creek, Brush Creek, Carter Creek, Sheep Creek, and Deep Creek -- water used for domestic water supply, recreation, and irrigation. <p>7) Minerals</p> <ul style="list-style-type: none"> - oil and gas potential on north and south flank faults. - known phosphate deposits on north and south portions, near Forest boundary. 	<p>2) Cultural</p> <ul style="list-style-type: none"> - Light to moderate density prehistoric values. <p>3) Wildlife/Fish</p> <ul style="list-style-type: none"> - important deer and elk habitat. <p>5) Soils/Vegetation</p> <ul style="list-style-type: none"> - crosses unstable shale soils, exhibiting considerable amount of natural geologic erosion -- - would be difficult to revegetate. <p>7) Minerals</p> <ul style="list-style-type: none"> - oil and gas lease activities, some exploration and potential production.
<p>1) Recreation/Visuals</p> <p>2) Cultural</p> <p>3) Wildlife/Fish</p> <p>4) Timber</p> <p>5) Soils/Vegetation</p> <p>6) Water Quality</p> <p>7) Minerals</p> <p>Note: A "no entry" for a particular ROW indicates that no major effects exist or would be anticipated.</p>		

TABLE G (Continued)

EVALUATION FACTORS	a.	b.
	Red Mountain to Carter Dugway via Carter Military Road	South Unit
3. Geology, Hydrology, Soils, and Long form Restrictions.	No major problems.	Steep canyons and narrow canyon bottoms exist. Slides are evident on canyon side slopes.
4. New and Existing Uses Would be Engineeringly and Technologically Compatible.	No major problems.	Uses and areas of use would be limited in canyon bottoms and on side slopes. Ridge tops would afford more area for use. (Refer to table D, item 4 for UP&L 138 KV transmission lines.)
5. Socioeconomic Impacts to Adjacent Landowners and Other Groups or Individuals	There could be social conflicts due to proximity of Flaming Gorge NRA, Sheep Creek Canyon Geologic Area, and the High Uintas Wilderness -- could adversely affect recreation user perception of the areas in question.	No major problems.
6. Health & Safety Hazards to National Forest and General Public	Potential health problems could result from disturbances within Ashley and Brush Creek drainages. Few safety hazards would exist beyond construction period.	No major problems Few safety hazards would exist beyond construction period.
7. Off-Road Vehicle Administrative Costs	Costs could substantially increase with construction of linear utility ROW, primarily along the north slope.	Slight increase in administrative costs could be expected. (Refer to table D, item 7, for UP&L 138 KV transmission line.)
8. Economic Efficiency of Constructing, Operating, and Maintaining ROW and Costs of Relocating Existing Facilities	Severe winter weather conditions would increase operating and maintenance costs. There would be high construction costs involved in crossing meadow areas located along majority of route, and in crossing the crest of the Uinta Mountains.	High construction costs would be involved for locations in narrow canyon bottoms, steep side slopes and narrow ridge tops (Refer to table D, item 8, for UP&L 138 KV transmission line.)
9. Natural Security Risk	No known problems.	No known problems.
10. Threatened or Endangered Species and Habitat	No known habitat	Potential habitat for Uintah Basin hookless cactus.
11. Wetlands, Flood Plains and Riparian Areas	Crosses extensive riparian habitat associated with many wet meadows and springs/streams.	Northern (lower) portion of canyon bottoms is subject to flash flooding.
12. Maximum Use of Existing Linear ROWs	No linear ROWs exist within the proposed window.	Several Forest roads and trails traverse the area from a NE-SW direction.

EVALUATION RESULTS - PROCEDURES AND RECOMMENDED DESIGNATIONS

- Procedures

The analysis information from the EVALUATION PROCESS was used to:

1. Designate routes and areas as corridors, windows, or avoidance areas;
2. Establish widths of corridors and windows; and
3. Establish type of permitted energy right-of-way facility, i.e., underground, overhead, over-the-surface or a combination of the three.

- Recommended Designations for Existing Linear Right-of-Way Routes and Planning Windows.

A Summary of the recommendation is presented as Table H, Recommended Designations for existing Electrical Transmission Lines, Gas Pipelines, Road/Highway Routes, and Planning Windows. The Summary is found on pages 29 and 30.

The narratives on corridor and window designations, including widths and type of right-of-way are found on pages 31 to 49. These pages address the recommended designations for existing electrical transmission line and gas pipeline routes, State Road/Highway routes, and Planning Windows.

SUMMARY OF RECOMMENDED DESIGNATIONS FOR
EXISTING ELECTRICAL TRANSMISSION LINE, GAS PIPELINE, AND
ROAD AND HIGHWAY ROUTES, AND PLANNING WINDOWS

TABLE H (Supporting narratives for this table are found on pages H-30 to H-36.)

1. ELECTRICAL TRANSMISSION LINE ROUTES

	a. Moon Lake Electric	b. Bridger Valley Electric	c. Pacific Power and Light Co.	d. Western Area Power Admin. Line 1	e. Western Area Power Admin. Line 2	f. Utah Power and Light Co. Sowers Canyon
Corridor Designation	No	No	No	No	No	Part of South Unit Window designation. (Refer to table H, item 4, page 32.)
Type of Facility	Overhead and under-ground electrical transmission.	Overhead and under-ground electrical transmission.	Overhead and under-ground electrical transmission.	Overhead and under-ground electrical transmission.	Overhead and under-ground electrical transmission.	Part of South Unit Window designation. (Refer to table H, item 4, page 32.)
Width	Existing electrical transmission line ROW width (80 feet).	Existing electrical transmission line ROW width (80 feet).	Existing electrical transmission line ROW width (100 feet).	Existing electrical transmission line ROW width (80 feet). Widening of existing ROW would be considered for project specific proposals in accordance with standards and guidelines for Flaming Gorge NRA.	Existing electrical transmission line ROW width (100 feet). Widening of existing ROW would be considered for project specific proposals in accordance with standards and guidelines for Flaming Gorge NRA.	Part of South Unit Window designation. (Refer to table H, item 4, page 32.)
Adjacent NF Land Designation	South Flaming Gorge NRA Exclusion Area.	South Flaming Gorge NRA Exclusion Area.	South Flaming Gorge NRA Exclusion Area and East Central Subdivision Avoidance Area.	South Flaming Gorge NRA Exclusion Area and East Central Subdivision Avoidance Area.	South Flaming Gorge NRA Exclusion Area and East Central Subdivision Avoidance Area.	Part of South Unit Window designation. (Refer to table H, item 4, page 32.)

TABLE H (Continued)

2. GAS PIPELINES

	a. Colorado Interstate Gas Co.	b. Mid America Pipeline Co.	c. Pacific Northwest Pipeline
Corridor Designation	Yes	Yes	No
Type of Facility	Underground pipeline facilities and overhead and underground electrical transmission line facilities.	Underground pipeline facilities	Underground pipeline facilities
Width of Corridor	0.25 miles, with Wyoming State Highway 530 as north boundary of corridor. ^{a/}	100 feet, inclusive of existing 50 foot pipeline ROW.	Existing pipeline ROW width, 50 to 75 feet.
Adjacent NF Land Designation	North Flaming Gorge NRA Avoidance Area.	North Flaming Gorge NRA Avoidance Area.	North Flaming Gorge NRA Exclusion Area. East Central Subdivision Avoidance Area.

^{a/} See Energy Transportation and Utility Corridor Map for corridor boundaries.

3. ROADS AND HIGHWAYS

	a. Utah State Road 33 (US 191)	b. Utah US 191 (State Roads 44 & 260)	c. Utah State Road 44	d. Wyoming State Road 530
Corridor Designation	No	No	No	Part of corridor as described for the Colorado Interstate Pipeline Co. (Refer to table H, item 2, above.)
Type of Facility				Part of corridor as described for the Colorado Interstate Pipeline Co. (Refer to table H, item 2, above.)
Width of Corridor				Part of corridor as described for the Colorado Interstate Pipeline Co. (Refer to table H, item 2, above.)

TABLE H (Continued)

	a. Utah State Road 33 (US 191)	b. Utah US 191 (State Roads 44 & 260)	c. Utah State Road 44	d. Wyoming State Road 530
Adjacent NF Land Designation	Within the proposed Southern Unit Avoidance Area.	Within the designated South Flaming Gorge NRA Exclusion Area and a proposed East Central Subdivision Avoidance Area.	Within the designated South Flaming Gorge NRA Exclusion Area and a proposed East Central Subdivision Avoidance Area.	Part of corridor as described for the Colorado Interstate Pipeline Co. (Refer to table H, item 2, above.)

4. WINDOW AREAS (Supporting narratives for the table are found on pages H-37 to H-39.)

	a. Red Mountain to Carter Dugway via Carter Military Road	b. South Unit
Window Designation	Yes	Yes
Type of Facility	Overhead electrical transmission line facilities.	Overhead electrical transmission line facilities and underground pipeline facilities.
Width of Window Area ^{a/}	2.0 to 6.0 miles.	9.0 to 11.0 miles.
Adjacent NF Land Designation	Sims Peak Exclusion Area, proposed High Uintas Wilderness Exclusion Area, and proposed East Central Subdivision Avoidance Area.	Proposed South Forest Division Avoidance Area.

^{a/} See Energy Transportation and Utility Corridor Map on page 85 for Corridor/Window boundaries.

- Recommended Designation for Avoidance Areas

Application of the 12 Evaluation Criteria to the 4 geographical areas listed on pages 11 and 12 led to the following general statements concerning corridor and window designations:

- Most (and in some cases all) locations within these areas would conflict with or not meet the goals and objectives for any one criterion; and reasonable mitigation would (for the most part) not prevent unacceptable impacts to natural, physical, or social resources and values located within and adjacent to the areas.

NOTE: There are presently no linear rights-of-way within these areas that meet the standards and guidelines for potential transportation and utility corridor designation.

The narratives on avoidance area designations are also found on pages H-30 to H-39.

MANAGEMENT DIRECTION FOR EXISTING ELECTRICAL TRANSMISSION, GAS PIPELINE AND-STATE ROAD/HIGHWAY ROUTES, PLANNING WINDOWS AND AVOIDANCE AREAS

(The following serves as narrative backup to recommended Management Direction shown on table H.)

1. General Assumptions

- a. The concerned counties and communities and Uintah and Ouray Indian Reservation would support Ashley National Forest corridor and window designations. Such counties and communities might not agree on corridor and window widths as specified on National Forest lands and might, through negotiation and applicable authorizing actions, set different widths on county property, Indian land, or within community boundaries. The State Department of Transportation and/or the Federal Highway Administration would approve of highway right-of-way encroachments proposed by project proponents.
- b. Most of the Forest Service System Roads would be part of Avoidance Area designations.
- c. The Flaming Gorge NRA, south of the Pacific Northwest Pipeline reservoir bridge, would receive an Exclusion Area designation, notwithstanding the existence of utility rights-of-way within this NRA location.

Proposals for electrical transmission rights-of-way within this NRA location would be denied, unless the proposals are directly associated with the Flaming Gorge Hydroelectric facility, i.e. terminate at or originate from the Flaming Gorge Hydroelectric Power Plant or Dutch John Substation. The potential need for upgrading and/or up rating power transmission systems to or from the Flaming Gorge Hydroelectrical facility is recognized.

Proposals for pipeline rights-of-way within this NRA location would be denied, unless the proposals were located within the existing Pacific Northwest Pipeline right-of-way.

- d. The Flaming Gorge NRA, north of the Pacific Northwest Pipeline reservoir bridge, would receive an Avoidance Area designation.

Proposals for linear energy-related rights-of-way within this NRA location would be considered on a case-by-case basis. Proposals would be scrutinized for feasible locations outside this NRA portion. The Forest Service would request that all feasible route locations, outside this NRA portion, be evaluated and analyzed for comparative purposes.

- e. Where applicable, Ashley National Forest corridor and window designations would jibe with such designations on adjacent BLM land.
2. Electrical Transmission Line Routes (Assumptions, Recommendations, Mitigation, and Adjacent Lands)
 - a. Moon Lake Electric

Assumptions - For long-term (10 to 30 years) planning purposes, this route in conjunction with the Bridger Valley Electric route, could or would be a power transmission/distribution source, serving the electricity needs of Dutch John, the Flaming Gorge NRA facilities, and portions of the Bridger Valley Electric power transmission/distribution system.

Recommendations

- The route is located within a designated Exclusion Area (Flaming Gorge NRA---southern portion). Proposals for overhead, underground, and over-the-surface facilities outside of the existing right-of-way would conflict with the Flaming Gorge Management Plan direction for the NRA area. Energy transportation proposals outside of this right-of-way would be denied.
- Upgrading, uprating, or replacing existing facilities or addition of new facilities would only be permitted within the existing ROW width -- and only if such work or additions were not feasible in locations outside the NRA.

General Mitigation Measures for the Right of Way

- Expansion of access roads associated with existing right-of-way would not be allowed (no upgrading of roads), i.e., no widening or changing grades. If the access roads are part of existing or proposed Forest Road Development Systems, road expansion would be permitted.
- Probable requirement for helicopter placement of towers or other energy transmission facilities in rough terrain.

- Non-specular conductors and towers and compatible insulators would be required.
- Rapture protection standards will be required.
- Dark tower bases would be required.

In addition to the above measures, those developed for the Moon Lake Power Plant Project Draft Environmental Impact Statement, dated January 1981, would be applied to electrical transmission line proposals. (Refer to Appendix, Exhibit No. 2)

b. Bridger Valley Electric

Assumptions - Same as for Moon Lake Electric

Recommendations

- Same as for Moon Lake Electric.

General Mitigation Measures for the Corridor

- Same as for Moon Lake Electric.

c. Pacific Power and Light Company

Assumptions - Future transmission line proposals along this route would be directly associated with the Flaming Gorge Hydroelectric facility. (See General Assumption c., page H-30.)

Recommendations

- Same as for Moon Lake Electric.

General Mitigation Measures for the Corridor

- Same as for Moon Lake Electric.

Adjacent Lands

Adjacent lands are located in both the designated Exclusion Area (Flaming Gorge NRA---southern portion) and a proposed Avoidance Area (a portion of the East Central Subdivision north of Dutch John). (See page H-8 for a description of this avoidance area.) Energy transportation proposals for locations outside of the existing right-of-way width within the NRA would be denied, as per Flaming Gorge Management Plan direction. Energy transportation proposals for locations outside the existing right-of-way width within the East Central Subdivision Avoidance Area would be considered on a case-by-case basis. Proposals would be required to meet all site specific mitigation measures for the avoidance area, prior to acceptance and evaluation of applications.

- d. Western Area Power Administration (WAPA), Line 1.

Assumption - Same as for Pacific Power and Light Company.

Recommendations

- Suitable only for overhead and underground electrical transmission line facilities.
- There could be a need to uprate or upgrade this transmission line as of the Flaming Gorge Hydroelectric Facility. Such proposal could require widening of the existing right-of-way. These proposals would only be considered for specific project proposals. Evaluation, analysis, and possible approval of proposals that require widening of the existing right-of-way would be based on compliance to standards and guidelines for the Flaming Gorge NRA.

General Mitigation Measures for the Right of Way

- Same as for Moon Lake Electric

Adjacent lands are located in both a designated Exclusion Area (Flaming Gorge NRA---southern portion) and a proposed avoidance area (a portion of the East Central Subdivision, south of the NRA). See page H-8 for a description of this avoidance area.) Energy transportation proposals for locations outside of the existing right-of-way width within the NRA would be denied, as per Flaming Gorge Management Plan direction. Energy transportation proposals for locations outside the existing right-of-way width within the East Central Subdivision Avoidance Area would be considered on a case-by-case basis. Proposals in this avoidance area would be required to meet all site specific mitigation measures established for the area, prior to acceptance and evaluation of applications.

- e. Western Area Power Administration (WAPA), Line 2

Assumptions - Same as for Pacific Power and Light Company.

Recommendations

- Same as WA PA line 1.

General Mitigation Measures for the Corridor

- Same as for Moon Lake Electric.

Adjacent Lands

Adjacent lands are as discussed under the recommendations for WAPA, Line 1.

f. Utah Power and Light Company, Sowers Canyon

Assumption - Existing route would be within a designated corridor or window on BLM and State of Utah administered lands. An existing line (south of Sowers Canyon) is presently located on lands administered by the BLM and the State of Utah.

Recommendations

- Support the existing right-of-way as part of a "window" designation in this portion of the Ashley National Forest. (See page H-42 item 5.b. which discusses applicable recommendations for the proposed window designation.)

General Mitigation Measures for the Corridor

- See page H-42, item 5.b.

Adjacent Lands

- See page H-42, item 5.b.

2. Gas Pipeline Routes (Assumptions, Recommendations, Mitigation, and Adjacent Lands)

a. Colorado Interstate Gas Company

Assumptions - none.

Recommendations

- Support a corridor designation.
- Corridor suitable for underground pipeline facilities, and overhead and underground electrical transmission line facilities.
- Width of this corridor would be 0.25 miles, with the Highway 530 right-of-way as the northern boundary of the corridor.

General Mitigation Measures for the Corridor

- Refer to Flaming Gorge NRA Management Plan direction for this area. Measures from this Plan, along with additional site specific measures, would be used to protect sensitive and critical resource values and uses. Also refer to Attachment, Exhibit No. 3 for applicable measures.

Adjacent Lands

Adjacent lands, administered by the Ashley National Forest, are located in a proposed avoidance area (Flaming Gorge NRA, north of the Pacific Northwest Pipeline reservoir bridge

crossing). (Refer to the General Assumption d., on page H-30 for a discussion on this area.) Proposals within this avoidance area would be required to meet all site specific mitigation measures established for the area, prior to acceptance and evaluation of applications.

b. Mid America Pipeline Company

Assumptions - none

Recommendations

- Support a corridor designation.
- Corridor suitable only for underground pipeline facilities.
- Expansion or widening should be limited to 100 feet, inclusive of the existing 50 foot pipeline right-of-way.

General Mitigation Measures for the Corridor

- The measures developed for the Chevron Phosphate Project Draft Environmental Impact Statement, dated January 1983, would be applied to pipeline proposals in this corridor. (Refer to Appendix, Exhibit No. 3.)

Adjacent Lands

Adjacent lands administered by the Ashley National Forest are as discussed under recommendations for the Colorado Interstate Gas Company corridor.

c. Pacific Northwest Pipeline

Assumptions - see General Assumption c. on page H-33.

Recommendations

- Corridor suitable only for underground pipeline facilities. (Parallels WAPA powerline No. 2 for approximately 1.0 miles on the Forest---see page H-33.)
- The route is located within a designated Exclusion Area (Flaming Gorge NRA---southern portion). Proposals for underground facilities outside of the existing right-of-way would conflict with the Flaming Gorge Management Plan direction for the NRA area. Energy transportation proposals outside of this right-of-way would be denied.

General Mitigation Measures for the Right of Way

- The measures developed for the Chevron Phosphate Project Draft Environmental Impact Statement, dated January 1983, would be applied to pipeline proposals in this corridor. (Refer to Appendix, Exhibit No. 2.)

Adjacent Lands

Adjacent lands are as discussed under the recommendations for WAPA, Line 1, on page H-36.

4. Roads and Highways (Assumptions, Recommendations, Mitigation, and Adjacent Lands)

a. Utah State Road 33 (US 191)

The Ashley National Forest road portion is located within a proposed Avoidance Area (Southern Forest Division). Proposals for overhead, underground, and over-the-surface facilities (within or contiguous to this right-of-way) would be discouraged, due to critical and sensitive natural resources and potential engineering and administrative difficulties. (Energy transportation proposals would have to meet all site specific mitigation measures established for the avoidance area, prior to acceptance and evaluation of applications. (See EVALUATION PROCESS, Table F, pages H-21 thru H-23 for discussions on potential impacts from right-of-way proposals.)

b. US 191 - Utah State Roads 44 and 260

The Ashley National Forest road portions are located within a designated Exclusion Area (Flaming Gorge NRA---southern portion) and a proposed Avoidance Area (East Central Subdivision). Proposals for overhead, underground, and over-the-surface facilities within or contiguous to these rights-of-way would conflict with the Flaming Gorge Management Plan direction for the NRA area and important recreation and visual resources located in the adjacent avoidance area. The proposals would also adversely affect scenic geologic formations and land stability within the avoidance area. Energy transportation proposals along and/or contiguous to the NRA road portions would be denied; proposals along and/or contiguous to the avoidance area road portions would be discouraged. Proposal applications would not be accepted for evaluation unless all site specific mitigation measures for the avoidance area would be met. (See EVALUATION PROCESS, Table F, pages H-21 thru H-23 for discussions on potential impacts from right-of-way proposals.)

c. Utah State Road 44

Same as for US 191 - Utah State Roads 44 and 260.

d. Wyoming State Highway 530

Assumptions - none

Recommendations , General Mitigation Measures, and Adjacent Lands

- This would be part of the corridor as described for the Colorado Interstate Gas Company pipeline. (Refer to pages H-40 thru H-42 for applicable discussions on recommendations and general mitigation measures and adjacent lands.)

5. Window Areas (Assumptions, Recommendations, Mitigations, and Adjacent Lands)

a. Red Mountain/Taylor Mountain Plateau to Carter Dugway via Carter Military Road

Assumptions - The north half of the western "window" boundary would be subject to the final legislative boundary of the High Uinta Wilderness.

Recommendations

- Support a window designation. This is in recognition of the issue/demand for a major north-south energy transportation corridor in northeastern Utah and southwestern Wyoming.
- Window suitable only for overhead electrical transmission line facilities.
- Width of window would vary from two to six miles. (See Energy Transportation Corridor Map for window boundaries.)

General Mitigation Measures for the Window Area

The following measures would be required to protect those critical/sensitive values and uses presented in table G., pages H-24 and H-25.

- Helicopter placement of towers would be required from south Daggett County line north to Browne Lake (unroaded area closed to ORV travel).
- Would require specific clearing and alignment specifications as per Forest direction for lodgepole and spruce vegetation types.
- Clearing through forested areas would be required to be of varied widths and alignments, i.e., no long straight tangents, with tangents purposely widened in some areas beyond powerline needs for visual resources management purposes.
- Over-the-surface vehicle use would be recommended when temporary corridor access is needed. Over-the-surface vehicle use would be considered prior to permitting

actual construction of temporary access roads. If temporary access road construction was permitted, road prisms would be restored to original contours and revegetated.

- Revegetation measures would involve using native or indigenous species represented in the existing natural plant communities of the areas in question.
- Topsoil would be stockpiled for overlaying disturbed areas.
- Towers and lines would not be located within or across meadow areas.
- Dark tower bases would be required.
- Non-specular conductors and towers and compatible insulators would be required.

In addition to the above measures, those developed for the Moon Lake Power Plant Project Draft Environmental Impact Statement, dated January 1981, would be applied to electrical transmission line proposals in this window. (Refer to Appendix, Exhibit No. 2.)

Adjacent Lands

Adjacent lands, administered by the Ashley National Forest, are associated with three corridor classification areas --

- 1) Sims Peak Exclusion Area,
- 2) High Uintas Wilderness Exclusion Area, and
- 3) Proposed East Central Subdivision Avoidance Area.

Energy transportation proposals for locations outside the window area and within exclusion areas would be denied. For areas outside the window area and within the avoidance area, proposals would be considered on a case-by-case basis. Such proposals would be required to meet all site specific mitigation measures established for the avoidance area, prior to acceptance and evaluation of applications.

b. South Unit

Assumptions - The window proposal would jibe with a similar planning direction on BLM and State of Utah administered lands located to the south of this unit.

Recommendations

- Support a window designation. This is in recognition of the issue/demand for a major north-south and east-west energy transportation corridor in northeastern Utah.

- Window suitable for overhead electrical transmission line facilities and underground pipeline facilities.
- Width of window would vary from nine to eleven miles, with Forest Road 335 and Wild Horse Ridge as the east and west boundaries, respectively.

General Mitigation Measures for the Window Area

The following measures would be required to protect those critical/sensitive values and uses presented in table G., pages H-24 and H-25.

- Some helicopter placement would be required on the south end.
- Tower placement would be prohibited on steep side slopes. (Existing mineral lease activities have a stipulation of no surface occupancy on the steep side slopes along this segment.)
- Disturbance to seeded areas in Sowers Canyon bottom area would require plowing and reseeding.

Applicable measures found in Appendix, Exhibit No. 3 would also be applied.

Adjacent Lands

Adjacent lands, administered by the Ashley National Forest, are located in the proposed South Forest Division Avoidance Area. Energy transportation proposals outside the window and within this avoidance area would be denied unless all site specific mitigation measures were met.

ATTACHMENTS

EXHIBIT NO. 1

APPROACHES FOR CORRIDOR/WINDOW SELECTION

Three approaches for designating corridor/window - the direct (where facilities could go), the indirect (where facilities could not go), and the combination (mixture of direct and indirect) will be followed in the corridor/window evaluation report.

The direct and indirect approach both identify two categories of land: where facilities could go and where facilities could not go. The combination approach involves a mixture of the above two land categories.

In the following item presentations, each approach is evaluated according to the flexibility of the process.

1. Direct Designation (where to place facilities)
 - a. Identification of land areas for designation as corridors
 - 1) Long linear, or
 - 2) Windows
 - b. Positive and negative aspects of long linear corridor designations

Positive

Negative

- | | |
|--|--|
| 1) Needed, to address existing utility and transportation rights-of-way located in constrained or physically restrictive land areas. | 1) Reduces planning flexibility for location, length, origin, and destination of proposed facilities. |
| 2) Controls right-of-way proliferation. | 2) Could require a lengthy amendment process if right-of-way needs change, requiring use of land areas outside the corridor. |
| | 3) Directly affects property values of adjacent state and private land. |
| | 4) Shifts planning responsibilities for facilities from industry to the Forest Service. |

- c. Positive and negative aspects of window designations. The concept of a "window" is valid only where there are geographical constraints to siting facilities. These constraints can be caused by designation of adjoining sensitive areas.

Positive

Negative

- | | |
|---|--|
| <p>1) More planning flexibility in response to origin, destination, source, and market differences -- giving industry more freedom in selecting alternative routes and releasing Forest Service from the responsibility to have engineering expertise or familiarity with industry standards and design requirements.</p> | <p>1) Does not fit all physical land categories, where widths are constrained by environmental features.</p> <p>2) Does not recognize patterns of land ownership.</p> <p>3) Does not prevent right-of-way proliferation.</p> |
|---|--|

2. Indirect Designation (where not to place facilities)

- a. Identification of land areas where facilities could not or should not be placed, by classifying the areas as:

- 1) Avoidance Areas, or
- 2) Exclusion Areas.

Avoidance areas could be crossed under strict conditions, although by definition, facilities should avoid these areas to the greatest extent possible.

Constructing linear facilities would be prohibited in exclusion areas.

- b. Positive and negative aspects of indirect corridor designation

Positive

Negative

- | | |
|---|---|
| <p>1) Retain flexibility for planning, concentrating agency efforts on the protection of important natural, cultural, and social values. Eliminates premature anticipation of right-of-way needs or assumption of industry's role in facility planning.</p> | <p>1) Critical right-of-way needs might not be preserved, if a comprehensive framework for corridor planning was not developed.</p> |
|---|---|

3. Combination of Direct and Indirect Designations

- a. Identification of existing linear rights-of-way and windows to protect critical right-of-way areas, and identification of avoidance and exclusion areas to protect important natural, cultural, and social values
- b. Aspects of a combination approach
 - 1) Should help to limit proliferation of rights-of-way and allow the Forest Service some flexibility in the planning process.
 - 2) Recognizes the importance of existing linear rights-of-way and provides an opportunity to address expansion potentials.
 - 3) Industry could continue to design its own routes to meet source-to-market needs.
 - 4) Routing decisions would be speeded up because avoidance and exclusion areas would be identified prior to route selection process.
 - 5) Window designations would better incorporate multiple use factors and would be less presumptive concerning uses of adjoining non-Forest Service lands.
 - 6) Unavoidable adverse effects might be minimized by eliminating sensitive areas from further study at an early stage.

EXHIBIT NO. 2 - MITIGATION MEASURES REQUIRED OF APPLICANTS BY FEDERAL AGENCIES FOR HIGH VOLTAGE/EXTRA HIGH VOLTAGE ELECTRICAL TRANSMISSION LINES (MOON LAKE POWER PLANT PROJECT DRAFT EIS, JANUARY 1981)

MEASURES REQUIRED OF THE APPLICANT BY FEDERAL AGENCIES

Authority for Federal requirements for projects is granted under the following acts:

National Environmental Policy Act of 1969
Eagle Protection Act of 1969
Fish and Wildlife Coordination Act of 1958
Organic Administration Act of 1897, as amended
Reclamation Act of 1902 Preservation of American Antiquities Act of 1906
Wilderness Act of 1964
National Historic Preservation Act of 1966, as amended
Executive Order 11593 of 1971 (Protection and Enhancement of the Cultural Environment)
Federal Land Policy and Management Act of 1976
The Clean Air Act, as amended 1977
The Federal Clean Water Act of 1977
Endangered Species Act, as amended 1978
Executive Order 12088--Federal Compliance with Pollution Control Standards
Executive Order 11990--Protection of Wetlands Executive Order 11988--Floodplains Management National Wildlife Refuge Systems Administration Act of 1966 Federal Air Regulations, Part 77 Federal Aviation Act of 1958 Occupational Safety and Health Act of 1970 Surface Mining Control and Reclamation Act of 1977 Federal Noxious Weed Act, 1974

These measures are general guidelines for mitigation and may be altered by the appropriate Federal Official to meet site specific needs. The applicant will, when restoring or rehabilitating areas disturbed by the construction of the transmission lines, pipelines, and associated access roads across private lands, use the same reclamation measures as required by land managers of adjacent Federal lands or reclamation measures as requested or required by the private landowner.

- a. A construction operating plan or similar document would be prepared covering the construction of all project facilities. Under authority of Section 504 of FLPMA the applicant would be required to provide funding to the appropriate Federal agencies for the purpose of financing one or more specialists and their vehicles for administration of construction activities.

This would assure that proper site specific mitigation would be carried out.

- b. All existing improvements (e.g., fences, pipelines, etc.) along project-related linear facilities (pipelines, transmission lines, etc) would be protected and damage due to construction would be repaired.

This should be effective in maintaining the present integrity of structures along rights-of-way.

- c. All public land survey monuments, private property corners, and forest boundary monuments would be located, marked, and protected. In the event of destruction, they would be replaced.

This should be effective in maintaining the present integrity of structures along rights-of-way.

- d. Clearing would be restricted as per requirement of the appropriate land management agency. A clearing plan would be developed to address site specific needs. Determination of a hazard on the right-of-way would be a joint responsibility of the applicant and the appropriate Federal official consistent with the National Electric Safety Code and State or other electric safety requirements.

This would be effective in reducing the amount of clearing and should reduce the adverse impacts of clearing. Electrical and other hazards along transmission lines would be eliminated by following established codes.

- e. Removal and stockpiling of topsoil would be required at all construction sites unless otherwise directed by the appropriate Federal official. Along transmission lines, dozer, blade, or ripper-equipped tracked vehicles would not be allowed except for access road construction.

Preserving and/or replacing topsoil would aid in revegetation, reduce surface scarring, and thus reduce contrast. The topsoil could not, in all cases, be removed without mixing with subsurface soils. Depending upon the specific soil characteristics, this may reduce or enhance the productivity of the "topsoil" when it is replaced.

- f. The Forest Service (FS) could determine that the proposed action could have an effect on an officially listed endangered species. The FS would not take any action which would jeopardize the continued existence of any threatened or endangered species. No operations would be permitted in any areas where bald or golden eagles and/or their nests would be molested during the nesting season.

This would be 100-percent effective in assuring compliance with the Endangered Species Act.

- g. The applicant would provide funding for a botanist, approved by the appropriate Federal official, to survey for candidate, proposed, and officially listed threatened or endangered flora. The botanist would complete a 100-percent survey of all areas to be disturbed and designate those areas in which no disturbance would be permitted. The botanist would be available, as needed, during the construction period.

This would be effective in preventing damage to T&E plants and their habitats.

- h. A transportation plan would be submitted by the applicant for review and approval by the appropriate land management agency. This plan would cover approval of temporary, reconstructed, and newly constructed roads and would include clearing work, rehabilitation, and use associated with transportation needs. Overland access could be specified in lieu of road construction or reconstruction.

This would be highly effective in assuring fewer environmental impacts associated with road construction activities.

- i. Along linear facilities, rivers, streams, and washes would be crossed at existing roads or bridges, except at locations designated by the appropriate Federal official. The applicant would be required to install culverts or bridges at points where new permanent access roads would cross live streams to allow unobstructed fish passage. Where drainages would be crossed by temporary roads, dirt fills or culverts would be placed and removed upon completion of the project. Any construction activity in a perennial stream would be prohibited unless specifically allowed by the appropriate Federal official. All stream channels and washes would be returned to as near natural state as possible.

This would be effective in reducing the number of streams that would be crossed and limiting long-term adverse impacts. Short-term impacts would still occur but the magnitude would be less with this mitigation.

- j. On areas which would be cleared of vegetation by construction or other activity associated with this project, vegetation would be reestablished under the direction of the appropriate Federal official using procedures appropriate to the impacted areas. Vegetation cleared during construction would be disposed of as per direction from the appropriate Federal official. Where commercial timber is cut, the trees would be measured and commercially sold or disposed.

Soil cover would be reestablished but composition would, in most cases, be modified and, in general, there would be long-term changes in the general aspect of the impacted vegetation.

- k. Prior to initiation of the construction phase, the applicant shall secure the services of a landscape architect to prepare the design and mitigation requirements for the project to meet the assigned visual resource management class and contrast ratings requirements, as stated in Forest Service Manual 2380.

This would be effective in reducing the contrast of obtrusive structures. Even with design to complement form, line, color, and texture of the surroundings (e.g., painting structures natural and complementary colors), contrast with the landscape would, in certain instances, be high because of the inherent characteristics of the structures.

- l. All trash, packing material, and other refuse would be removed from construction areas and salvaged or placed in approved sanitary landfills.

This would be effective in controlling construction associated refuse. There would probably be some debris blown off the site by wind.

- m. Nonspecular (non-reflective) conductors and compatible insulators would be installed on all transmission line systems.

This would be effective in reducing visibility and reflectiveness of powerlines and insulators.

- n. All access roads blocked as the result of construction of project components would be rerouted or rebuilt and cattleguards or gates would be provided along the new access roads as directed by the appropriate Federal official. All access road construction would be handled in response to and approval of a submitted transportation plan.

This would be effective in maintaining established access and preserving livestock management facilities.

- o. Intensive archaeological surveys and clearances would be required for all project sites prior to new construction. Properties eligible for inclusion in the National Register of Historic Places would be identified in consultation with the State Historic Preservation Officer (as specified in 36 CFR 800.4 and 36 CFR 63). Wherever possible, sites would be avoided. Where avoidance is not possible, mitigation of adverse effects to sites eligible for the National Register would be undertaken in compliance with 36 CFR 800. Sites discovered during construction or other activities authorized by the appropriate Federal official would be evaluated and managed as specified in 36 CFR 800.

Regardless of measures taken, damage to cultural artifacts could still occur, especially to subsurface sites. However, the appropriate Federal official would apply consistent management practices at all construction sites for all archaeological and historical resources. Information would be conveyed to the State Historic Preservation Officer or other agencies as appropriate. Regulatory compliance would be assured.

- p. The applicant would be required to provide for the control of noxious weeds as directed by the appropriate Federal official.

The probability of success of this mitigation would be commensurate with the techniques used.

- q. The applicant would provide a qualified paleontologist who would be approved by the appropriate Federal official. The paleontologist would conduct an intensive survey of all areas to be disturbed which were identified as having high potential for significant paleontological resources. An approved paleontologist would be available, as needed, during surface disturbance. If the paleontologist determined that values would be disturbed, construction would be halted until appropriate action could be taken.

The paleontologist would be able to avert most damage to paleontological resources by recording scientifically important data. There would remain a high potential for inadvertent damage to subsurface fossils.

- r. In cooperation with the appropriate Federal official, a fire control plan would be prepared. Internal combustion engines would be equipped with approved exhaust mufflers or spark arrestors.

The possibility of fires would not be eliminated, but identifying liability for such fires could tend to make the applicant more cautious and various resources would be better protected against loss due to fire.

- s. Construction-related travel would be restricted to rights-of-way. Cross-country motor vehicle travel by construction and operation crews would be prohibited in closed or restricted areas.

This may reduce impacts to soil, vegetation, and wildlife by a small percentage, but because actual access would be increased, ORV impacts due to public use could increase.

- t. All power transmission lines would be designed to prevent electrocution of raptors.

This would be 100-percent effective in preventing the death of raptors or other large birds due to electric shock.

- u. Construction of facilities would not be allowed when in conflict with existing mining and drilling operations.

This would be effective in reducing conflicts between the project and existing interests.

- v. Issuance of rights-of-way for project facilities would be subject to valid existing prior rights.

This would safeguard the rights of persons or companies whose mineral or other claims precede those of Deseret.

- w. The applicant would comply with grounding and clearance requirements of the National Electric Safety Code and appropriate REA bulletins.

This would be 100-percent effective in assuring standard clearance and proper grounding procedures were adhered to.

- x. Helicopters would be used to erect towers and string conductors in areas where access across the terrain or management constraints preclude standard construction methods or where designated by the appropriate Federal official.

Soil, vegetation, and aesthetics would be protected if this mitigation were used. Some disturbance would take place at the actual construction sites.

- y. Blasting and other surface disturbances would be prohibited within 500 feet of all live springs, reservoirs, or water wells.

The degree of effectiveness of this mitigation cannot be determined, as the size of explosive charge, geologic, topographic, and ground water character would not be identical from place to place. This mitigation could generally be expected to protect these water resources from blast-caused damages.

- z. Water which has been appropriated to Federal agencies or other users would not be used without the written authorization from the appropriate Federal official or water right owner.

This mitigation would be effective in assuring that proper water use and allocation procedures were followed.

- aa. Areas subject to mudflows, landslides, mudslides, avalanches, rock falls, and other types of mass movement would be avoided in locating the linear facilities. Where such avoidance is not practical, the design, based upon detailed field investigations and analysis, would provide measures to prevent the occurrence of mass movements.

Taking these hazards into consideration during the design stage of any project would help prevent structure or resource damage.

- bb. Blasting and all other surface disturbances would be prohibited within 500 feet of all dwellings, recreation trails, roads, highways, and recreation site improvements and developments, unless otherwise approved by the appropriate Federal official.

Under most circumstances, 500 feet would give an adequate safety margin to prevent structural damage for a blasting operation. The size of the charge and circumstances would vary with the specific situation.

EXHIBIT NO. 3 - REQUIRED GENERAL FEDERAL MEASURES, RECLAMATION PROCEDURES, AND CONSTRUCTION AND OPERATION PROCEDURES FOR PIPELINES (CHEVRON PHOSPHATE PROJECT DRAFT EIS, JANUARY 1983)

REQUIRED GENERAL FEDERAL MEASURES

As a condition for granting the various rights-of-way and permits, the authorizing agencies would require that certain terms and conditions be met. The general federal measures are presented in this appendix. As project plans are finalized and before authorizations are given, specific requirements would be added by the various authorizing agencies.

The applicant would be required to prepare a Construction Operation (CO) plan or similar document, covering the construction of all project facilities on federal land. This plan would be submitted to the authorizing agencies for approval prior to commencement of work on the ground. The CO plan would contain site-specific stipulations for the following sections (because the various rights-of-way could involve many types of terrain, soils, vegetation, land uses, and climatic conditions, the sections within the CO plan would include sets of techniques and measures tailored to each condition encountered):

- Fire Protection
- Clearing - Visual Resources
- Erosion Control, Revegetation, and Restoration.
- Transportation
- Communications
- Cultural Resources
- Threatened and Endangered Plant and Animal Species Studies and Mitigation, including a wildlife mitigation plan developed jointly by the State Wildlife Agency, U.S. Forest Service, U.S. Fish and Wildlife Service, and applicant(s)
- Blasting
- Pesticide and Herbicide Use
- Health and Safety Solid Waste Emergency Response Air Quality Transportation

Technical assistance and approval of written plans for federally managed lands will be obtained from the Forest Service prior to any construction.

Under authority of Section 504 of the Federal Land Policy and Management Act, the applicant would be required to provide funding to the appropriate federal agencies for the purpose of financing one or more specialists for administration of construction activities.

The following federal general and resource measures would be required.

GENERAL MEASURES

1. The permittee would do everything reasonably within its power and shall require its employees, contractors, and employees of contractors to do everything reasonably within their power, both independently and upon request of the Forest Service, to prevent and suppress fires on or near the lands to be occupied under the conditions of a permit.

2. All earth cut or fill slopes favorable to revegetation, or other areas on which ground cover is destroyed in the course of construction, would be revegetated to grasses or other suitable vegetation as required by the Forest Supervisor.
3. Seeding or planting would be done at a time of the year, in a manner, and with species which the District Ranger considers offer the best chance of success, and would be repeated annually until such areas were accepted in writing by the District Ranger as being satisfactorily revegetated and stabilized.
4. The permittee would be responsible for the prevention and control of soil erosion and gulying on the area designated by this permit and lands adjacent thereto, resulting from construction or operation of the permitted use, and would provide preventive measures as required by the District Ranger.
5. No wastes or byproducts would be discharged if they contain any substances in concentrations which would result in substantial harm to fish and wildlife or to human water supplies.

Storage facilities for materials capable of causing water pollution that would result in substantial harm to fish and wildlife or to human water supplies, would be located so as to prevent any accidental spillage into waters or channels leading into water.

6. The power transmission lines would be designed and constructed in accordance with accepted standards and specifications for power transmission lines of similar voltage, capacity, and purpose. The permittee would place and maintain suitable structures and devices to reduce to a reasonable degree, the liability of contact between its power transmission line and telegraph, telephone, signal, or other power transmission lines heretofore constructed and now owned by the permittee, and would also place and maintain suitable structures and devices to reduce to a reasonable degree, the liability of any structures or wires falling and obstructing traffic or endangering life on highways or roads, in a manner that was satisfactory to the Forest Service. All transmission lines would be buried within the Flaming Gorge NRA boundaries.
7. Natural phenomenons which occur on National Forest land, such as avalanches, rising waters, high winds, falling limbs or trees, and other hazards, present risks to the permittee's property which the permittee assumes. The permittee would have the responsibility of inspecting the site, right-of-way, and immediate adjoining area for dangerous trees, hanging limbs, and other evidence of hazardous conditions and, after securing permission from the Forest Service, remove such hazards in order to protect the permittee's improvements.
8. The permittee would indemnify the United States against any liability for damage to life or property arising from the occupancy or use of National Forest lands under the conditions of this permit.

9. The permittee would be held liable for all injury, loss, or damage, including fire suppression costs, directly or indirectly resulting from or caused by the permittee's use and occupancy of the area covered by the conditions of this permit, regardless of whether the permittee was negligent or otherwise at fault, provided that the maximum liability without fault would not exceed \$1,000,000 for any one occurrence, and provided further that the permittee would not be liable when such injury, loss, or damage results wholly, or in part, from a negligent act of the United States, or an act of a third party not involving the facilities of the permittee.

Liability for injury, loss, or damage, including fire suppression costs in excess of the specified maximum, would be determined by the laws governing ordinary negligence.

10. The permittee would perform all work with explosives in such a manner as not to endanger life or property. All storage places for explosives and flammable material would be marked "DANGEROUS." The method of storing and handling explosives and flammable materials would conform to recommended procedures contained in the "Blasters Handbook" published by E.I. duPont de Nemours and Company, and in all federal, state, and local laws and regulations.
11. The permittee would take reasonable precautions to protect, in place, all public land survey monuments, private property corners, and National Forest boundary markers. In the event that any such land markers or monuments were destroyed in the exercise of the privileges authorized by this permit, depending upon the type of monument destroyed, the permittee would see that they were reestablished or referenced in accordance with (1) the procedures outlined in the "Manual of Instructions for the Survey of the Public Land of the United States," (2) the specifications of the county surveyor, or (3) the specifications of the Forest Service.

Further, the permittee would cause such official survey records as were affected to be amended as provided by law.

12. A permit would be issued on the condition that the permittee had secured, or would secure, the consent of any person having valid claim to the land.
13. This permit would not be exclusive. The Forest Service reserves the right to use or permit others to use any part of the permitted area for any purpose, provided such use would not interfere with the rights and privileges hereby authorized.
14. No signs or advertising devices would be erected on the area designated by this permit or highways leading thereto, without prior approval by the Forest Service as to location, design, size, color, and message. Erected signs would meet neat and presentable standards and be maintained or renewed as necessary.

RESOURCE MEASURES

1. Air Quality

The applicant would conduct all activities associated with the project in a manner that would avoid or minimize degradation of air, land, and water quality. In the construction, operation, maintenance, and abandonment of the project, the applicant would perform its activities in accordance with applicable air and water quality standards related facility siting standards, and related plans of implementation, including but not limited to the Clean Air Act, as amended (43 USC 1321). (Also applies to Water and Soil Resource Mitigation.)

2. Water

In an attempt to reduce the amount of sediment which enters the streams or to reduce the impact of sediment which is disturbed within the streams, the applicant would apply the following guidelines.

- a. When crossing streams within the pipeline right-of-way, streams would be crossed by vehicles only at the pipeline crossing.
- b. A buffer strip of terrestrial vegetation would be left between staging areas adjacent to the stream and the stream itself. Riparian vegetation would not be counted upon as a buffer strip because silt collected by the riparian vegetation might enter the stream during high water periods.
- c. The applicant would time the construction of the stream crossings to coincide with low flows. The stream(s) would have less capability for carrying sediment with less volume of water and slower velocities.
- d. The applicant would complete the work as quickly as possible and return the stream to its natural state soon after the pipe is laid.
- e. Backfill material for the pipe in the streambed would be of predominantly coarse material because fines would be washed away during placement.
- f. The banks of the streams would be returned, as nearly as possible, to their original condition.
- g. Construction across streams by boring or trenching would be specified by the authorized officer on a case-by-base basis.
- h. When providing temporary access to the pipeline right-of-way, all rivers, streams, and washes would be crossed at existing roads or bridges, except at locations designated by the authorized officer. Where drainages would be crossed by temporary roads, dirt fills or culverts or low water crossings would be placed and removed upon completion of the project. Any construction activity in a perennial stream would be prohibited unless specifically

allowed by the authorized officer. All stream channels and washes would be returned to their natural state. Such construction, when it would occur on National Forest land, would be managed under the restrictions in the Forest Service and Department of Agriculture Policy Statement No. 2019, dated July 8, 1980. (Also applies to wildlife resource mitigation.)

i. Construction equipment would be refueled and maintained outside stream channels in areas designated by the authorized officer.

3. Vegetation

a. The applicant would control noxious weeds in areas where soil surface has been modified or natural vegetation has been removed. Noxious weeds would be controlled in areas designated by the authorized officer.

b. On areas which would be cleared of vegetation by construction or other activity associated with this project, vegetation would be reestablished under the direction of the office in charge. Vegetation cleared during construction would be disposed of per authorizing agency direction. Where commercial tree species were cut, the trees would be cut, measured, and commercially sold per direction of the authorized officer.

c. Clearing in timbered areas to reduce fire hazard would be limited to the working space right-of-way.

d. The authorized officer would require preclearing of mountain brush and tree covered areas prior to dozer or maintenance blade work. Preclearing would involve hand cutting of brush and trees and removal by proper equipment to designated areas.

e. The reestablishment of vegetative cover, as well as watershed stabilization measures, would have the requirement of completion during the ongoing working season and prior to next winter season.

f. Trees and brush (indigenous species) would be established according to the revegetation and rehabilitation plan contained within the construction and operation plan.

g. Disturbed areas, which in the opinion of the authorizing agency were unsuitable for successful revegetation, would be protected under the provisions of an approved reclamation, erosion control, and revegetation plan. This plan would state the method of protection to be used and the provisions for prevention of site deterioration and introduction of noxious weeds. At a minimum, the reclamation, erosion control, and revegetation plan including the items described in this appendix would be required for Forest Service rights-of-way. Prior to disturbance, this plan would be submitted to the authorizing agency for approval.

4. Soils

- a. Existing soils and geological data would be gathered and used to achieve maximum revegetation and soil erosion mitigation responses.
- b. Removal and stockpiling of topsoil would be required at all construction sites unless otherwise directed.
- c. All topsoil would be conserved for reclamation requirements; excess topsoil would be stockpiled at designated locations.
- d. Areas subject to mudflows, landslides, avalanches, rock falls and other types of mass movement would be avoided where practical in locating the linear facilities. When such avoidance was not practical, the design, based upon detailed field investigations and analyses, would provide measures to prevent the occurrence of mass movement.

5. Wildlife

- a. Under the terms of the Endangered Species Act of 1973, the applicant would conduct surveys to determine if listed species or their habitats might be present on areas to be disturbed by any of the alternatives, regardless of land ownership. If it is determined that listed species or their habitats might be present and could be affected by the proposals, appropriate consultations with the U.S. Fish and Wildlife Service would be conducted by the Federal authorizing agency. No activities would be authorized until consultation was complete as specified by Section 7(c) of the consultation process which would specify the specific mitigation measures to be carried out by the applicant.
- b. Any active golden eagle nest found within 1 mile of project activities would be protected from harassment during the critical nesting period because of provisions established by the Bald Eagle Protection Act which requires protection of the golden eagle and its nest.

6. Agriculture

- a. Permittees and other regular users of public lands and National Forest lands which would be affected by construction of the project would be notified in advance of any construction activity that could affect their businesses or operations. This would include, but not be limited to, signing of temporary road closures, removal and/or cutting of fences, disturbances to range improvements, or other range use-related structures. (Also applies to Land Uses.)
- b. If a natural barrier used for livestock control was broken during construction, the applicant would adequately fence the area to prevent drift of livestock. Fence specifications would be determined on a case-by-case basis.

c. Gates or cattle guards on established roads would not be locked or closed by the applicant.

7. Transportation

a. A transportation plan would be submitted for review and approval by the Forest Service. This plan would cover approval of temporary, reconstructed, and newly constructed roads and would include clearing work, rehabilitation, and uses associated with transportation needs. Overland access would be specific in lieu of road construction or reconstruction.

b. Access roads necessary for operation and maintenance of the pipeline would be clearly identified. Some of these access roads would ostensibly be open for public use including, but not limited to, off-road vehicular travel.

c. Where possible, the right-of-way itself would be used as an access road only during the construction period. The authorized officer would require that the access roads paralleling this pipeline route would be permitted. (Any other roads providing access to the pipeline would be restricted by the provisions in Item 7a).

8. Recreation

The Forest Service would direct the applicant to control off-road vehicular use on the right-of-way. Such specified control could include use of physical barriers, replanting of trees, or other reasonable means of vehicle control. Construction of the crossing at Little Hole Campground would be allowed only between Labor Day and the opening of the general hunting season.

9. Cultural

All significant cultural resources identified on any proposed project area would be avoided wherever possible. For those significant cultural resources that could not be avoided, a Memorandum of Agreement with the Advisory Council of Historic Preservation and the State Historic Preservation Office would be developed that details specific mitigation measures in accordance with 36 CFR 800. Discovery of any cultural resources during construction that were not previously identified would be reported immediately to the Ashley National Forest Supervisor and left undisturbed until they can be evaluated for significance.

10. Visual

a. The edges of vegetative clearings in selected areas of dense shrubs and trees would be thinned and/or irregularly corrugated to avoid straight line visual effects.

b. A plan to minimize visual impacts from pipeline right-of-way clearings and structures would be required. The applicant would prepare photographic simulations, as directed, of areas in which

facilities were proposed within foreground/midleground areas of high scenic value or sensitivity. Using the simulation as a guide, the applicant would design and locate the pipeline routes and ancillary structures to blend into the existing environment. The authorizing agency would evaluate and approve measures before construction begins.

11. Paleontology

The applicant would provide a qualified paleontologist who would be approved by the authorized officer. The paleontologist would conduct an intensive survey of all areas to be disturbed according to the significance and mitigation needs outlined by the Forest Service. An approved paleontologist would be available, as needed, during surface disturbance. If the paleontologist determined that values would be disturbed, construction would be halted until appropriate action could be taken.

12. Land Uses

Disturbance of improvements such as fences, roads, and watering facilities during the construction and maintenance of the rights-of-way would be kept to an absolute minimum. Immediate restoration of any damage to improvements to at least their former state would be required. Functional use of these improvements would be maintained at all times.

When necessary to pass through a fence line, the fence would be braced on both sides of the passageway prior to cutting the fence. A gate acceptable to the authorized officer would be installed in the gate opening and would be closed when not in actual use. Where a permanent road was to be constructed or maintained, cattleguards would be placed at all fence crossings. (Also applies to agriculture.)

13. Construction Techniques and Health and Safety

a. Helicopters would be used to string pipe and deliver equipment where determined through consultation with the applicant in areas where access to the terrain or management constraints preclude standard construction methods or where designated.

b. Garbage and other refuse would be disposed of in an authorized disposal site or landfill. Engine oil changed would be contained in suitable containers and disposed of as refuse; no fuel, oil, or other hydrocarbon spill would be permitted. If such a spill accidentally occurred, the contaminated soil would be excavated and an authorized officer notified immediately.

c. The authorized officer would establish right-of-way widths on a case-by-case basis.

d. The applicant would comply with applicable federal and state laws and regulations concerning the use of pesticides (i.e., insecticides, herbicides, fungicides, rodenticides, and other

similar substances) in all activities and operations. The applicant would prepare a pesticide plan and obtain approval from the authorized officer prior to the use of such substance.

The plan would provide the type and quantity of material to be used; the pest, insect, fungus, etc., to be controlled; the method of application; the location of storage and disposals of containers; and other information the Forest Supervisor might require. The plan would be submitted no later than December 1 of any calendar year that covers the proposed activities for the next fiscal year (i.e., December 1, 1984, deadline for a fiscal year 1985 action). If the need for emergency use of pesticides was identified, the use would be approved by the Forest Supervisor. The use of substances on the rights-of-way and temporary permit areas would be in accordance with the approved plan. A pesticide would not be used if the Secretary of the Department of Agriculture had prohibited its use. A pesticide would be used only in accordance with its registered uses and with other Secretarial limitations. Pesticides would not be permanently stored on National Forest lands.

e. Within 30 days after construction and operation, all construction materials and related litter and debris would be disposed of in accordance with instruction from the authorized officer.

f. A fire control plan would be included in the construction and operation plan. The applicant would be everything reasonably possible, both independently and upon request of the authorized officer, to prevent and suppress fires on or in the immediate vicinity of the right-of-way or permit area. This would include making available such construction and maintenance force as might be reasonably obtained for the suppression of fires.

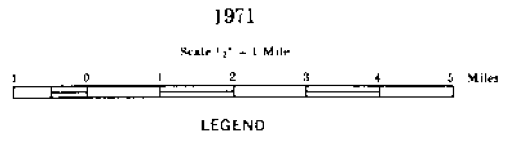
g. Within the Ashley National Forest, all disturbed areas (especially sidehill cuts) would be restored to near-natural conditions.

- EXCLUSION AREA BOUNDARY
- EXISTING UTILITY RIGHT-OF-WAY
- AVOIDANCE AREAS
- WINDOWS
- DESIGNATED CORRIDORS

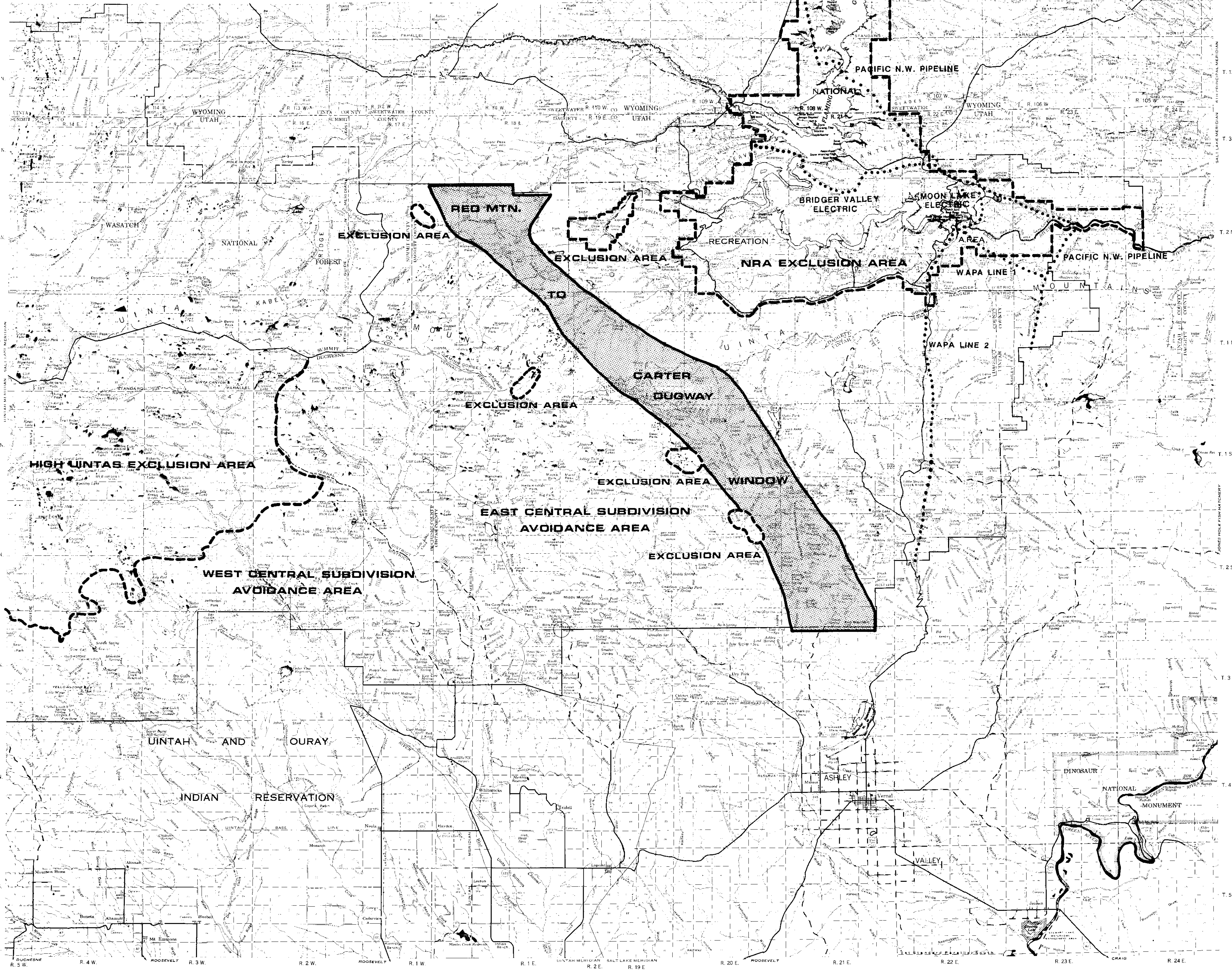
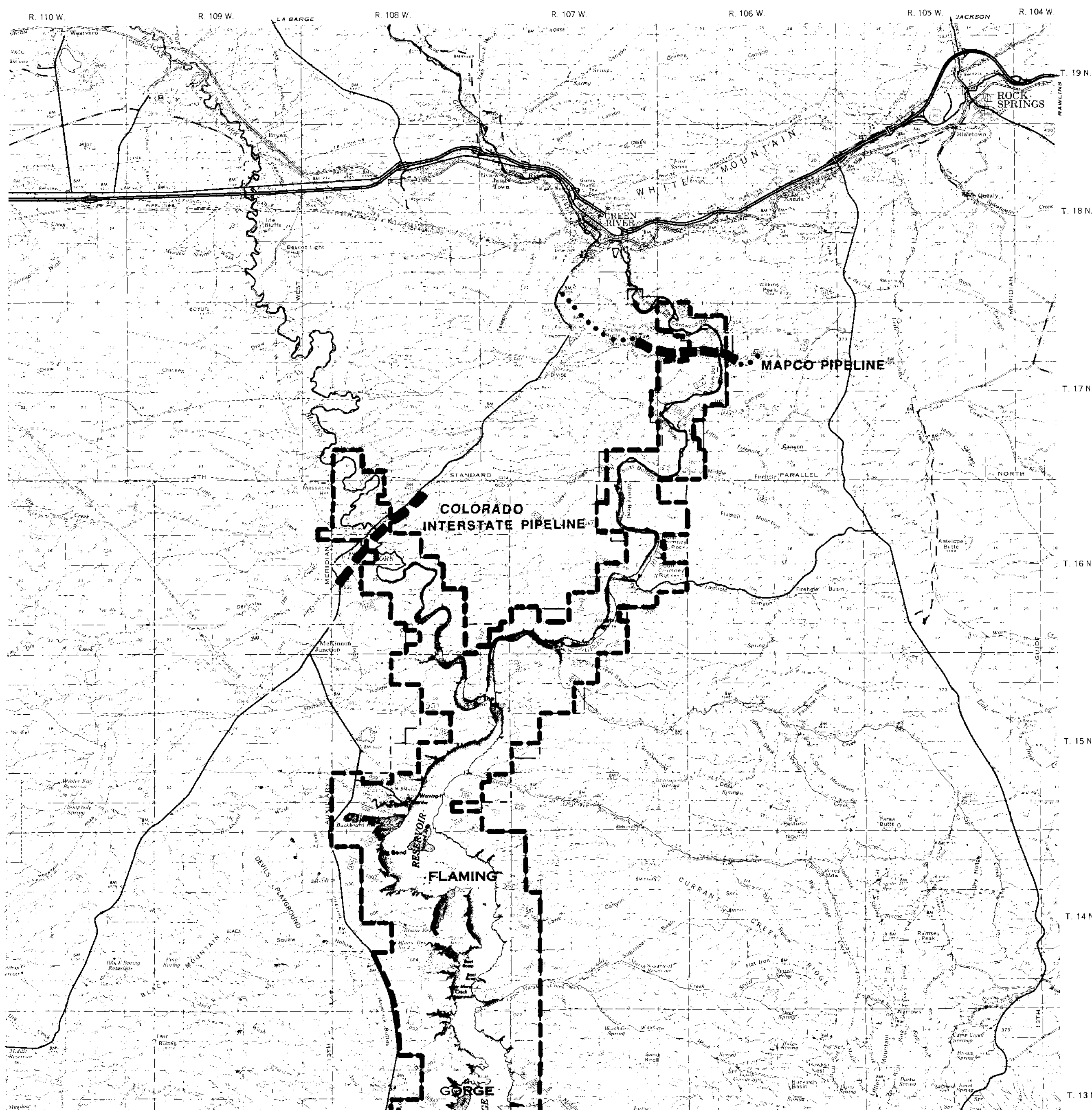
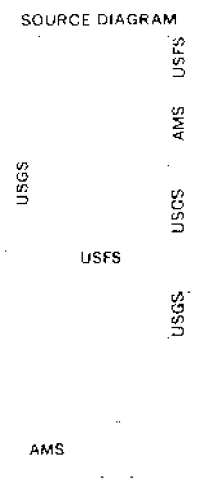
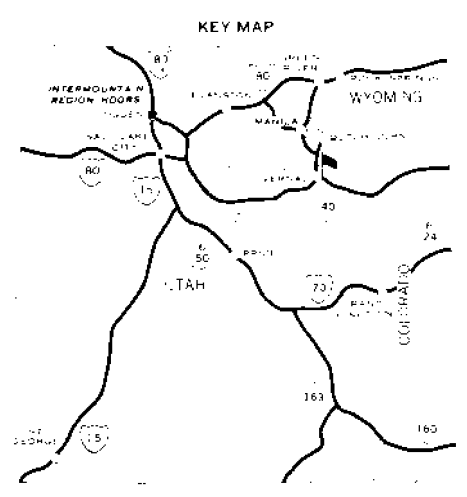
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE

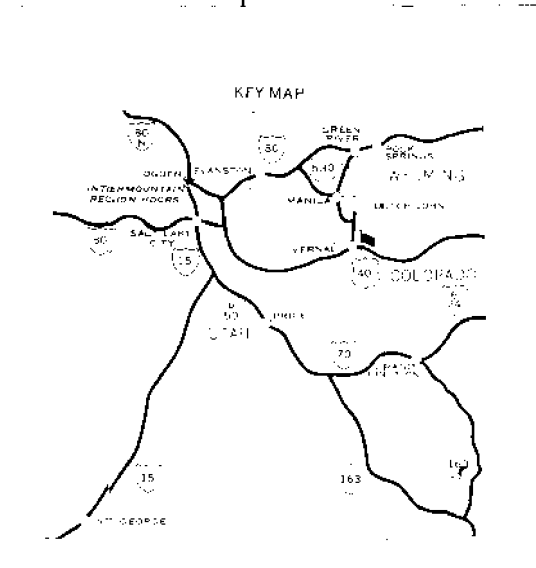
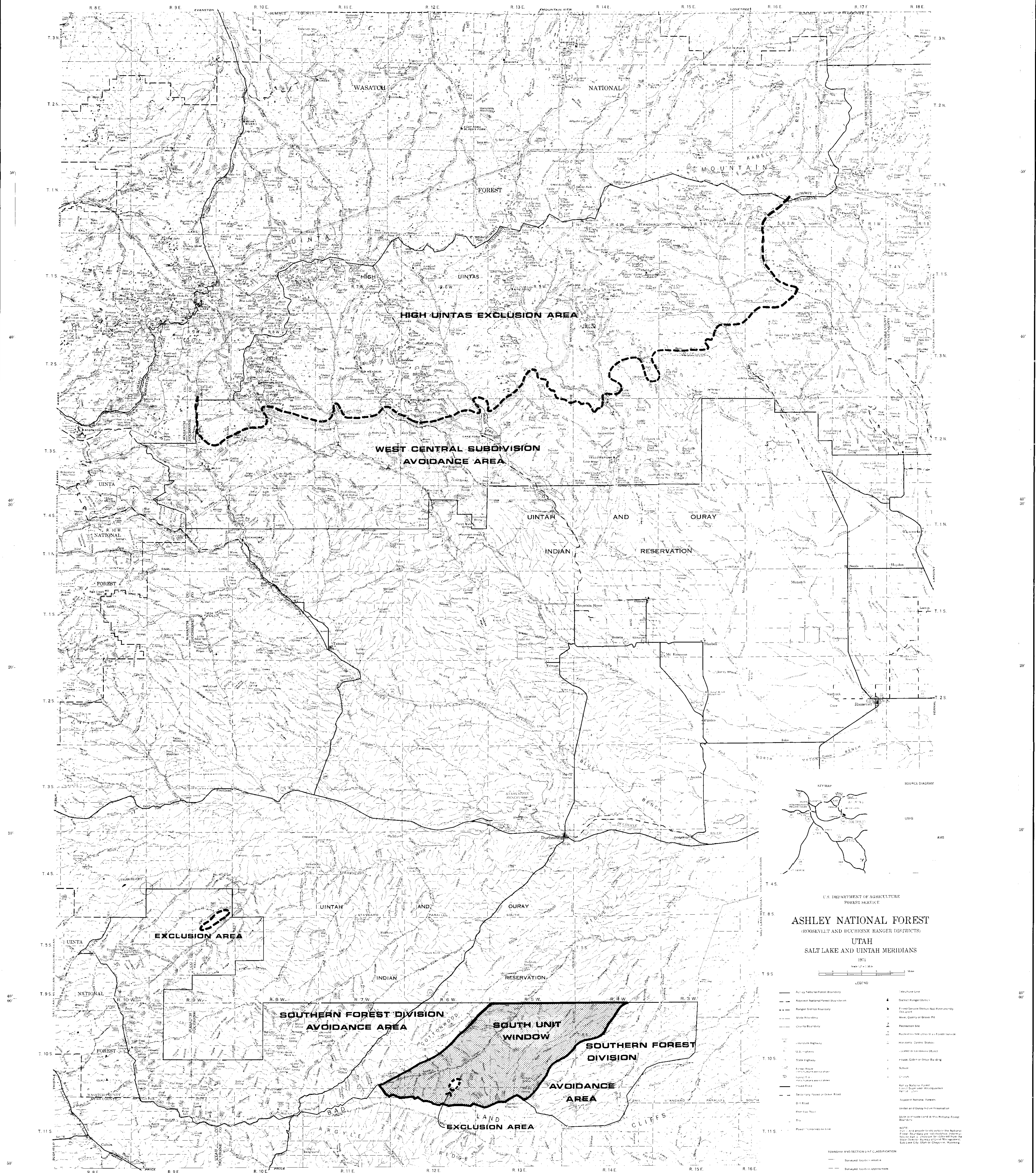
ASHLEY NATIONAL FOREST

(ROOSEVELT, FLAMING GORGE AND VERNAL RANGER DISTRICTS)
UTAH AND WYOMING
UINTAH, SALT LAKE AND SIXTH PRINCIPAL MERIDIANS



- LEGEND**
- Ashley National Forest Boundary
 - Adjacent National Forest Boundary
 - Ranger District Boundary
 - State Boundary
 - County Boundary
 - Interstate Highway
 - U.S. Highway
 - State Highway
 - Forest Road
 - Forest Road (Intermittent)
 - Forest Trail
 - Forest Trail (Intermittent)
 - Road
 - Secondary Road or Gravel Road
 - Dirt Road
 - Private Road
 - Trail
 - Railroad
 - Township and Section Line Classification
 - Surveyed Section
 - Surveyed Section (Intermittent)
 - Unknown (Bureau of Land Management definition)
 - Power Transmission Line
 - Telephone Line
 - Forest Supervisor Headquarters
 - District Manager Station
 - Forest Service Station (Not Permanently Occupied)
 - New Quarry or Gravel Pit
 - Recreation Site
 - Recreation Site (Other than Forest Service)
 - Hospital Control Station
 - Hospital Control Station (Permanent Lookout)
 - Lookout of Landmark Object
 - House, Cabin or Other Building
 - School
 - Church
 - Ashley National Forest
 - Flaming Gorge National Recreation Area
 - Adjacent National Forest
 - Utah and Dorey Indian Reservation
 - State or Private Land within National Forest Boundary





U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ASHLEY NATIONAL FOREST
(ROOSEVELT AND DUCHESE RANGER DISTRICTS)
UTAH
SALT LAKE AND UINTAH MERIDIANS
1971

- | | | | |
|-----------|-----------------------------------|---|--|
| — | Ashy National Forest Boundary | ▲ | Ranger District |
| - - - | Adjacent National Forest Boundary | ▲ | Forest Service Station (Not Permanently Occupied) |
| - · - · - | Ranger District Boundary | ▲ | Forest Service Station (Permanently Occupied) |
| — · — · — | State Boundary | ▲ | Miner's Claim or Grant Plot |
| — · — · — | County Boundary | ▲ | Recreation Site |
| — · — · — | Interstate Highway | ▲ | Recreation Site (Other than a Forest Service) |
| — · — · — | U.S. Highway | ▲ | Historic or Prehistoric Object |
| — · — · — | State Highway | ▲ | House, Cabin or Other Building |
| — · — · — | Forest Road | ▲ | School |
| — · — · — | Forest Road (Construction) | ▲ | Church |
| — · — · — | Forest Road | ▲ | Ashy National Forest (Forest Service with Miscellaneous Lands) |
| — · — · — | Secondary Road or Gravel Road | ▲ | Ashy National Forest (Forest Service with Miscellaneous Lands) |
| — · — · — | Drill Road | ▲ | Ashy National Forest (Forest Service with Miscellaneous Lands) |
| — · — · — | Fire Look Tower | ▲ | Ashy National Forest (Forest Service with Miscellaneous Lands) |
| — · — · — | Fire | ▲ | Ashy National Forest (Forest Service with Miscellaneous Lands) |
| — · — · — | Power Transmission Line | ▲ | Ashy National Forest (Forest Service with Miscellaneous Lands) |

- EXCLUSION AREA BOUNDARY** — — — — —
- EXISTING UTILITY RIGHT-OF-WAY** ·····
- AVOIDANCE AREAS** — — — — —
- WINDOWS** — — — — —
- DESIGNATED CORRIDORS** — — — — —

APPENDIX I

APPENDIX I
MINERAL STIPULATIONS

Standard and Special Stipulations for Leasing

STANDARD STIPULATION

STIPULATION FOR LANDS OF THE NATIONAL FOREST SYSTEM
UNDER JURISDICTION OF
DEPARTMENT OF AGRICULTURE

The licensee/permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of the Interior in the license/prospecting permit/lease. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of a permit/operation plan by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest development roads, within and outside the area licensed, permitted or leased by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed

To

at

Telephone No.:

who is the authorized representative of the Secretary of Agriculture.

Signature of Licensee/Permittee/Lessee

Special Stipulations for Leasing

1. All of the land in this area is included in _____ (recreation or special area, etc.). Therefore, no occupancy or disturbance of the surface of the land described in this lease is authorized. The lessee, however, may exploit the oil and gas resources in this lease by directional drilling from sites outside this lease. If a proposed drilling site lies on land administered by the Bureau of Land Management, or by the Forest Service, a permit for use of the site must be obtained from the BLM District Manager or the Forest Service District Ranger, before drilling or other development begins.
2. No access on work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from the _____ (road, lake, river, etc.)
3. No occupancy or other activity on the surface of _____ (legal subdivision) is allowed under this lease.
4. No occupancy or other surface disturbance will be allowed within _____ feet of the _____ (road, trail, river, creek, canal, etc.). This distance may be modified when specifically approved in writing by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
5. No drilling or storage facilities will be allowed within _____ feet of _____ (live water, the reservoir, the archaeological site, the historical site, the paleontological site, etc.) located in _____ (legal subdivision). This distance may be modified when specifically approved in writing by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
6. No occupancy or other surface disturbance will be allowed on slopes in excess of _____ percent, without written permission from the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
7. In order to _____ (minimize watershed damage, protect important seasonal wildlife habitat, etc.), exploration, drilling, and other development activity will be allowed only (during the period from _____ to _____, during dry soil period, over a snow cover on frozen ground). This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
8. In order to minimize watershed damage during muddy and/or wet periods, the authorized officer of the Federal surface management agency, through the authorized officer, BLM, may prohibit exploration, drilling, or other development. This limitation does not apply to maintenance and operation of producing wells.

9. The _____ Trail/Road will not be used as an access road for activities on this lease except as follows: (No exceptions, weekdays during recreation season, etc.)
10. To maintain esthetic values, all semi-permanent and permanent facilities may require painting or camouflage to blend with the natural surroundings. The paint selection or method of camouflage will be subject to approval by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
11. No occupancy or other activity on the surface of the following described lands is allowed under this lease:

Reasons for this restriction are:

Examples of appropriate reasons for this restrictions are:

- a. Steep slopes.
- b. Specific ecosystem, ecological land unit, land type or geologic formation which presents hazards such as mass failure.
- c. Special management units such as: Recreation Type I, water supply, administrative site, etc.

() Approximately _____% of lease

12. No _____ will be allowed within _____ feet of the _____ . This area contains _____ acres and is described as follows:

Reasons:

First blank to be filled in with one or more of the following: drilling, storage, facilities, surface disturbance, or occupancy. Second and third blanks to be filled in with one or more of the following:

- a. _____ feet wildlife habitat essential to specific species.
- b. _____ feet peripheral or unique vegetative type.
- c. 200 feet either side of center line of roads or highways.
- d. 500 feet or normal high waterline on all streams, rivers, ponds, reservoirs, lakes.
- e. 600 feet of all springs.
- f. 400 feet of any improvements.

13. In order to (minimize)(protect) _____, _____ will be allowed only during _____. This does not apply to maintenance and operation of producing wells and facilities. Lands within leased area to which this stipulation applies are described as follows:

Reasons:

First blank to be filled in with one or more of the following:

- a. Watershed damage.
- b. Soil erosion.
- c. Seasonal wildlife habitat (winter range, calving/lambing area, etc.)
- d. Conflict with recreation.

Second blank to be filled in with one or more of the following:

- a. Surface disturbing activities.
- b. Exploration.
- c. Drilling.
- d. Development.

Third blank to be filled in with one or more of the following:

- a. Period from _____ to _____.
- b. Dry soil periods.
- c. Over the snow.
- d. Frozen ground.

14. Controlled or Limited Surface Use Stipulation. This stipulation may be modified when specifically approved in writing by the authorized officer, BLM, with concurrence of the Federal surface management agency. Distances and/or time periods may be made less restrictive depending on the actual on-the-ground conditions.

The lessee/operator is given notice that all or portions of the lease area may contain special values, may be needed for special purposes, or may require special attention to prevent damage to surface and/or other resources. Any surface use or occupancy within such special areas will be strictly controlled or, if necessary, excluded. Use or occupancy will be authorized only when the lessee/operator demonstrates that the special area is essential for operations in accordance with a surface use and operations plan which is satisfactory to the Geological Survey and the Federal surface management agency for the protection of such special areas and existing or planned uses. Appropriate modifications to imposed restrictions will be made for the maintenance and operation

of producing oil and gas wells; however, in extremely critical situations, occupancy may only be allowed in emergencies.

After the Federal surface management agency has been advised of specific proposed surface use or occupancy on these lands, and on request of the lessee/operator, the agency will furnish more specific locations and additional information on such special areas which now include:

(Legal land description to lot and/or quarter, quarter section)

Reason for Restriction:

Duration of Restrict: (year-round, month(s))

15. Activity Coordination Stipulation. This lease includes lands within 1/ _____ which has resource values sensitive to high levels of activity. In order to minimize impacts to these resources, special conditions such as unitization prior to approval of operations, and/or other limitations to spread surface disturbance activities over time and space may be required prior to approval and commencement of any operations on the lease.
16. Protection of Endangered or Threatened Species. The Federal surface management agency is responsible for assuring that the area to be disturbed is examined prior to undertaking any surface-disturbing activities on lands covered by this lease to determine effects upon any plant or animal species listed or proposed for listing, as endangered or threatened, or their habitats. If the findings of this examination determine that the operation may detrimentally affect an endangered or threatened species, some restrictions to the operator's plans or even disallowances of use may result.

The lessee/operator may, at this discretion and cost, conduct the examination on the lands to be disturbed. This examination must be done by or under the supervision of a qualified resource specialist approved by the surface management agency. An acceptable report must be provided to the surface management agency identifying the anticipated effects of the proposed action on endangered or threatened species or their habitat.
17. Not applicable.
18. Coordinated Exploration Stipulation. All or portions of the lands covered by Lease No. _____ are within the _____ Area, an area of critical environmental concern. Therefore the lessee agrees that:
 - a. In order to protect the special resource values, drilling on the subject lease will be authorized only under a plan of operation

1/ Visually Sensitive Area, Areas of Threatened and Endangered Species

approved pursuant to the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. 181 et seq. and;

- b. All plans of operation will contain a provision vesting in the Secretary, USDI, or his duly authorized representative(s) control over the rate of drilling and development including in particular the spacing of wells and such other conditions as may be deemed necessary.
19. Conditional No Surface Occupancy Stipulation. The lessee agrees not to occupy or use the surface of the leased lands in _____ (legal description) except for certain limited uses as permitted in writing by an authorized officer of the surface management agency. This stipulation, at a later date, may be modified, supplemented, eliminated, or remain unchanged. Alteration of the stipulation will be conditional upon the preparation of a site specific environmental assessment, or if required, an environmental statement. In the event this stipulation is eliminated, it will be replaced by a coordinated exploration stipulation and other special stipulations as required to protect the surface resources.
 20. The lands within this leasehold contain unstable/highly erodible soils. Therefore, prior to entry onto the lands, the lessee (operator) will discuss the proposed activities jointly with the Area Oil and Gas Supervisor or his representative and the Forest Supervisor or his representative. Additional measures for th protection of the soils may be required. Such measures may include:
 - a. No surface occupancy of selected areas;
 - b. Restriction on surface entry during periods of excessive runoff;
 - c. Special reclamation techniques;
 - d. Special requirements for reserve pits and drilling fluid systems.
 21. The lease area contains critical habitat for certain wildlife species. Of paramount concern on this lease area area: _____. Therefore, prior to entry onto the leasehold, the operator will jointly discuss the proposed activities with the Area Oil and Gas Supervisor or his representative, the Forest Supervisor, or his representative, and the Utah/Wyoming Game and Fish Department. Additional measures may be required to protect the above species and habitat features; these include:
 - a. No surface occupancy of selected areas.
 - b. Restrictions on season of operation.
 - c. Special reclamation techniques and/or requirements.
 - d. Restrictions on rate of development and spacing and location of wells.
 - e. Special road closure requirements.

NOTE: Stipulation 11 may be used in place of 1, 3, and 6.
Stipulation 12 may be used in place of 4 and 5.
Stipulation 13 may be used in place of 7, given greater definition as to restriction.

INTERIM
MEMORANDUM OF UNDERSTANDING
BETWEEN
THE BUREAU OF LAND MANAGEMENT
AND
THE FOREST SERVICE

The Bureau of Land Management, Department of the Interior, and the Forest Service, Department of Agriculture, hereby agree that the procedures set forth below shall be followed with respect to mineral leasing, mineral lease applications, and mineral prospecting permit applications as described below which involve National Forest System lands. These procedures are adopted to ensure cooperative, timely and orderly action by the Bureau of Land Management and the Forest Service with respect to such leasing and permitting activity consistent with the assigned functional responsibilities of each agency. The agencies also agree to issue regulations which explain their respective responsibilities. This Memorandum will expire when final regulations governing these procedures become effective.

I. PURPOSE

This agreement establishes the procedures for recommendation or consent by the Forest Service in the issuance of leases and prospecting permits on National Forest System lands for all minerals except coal.

A. Recommendation

Recommendations by the Forest Service are the mechanism established by this agreement to allow the Forest Service, as surface managing agency, to review potential leasing and permitting actions on National Forest System lands, for all minerals except coal, under the Mineral Leasing Act of 1920, 30 U.S.C. § 181 et seq.

B. Consent

Consent by the Forest Service is statutorily required for potential leasing and permitting actions on Forest Service lands under the Mineral Leasing Act for Acquired Lands, 30 U.S.C. § 351 et seq., section 402 of Reorganization Plan No. 3 of 1946, 5 U.S.C. Appendix, the Geothermal Steam Act of 1970, 30 U.S.C. § 1001 et seq., and any statute creating a special area under Forest Service jurisdiction which requires such consent (e.g. 30 U.S.C. § 192c).

II. RESPONSIBILITIES

A. Initiation - Bureau of Land Management

1. Applications for noncompetitive leases and prospecting permits. Noncompetitive oil and gas lease applications (43 CFR Subpart 3111), noncompetitive geothermal lease applications (43 CFR Subpart 3210) and prospecting permit applications (43 CFR Subpart 3510) shall be filed with the Bureau of Land Management. After preliminary adjudication, applications which involve National Forest System lands will be submitted to the Forest Service for review as described below in section II.B.

2. Noncompetitive simultaneous leasing and competitive leasing.

Noncompetitive simultaneous leasing shall be conducted under the procedures set out in 43 CFR Subparts 3112 and 3211. Competitive leasing shall be conducted in accordance with the procedures set out in 43 CFR Subparts 3120 and 3220 and § 3521.2. The Bureau of Land Management will first identify parcels or areas which are available for simultaneous or competitive leasing. Descriptions of these parcels or areas will then be submitted to the appropriate Forest Service office for review as described below in section II.B.

B. Forest Service Review

1. Basis for review.

The Forest Service will review mineral leasing and permitting submittals to determine the effect of the potential mineral activities on other resource values and on the purposes for which the particular lands are administered. The Forest Service will be responsible for compliance with the National Environmental Policy Act of 1969 with respect to activities being reviewed by that agency.

2. Recommendation or consent.

Based on its review of the proposed leasing or permitting activities, the Forest Service will either:

a. Recommend, or consent to, the proposed activity with standard stipulations included in the lease or permit and, if necessary, add special stipulations to be included in the lease or permit in order to protect other identified resource values, including a prohibition against occupancy of the surface of all or part of the lease or permit; or

b. Recommend against, or refuse consent to, the proposed activity if it would seriously interfere with other resource values or with the purposes for which the lands are being administered, and special stipulations will not provide adequate mitigation.

3. Completion of review.

Upon completion of review, the Forest Service will forward to the appropriate Bureau of Land Management office its recommendation, or its decision whether to consent, on the proposed leasing or permitting activity.

C. Bureau of Land Management Action

1. Applications for noncompetitive leases and prospecting permits.

a. Forest Service recommendation. Where the Forest Service recommends a course of action for a particular lease or permit application, the Bureau of Land Management will review the Forest Service analysis and exercise its independent judgment whether the recommended special stipulations are appropriate or whether the lease or permit should not be issued. Upon request from the Bureau of Land Management, the Forest Service will provide additional information or justification for its recommendation. If agreement cannot be reached, the matter will be submitted to the Washington, D.C., offices of both agencies. If the Bureau of Land Management concurs in the recommendation of the Forest Service, it will notify the applicant at the appropriate time of the Forest Service recommendation and its basis and the decision of the Bureau of Land Management based upon its independent judgment.

b. Forest Service consent. Where the Forest Service forwards a decision concerning a particular lease or permit application based upon its statutory authority to consent to mineral leasing, the Bureau of Land Management will treat the parcel or area in accordance with the decision of the Forest Service. The Bureau of Land Management will inform the applicant at the appropriate time of the Forest Service decision and its basis and the specific statutory authority of the Forest Service with regard to the particular application.

2. Noncompetitive simultaneous leasing and competitive leasing

a. Forest Service recommendation. Where the Forest Service submits a recommendation concerning a particular parcel or area, the Bureau of Land Management will review the analysis of the Forest Service to determine whether the recommendation is appropriate. Upon request from the Bureau of Land Management, the Forest Service will provide additional information or justification for its recommendation. If agreement cannot be reached, the matter will be submitted to the Washington, D.C. offices of both agencies. If a particular parcel or area is

made available for leasing, the Bureau of Land Management will notify the prospective lessee at the appropriate time of the Forest Service recommendation and its basis and the decision of the Bureau of Land Management based upon its independent judgment.

b. Forest Service Consent. Where the Forest Service forwards a decision concerning a particular parcel or area based upon its statutory authority to consent to mineral leasing, the Bureau of Land Management will treat the parcel or area in accordance with the decision of the Forest Service. The Bureau of Land Management will inform the applicant at the appropriate time of the Forest Service decision and its basis and the specific statutory authority of the Forest Service with regard to the particular application.

3. Further processing.

After the procedures described above are completed, the Bureau of Land Management will process all mineral lease applications, all prospecting permit applications, and the leasing of all parcels or areas in accordance with the regulations set out in 43 CFR Subchapter C and other relevant regulations, as supplemented by this agreement.

4. Final authority.

a. The Bureau of Land Management has the ultimate discretionary authority to decide whether a particular mineral lease or prospecting permit will be issued, except where the Forest Service exercises its statutory authority and does not consent to leasing.

b. It is the general practice of the Bureau of Land Management to accept Forest Service recommendations.

III. TIMELY PROCESSING

Each agency will strive to process applications in a timely manner. Delays may occur, however, when a particular lease application requires extensive review under the National Environmental Policy Act of 1969 or when a particular office of either agency is burdened with an unusually large number of applications.

IV. EFFECT ON PRIOR AGREEMENTS

This Memorandum of Understanding implements the agreements contained in (1) an exchange of letters between the Secretaries of Agriculture and Interior in 1945 concerning leasing under the Mineral Leasing Act of 1920 of lands under Forest Service administration, and (2) a procedure, dated November 8, 1946, agreed to by the two Secretaries concerning leasing under section 402 of Reorganization Plan No. 3 of 1946. This Memorandum supersedes, to the extent inconsistent, the exchange of letters between the Acting Chief,

Forest Service, dated April 20, 1972, the Acting Director, Geological Survey, dated July 7, 1972 and the Acting Director, Bureau of Land Management, dated April 29, 1974.

Date: 12/24/80

Frank Gregg
Director, Bureau of Land Management

Date: 12/30/80

J. M. Peterson
Chief, Forest Service

FOREST PLAN



for

LAND AND RESOURCE MANAGEMENT PLAN

UNITED STATES DEPARTMENT OF AGRICULTURE



FOREST SERVICE

PREFACE

This Land and Resource Management Plan has been developed for the Ashley National Forest. For information pertaining to the development of this plan, details can be obtained by contacting.

Forest Supervisor
Ashley National Forest
1680 W. Highway 40 - Ashton Energy Center
Vernal, UT 84078

A. Applicable Laws and Regulations

The principal acts providing direction in developing this Land and Resource Management Plan are:

1. Organic Act of 1897
2. Multiple Use and Sustained Yield Act of 1960
3. National Environmental Policy Act (NEPA) of 1969
4. Forest Planning and Resource Planning Act (RPA) of 1974
5. National Forest Management Act (NFMA) of 1976
6. Utah Wilderness Act 1984

B. Public Review and Appeal

If any particular provision of this proposed action, or the application thereof to any person or circumstances, is held invalid, the remainder of the proposed action and the application of such provision to other persons or circumstances shall not be affected.

The provisions of 36 CFR 211.18 apply to any administrative appeal of the Regional Foresters decision to approve the Forest Plan. Decisions to disapprove a plan and other decisions made during the forest planning process prior to the issuance of a record of decision approving the plan are not subject to administrative appeal.

TABLE OF CONTENTS

i.	Preface	i
ii.	Table of Contents	ii
iii.	List of Maps, Tables, and Figures	iv
iv.	Key to Abbreviations	v
I. FOREST PLAN INTRODUCTION		
A.	Purpose of the Forest Plan	I-1
B.	Relationship of the Forest Plan to Other Documents	I-1
C.	Plan Structure	I-2
D.	Forest Description	I-4
II. ANALYSIS OF THE MANAGEMENT SITUATION SUMMARY		
A.	Forest Setting	II-1
1.	Socioeconomic Setting	II-1
2.	Physical and Biological Setting	II-3
3.	Recreation	II-4
a.	Developed Recreation	II-4
b.	Dispersed Recreation	II-5
c.	Trails	II-6
d.	Cultural Resources	II-6
e.	Research Natural Areas	II-6
4.	Wilderness	II-7
5.	Wildlife and Fish	II-8
6.	Range	II-9
7.	Timber	II-10
8.	Water	II-12
9.	Minerals	II-16
10.	Support Elements	II-17
a.	Lands	II-17
b.	Special Uses	II-18
c.	Soils	II-20
d.	Facilities	II-21
e.	Protection	II-22
B.	Supply Conditions	II-25
C.	Demand Conditions	II-27
D.	Need to Establish or Change Management Direction	II-27
E.	Research Needs	II-29
III. PLAN RESPONSES TO ISSUES, CONCERNS, AND OPPORTUNITIES		
		III-1
IV. FOREST MANAGEMENT DIRECTION		
	Introduction	IV-1
A.	Desired Future Condition	IV-3
B.	Management Area Prescriptions	IV-5

C.	Forest Management Goals, Objectives, Standards and Guidelines	
	Recreation	IV-14
	Wilderness	IV-21
	Wildlife and Fish	IV-28
	Range	IV-32
	Timber	IV-34
	Soil and Water and Air	IV-37
	Minerals and Energy	IV-43
	Riparian	IV-45
	Lands	IV-47
	Facilities	IV-50
	Protection	IV-54
D.	Other Management Principles and Guidelines	IV-56
E.	Projected Annual Outputs, Activities and Costs for the Preferred Alternative	IV-58
F.	Administrative Unit Descriptions, Management Area Maps, and Scheduling of Analysis Area and Entries	IV-60
	Flaming Gorge National Recreation Area	IV-61
	Flaming Gorge Ranger District outside NRA	IV-65
	Vernal Ranger District	IV-72
	Roosevelt Ranger District	IV-79
	Duchesne Ranger District (North Unit)	IV-86
	Duchesne Ranger District (South Unit)	IV-92
G.	Schedule of Proposed and Probable Practices	IV-96

V. PLAN IMPLEMENTATION, MONITORING, AND EVALUATION

A.	Implementation Direction	V-1
B.	Monitoring and Evaluation	V-2
C.	Revision and Amendment	V-18

APPENDICES

A.	FGNRA Supplemental Direction	A-1
B.	Stipulations for Minerals Activities	B-1
C.	Limits of Acceptable Change (Developed Recreation Sites)	C-1
D.	Limits of Acceptable Change (Dispersed Recreation Area)	D-1
E.	Formulation of Analysis Areas	E-1

LIST OF MAPS, TABLES, AND FIGURES

I. FOREST PLAN INTRODUCTION

Vicinity Map	I-3
--------------	-----

II. ANALYSIS OF THE MANAGEMENT SITUATION SUMMARY

II-1 Economic Indicators Past Trends and Baseline Projections (Table)	II-2
II-2 Developed Facilities on the Ashley National Forest (Table)	II-4
II-3 Commercial Area by Acres, Species, Type and Age Group (Table)	II-10
II-4 Present and Future Water Uses in the Uintah Basin (Table)	II-15
II-5 Current Outputs, Projected Demand, Supply Potential (Table)	II-26

III. FOREST MANAGEMENT DIRECTION

Table IV-1 Projected Average Annual Outputs	IV-58
Table IV-2 Projected Average Annual Activities	IV-58
Table IV-3 Projected Average Annual Costs for the Forest Plan	IV-59
Forest Key Maps 3/8" = 1 mile	IV-60
Administrative Unit Maps 1a U.S.G.S. Quads	IV-64
Administrative Unit Maps 1b U.S.G.S. Quads	IV-71
Administrative Unit Maps 2 U.S.G.S. Quads	IV-78
Administrative Unit Maps 3 U.S.G.S. Quads	IV-85
Administrative Unit Maps 4a U.S.G.S. Quads	IV-91
Administrative Unit Maps 4b U.S.G.S. Quads	IV-95

11

11

11

KEY TO ABBREVIATIONS

Many of the terms used in Forest Planning are often abbreviated in tables and text to conserve space and are listed below.

A	-	Aspen
ASQ	-	Allowable Sale Quantity
AC	-	Acre(s)
AMS	-	Analysis of the Management Situation
APD	-	Application for Permit to Drill
AUM	-	Animal unit month
bd. ft.	-	Board foot
BTU	-	British Thermal Unit
CFR	-	Code of Federal Regulations
Cu. ft.	-	Cubic foot
CUP	-	Central Utah Project
DBH	-	Diameter at Breast Height
DEIS	-	Draft Environmental Impact Statement
DF	-	Douglas fir
DWR	-	Division of Wildlife Resources (Utah DWR)
EIS	-	Environmental Impact Statement
ER	-	Established Report
ES	-	Engelmann Spruce
FEIS	-	Final Environmental Impact Statement
FERC	-	Federal Energy Regulatory Commission
FGNRA	-	Flaming Gorge National Recreation Area
FIL	-	Fire intensity level
FSH	-	Forest Service Handbook
FSM	-	Forest Service Manual
G.A.	-	General Administration
GAWS	-	General Aquatic Wildlife Survey
ICO	-	Issue, Concerns, Opportunities
ID	-	Interdisciplinary team
lb(s)	-	Pounds
IPM	-	Integrated Pest Management
LPP	-	Lodgepole pine
LTSY	-	Long term sustained yield
M	-	Thousand
MAc/ft	-	Thousand Acre Feet
Max	-	Maximum
MCF	-	Thousand cubic feet
MIS	-	Management Indicator Species
MN	-	Million
MMBF	-	Million board feet
MMCF	-	Million cubic feet
MRVD	-	Thousand recreation visitor days
MVP	-	Minimum viable population
NDSY	-	Non-declining Sustained Yield
NEPA	-	National Environmental Policy Act
NFMA	-	National Forest Management Act
NRA	-	National Recreation Area
NPB	-	Net public benefit
NTL	-	Notice To Leasee
NTU	-	Nephelometer Turbidity Units

NUSSTG - Northern Utah Shared Services Timber Group
 ORV's - Off-road vehicles
 PAOT - People at one time
 PNV - Present net value
 PP - Ponderosa pine
 PVB - Present value of benefits
 PVC - Present value of costs
 RAMIS - Range Allotment Management Information System
 RIM - Recreation Information Management
 RPA - Forest and Rangeland Renewable Resource Planning Act
 RMOGA - The Rocky Mountain Oil and Gas Association
 RN - Roaded Natural
 RNA - Research Natural Area
 ROS - Recreation opportunity spectrum
 RVD's - Recreation visitor days
 SAF - Subalpine fir
 SHPO - State Historic Preservation Officer
 SPM - Semi-primitive motorized
 SPMN - Semi-primitive nonmotorized
 T&E - Threatened and Endangered
 TEP - Trade-off Evaluation Process
 TMP - Timber Management Plan
 TSI - Timber Stand Improvement
 VIS - Visitor Information Services
 VQO - Visual quality objective
 WFUD's - Wildlife and fish user days
 WRENSS - Water Resources Evaluation of Non-point Silvicultural Sources

CHAPTER I
FOREST PLAN INTRODUCTION

I. FOREST PLAN INTRODUCTION

A. PURPOSE OF THE FOREST PLAN

This Forest Plan will guide all natural resource management activities and establish management standards and guidelines for the Ashley National Forest. It describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management.

The Forest Plan embodies the provisions of the NFMA, the regulations, and other guiding documents. The prescriptions, standards, and guidelines are a statement of the Plan's management direction; however, the project outputs, services, and rates of implementation are dependent upon the annual budget allocation process.

B. RELATIONSHIP OF THE FOREST PLAN TO OTHER DOCUMENTS

Development of the Forest Plan takes place within the framework of Forest Service regional and national planning efforts. The relationship among the different planning levels is shown as follows:

Congressional Acts (Law)

National level

Forest Service planning through the
Renewable Resource Assessment and Program (RPA)

Regional planning level through the
Regional Guide for the Intermountain Region

Forest level planning through the
Ashley National Forest
Land and Resource Management Plan

The RPA Program establishes the national direction and output levels for the National Forest system lands. It is based on suitability and comparability information from each Forest Service Region.

Each Forest Service Region distributes its share of national production targets to each of its Forests. The share each National Forest receives is based on detailed information gathered at the Forest level.

The Land and Resource Management Plan validates or provides a basis for changing production levels assigned by the Region. Activities and projects are planned and implemented by the Forest to carry out the direction developed in the Forest Plan. Information from all the National Forests in the Region was used in developing the Intermountain Regional Guide.

The Forest Plan is the selected alternative and is based on the various considerations which have been addressed in the accompanying Environmental Impact Statement (EIS). The planning process and the analysis procedure which were used in developing this plan, as well as the other alternatives that were considered, are described or referenced in the EIS. Activities and projects will be planned and implemented to carry out the direction in this plan. These local projects will be 'tiered to' the accompanying EIS as provided for in 40 CFR 1502.20. The local project environmental analysis will use the data and evaluations in the plan and EIS as its basis.

Assessment of the environmental consequences of local projects is done in conformance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations (40 CFR 1500-1508). All projects on National Forest System lands will meet NEPA requirements.

C. PLAN STRUCTURE D. FOREST DESCRIPTION

This plan provides the long term direction for managing the Ashley National Forest. It contains the overall directions and activities which will be required to achieve the desired condition of the Forest. Management area maps indicate where the activities will occur.

The EIS describes the alternatives considered in arriving at that direction and provides assessment of the environmental effects of implementing the plan and other alternatives.

The Forest Plan is organized into five chapters:

Chapter I.	Forest Plan Introduction
Chapter II.	Analysis of the Management Situation Summary
Chapter III.	Plan Responses to Issues, Concerns, and Opportunities
Chapter IV.	Forest Management Direction
Chapter V.	Implementation of the Forest Plan
	Appendices

Details concerning the various subsections and page numbers are found in the Table of Contents.

Chapter IV, titled "Forest Management Direction," deals with the multiple use goals and objectives. It also lists the management prescriptions and standards and guidelines for management of specific areas. The "Implementation of the Forest Plan," Chapter V, deals with the means to implement the plan and evaluate and monitor the effects of management practices.

Maps displaying management activities can be found in Chapter IV. By studying the maps concurrently with the Forest Plan, the reader can better understand the proposed action.



ROCK SPRINGS

GREEN RIVER

EVANSTON

WYOMING
UTAH

MANILA

ASHLEY NATIONAL FOREST

VERNAL

JENSEN

ROOSEVELT

TO SALT LAKE CITY

DUCHESNE

ASHLEY NATIONAL FOREST

VICINITY MAP



The Ashley National Forest is located in the northeastern portion of the State of Utah and the southwestern portion of the State of Wyoming. The area administered by the Forest contains approximately 1.3 million acres. The Forest lies within the boundaries of six counties: Uintah, Duchesne, Daggett, Summit, and Wasatch counties in the State of Utah, and Sweetwater county in the State of Wyoming.

The Ashley National Forest is bordered by the Uintah and Ouray Indian Reservation, the Uinta, and the Wasatch Cache National Forests, private property, and lands administered by the Bureau of Land Management and the State of Utah.

The Forest headquarters and one Ranger District are located in Vernal, Utah. Ranger District offices are also located in Manila, Roosevelt, and Duchesne, Utah.

The Forest includes lands located in the Uinta Mountains, the Wyoming Basin, and the Tavaputs Plateau.

The planning area covered by the Forest Plan is the administrative unit consisting of and known as the Ashley National Forest.

CHAPTER II

ANALYSIS of the MANAGEMENT SITUATION

II. ANALYSIS OF THE MANAGEMENT SITUATION SUMMARY

This chapter describes the present condition of each Forest resource. Future demand for Forest resources, the Forest's ability to meet that demand, and the expected future condition of the resources are summarized. Information in this chapter was drawn primarily from the Analysis of the Management Situation (AMS). ^{1/} —

A. FOREST SETTING

1. SOCIOECONOMIC SETTING

The primary zones of influence of the Forest are the communities and counties in northeastern Utah and southwestern Wyoming within and adjacent to the Forest. The counties most influenced by Forest policies and decisions are Duchesne, Uintah, and Daggett in Utah and Sweetwater in Wyoming. The total population of the four-county area is 75,515 (1980 census).

There are some significant influences coming from the Wasatch Front and adjacent counties in Utah, as well as visitors from Colorado. However, these influences often do not comprise the same factors found in the primary zone of influence. Sweetwater County, Wyoming, is influenced the most in the communities of Green River and Rock Springs.

The Uintah Basin has experienced an average of 66% growth in population during the ten-year period from 1970 to 1980. Much of this growth has been tied directly to energy development with the projected growth dependent on developments in the energy related field. ^{2/}

The economic indicators for the area within the zone of influence of the Forest are shown below in Table II-1.

^{1/} This document is available for review at the Forest Supervisor's Office and District Ranger Offices.

^{2/} Information contained in the Social Economical Overview for the primary zone of influence was based on 1980 labor data and projected growth was tied to energy development. Since 1980, changes that have occurred on a national level have brought changes in the energy related sectors to the local level. Since 1982, a reduction in the energy sector has resulted in a 12.0% unemployment rate as of April 1986 for the Uintah Basin (Uintah and Duchesne Counties) with Uintah County having an 10.9% unemployment rate. There is currently an over abundance of homes on the market as a result of the projected growth rate and influx of people into the area. The projections of 1980 have not been realized due to changes in the energy sector. Projections to the year 2000 are difficult to make at this time as future growth will be a result of national direction in energy related fields.

TABLE II-1

ECONOMIC INDICATORS PAST TRENDS AND BASELINE PROJECTIONS (1978 dollars inflated to 1/1/1982)							
	Past Trends			Baseline			
	1960	1970	1977	1980	1985	1990	1995
Population (M Persons)	37.8	39.0	64.9	75.4	+5.12	+5.12	+9.09
Income (MM\$)	70.2	214.0	1122.1	1166.3	+2.631	+2.631	+4.626
Employment (M Persons)	6.8	18.0	27.3	32.6	+134	+134	+229
Agriculture	2464	2134	2300	2800	+11	+11	+10
Logging and Sawmills	N/A	N/A	100	100	+15	+15	+15
Manufacturing	236	485	N/A	763	---	---	---
Tourism and Retail Trade	1034	2772	2862	6114	+55	+55	+113
Government (Federal, State and Local)	1171	3305	632	4552	---	---	---

The overall socio/economic impacts are insignificant for Ashley National Forest activities when the whole economy is considered. Under current or proposed management, it does not appear that the stability of lifestyles would be significantly impacted. This is also true for attitudes, beliefs, and values within the Primary Zone of Influence. It is not evident that activities or resource outputs would disrupt the community cohesion within this area. Under proposed management there would be a slight increase in receipts to local governments. Generally, the local economics and social structure within the Primary Zone of Influence are more influenced by energy developments than by National Forest activities, except for the possibility of recreation.

For more details on this topic see Chapter III and Appendix B of the FEIS, the "Social Assessment" of the AMS, available in the Supervisor's Office in Vernal, Utah.

This land and resource management plan provides for a full range of management prerogatives for the national forest lands involved. This includes some lands which are the subject of ongoing litigation concerning the boundaries of the Uintah Indian Reservation. A recent decision of the United States Court of Appeals for the Tenth Circuit in State of Utah v. Ute Indian Tribe, 773 F.2D 1087, ruled that the 1905 designation of approximately one million acres of national forest did not diminish the boundaries of the Uintah Indian Reservation. The State of Utah is appealing the decision of the Court of Appeals to the United States Supreme Court which may hear the case. Although the outcome of this case may affect the jurisdiction of the state over persons in the national forest, the Department of Agriculture does not construe the

decision as affecting federal administration of the lands and resources pursuant to the laws and regulations governing the national forests. Accordingly, this plan is not affected by the status of the boundaries of the Uintah Indian Reservation.

2. PHYSICAL AND BIOLOGICAL SETTING

The Forest encompasses lands located in southwestern Wyoming and eastern Utah. These lands fall within three geographical areas: the Wyoming Basin, the Uinta Mountains and the Tavaputs Plateau. The land characteristics range from high desert country to high mountain areas. The elevation varies from a low of 6,000 feet to a high of 13,528 feet above sea level at the summit of Kings Peak.

The annual precipitation varies from approximately 16 inches in the high desert country to 35 inches or more in the higher elevations. The precipitation is a result of winter snowfalls and summer rains. Moisture evaporation is high because of low humidity, high temperatures, and winds.

Topographical diversity and intensive land management has served to protect the visual quality on the Forest. The existing vegetation patterns and the geological formations further add to the aesthetic value. The Forest boundaries include places such as the Sheep Creek Geological Area, the High Uintas Wilderness Area, and the Flaming Gorge National Recreation Area.

The Forest has other visual assets, such as steep canyons and high mountain peaks, glaciated basins, and large open meadow areas, as well as a diversity of vegetation and wildlife arrangements. The Uinta Mountain portion of the Forest offers a scenic backdrop for the communities of both the south and north slopes of the Uinta Mountains.

The biological life zones vary from the high desert to the high mountains. Grasses and shrubs of the desert fade into pinyon-juniper and ponderosa pine forests at the mid mountain elevations which in turn give way to grasses and shrubs of high mountain elevation. Aspen is found at the mid elevations of the Forest, giving way to mixed aspen-conifer, followed by conifer forests. These conifer forests are comprised primarily of lodgepole pine, with mixing of fir and spruce. At the higher elevations, Krumholtz fir gives way to grasses and forbs above timberline.

The wildlife big game species include elk, bear, cougar, moose, mule deer, and antelope. Rocky Mountain sheep have recently been introduced on the Forest. The condition and amount of available winter range adjacent to the Forest are critical factors governing the deer and elk populations as the majority of winter range occurs on lands adjacent to the Forest. The available habitat with suitable browse for winter range has decreased in past years. The summer range for deer and elk is much less critical for most of the Forest. However, summer range is a limiting factor on the South Unit of the Tavaputs Plateau because of the lack of water in the summer months.

3. RECREATION

The Forest is popular for outdoor recreation because of high quality recreation opportunities. Popular uses range from camping in the summer to snowmobiling in the winter. There is a great deal of fishing on the Forest, as well as many opportunities for hunting.

Significant attractions and impacts influencing the recreation situation on this Forest can be placed in two categories. First, it includes national recreation attractions such as Flaming Gorge National Recreation Area, High Uintas Wilderness, and the adjacent Dinosaur National Monument. Second, this Forest is situated in the middle of major mineral and energy related development areas of the Uintah Basin and southwestern Wyoming.

Areas with existing or proposed classifications, such as the Sheep Creek Geological Area, and Little Hole and Fish Creek National Recreation Trails, add to the recreation attractions of this Forest. The proposed Scenic River classification for the Green River could also increase public interest beyond the regional attraction that now exists.

a. Developed Recreation

Recreation use has increased substantially over the last 10 years. Most use of developed facilities is during the summer months and the fall hunting season with facilities adjacent to plowed highways receiving some use in winter. Flaming Gorge NRA potential capacity as inventoried for developed sites is 1,776 MRVDs and would be reached sometime after 2030. The remainder of the Forest capacity for developed sites is 484.2 MRVDs and would be reached sometime after the year 2000. The number of major developed facilities is shown in Table II-2.

TABLE II-2
DEVELOPED FACILITIES ON THE ASHLEY NATIONAL FOREST

Ranger District	Developed Sites		Capacity PAOT Total
	Public	Private	
D-1 Flaming Gorge	68	8	14,490
D-2 Vernal	9	2	905
D-3 Roosevelt	11	4	1,233
D-4 Duchesne	7	1	830
Total	95	15	17,458
	Site	Number	
	Resorts	5	
	Marinas	3	
	Concessions	8	
	Summer Homes	58	

b. Dispersed Recreation

Dispersed recreation is the use outside of developed sites. These areas receive intense use on weekends and holidays with such activities as fuelwood cutting and water activities being popular. Different types of users, such as snowmobilers and cross-country skiers, sometimes compete for use of a given recreation area.

Predicted demand for all types of dispersed recreation and developed recreation is displayed in Table II-5. The potential capacity for dispersed areas at the NRA is 1,196 MRVDs and would be reached sometime after 2030. Dispersed areas capacity for the remainder of the Forest is 640.8 and would be reached sometime after the year 2000.

A more detailed summary of recreation can be found in Chapter III of the FEIS and in the AMS document. In recent years, construction and rehabilitation of recreation facilities has declined because Forest Service budgets have been reduced and human resource programs have been reduced or eliminated. It does not appear that there will be an opportunity for new construction of developed recreation facilities in the near future.

Current funding levels allow little more than minimum operation and maintenance.

Special situations that may have an impact on future recreation management are the deteriorating facilities caused by inadequate investment in facility maintenance, future funding levels, and the present insect epidemic causing losses to the lodgepole and ponderosa pine. With the completion of the Central Utah Project (CUP) reservoirs, this Forest will probably contain more acres of "Flat Water" than any other Forest in the region, which is a major attraction in the arid West.

Resource deterioration, such as soil and vegetation loss, will increase if present increases in use continue with current budgets. Increased use of dispersed recreation areas for overflow camping and greater crowding could increase user dissatisfaction.

c. Trails

The Forest has approximately 775 miles of trails. Most trail use is in the summer, but winter use is increasing.

The Forest trail system is in poor condition and continues to deteriorate due to lack of maintenance resulting from low budgets and improper location of some trails. Trails that have become unsafe should be closed to protect the public. Private landowners may close additional trails where rights-of-way have not been obtained. Conflicts between types of trail users will increase in number and intensity. It is estimated that the ability of our trail system to serve the public will decline while demand continues to increase.

d. Cultural Resources

Four hundred and forty cultural resource surveys covering approximately 16,660 acres have been conducted on the Ashley as of the end of calendar year 1984.

A total of 345 historic and prehistoric sites have been recorded by the Forest. Two hundred sixty-six are prehistoric and seventy-nine are historic sites.

Of the prehistoric sites; 220 are lithic scatters, 14 are caves/rockshelters, 4 are petroglyphs, 24 are camp sites, 2 are storage cists, and 2 are burials.

The seventy-nine historic sites are comprised of: 30 log cabins; 9 sawmill sites; 4 corrals; 4 trails; 5 CCC camps; 8 guard station/administrative sites; 14 miscellaneous historic buildings/structures; 2 carved dates/initials; and one each quarry area, historic campsite and bridge.

At the present time, the Forest has two sites listed on the National Forest Register. Both sites are located on the Flaming Gorge District. The first is the Oscar Swett Homestead located near the junction of State Highways 44 and 260 and the second is the Ute Fire Tower located on Forest Route 005.

Eleven sites located on the Ashley National Forest have been determined by the Forest Archaeologist as potentially eligible for inclusion on the National Register of Historical Places. Two of these sites are located on the Vernal Ranger District. One is an historic mill located near East Park Reservoir and the other is an historic flume located in Dry Fork. Seven of the sites are located on the Flaming Gorge Ranger District. One is a set of prehistoric petroglyphs located on the Henry's Fork River with the remaining six being prehistoric lithic scatters in the Man's Bench area.

The two other sites are the Carter Military Trail and associated features which crosses both Flaming Gorge and Vernal Ranger Districts, and an historic log cabin located at the south end of Lodgepole Lake on the Duchesne Ranger District.

Of the remaining sites identified on the Forest, 163 have been determined to be ineligible for inclusion on the National Register of Historic Places and 169 have not been evaluated to date as to their eligibility or non-eligibility for inclusion on the National Register.

e. Research Natural Areas

There are currently no existing Research Natural Area designations on the Forest. However, there are several potential areas that have been identified. These are displayed in Chapter III of the FEIS.

4. WILDERNESS

The High Uintas Wilderness is located totally within the Ashley and Wasatch National Forests. The Utah Wilderness Act of 1984 designated this area as wilderness, making it a component of the National Wilderness Preservation System.

Prior to the Utah Wilderness Act of 1984 the Forest planning process had developed an inventory of lands that are essentially unroaded and undeveloped, meeting the minimum definition of wilderness, and qualified for wilderness evaluation according to NFMA regulation 219.7. The inventory contained 13 roadless areas totalling 715,405 acres Forest-wide. This inventory and description of each area is filed with the Forest planning records.

The Utah Wilderness Act of 1984 designated 273,426 acres on the Forest as the High Uintas Wilderness and 186,574 acres on the Wasatch for a total of 460,000 acres. It is estimated that this area, in addition to areas that existed prior to the Act, will meet the anticipated demand for wilderness during the first planning period. At the end of this planning period additional areas will be evaluated.

Continued management at current and historic levels is resulting in deteriorating facilities and a deteriorating resource. This level of management coupled with increased use is leading to a situation where unacceptable limits of deteriorating conditions will exist creating the need to change the way this resource is managed. If the choice is not to invest in management of the wilderness resource to a level that maintains our existing facilities and wilderness characteristics then in the near future we will be faced with making significant changes in the way wilderness has been traditionally managed.

Most of the use in the wilderness probably occurs on something less than 10% of the total area creating some heavy impacts on the social and physical parts of the environment. Because of this concentration of use in such a small portion of the area, capacities may be exceeded in certain areas. Distribution of use by management will be necessary to optimize use within the wilderness. Facilities to help with distribution of users are needed, such as trails and trailheads. Some of the heavy use areas and facilities are in need of rest, rehabilitation, or different management techniques to prevent unacceptable deterioration.

It is assumed that the wilderness use will continue to increase at a rate similar to the existing and projected population growth rate for Utah and Wyoming. It is highly probable that this growth rate is conservative because of impacts from energy related "boom town" situations. Also, it is assumed that the present ratio of use between developed sites, dispersed recreation outside of the wilderness, and dispersed use within the wilderness will remain about the same. The present mix of participation in various recreation activities should not change significantly. Table II-5 displays projected demand.

At present it appears that goals can be met based on present estimated use and capacity identified in the inventory for the Wilderness which will be at capacity about 1995. Some isolated places may reach capacity earlier because of heavy concentrations of people.

5. WILDLIFE AND FISH

The Forest has a wide diversity of fish and wildlife species, some with special habitat needs and contains several distinct habitats that are important to differing groups of wildlife species. Even with many overlaps between habitat and wildlife present, there are specific habitat requirements for most of the groups. Wildlife populations will be proportional to the quantity and quality of the habitat. The indicator species will be monitored because they are sensitive to management activities or are of special concern.

An estimated 437 species of fish, amphibians, reptiles, birds, and mammals inhabit the Forest (31 species of fish, 8 species of amphibians, 21 species of reptiles, 289 species of birds, and 88 species of mammals).

Twenty-four wildlife and fish species that may inhabit the Forest have been classified as sensitive, threatened, or endangered by Federal and State agencies (2 reptiles and amphibians, 4 fish, 12 birds, 6 mammals). A complete list of these species can be found in the AMS document at the Supervisor's Office in Vernal, Utah.

The amount of available habitat determines to a large degree the abundance of wildlife on the Forest. A reduction in fire frequency during the past 50-80 years due to increased fire suppression permitted many of the plant communities to reach maturity. This has resulted in widespread successional advances in conifer communities, including heavy fuel build-ups, loss of associated plants, and a reduction in carrying capacity for early successional stage wildlife, while increasing habitat for late successional stage wildlife (Table III-11, FEIS). Maintaining a variety of wildlife species above minimum viable population levels requires that habitat diversity include all stages of plant development within existing plant communities.

In addition to plant successional stages and distribution of plant communities, seasonal habitat located on lands adjacent to the Forest are important in maintaining wildlife abundance on Forest lands. Big game herd units associated with the Forest rely on adjacent lands for over 80 percent of the big game winter range.

The National Forest Management Act of 1976 provides direction for selecting management indicator species (MIS) for Forest planning. MIS are considered to be key species in relation to other wildlife. MIS are the species for which population and habitat objectives will be established; the species which will represent the wildlife and aquatic resources in estimating the effects of management alternatives; and the species whose habitat will be monitored following implementation of the Forest Land Management Plan.

Habitat improvement is needed not only to maintain forage quality, quantity, and distribution, but also for the maintenance of existing plant and wildlife diversity. This will require maintenance and enhancement of key plant communities, such as aspen, sagebrush, willow, and aquatic. The greatest opportunity for increased habitat improvement is in the aspen vegetation type. The maintenance and perpetuation of existing aspen acres will require an increase in treatment levels over the next several decades.

The wildlife resource is a multiproduct output, with food and recreation as the principal products. The demand for hunting and fishing opportunities has increased markedly and is expected to continue. Given the opportunity for users to participate at an acceptable cost, within a decade there may be a 30 percent increase in wildlife observation, with other uses changing in corresponding fashion. Table II-5 outlines the projected demands for the wildlife resource through 2030.

6. RANGE

The Forest provides grazing for approximately 12,500 cattle and 29,000 sheep for a total of about 75,000 Animal Unit Months (AUMs) each year. The grazing takes place mostly during the summer months (June-September). Some exceptions are found on the South Unit of the Duchesne District and on the Flaming Gorge NRA. At the present time, there are 84 livestock grazing allotments and 5 recreational stock allotments administered by the Forest. Portions of the Flaming Gorge District (all of the NRA in Wyoming and Goslin Mountain Allotment in Utah) are administered by the Bureau of Land Management under cooperative agreements. Currently, Forest Service grazing permits are held by approximately 130 permittees.

At present about 84% of the 1,373,219 acres on the Forest are within range allotments. The amount of suitable acres varies with the designated class of livestock. Currently, there are 455,285 acres suitable for livestock grazing, using the current livestock mix. But 19,115 of those suitable acres are closed to livestock use for the protection of the Vernal Municipal Watershed. If the Forest allotments were converted to cattle only, the number of suitable acres would drop about 306,000 acres. On the other hand, if the Forest converted to sheep only, the number of suitable acres would rise to about 676,000 acres.

The allotments, for the most part, are managed at capacity and no major reductions or increases are currently planned. There are, however, a few allotments where additional improvements or more intensive management could result in some increased capacity. Conversely, on some few allotments there may have to be modifications in the season or reductions in livestock numbers to maintain or improve range conditions.

The range improvement program on the Forest is primarily intended to facilitate grazing, but, when possible, improvements are made to support a combination of benefits. The Forest has constructed many water developments and fences to improve livestock distribution and obtain proper utilization of the forage resource. The Forest has revegetated several thousands of acres of range that could not be restored through grazing systems alone. Many of these projects have benefitted other resources, such as wildlife and watershed. The Forest has been actively involved in the control of noxious farm weeds on Forest Service administered lands in cooperation with State and local weed control organizations.

Demand is assumed to be elastic; all of the AUM's produced on the Forest will be used.

7. TIMBER

The 1,373,219 acres of National Forest land within the boundaries of the Ashley include 836,851 acres that are classed as forest land. This includes pinyon-juniper stands for which no steady commercial market exists (some firewood is sold from these stands) and non-commercial softwood and hardwood stands which produce less than twenty cubic feet per acre per year. Table II-3 displays the forest land area by species groups and by age groups.

TABLE II-3
FOREST LAND ON THE ASHLEY NATIONAL FOREST BY AGE CLASS

Type	Seedlings/ Poles-Acres (%)	Mature/ Old Growth-Acres (%)	Total
Douglas fir	5,371 (9)	51,540 (91)	56,911
Lodgepole, Engelmann spruce, Subalpine fir	106,759 (22)	380,084 (78)	486,843
Aspen	18,573 (23)	47,773 (72)	66,351
Ponderosa pine	10,712 (24)	34,203 (76)	44,915
Pinyon-Juniper *	---	96,681	96,681
Non-comm Softwoods *	---	79,865	79,865
Non-comm Hardwoods *	---	5,285	5,285
TOTALS	141,420	695,431	836,851

* Age class estimates are not available

Land classification for the preferred alternative is as follows:

1.	Non-forest land (includes water)	= 536.4 M acres
2.	Forest land	= 836.8 M acres
3.	Withdrawn Forest land	= 147.4 M acres
4.	Forest land - not capable **	= 96.7 M acres
5.	Forest land - physically unsuitable	= 0 acres
6.	Forest land - inadequate information ***	= 61.9 M acres
7.	Tentatively Suitable	= 530.5 M acres
8.	Forest land-not appropriate for harvest ****	= 38.7 M acres
9.	Unsuitable Forest land (3+4+5+6+8)	= 345.0 M acres
10.	Total Suitable (2 minus 8)	= 491.8 M acres
11.	Total National Forest land	= 1,373.2 M acres

- * Forest land included in the High Uintas Wilderness
- ** Pinyon-Juniper
- *** Forest land producing less than 20 cubic feet per acre per year
- **** Includes Research Natural Areas, Sheep Creek Geological Area, and other non-development prescriptions.

Lodgepole pine is highly susceptible to attack by mountain pine beetle and an epidemic situation exists in a large portion of these stands. In addition, the ponderosa pine stands are under attack, especially on the Flaming Gorge District, by mountain pine beetles. As a result, the existing composition of various age groups is being changed and the Forest capability to produce various products as planned is changing.

To complicate the situation, shifts in demands for various kinds of products has occurred. The interest in fuelwood on this Forest has grown at a rapid rate. Recently there has been some interest expressed in somewhat speculative new uses of wood products from this Forest. Current direction is to harvest the old growth beetle susceptible lodgepole pine first. Historically the Forest has had an annual sale program of approximately 14 MMBF. This annual cut will be increased to the potential yield of 21 MMBF upon demand.

The preferred alternative has an allowable sale quantity of 5.3 MMCF per year during decade one, 5.3 MMCF per year during decade two, then drops to 4.8 MMCF per year until the sixth decade. The long term sustained yield is 6.319 MMCF.

Growing stock inventory at the beginning of decade one is 615.53 MMCF and projected annual net growth during decade one is a net loss of 8.83 MMCF per year as a result of beetle-kill mortality. Future growing stock inventory (decade 5) is 260.20 MMCF and net annual growth is 1.526 MMCF.

Final harvest ages used in modeling ranged from 80 to 100 years for aspen and from 110 to 140 years for the other species groups. While the rotation ages for the conifers appear long, the increase

in cultural practices such as pre-commercial and commercial thinning would maintain healthy stands beyond the more commonly used 80 to 90 year rotations.

Species other than lodgepole pine are currently being sold at the rate of about 3 MMBF per year. Expansion of this discussion including more detail can be found in the AMS. Recently there has been new interest in expanding timber management activities in ponderosa pine to reduce its susceptibility to mountain pine beetle along with acceleration of all harvest activities if markets can be found.

The price of timber during the last 10 years has been very erratic. Increased costs of road construction, logging, and milling have caused most timber sales to be below cost.

Most sales have occurred on slopes of less than 40% and tractor logging has been the primary yarding method used.

Past practices included partial cutting in lodgepole pine on the Forest. Experience has shown that windthrow, poor natural regeneration, and heavy dwarf mistletoe re-infestation from remaining trees resulted from this practice. Even-age management is commonly used in the preferred alternative to overcome these problems. The use of uneven-age systems will be limited to specific areas on the basis of need, such as corridors along heavy traveled recreation routes, in the NRA, or in sites such as campgrounds.

Fuelwood has become a major attraction on this Forest and this activity represents better than half of the total volume of wood fiber that is removed from this Forest. Presently, compared with marketing of other wood products, fuelwood offers economically attractive situations and provides an opportunity to reduce fuel loading and improve the timber resource growth potential and utilization.

Demand for all timber resource outputs are assumed to be completely elastic. In other words, whatever can be produced will be sold at a constant price. All other resource outputs are considered to be totally elastic also except for the recreation resource. None of the resources except recreation had any constraints on production other than meeting minimum management requirements. Recreation output production was limited to projected use levels which were based on population growth rates in Utah and Wyoming. Failure to actually market these timber outputs or any of the other resources can create a major change in present net value and may necessitate a plan revision.

8. WATER

The Forest delivers approximately one million acre-feet of water annually to streamflow and contributes a large but unmeasured quantity of water to groundwater aquifers.

The high quality water produced on the Forest serves administrative needs and is used and enjoyed by the public on and off the Forest for domestic purposes, recreation, aesthetics, municipal and industrial

uses, irrigation, livestock watering, power production, and for fish and wildlife habitat.

Streamflow is transported from the Forest throughout the year by 687 miles of perennial streams which contribute to the Green River Basin and the Duchesne and Uinta Sub-basins, which is part of the Colorado River Basin System.

The municipal watershed of the Ashley Valley municipalities and other small towns in the Uintah Basin are located on the Forest. Special land management measures may be required to maintain continued supply of quality water in amounts needed for municipal and industrial use.

Direction for the management of the municipal watershed is contained in the Ashley National Forest Municipal Watershed Plan. The municipal watershed includes two main drainages: Ashley Creek drainage and Dry Fork drainage. Dependency of approximately 20,000 residents on this watershed for culinary water dictates a careful review of all management decisions.

Although the Forest has not been involved in direct practices of increasing water yield, the potential has been identified for increases through weather modification, snowpack manipulation, and vegetative manipulation. Current management is not directed toward increasing the quantity of water, although some increases in water yields occur as a result of management activities on the Forest. These increases are a result of ongoing management activities and have not been done for the purpose of increasing water yield.

Consumptive Needs: Downstream water uses include municipal and industrial uses, which require a fairly even flow rate year round, and agricultural uses, which require water between May 1 and October 1.

The current water use inventory for the Forest identifies 3,197 consumptive water uses amounting to a total volume of 4,213 acre-feet.

Nonconsumptive Needs (instream flow): Direction is to claim instream flows for recreation, fish habitats, wildlife, stockwatering, riparian, vegetation, aesthetics, and channel morphology. Stream reaches where instream flows are needed will be identified as a component of the water uses inventory in time for basin adjudications and quantified as required by the court. Water for instream uses is needed year round for fish habitats and waterfowl; May through November for other uses; and short duration high flows are needed for channel morphology.

Since 1900, 2 major pipelines, 45 dams, and 28 canals have been constructed on the Forest. There are approximately 500 lakes and reservoirs on the Forest, with an estimated storage capacity of 3,900,000 acre-feet (including Flaming Gorge Reservoir's 3,812,000 acre-feet of water). The approximate total surface area of lakes and reservoirs on the Forest is about 50,000 acres.

Water Quality: The necessary level of water quality can be met by compliance with Federal and State water quality standards. Numerous water quality investigations on the Forest during the past decade have

shown the water on and leaving the Forest to be adequate to meet or exceed identified beneficial use requirements, and to be within the State water quality standards.

The primary sources of water pollution on the Forest include grazing, construction associated with the Central Utah Project, logging, and road construction and maintenance. These activities can influence the bacterial, chemical, and physical (sediment) components of water quality.

Soil and Water Resource Improvements: A Soil and Water Resource Improvement Needs Inventory was carried out on the Forest to identify areas that are in need of soil and water restoration. There are approximately 1,000 acres identified in needed restoration projects.

Riparian Areas: The increasing demand for water for hydroelectric purposes on the Forest will tend to reduce the quantity of water available for instream flows and will cause a loss of riparian ecosystems.

Flood Prone Areas: The Forest has a high potential for rain-on-snow type floods because much of the Forest lies above 9,000 feet and because basin orientation tends to hold snow until the warm storm season arrives. This potential becomes highly significant in years when the predicted runoff is above average.

Diversions: The CUP, probably the largest federal water resources development ever authorized and funded by the United States Congress, has the primary purpose of diverting for Utah's use a portion of the annual water yield of the Colorado River drainage. Principal uses of the water will be irrigation, municipal and industrial supplies, and hydroelectric power production.

The amount of water to be diverted is limited by the Upper Colorado River Basin Compact of 1948, in which five states - Arizona, Colorado, New Mexico, Utah, and Wyoming - allocated among themselves the average annual water supply of the Upper Colorado River drainage. The actual projects required to physically divert the allocated water are authorized by the Colorado River Storage Project Act of 1956. Funding is secured by the Secretary of the Interior and construction is done by the U.S. Bureau of Reclamation.

Under the 1948 Compact, Utah may divert up to 1,322,000 acre-feet per year, or 23% of the average annual yield of the Upper Colorado River drainage. For planning and construction, the Bureau has divided the CUP into six separate units, three of which - the Bonneville, Upalco, and Uinta Units - directly impact the Forest. The Bonneville Unit will divert Uintah Basin water from the Green River drainage to the Wasatch Front.

Each of the CUP units could be constructed and operated independently of the other units, and the Bureau has to file separate environmental impact statements for each.

The Forest Service, in some situations, has limited control over impoundments, transmission facilities, wells, and man-made developments. All of these outservice projects require Forest Service input, but often time for planning and review of proposals is short.

Demand

The Forest currently produces about 948,500 acre-feet of water annually. The demand for water is presently less than or equal to supply for most downstream users. Studies of projected future demand in Utah indicate that before the year 2000 the demand for water will approach supply. For the Uintah Basin there is a projected demand of 968,200 acre-feet annually. Table II-4 shows the present and future water uses in the Uintah Basin.

TABLE II-4
PRESENT AND FUTURE WATER USE IN THE UINTAH BASIN

Water Used (Consumptive Use)	Present (Acre-Feet)	(% of Total Use)	(Acre-Feet)	2000 (% of Total Use)	Increase (Acre-Feet)
Municipal	2,500	.3	17,700	1.8	15,200
Industrial	4,600	.6	72,800	7.6	68,200
Irrigation & Livestock	393,400	50.2	486,100	50.2	92,700
Wetlands & Evaporation	375,000	47.8	375,000	38.7	0
Public Lands	8,900	1.1	16,600	1.7	7,700
TOTAL	784,400	100.0	968,200	100.0	183,800

The demand for high quality water for all uses will increase both on and off the Forest.

Increased demands in the Colorado River Basin and on the Wasatch Front will heavily impact the Forest. The cost of water treatment, changes in water uses, and technological changes will initiate searching for additional sources of high quality water.

Upstream watershed tributary to the Colorado River will become increasingly important to helping to meet the growing demands within the Basin and the national obligation to provide water to Mexico. Such demands may require a more rapid implementation of watershed improvements or may change priorities for watershed improvements. The springs and drainages that produce water will be considered high value and pressures to eliminate all activities that might cause pollution will be high.

9. MINERALS

Minerals exploration and development activities are directly related to the interest generated by the public and industry. Management of this resource is responsive to these public interests along with industry's interest. Coordination with various other public agencies and between resources is required. For these reasons, the minerals resource poses programming and scheduling problems that are not common with management of other resources.

Availability: In accordance with the Federal Land Policy and Management Act of 1976, the Forest Service must consider that all National Forest System lands are available for mineral exploration and development unless they are withdrawn from mineral entry and leasing. The total area within the Forest boundary is 1,405,609 acres. Approximately 20,910 acres of this area is state and private land. This leaves 1,384,699 acres available subject to the constraints imposed by the following:

- Outstanding or Reserved Mineral Rights: There are 22,356 acres of acquired Federal lands within the Forest boundary where all mineral rights are outstanding or reserved. An additional 5,087 acres have the oil and gas rights only outstanding.
- Existing Withdrawals: 77 areas consisting of 42,145 acres have been formally withdrawn from all forms of appropriation under the public land laws. This includes appropriation of locatable and common variety minerals but does not include mineral leasing.
 - A breakdown of withdrawals includes:
 - Forest Service - 60 areas totaling 12,646 acres;
 - Bureau of Reclamation - 11 areas totaling 28,969 acres;
 - FERC - 2 areas totaling 35 acres;
 - and 4 public water reserves totaling 495 acres.
 - As directed by FLPMA, all withdrawals on the Forest must be reviewed for continuation or revocation prior to 1991.
- Special Legislation: Approximately 185,645 acres of the Forest were withdrawn under P.L. 90-540 when the Flaming Gorge NRA was established on October 1, 1968. Approximately 273,426 acres were withdrawn with the passage of the Utah Wilderness Act of 1984.
- Summary: The National Forest land with the above constraints totals 523,344 acres. This leaves 861,355 acres, which includes outstanding oil and gas rights, considered available for mineral appropriation and entry as follows:

Locatable Minerals	861,355 Acres
Leasable Minerals	1,083,830 Acres
Oil & Gas	1,083,830 Acres

Capability: Normally, the Forest Service does not determine which areas are "capable of minerals and energy production." This is largely a function of the private sector. Basically, this Forest has been classified as non-mineral in character based on geological reports. Known locatable minerals include copper, gold, silver, iron ore, iron oxide, and metallurgical limestone. Leasable minerals of energy include oil and gas, uranium, and tar sands. Non-energy minerals includes oil shale, coal, trona, and phosphate. Stone, sand, and gravel are located throughout the Forest.

Suitability: The area of the Forest considered available and capable of mineral/energy exploration is also considered suitable for mineral entry and leasing, but not necessarily suitable for development. Major development activity for mineral recovery (by location or lease) could have significant adverse effects on soil, water, air, scenics, vegetation, and wildlife.

Demand: Future technology, change in economic conditions, new discoveries, and changing needs will determine to a large extent where and which minerals are developed. As these things occur, special stipulations and operating procedures are included on leases and operating plans to coordinate with other resources as required. These stipulations and procedures may exclude surface occupancy, require special provisions, and/or may result in increased operating costs.

The Forest Service is not the "lead agency" for determining the technical, economic, budgeting, and to some extent the environmental feasibility of minerals and energy production. The Forest Service is "reactive" to industry and "responsive" to USDI (Bureau of Land Management) requests.

10. SUPPORT ELEMENTS

a. Lands

Landownership Adjustments and Control. Gross acreage of the NRA is 201,114 which includes 10,212 acres of State and private land and 190,902 acres of Forest lands. A breakdown of alienated lands includes 1,333 acres of State and 8,879 acres in private ownership.

A large percentage of the land in the South Slope Planning Unit is National Forest. Private inholdings total 3,627 acres in 18 small scattered tracts. There are no State lands within the planning unit. Most of the private lands are located in the major drainage bottoms and were patented through homestead entry for agricultural uses. Ranching remains the primary use, but resort and recreational residence development increases annually.

Landline location work along the Indian Reservation boundary and private tracts is an acute problem. This work has lagged for several years due to insufficient finances. There are known or suspected trespasses in several different localities.

There are 6,380 acres of privately owned land within the Vernal planning unit. There is no State land. Chevron Resources is actively mining phosphate from private lands just outside the Forest boundary. These lands are contiguous with lands they own within the southeast portion of the planning unit. Four small tracts are patented mining claims, but there is little mining activity on them.

The remaining private land is ranch land in Dry Fork and rangeland in Davenport and Lambson Draws. This land is grazed in conjunction with adjoining National Forest System lands.

b. Special Uses

Withdrawals: The FLPMA directed that all withdrawals be reviewed for continuation or revocation prior to 1992. These areas include: 20 administrative sites (1,433 acres), 43 recreation areas (11,213 acres) 16 reclamation projects related to the CUP (28,969 acres), reservoir withdrawal for Colorado River storage projects (128,669 acres) and Federal Power Commission, and 10 power site classification projects (73,332 acres).

Flaming Gorge: Special uses in the area vary from simple structures, such as corrals and gravel pits, to major gas and power transmission lines and resorts. These lands uses are authorized by permit, lease, easement, license, or memorandum of understanding.

Many existing permits and leases were issued prior to establishment of the NRA. Some are not in accordance with the objectives of the NRA and detract from its value.

The two classes of special use permits for commercial activities within the NRA are: those authorizing concessionaires to provide services to the recreating public, and those authorizing utilization and development of nonrecreational resources. This second class covers transmission lines for power, water, and gas; gravel pits; roads; and mineral exploration. Requests for these types of special use permits are increasing.

Wild and Scenic Rivers: The Green River has have been recommended for inclusion in the National Wild and Scenic River System: The Green River Study was completed in 1978, with the Draft Environmental Statement completed in June 1979, and Final Environmental Statement in 1980; the Green River from Flaming Gorge Dam to the southern boundary of Dinosaur National Monument is eligible and has been recommended as a component of the NW&SRS.

Land Available for Disposal: In the three land management plans completed on the Forest, no specific lands were identified for disposal. In 1963 and 1966 the Forest and Region completed two major land exchanges with the State of Utah, wherein two isolated sections of the Forest (Phil Pico - 3,200 and Tabby Mountain - 27,522 acres) were exchanged for certain State section lands

located within the Ashley, Wasatch, Dixie, Fishlake, and Sawtooth National Forests. This eliminated most of the isolated State sections within the Forest.

Special use permits for concessionaires now authorize three marinas, the Dutch John Airport, and two others providing automotive service, food service, raft rentals, and lodging.

South Slope (Roosevelt and Duchesne Districts)

Land uses on the South Slope Planning Unit are many and varied. These include 58 special use permits, 17 memorandums of understanding, and 10 right-of-way easements. These uses are dispersed throughout the planning unit, but are most numerous in the more developed canyon bottoms.

Power site withdrawals and Federal Power Commission withdrawals cover 55,030 acres. These withdrawals were filed during the period 1926 to 1933 on Whiterocks River, Uinta River, Yellowstone River, Swift Creek, Lake Fork, Rock Creek, and Granddaddy Basin. While these power site withdrawals do not withdraw the land from mineral entry, they do give priority of use to power sites.

Special use permits include three resorts, eight recreation residences, seven utility lines, two electronic sites, fifteen water transmission lines (both domestic and agricultural), one mining camp, eight pastures, seven range facilities, and eight outfitter guides. Seventeen memorandums of understanding are granted to other governmental agencies for gauging stations, water diversion, hydro-meteorologic sites, utility lines, roads, and water transmission lines. Right-of-way easements are primarily for roads, but other uses include canals, reservoirs, and water diversion structures.

The major withdrawals within the planning unit are for phosphate, Bureau of Reclamation, and the Federal Power Commission. The phosphate withdrawals cover about 28,00 acres located along the southern border of the planning unit. Reclamation withdrawals cover 26,084 acres. These withdrawals are for the Moon Lake Project and the CUP and are located mainly in the canyon bottoms.

Vernal

One hundred and four special use permits are in effect on the Vernal Planning Unit. These permits cover a variety of uses and activities such water impoundments and transmissions, power transmission, two summer home tracts, electronic sites, fences, corrals, pipelines, roads, herder cabins, mineral leases, etc. Water impoundment and transmission, a necessity for this arid country, poses some of the more serious special use problems.

High voltage power lines from Flaming Gorge cross the eastern end of the planning unit. Also, there are two designated communications sites on the planning unit--one on Grizzly Ridge and one on Marsh Peak.

c. Soils

The Forest has a variety of geographical areas, landscapes, climate, and vegetation. Soils vary accordingly from the high desert areas to the alpine zones above the timberline. A variety of processes have been involved in forming the soils on the Forest. The diversity of all of these soil-forming factors has produced a mixture of soil patterns with highly productive soils that are interspersed with soils that have low potential for productivity.

Soil Productivity: Soil productivity varies with differences in elevation, precipitation, aspect, texture, depth, internal drainage, content of rock fragments, parent material, slope, and vegetative cover. The Forest has a wide range of landforms affected by a wide range of environmental parameters. Elevation ranges from 4500 feet in the Wyoming Basin to 13,000 feet at the high mountain tops. Soils and soil productivity vary accordingly.

The higher elevation lands in the Bollies (elevations above 10,600 feet) are generally of a lower productivity than lands adjacent to this unit. However, productivity is more likely to be affected on this unit by the cold temperatures, high winds, and very short growing season, than by the inherent fertility of the soils.

Those lower elevation lands receive low precipitation. In the Tavaputs Plateau, natural erosion rates are high and much weathering of the limestone and shale goes into solution with the result of little soil formation. Lack of moisture appears to be the primary cause of low productivity in both Wyoming and the South Unit.

To maintain or improve inherent soil productivity by management practices, monitoring and the establishment of a data base is needed.

Soils Requiring Special Attention

The Forest has a unique situation with some soils having a seasonally or permanently high water table. These soils contain some of the more productive timber stands on the Forest. Although these soils are quite common in depression areas, they are also very prevalent on ridges and slopes up to 10% on the Flaming Gorge and Vernal Ranger Districts. These soils need to be recognized as a special situation in road construction, timber sale layout, and any other management practice that involves disturbance to the area.

d. Facilities:

The Forest has numerous facilities including roads, bridges, administrative sites, and buildings. They require considerable time and money for operation and maintenance. There have been large investments in these facilities to facilitate the development, protection, and use of Forest resources. A detailed description of the facilities on this Forest can be found in the AMS.

Administrative Sites and Buildings: Currently the Forest has 147 buildings of which 37 are between 20 and 30 years old; 3 are between 30 and 40 years old; 19 are between 40 and 50 years old; and 17 are 50 years old and older. Currently the Forest has 40 road bridges and 7 trail bridges.

Continuation of past management will perpetuate the deterioration of some buildings. Some buildings have been identified as surplus and will be removed or destroyed. Other buildings will probably be surplus to the needs of the Forest at a later date.

Continuing direction is that when a Forest Service building or administrative site is proposed for remodeling, removal, or destruction the Forest Archaeologist is contacted to make sure that the site has been surveyed and recorded, that there is no conflict with Federal laws and regulations, and that all plans comply with 36 CFR 800 and FSM 2360.

Roads: The Forest has approximately 1,817 miles of inventoried road system. The existing road jurisdiction includes about 1,451 miles of Forest Service roads, 160 miles of private, 135 miles of local service roads, and 70 miles of State Highways.

The overall existing road density is approximately 1.11 miles of road per square mile of land, excluding the High Uintas Wilderness.

The Forest is also accessed by a trail system of about 776 miles of inventoried trail. The trail system is discussed under the recreation sections of this report.

Flaming Gorge Reservoir provides a relatively large water way that is also considered as a means of transportation for various recreation activities.

Construction of new roads on the Forest Development System has totaled about 55 miles from 1971-1981, for a yearly addition of 5.5 miles per year. Slightly more than 94 miles of road have been rebuilt for an average of 9.4 miles per year. The number of miles of road maintained on the Forest has averaged about 1,160 miles a year from 1974 to 1982.

Using this data, the mileage maintained was 2% at level 1, 23% at level 2, 28% at level 3, 35% at level 4, and 12% at level 5. Levels used here relate to a standard of maintenance, with level 5 being the highest.

Utility and Transportation Corridors: Three land management plans have been completed for planning units on the Forest. There were no corridor rights-of-way formally identified in any of these plans. Presently, requests for corridor rights-of-way are processed on a case-by-case basis following the NEPA process. New rights-of-way are authorized based on a demonstrated need and only after assurance that the use is properly coordinated with other resources and within land capabilities.

As part of the Forest planning process, existing and potential utility corridors have been studied and direction resulting from this analysis can be found in the various chapters of the EIS and in Appendix H.

The existing transportation system provides the primary access to all areas of the Forest. There has not been major interest expressed on the need for any new primary access roads on the Forest except for the road that would parallel the Green River on the north side below Flaming Gorge. Daggett County has proposed this location but the Forest Service and Bureau of Land Management (BLM) have opposed it because of the conflict that would be created with the recommendation for inclusion of the Green River in the National Wild and Scenic River System (NW&SRS).

e. Protection

Fire: The current fire management policy requires appropriate suppression response on all wildfires. The kind, amount, and timing of suppression action is based upon fire management direction under current and expected burning conditions. From 1970 through 1979 there was an average of 50 fires per year. About 41% of these fires were human caused, and an average of 680 acres burned each year.

Ultimately, a large portion of the Forest will be covered by modified suppression plans. Until such time as the plans are approved there will be no prescribed natural fires.

The Forest has a cooperative agreement with other agencies in the Uintah Basin for wildfire control. These agencies include the Bureau of Indian Affairs, the Bureau of Land Management, the National Park Service, and the State of Utah Division of Forestry and Fire Control.

The number of fires and acreages burned are expected to increase in the future because of increasing timber regeneration, fuelwood cutting, and increasing fuel loading. The North and South Slopes of the Uinta Mountains have potential for large and costly fires

because of the dense, continuous stands of lodgepole pine that are subject to mountain pine beetles that kill the trees and increase the fuel load.

Air Quality: There are no Class I or non-attainment air quality areas in the vicinity of the Uintah Basin. The portion of Dinosaur National Monument in Colorado, which does not border the Forest, is classified as a Class I area by the State of Colorado. The portion in Utah does not carry the same classification. The only non-attainment areas in Utah are along the Wasatch Front.

Ambient air flows from the south could adversely affect Class I areas in Wyoming. However, winds commonly flow west to east, so affects would be unlikely.

The air quality on the Forest is generally excellent. At times during the dry summer months vehicular traffic produces dust which temporarily lessens the air quality. The amount of smoke impact from occasional grass, brush and/or conifer fires is slight since most fires are small and burn a short period of time. From March through October, stable atmospheric conditions build only during the evening and at night; in the daytime, surface heating normally causes the air to become unstable thus dispersing pollutants through a thick layer of the atmosphere and consequently decreasing pollution concentrations to insignificant levels.

The Forest falls entirely in Air Quality Basin III (above 6500 feet). Controlled burns are never conducted when the Clearing Index is 500 or below. When the Clearing Index is between 500 and 600, grass, brush, and scattered slash can be burned. Slash piles and fuels which produce a large amount of smoke can be burned when the clearing Index is 600 or above. Most of the burning in the Forest is done at 8,000 feet or above, with the heavy slash region at about 8,500 feet. Rarely is the Clearing Index 600 or below at that elevation. Wildfires which occur during the summer months do not create a large amount of pollution due to the elevation. Clearing Indices are usually above 600 at the fire elevation. However, nighttime atmospheric conditions and the broad flat basins create ideal conditions for inversions to occur. During the early morning hours, radiation from the sun destroys these nightly inversions and creates adequate convection to disperse the smoke pollution. Wildfires large enough to create a large amount of smoke normally occur in July when the only rain shower activity is created by scattered afternoon cumulus buildups which dissipate after dark. Heavy air, trapping pollutants from smoke, does not create a serious pollution problem.

Insect and Disease: Forest pests have a direct and significant impact on Forest resources affecting recreation sites, and causing tree mortality and volume loss in timber stands. The principal insects and diseases affecting the Forest are mountain pine beetle, ips beetles, commandra rust, and dwarf mistletoe.

Mountain pine beetles have caused extensive mortality in lodgepole and ponderosa pine stands for several decades. Epidemic levels of the beetle, recorded since the 1940's, have continued to cycle through the Forest, removing most of the larger diameter trees in infested stands. The most recent outbreak began in the early 1970's in the Greendale Junction area, and caused extensive mortality around the Flaming Gorge NRA. The heaviest mortality occurred in 1982 with an estimated 3.5 million trees killed by the beetle. Mortality decreased in 1983 to 1.3 million trees but is expected to continue until most of the larger diameter trees in infested stands are killed.

The mountain pine beetle will continue to have a serious impact on lodgepole and ponderosa pine stands causing heavy mortality in overstocked stands of mature trees. Beetle populations increased rapidly in 1981 on the Forest and continued to increase for the next several years. Populations will remain at epidemic levels in a stand until 70 percent of the volume and all of the larger diameter trees have been removed. Pine stands could be protected from mountain pine beetle epidemic by stand hazard rating to identify high-risk stands, monitoring beetle populations, and by thinning stands to reduce the potential for outbreaks. Mountain pine beetles will not be eliminated from pine stands by silvicultural practice. However, in commercial stands, losses can be minimized by reducing the susceptibility to beetle attacks. High value trees in developed and administrative sites can be treated with protective sprays.

The Forest has been exposed to rangeland insect infestations, but the problems have never been extensive enough to cause great alarm. Localized areas have had sufficient buildup to warrant control programs. These treatments, along with natural low population cycles, have confined impacts to relatively small areas.

Those insects that have had high enough populations to cause concern are: grasshoppers, black grass bugs, and Mormon crickets. Another range pest that has become somewhat visible on occasion is the tent caterpillar. It has occasionally been seen in sufficient numbers in bitterbrush stands to attract the attention of range specialists. Natural control and resistance have removed any further concern.

Forest range specialists have worked closely with representatives of the Animal and Plant Health Inspection Service (APHIS) in identifying, monitoring, treating, and follow up work with range insects.

Law Enforcement: The Forest Service is responsible for enforcing Federal laws and regulations on the National Forest. This responsibility cannot be delegated to other agencies or local law enforcement entities.

The Forest Service may cooperate with state and local agencies in enforcing certain state laws on National Forest System lands. The Sisk Act provides statutory authority to reimburse local and state law enforcement agencies for the protection of persons using National Forest System lands and property.

Most employees assigned to recreation and fire prevention receive minimum law enforcement training. This training is not adequate to handle many of the law violations they encounter. Budgeting for law enforcement is also not adequate to carry out an effective law enforcement program.

Public use of the Forest is expected to increase substantially in the years ahead. The increased use will result in increased law violations.

B. SUPPLY CONDITIONS

This subsection includes a summary display of the maximum physical and biological production potentials for significant individual goods and services (maximum resource level benchmarks or maximum production potential) identified in the Analysis of the Management Situation (AMS). Also included are displays of the production levels which are attainable under current management direction (Current Management Direction Potential).

The "No Action", or current management direction, displays the entire set of outputs for the RPA time periods (five decades). The Maximum Benchmarks display only those outputs designed to show the Maximum Production Potential for significant goods and services.

TABLE II-5 Current Outputs, Projected Demand, Supply Potential

Activity - Category	Units	Estimated use for 1985	1986- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
Developed Recreation Use	MRVDS ^{1/}						
Demand Trends		845	974	1109	1326	1596	1851
Supply Potential(Max-AltI)			803	925	1092	1274	1444
Regional Objective			605	650	780	910	1040
Current Program			779	881	1045	1210	1374
Preferred Alternative (J)			809	940	1119	1300	1476
Dispersed Recreation Use	MRVDS ^{1/}						
Demand Trends		666	767	873	1044	1257	1458
Supply Potential(Max-AltI)			712	820	968	1130	1281
Regional Objective			595	630	683	737	790
Current Program			691	781	927	1074	1219
Preferred Alternative (J)			717	834	993	1153	1308
Wilderness Use	MRVDS ^{1/}						
Demand Trends		230.0	265.	301.6	360.8	434.3	503.6
Max. Supply Potential			301	360	360	360	360
Wilderness Regional Objective			---	----	----	-----	-----
Benchmark Current Program			301	360	360	360	360
Preferred Alternative (J)			301	360	360	360	360
Livestock	MAUMS						
Demand Trends		75	115	164	153	171	149
Supply Potential			115	164	153	171	149
Regional Objective			93	96	96	97	98
Current Program			77	80	82	83	84
Preferred Alternative (J)			81	84	91	99	108
Commercial Timber Sales Offered	MMCF						
Demand Trends			Demand for Timber is elastic.				
Max. Timber Benchmark			12.4	9.3	7.0	5.2	3.9
Regional Objective			5.3	5.8	5.8	5.8	5.8
Current Program			3.8	3.8	3.8	3.8	3.8
Preferred Alternative (J)			5.3	5.3	4.8	4.8	4.8
Water Yield	M Ac Ft						
Demand Trends			Demand for Water is elastic.				
Max. Water Benchmark			970	999	1024	1038	1035
Regional Objective			1079.0	1079.0	1079.0	1079.0	1079.0
Current Program			960	972	982	989	993
Preferred Alternative (J)			959	972	985	996	1002

^{1/} The supply figures displayed above are slightly less than demand projections, but with improved management it is expected that demand could be met through decade 5. Also, even though projected demand is running ahead of reported use in decade 1, it is expected that demand and actual use should equalize during the planning horizon. Data presented past the 1st decade are projections based upon trends.

C. DEMAND CONDITIONS

Both Supply and demand conditions are displayed for each of the RPA planning periods in Table II-5.

See Section A for a narrative on each of the resources.

D. NEED TO ESTABLISH OR CHANGE DIRECTION

A comparison of existing Forest practices, policies, and direction, Regional Plan (RPA) targets, and the supply assessment figures from Benchmark levels identifies several areas where change is not only needed but is inevitable.

Present timber harvest on the Forest is accomplished using ground lead equipment such as skidders and tractors. Flat ground (under 40% slope) suitable for this type of equipment cannot continue to provide total timber harvest volume, even at proposed reduced levels. Modernization of logging methods and practices will be needed by the end of the second decade.

Long term timber output levels will be partially dependent on cultural practices such as pre-commercial and commercial thinnings. The elimination of partial cutting practices on the lodgepole pine stands and harvest of this species with clearcut methods is needed to reduce the costs of timber sales, post sale treatments, and to ensure regeneration of the new stands. Special areas such as Flaming Gorge NRA will require management practices that meet the intent of legislation for the area, including the partial cut methods of harvesting, where needed.

Existing local sawmill capacity approximates the RPA target levels of 19 MMBF annually. Increased demand for additional volume is already occurring for products such as fuelwood. The increased demands for wood products can be expected to result in increased competition and eventually to a shortage of the wood fiber.

The mountain pine beetle epidemic has hit most of the lodgepole pine and ponderosa pine stands on the east half of the Forest. Public comments and management concern about the changes in visual quality, loss of wood fiber, need for regeneration of a new stand, and the potential for large fires from the increased fuel loading will be reduced as the dead needles fall and the background landscape reverts from red to gray. However, fire protection needs will remain at high levels for many years into the future as dead trees fall and create "jackpots" of ready fuels. Prescribed burns will be used to reduce fuels and to help prepare the sites for new regeneration.

The RPA targets for range utilization will not be met unless the current trend away from sheep grazing and toward cattle use is reversed. There is an opportunity to make forage available on transitory range, on vacant allotments, and on under utilized allotments. Use of some of these practices, such as transitory range, would require substantially increased expenditures by permittees for herding and/or fencing.

Continued development of the Forest, such as road construction, will change the existing mix of ROS classes which comprise the character and attraction of the Forest for the general public. The Proposed Action (Alternative J) will tend to delay the major changes and to prolong the existing character. However, the Forest is changing with or without man's direction. The mountain pine beetle epidemic is a prime example of the dynamic nature of an ecosystem where changes occur as a natural event and sometimes at a very rapid pace.

Recreation demand projections indicate a need for increased developed site capacity beginning approximately 1990-1995. The Proposed Action recognizes this need and will program development of additional sites beginning in the first decade. In addition to the need for developed site capacity increases, the Forest Plan proposes to increase the construction and maintenance of trails both inside the High Uintas Wilderness and also in the unroaded areas outside the Wilderness. The inclusion of 80,000 plus acres in a dispersed recreation (undeveloped) management area (g) will provide an area where semi-primitive activities can take place outside the classified Wilderness. This will broaden the spectrum of recreation activities provided by the Ashley Forest and will also tend to retain the existing character of the Forest.

Currently, general Forest Service direction for CRM has been mainly in the area of project clearance, ie. doing a cultural resource survey of a proposed project, recording and inventorying any sites found, evaluating sites for inclusion on the National Register of Historic Places, protection of any sites found. CRM work on the Ashley National Forest has been reflective of these general Forest Service policies. As Forest Service CRM policies change in the future more towards site management, rehabilitation, reconstruction, and interpretation, CRM policy and direction on the Ashley National Forest will also need to change. There is also a need for continued Forest coordination with both the Utah and Wyoming SHPO.

The Forest will proceed with the analysis of candidate Research Natural Areas (RNA's) in cooperation with the Nature Conservancy. Establishment reports will be prepared and submitted to the Washington Office for consideration for those RNA's listed in the FEIS.

A moderate investment in wildlife habitat improvements is planned to provide a continuing program that will ensure needed habitat diversity and availability for existing fish and wildlife species. Continued coordination with State and Federal wildlife agencies is included as an integral part of the future direction for the Forest.

E. RESEARCH NEEDS

During the development of the Forest Plan the following research needs have been identified:

1. The determination of habitat types, baseline land productivity, and how land management activities influence this productivity.
2. Determine the interrelationships of different management activities with soil characteristics that cause compaction and the effect on vegetative productivity.
3. Determine the factors limiting vegetative productivity in high meadows.
4. Determine the limits of acceptable change in heavily used recreation areas in the High Uintas Wilderness.
5. Set up needed control areas through the designation and continued evaluation of Research Natural Areas.

It is anticipated that more research needs will become apparent during monitoring and evaluation of the Forest plan.

CHAPTER III

PLAN RESPONSES to ISSUES, CONCERNS,

and OPPORTUNITIES

III. PLAN RESPONSES TO ISSUES, CONCERNS, AND OPPORTUNITIES

Regulations implementing the National Forest Management Act require the identification of public issues and management concerns. Consequently, the planning process is responsive to changing conditions. A public issue is a subject or question of widespread public interest identified through public participation relating to the management of National Forest System lands. A management concern is a problem requiring resolution or a condition constraining management practices identified by Forest personnel, including the Forest Management Team and the Core Planning Team.

An initial list of Forest-wide public issues and management concerns was developed from comments solicited from the general public, from past planning records, and from Forest personnel. A detailed discussion of the scoping process and the issues can be found in the planning records located at the Supervisor's Office in Vernal, Utah. This process yielded a number of individual issues and concerns which were grouped into broad categories and then summarized into thirteen major issues.

The potential to resolve these major issues was analyzed as part of the analytical portion of the planning process, the "Analysis of the Management Situation". Issues were addressed through one or more of the following processes:

1. Forest resource capability analysis using a mathematical computer model (FORPLAN),
2. Forest policies developed in response to the issues,
3. Forest management standards and guidelines, and/or
4. Prescriptions establishing specific management practices for management.

This chapter shows how the proposed Plan addresses and responds to major public issues, management concerns, and resource opportunities that have been identified during the planning process.

A discussion of the process used to identify the issues to be resolved in this Plan is found in Appendix A of the EIS. Additional information may be found in the public involvement records of the Forest and Table II-6 of the EIS.

The specific methods for resolving and implementing management actions for the thirteen issues dealt with are found in Chapter IV of the Plan. In that chapter the Forest's multiple-use goals and objectives are listed, as are the management prescriptions and associated standards and guidelines for each management area. Included with the management area discussion are the proposed and probable management practices.

The responses to the thirteen issues are as follows:

Issue #1 Transportation System Management

The High Uintas Wilderness is not available, by law, for road development. There will be no road system within those lands which have the minimum level prescription (Research Natural Areas), and the High Dispersed Recreation prescription applied.

Road system development for the remainder of the Forest will be done on a project basis. In accordance with release language contained in the Utah Wilderness Act of 1984, portions of some undeveloped areas can be roaded where such activities as timber, recreation, wildlife, energy, range, fire control, or oil and gas benefits are needed during the next decade. Roads will be constructed to the minimum standards needed to meet the design objectives. The next planning period will provide the opportunity to re-examine those roadless areas for wilderness.

Alternative J significantly reduces road construction associated with timber harvest. No roading for timber harvest is permitted on an area in excess of 200,000 acres during the first decade. This is shown on the map attached to the EIS. Area q is also protected through an undeveloped prescription.

Road closures for protection of wildlife and watershed resources will be determined on a case-by-case basis during project level planning.

Issue #2 Fuelwood Management

Current demand for personal-use fuelwood is 1.5 MMCF. The Forest currently has a 11.2 MMCF capability for fuelwood as a result of the beetle infestation. Due to other resource considerations some of the fuelwood is unavailable. Fuelwood harvest will be considered as an alternative in marketing timber products. Designated areas for fuelwood will be set up to reduce conflict with commercial timber sale operations and to meet wildlife and watershed objectives.

The fuelwood availability will continue through the second decade and drop to 5.8 MMCF yearly in the fifth decade, still well above the current 1.5 MMCF demand. Free use and charge areas will be designated allowing for fuelwood removal from logging slash, standing dead trees, aspen, and pole-sized stands needing thinning.

Issue #3 Watershed Management

Increases in water yield will be concurrent with the timber harvesting program. On a yearly basis, in the first decade there will be an increase of 3 MAC/FT. This figure includes all increases and not just those meeting quality standards. To accomplish the watershed restoration backlog, 57 acres per year are programmed for restoration to the year 2000. As these acres are restored, the proportion of water meeting quality standards will increase.

Concurrent with the timber harvesting program and the water yield increases, sediment will also be increasing. Standards and guidelines in the Forest Plan will be followed to reduce the impact of increased

sedimentation and mitigation measures will be incorporated in environmental analysis at the project level.

Issue #4 Range Management

The grazing capacity will increase assuming utilization by the proper class of livestock. The demand for a proper mix and utilization, however, is decreasing. This is resulting from a reduction in sheep grazing and conversion of sheep allotments to cattle allotments. Structural and range forage improvements will continue to maintain at least existing production and utilization levels.

Issue #5 Timber Management

During the first decade, the yearly allowable sale quantity will be 21 MMBF. This harvest level is based upon salvaging a portion of the dead lodgepole and ponderosa pine stands, and the sustained yield concept for the remaining live stands. The projection for the second decade is also 21 MMBF, after which the harvest levels will reduce to approximately 19 MMBF. The allowable sale quantity in the existing timber management plan is in excess of 25 MMBF. An increased number of acres will receive silvicultural treatments and this will reduce potential for insect epidemic and increase wood fiber production. New logging methods will be required to reduce environmental damage.

Issue #6 Wildlife Management

The proposed alternative will continue an even program for structural and non-structural habitat improvement for fish and wildlife. The mixture of management prescriptions should maintain or improve habitat diversity. Management indicator species will be monitored to assure habitat diversity is maintained. Maintenance of critical habitat for all species will be given high priority.

Issue #7 Recreation Management

Funding for operation and maintenance, along with investment dollars for developed sites and dispersed areas, are programmed to be significantly higher than for the current program. The established High Uintas Wilderness and the management of several large areas in a way that precludes timber harvesting activities will help to maintain some of the existing primitive and semiprimitive non-motorized R.O.S. classes during the first decade. Public access to many areas in the roaded natural areas will be improved. With the additional funding, there will be opportunities to improve the types and numbers of developed sites and increase the length of the management season.

It is expected that demand will be met during the first five decades except for wilderness, which will probably be at capacity in decade two. With improved reporting of use, it is expected that actual use and demand projections will tend to equalize in the later decades of the planning horizon.

Issue #8 Landownership Adjustment

There is no indication that landownership adjustment is a needed high priority. As opportunities become available, the Forest will continue to acquire private inholdings. However, access to public lands is an ever increasing problem. The Forest Right-Of-Way Plan has just been prepared and approved. It identifies problem areas and provides a means of attaining the goal set forth in the RPA 80 update.

Issue #9 Fire Protection

The preferred alternative recognizes the need for other than immediate and complete control. Fire management planning will be scheduled during the first planning period to determine what level and where other fire management strategies can be applied.

Issue #10 Minerals and Energy

The High Uintas Wilderness is withdrawn from mineral entry except for valid existing claims. Flaming Gorge National Recreation Area is also withdrawn subject to valid existing rights except that the Secretary of Interior may allow the removal of leasable and non-leasable minerals under conditions prescribed by the Secretary of Agriculture. Sheep Creek Geological Area is withdrawn from mineral entry. The remainder of the Forest is open for exploration and development, except for specific site withdrawals for water projects, administrative sites, campgrounds, etc.. All exploration and development proposals are governed by standard and special stipulations, which protect surface resources and are contained in Appendix B.

Issue #11 Off-Road Vehicles

This activity is a recognized and accepted use of the lands of the National Forest and provides a variety of opportunities for user enjoyment. Through implementation of the TREAD LIGHTLY program, along with existing ORV closures now in effect on the Forest, this activity can and should continue. Criteria have been established which are aimed at protecting the basic soil, water, and visual resources from degradation by this activity. These Limits of Acceptable Change are contained in Appendix C and Appendix D.

The criteria along with the monitoring specified in Chapter V, for this activity, provides for sufficient management discretion to insure that ORV use does not damage sensitive and riparian areas.

Issue #12 Mountain Pine Beetle (Timber)

See Issue #5

Issue #13 Wilderness

This issue was resolved by the 1984 Utah Wilderness Act and further evaluation of released areas is required until the next plan revision. An expanded discussion of this use and how it was resolved is contained in Appendix A of the EIS.

CHAPTER IV

FOREST MANAGEMENT DIRECTION

IV. FOREST MANAGEMENT DIRECTION

INTRODUCTION

The future management direction for the Ashley National Forest is expressed in this chapter in terms of the Management Prescriptions, Goals and Objectives to be accomplished, and the Standards and Guidelines for their accomplishment. This direction and guidance will be used by forest personnel to achieve the outputs and results the plan proposes. This chapter will further inform the public, other agencies, and cooperators of the planned future program direction and management activities within each designated management area on the Forest.

A. DESIRED FUTURE CONDITION

This section is a description of the desired future condition of the Forest resulting from implementation of the preferred alternative described in the Final Environmental Impact Statement.

B. COMPARISON OF MANAGEMENT AREAS AND PRESCRIPTIONS

Each alternative in the Environmental Impact Statement is displayed in terms of different combinations or mixes of management prescriptions. In the Forest Plan, management prescriptions have been equated to specific management areas for the preferred alternative. The similarities and differences of the management areas and the associated prescriptions are displayed in this section. This information served as the basis for the development of the goals, objectives, and standards and guidelines contained in the next section.

For additional information regarding the management prescriptions, see Appendix B of the Environmental Impact Statement.

C. GOALS, OBJECTIVES, AND STANDARDS AND GUIDELINES

Forest management goals define the direction of Forest-wide management. They are broad definitions of what will be achieved.

The objectives further define and specify the management activities to be accomplished.

The standards and guidelines define and specify the conditions to be maintained or achieved through the management activities. Should conflicts occur between standards and guidelines, the conflict will be resolved in favor of the direction which produces the greatest degree of multiple use value.

The standards and guidelines are intended to supplement, not replace, the National and Regional standards and guidelines found in Forest Service Manuals and Handbooks and other applicable laws and regulations. All applicable Federal and State laws will be met. Laws outlining quality

standards and/or procedures for adequately protecting the resources will also be followed. The procedures that will be used to monitor compliance with quality standards are specified in Chapter V, Section B Monitoring and Evaluation.

D. OTHER MANAGEMENT PRINCIPLES AND GUIDELINES

This section includes several management principles and guidelines that will be considered in all management activities during the implementation of the plan.

E. PROJECTED ANNUAL OUTPUTS, ACTIVITIES, AND COSTS FOR THE PREFERRED ALTERNATIVE

This section displays the projected annual outputs, activities and costs for the preferred alternative.

F. MANAGEMENT AREA MAPS AND SCHEDULING OF ANALYSIS AREA ENTRIES

The Forest has been divided into 14 management areas based on the prescriptions that most nearly maximized the public benefits. In this section the management areas are displayed on maps according to Ranger District boundaries. There are four Ranger Districts and two of the Districts have two subdivisions. Most management areas have only one prescription but a few areas have two prescriptions due to the mixture of lands within that area.

The prescriptions that most nearly maximized public benefits were developed in the preferred alternative. Therefore, some of the management area headings are not included.

A matrix showing management areas, by Ranger District and acreage, and a schedule of acres impacted within each analysis area for each decade, is also included in this section. An explanation of the process for formulation of the analysis areas is contained in Appendix E.

G. SCHEDULE OF PROPOSED AND PROBABLE PRACTICES

This section lists the proposed and probable management activities scheduled for accomplishment during the first ten-year period after plan implementation.

A. DESIRED FUTURE CONDITION

A. DESIRED FUTURE CONDITION

By the end of the next 50 years there will be a change in the overall appearance of the Ashley National Forest. Timber stands will change from predominately mature and overmature to younger age classes. Approximately half of those acres currently stocked with the mature and overmature stands will be converted by the end of the fifth decade because of the pine beetle and proposed management activities.

Even age management will be practiced in all species except in special areas where the objective for management necessitate other management practices. Uneven age management will be applied to portions of stands where practical to improve or maintain diversity. Visual quality objectives will be maintained according to management area direction.

Development of areas as a result of timber harvest activities and associated roading will occur at about the same rate as in the past. Many of these roads will be temporary and will be closed upon completion of timber activities. About the same number of miles of roads will be open for public use, but access will be more uniformly distributed across the Forest, that at present. Several arterial routes serving the Forest and other public lands will probably transfer to County/State jurisdiction. Criteria for the Forest Travel Map has been incorporated into the Forest Plan and will be updated annually.

Special emphasis for recreation is provided because of this Forest's unique characteristics, public demand, and management direction. Recreation facilities, including the trail system as dispersed areas and developed sites will be upgraded and maintained at acceptable standards and new improvements added to provide for meeting public resource needs. The present mix of various recreation activities and opportunities that exist today are expected to continue into the future. Developed site and dispersed area recreation demand will be met even though FORPLAN outputs shown in various locations of the Forest Plan and FEIS are slightly less than estimated demand figures. Management of the High Uintas Wilderness will be emphasized. Research Natural Areas are being evaluated for their suitability and special management needs.

The Forest will be managed to maintain vegetative diversity, providing wildlife habitat for a large variety of wildlife species. Special emphasis will be given to habitat such as winter range, riparian zones, reproductive areas, cliff habitat, talus, caves, snags, aquatic systems, and old growth timber. Winter foraging areas for big game will begin to show an increase in the amounts of shrubs and other plants available for forage.

The Forest will maintain a quality range program, managed to optimize the production and use of forage on all suitable range to the extent it is cost effective and in harmony with other resource uses.

The quality of water yield will be consistent with current standards set by law. The water resource improvement and rehabilitation backlog of 1,031 acres will be completed by the year 2000. High mountain reservoirs which are replaced by other storage projects will be stabilized at optimum levels for fisheries and recreation use.

The number of buildings will be further reduced from present inventory where they are seldom used or uneconomic to maintain. Housing will be provided only at remote locations, or where suitable quarters are not available in the private section for employee purchase or rental.



B. MANAGEMENT AREA PRESCRIPTIONS

MANAGEMENT AREA PRESCRIPTIONS

Activity	a - Research Natural Area Candidates	b - Moderate Timber Production	d - High Forage Production and Livestock Utilization
Description of Area	These are areas of minimal management impacts. Various representative ecosystems are being inventoried to be maintained in near natural conditions for future research use. See the candidate areas listed by name, size, and location in the EIS. The prescription is designed for custodial level management.	This occurs on forested lands with commercial timber stands. Although providing the Ashley Forest's highest timber production, there is still only a moderate* level of investment for the timber resources.	May occur on forested or non-forested analysis areas scattered throughout the Forest.
Recreation	Use will not be encouraged and may be discouraged or even limited. Minimal administration. Low investment. VQO's managed as inventoried.	High dispersed use. Development will not be detrimental to the timber resources. May limit use for public safety and/or to protect the investment or resource. Standard service level. VQO's of Maximum Modification or Modification.	Open to all recreational uses and generally all travel. May limit or discourage use to reduce conflicts with livestock use. Standard service level VQO's variable to meet range resource needs except in highly sensity
Wildlife	No improvements	Developments will not increase the cost of timber production or decrease timber yield (i.e. no permanent vegetative conversions.)	New wildlife improvements in primary and secondary range will be coordinated closely with range interests and will not be detrimental to livestock. Habitat diversity may be reduced as the result of vegetative manipulation.
Range	Closed to permitted grazing after official designation. Grazing presently not encouraged. No improvements.	Transitory range is available for livestock if it does not interfere with regeneration. Improvements only if they don't decrease the yield or increase the cost of production	Secondary range will be aggressively improved. Investments on primary range will be maintained prior to new improvements and prior to development on secondary range.

* Moderate investment = Timber - one precommercial thinning and one or more commercial thinning operations

Low investment = 40% of area may be treated with precommercial and/or commercial operations.

CONTINUED

Activity	a - Research Natural Area Candidates	b - Moderate Timber Production	d - High Forage Production and Livestock Utilization
<u>Timber</u>	No harvest	Open to commercial and personal use harvest. Cultural treatments to meet production objectives.	Harvest allowed for increasing forage production and if no interference in grazing management systems. Harvest can be used for permanent vegetative conversions. Similar prescription as MA b but regeneration not encouraged.
<u>Minerals</u>	No surface occupancy. Upon establishment, recommend withdrawal from mineral entry.	All disturbed sites must be rehabilitated and regenerated.	Sites on primary and secondary range will be rehabilitated to improve forage production.
<u>Facilities</u>	No utility/transportation corridors. No construction. No trail maintenance.	Construction as needed to meet management objectives. Maintenance as required. Local roads usually closed after fuelwood removal unless needed for resource management activities.	As needed to maintain AMP's. Other construction permitted if conflicts with livestock are mitigated.
<u>Protection</u>	Manage for natural conditions.	Protect timber resources as necessary. Immediate and aggressive control but with a cost consistent with the land management objectives.	Prescribed fire to improve forage production and range condition.
<u>Riparian</u>	Protect	Restore and maintain. Special harvesting techniques required.	Maintain to protect streambank stability.

MANAGEMENT AREA PRESCRIPTIONS

Activity	e - Wildlife Habitat Emphasis	f - Dispersed Recreation Rooded	g - Undeveloped dispersed recreation - unroaded
<u>Description of Area</u>	Includes portions of: summer and winter ranges, T&E habitat, strutting areas, calving and fawning areas, and spawning areas on timbered and non-timbered analysis areas.	Areas receiving a variety of uses in a variety of landforms and vegetation types located throughout the Forest in a roaded environment.	A variety of timbered and non-timbered lands between mid and high elevations.
<u>Recreation</u>	May be closed or restricted in a District Travel Plan during key area use periods. Standard service level. No new developed sites. Road closures may be common in stress seasons for the featured species. VQO's variable to meet wildlife needs.	VQO's at inventoried standards. Dispersed recreation is favored over other resources. Travel plan will be used to protect resources while permitting access. Standard service level.	District Travel Plan will be used to resolve conflicting uses. Facilities commonly used for public safety and convenience and for protection of the site. Moderate Investment.
<u>Wildlife</u>	Key areas protected to maintain their functionability. Priority for wildlife improvement dollars.	Improvements designed to enhance recreation opportunities and optimize species diversity. Key or critical areas will be emphasized.	Improvements allowed to improve habitat.
<u>Range</u>	All improvements will be designed not to be detrimental to wildlife. Livestock grazing may be limited or excluded.	Travel (or recreation) conflicts may require expensive controls. Forage not required for wildlife will be allocated to permitted livestock	Structural improvements only if they don't distract from recreational use.
<u>Timber</u>	Sale activities allowed within forage/cover ratio requirements and to maintain or enhance habitat. Site preparation, regeneration, and TSI work will be designed to meet cover needs/requirements. Some stands may be held beyond normal rotation ages. Retains 5% of area in old growth habitat.	Harvest designed to enhance recreation, wildlife, and visual opportunities. Transitory range allocated to wildlife.	No harvest. Vegetative manipulation limited to creation of wildlife openings and for enhancement of recreation opportunities.

CONTINUED

Activity	e - Wildlife Habitat Emphasis	f - Dispersed Recreation Roaded	g - Undeveloped dispersed recreation - unroaded
<u>Minerals</u>	May have seasonal restrictions for access or seismic work. No surface occupancy may be applied.	No restrictions other than what's in the Standards and Guidelines.	Stipulations will be applied as needed to protect the resources. Validation examinations will be required prior to claim development. Recommend against future leasing as current leases expire.
<u>Facilities</u>	Temporary roads for timber harvest. New construction mitigated for wildlife needs.	Construction allowed as needed. Maintenance at high levels (3 or 4) on main roads.	No road construction. Facilities may be constructed for public safety, convenience, and protection of the site.
<u>Protection</u>	Prescribed burning may be commonly used to improve wildlife forage production and conditions.	Prescribed burning used to manage resources but aggressive prevention and suppression to protect resources under heavy use levels.	Control only to protect investments. Prescribed burning may be used to improve forage production and range condition.
<u>Riparian</u>	Allow activity only to improve wildlife habitat. Protect.	Maintain. Control as needed to protect streambank stability, minimize sedimentation, prevent compaction, and maintain visuals.	Protect

MANAGEMENT AREA PRESCRIPTIONS

ACTIVITY	h - Developed recreation sites and Forest Administrative sites.	l - High Uintas Wilderness	k - Maximum water yield recreation
Description of Area	These facilities are located through-out the Forest in other management areas as inclusions.	Management is under the direction of the Utah Wilderness Act of 1984.	These areas are in forested stands at mid to high elevations.
Recreation	Developed recreation emphasized at standard service level.	No developed recreation sites. Entrance permits or other types of management tools may be necessary to prevent over use or user conflicts. VQO is preservation. Standard service level.	No improvements. Dispersed recreation would be at less than standard service levels. VQO can be Modification or Maximum Modification.
Wildlife	Stream improvements only. Maintain identified wildlife trees.	Habitat manipulation by natural means only.	Vegetative manipulation would consider wildlife habitat needs.
Range	Closed to permitted use. Administrative and recreation horse use in designated areas where livestock can be kept separated from public.	Livestock utilization permitted. Range improvement construction only for the protection of the wilderness resource.	Permitted livestock may be used to maintain openings in timber harvested areas.
Timber	Harvest only in hazardous situations (to the public or the investments) or to implement vegetative management plans.	No harvest. Dead and down materials can be used for fuelwood for on-site use only.	Small sales with the objective of increasing water yields. Vegetative manipulating would consider location, shape, size, and orientation of harvesting units.
Minerals	Recommend withdraw from mineral entry or use No Surface Occupancy Stipulation.		No restrictions other than what's in the Standards and Guidelines.
Facilities	New construction within approved site plans. Traffic controls and gating may be used.		Construction as needed to meet management objectives (i.e. protection of water quality.)
Protection	Protect all investments.	Wildfire and rarely prescribed fire may be used to reduce fuel loading and to maintain or enhance the wilderness resource	Control only to protect investments. Prescribed fire may be used to meet the objectives of the Management Area.
Riparian	Maintain to protect streambank stability, minimize sedimentation, prevent compaction, and maintain visuals.		Maintain

MANAGEMENT AREA PRESCRIPTIONS

<u>Activity</u>	i - Optimization of wildlife habitat diversity through timber harvest at moderate levels.	n - Range of resource uses and outputs. Commodity production modified for amenity production.	n ₁ - NRA Existing Situation
<u>Description of Area</u>	This area occurs in timbered analysis areas outside Flaming Gorge NRA and the High Uintas Wilderness.	Resource protection as needed outside of NRA. Low investment.	These are lands in the NRA that have the existing low prescription applied. Activities and practices recognize and emphasize the recreation and wildlife values within the NRA. Standards and guidelines are modified to comply with Public Law 90-540.
<u>Recreation</u>	Vehicle access to meet the management objectives controlled in the Travel Plan. VQO's may be reduced from inventoried levels.	Resource protection as needed, covered in Travel Plan. Developed recreation at less than standard service level except in Alternative J where standard service level is used. VQO's as inventoried.	Dispersed recreation use is high and will be managed at standard service level over most of area.
<u>Wildlife</u>	Optimize species diversity and production. Vegetative manipulation achieved through timber harvest and use of prescribed fire.	Access may be controlled to enhance wildlife habitat. Improvements allowed on a low investment basis. Habitat diversity would remain fairly stable.	Wildlife habitat diversity would remain stable. Improvements made on existing herd unit plans where compatible with NRA direction. Access control may be used for wildlife enhancement where compatible with NRA direction.
<u>Range</u>	Forage not required for wildlife will be allocated to permitted livestock.	Improvements coordinated with wildlife and recreation.	Maintain levels of utilization and investment based on allotment management plans where compatible with NRA direction.
<u>Timber</u>	Natural regeneration. Manage timber to retain at least 5% of the area in old growth habitat.	Harvest coordinated with wildlife and recreation. Some old growth retained. Low investment.	Timber stands will generally be managed on an uneven-aged basis.* Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal

*This is interpreted to mean that "stands" will generally contain two or more age classes of trees. This age spread may be attained by harvesting in small units (1/4 acre to 40 acres) and/or single tree removal.

CONTINUED

<u>Activity</u>	i - Optimization of wildlife habitat diversity through timber harvest at moderate levels.	n - Range of resource uses and outputs. Commodity production modified for amenity production.	n ₁ - NRA Existing Situation
<u>Minerals</u>	No restrictions other than what is in the Standards and Guidelines	No restrictions other than what is in the Standards and Guidelines.	Mineral activities permitted when in compliance with P.L. 90-540. Use of stipulations for minerals activities will be applied as needed to protect the recreation resource and aesthetics.
<u>Facilities</u>	Construction as needed to meet management objectives. Maintenance as required.	Construction as needed to meet management objectives. Maintenance as required.	Transportation system location, design, construction, and maintenance based on MRA legislative objectives. Trail maintenance will usually be to standard levels.
<u>Protection</u>	Prescribed burning to enhance habitat and reduce conflagration potential.	Prescribed fire allowed.	Some vegetative manipulation by prescribed fire where it is in keeping with scenic, wildlife, and recreation purposes as required by NRA legislation. Prescription based on protection of facilities, wildlife, VQO's, and fuels abatement.
<u>Riparian</u>	Maintain and restore.	Maintain and restore.	Protect.

MANAGEMENT AREA PRESCRIPTIONS

Activity	p - NRA Timber Emphasis	r - Wildlife
Description of Area	These lands are the timbered areas within the Flaming Gorge NRA that are identified as suitable for timber production. Timber production will be optimized while meeting the intent and direction of Public Law 90-540.	This Management Area consists of those lands identified as having special or critical wildlife capabilities in the Flaming Gorge NRA. Objective is to maintain or increase wildlife species diversity and numbers while meeting the direction for protection of recreation and visual resources in Public Law 90-540.
Recreation	<p>Dispersed recreation opportunities will generally be in the Roaded Natural ROS class.</p> <p>Recreation activities managed at standard service level.</p> <p>ORV restrictions used to protect wildlife, recreation, and watershed values. VQO at inventoried level.</p>	<p>Dispersed recreation opportunities will generally be in the Roaded Natural ROS class.</p> <p>Recreation activities managed at standard service level.</p> <p>ORV restrictions used to protect wildlife, recreation, and watershed values. VQO at inventoried level.</p>
Wildlife	Transitory forage increases from timber activities will be allocated to wildlife.	<p>Structural and non-structural habitat improvements permitted.</p> <p>Transitory forage increases resulting from timber harvest activities would be assigned to wildlife use.</p>
Range	<p>Livestock use of available forage will be permitted when wildlife needs have been met.</p> <p>Improvements permitted if compatible with VQO's and recreation opportunities.</p>	Livestock utilization may be curtailed or precluded to enhance or maintain the wildlife resources

CONTINUED

<u>Activity</u>	<u>p - NRA Timber Emphasis</u>	<u>r - Wildlife</u>
<u>Timber</u>	Timber stands will generally be managed on an uneven-aged basis. Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal.	Timber stands will generally be managed on an uneven-aged basis. Rotation ages will be extended and cultural treatment entries will be on lengthier cycles than normal.
<u>Minerals</u>	Mineral activities permitted when in compliance with P.L. 90-540.	Mineral activities permitted when in compliance with P.L. 90-540.
<u>Facilities</u>	Locate, design, construct, and maintain systems to serve timber management activities and dispersed recreation. Seasonal closures may be used to protect facilities and resource quality. Temporary road density will generally be greater than in timbered areas outside the NRA. Arterial/collector roads generally open to public. Local roads closed after use. Trails will be maintained to meet the needs of recreation users and to a standard service level.	Locate, design construct, and maintain systems to serve timber management activities and dispersed recreation. Seasonal closures may be used to protect facilities and resource quality. Temporary road density will generally be greater than in timbered areas outside the NRA. Arterial/collector roads generally open to public. Local roads closed after use. Trails will be maintained to meet the needs of recreation users and to a standard service level.
<u>Protection</u>	Prescribed fire permitted. Prescriptions based on facilities protection, fuels abatement, management objectives, and VOO requirements.	Prescribed fire permitted. Prescriptions based on facilities protection, fuels abatement, management objectives, and VOO requirements.
<u>Riparian</u>	Protect.	Protect.

**C. GOALS, OBJECTIVES, STANDARDS AND
GUIDELINES BY MANAGEMENT AREA**

RECREATION

Goal 1: Provide a broad range of recreation opportunities within land capabilities and according to recognized public need.

Goal 2: Identify and protect significant historic, cultural, and natural aspects of our national heritage.

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
1. Allow public access and manage all travel to protect other resources, provide for public safety, and minimize conflicts with other users.	<p>Implement the Forest District Travel Plans. Review annually and revise if necessary using the following guidelines:</p> <p>1. Retain travel route and include it on the Forest's transportation system if:</p> <p>a) Road or trail is required for Forest Service management and public access. Road or trail may be restricted</p> <p>1) seasonally - to protect road bed or reduce maintenance expenditures. - to protect wildlife species and habitat.</p> <p>2) temporarily - to provide for public safety.</p> <p>b) Road or trail is required for access to private or State land, mining claims, and special use permits. Road or trail use may be restricted</p> <p>1) seasonally - to protect road bed. - to protect wildlife species and habitat.</p> <p>2) permanently - use would be authorized by a special use permit.</p>	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	<p>c) Resource planning shows a future anticipated need. Road or trail use may be restricted</p> <p>1) seasonally - to protect road bed. - to protect wildlife species and habitat.</p> <p>2) permanently - to protect wildlife habitat (administrative or authorized use could be permitted). - to protect the investment. i) road or trail shows trend leading to vegetative damage or soil displacement. ii) road or trail is located in such a way that siltation caused from use reaches live streams. iii) road or trail is interrupting or degrading the natural value or functions of unique ecosystems (i.e. riparian, alpine).</p> <p>ii. Obliterate road or trail and exclude it from the Forest's transportation system if:</p> <p>a) The road or trail is not necessary to meet Forest Service management objectives.</p> <p>b) The road or trail and its associated use is causing resource damage by:</p> <p>1) displacing soil and/or degrading water quality. 2) degrading VQO's. 3) displacing wildlife. 4) subjecting Forest users to excessive noise or dust pollution. 5) allowing access to sensitive sites leading to: i) vegetative damage through trampling or compaction. ii) degradation of water quality through poor sanitation. 6) interrupting or degrading natural values or functions of unique, limited ecosystems.</p>														

RECREATION - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	<p>III. Areas may be closed or restricted.</p> <p>a) to protect the public in concentrated use areas.</p> <p>b) to protect unique resources (i.e. cultural, geologic).</p> <p>c) to protect natural resources and prevent damage to the natural values or functions of the ecosystems.</p> <p>d) to achieve a variety of recreational opportunities.</p>															
2. Operate and maintain developed recreation sites to Standard Service Level	Manage to meet all applicable Federal, State and local codes.														X	
	Establish fee rates that will collect 80% or more of operation and maintenance costs.														X	
	Complete the rehabilitation work at sites with deteriorated conditions by 1995.														X	
	Enforce fee compliance of 95% to 98%.														X	
	Manage sites in maintenance condition class 1, as defined in Forest Service Handbook (FSH 2309.11)														X	
	Develop 6 vegetative management plans per year for developed sites until completed Forest-wide.														X	
	Allow no developed recreation sites in the Dry Fork Drainage.													X		X
	Define campground trails with gravel or signing when proliferation of new trails creates unacceptable trail patterns.														X	

RECREATION - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	Reconstruct, close or eliminate facilities that cannot be maintained to condition class 1 because of deteriorated conditions. Complete an equal portion of the work each year.													X	
3. Construct new developed recreation facilities within Forest capabilities to meet public demand, giving special emphasis to completion of planning, design, and construction of CUP sites in a timely manner.	Meet Federal, State, and local codes.													X	
	Develop service trailhead facilities for all major access points to wilderness, major use areas and National recreation trails.													X	
	At developed campsites, limit stay to 14 consecutive days.													X	
4. Dispersed recreation will be managed to the standard service level except in those management areas that specify reduced maintenance	Manage to Standard Forest Service Manual Service Level as defined in (FSM 2300).		X	X	X	X	X	X	X		X	X	X	X	X
	Manage at less than Standard Service Level.	X													
	At dispersed campsites, limit stay to 16 consecutive days unless authorized by permit.	X	X	X	X	X	X	X		X	X	X	X	X	X
5. Manage dispersed recreation use to avoid resource deterioration, improve economic efficiency and provide for public safety.	Design and locate roads and trails to discourage overuse of sensitive areas.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Promote and emphasize Pack-in Pack-out, Leave No Trace, and Tread Lightly Programs Forest-wide.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Allow no camping in Sheep Creek floodplain.							X					X		
	Outfitter-guide camps required to pack in supplemental feed, will use processed, non-germinating feed.		X	X	X	X	X	X				X	X	X	X

RECREATION - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
6. Provide areas and opportunities for all types of recreation user experience.	Separate identified conflicting recreation uses whenever possible, by public communication signing, travel maps and enforcement, when necessary.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Provide improved travel plans, signing and enforcement.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Implement Tread Lightly Program.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Provide public interpretation signing for unique cultural resources, natural phenomena and management practices along concentrated travel corridors.			X	X	X	X	X		X	X	X	X	X	X
	Allow gathering of down and dead fuelwood with no permit for onsite use only.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7. Inventory, operate, maintain, construct, and reconstruct trails based on a Forest-wide coordinated program that's updated annually.	Implement trail maintenance standards.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Inventory Forest for new construction needs.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Keep trail maintenance standards current.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Construct/reconstruct approximately 80 miles of trail per decade.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Design trails to fit the natural contours of the land surface, with curvilinear alignment and minimum cuts and fills.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8. Manage Research Natural Areas to prevent site deterioration.	Allow off-road vehicle use for administrative use by permit only.														X
	Allow dispersed recreation only, and at a level where site deterioration does not occur.														X

RECREATION - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
9. Implement and manage for adopted visual quality objectives.	Manage according to the following Visual Quality Objectives (VQO): ¹														
	Preservation	X												X	
	Retention			X	X										
	Partial Retention			X	X										
	Modification		X	X	X								X		
	Maximum Modification		X	X	X								X		
	As Inventoried					X	X	X					X	X	X
	Extension of time to meet adopted VQO's may be permitted on a case by case basis only when approved by the Forest Supervisor for areas that have been subjected to massive natural processes such as insect and disease epidemics, wildfires, and floods.					X	X		X				X	X	X
10. Rehabilitate or mitigate (high priority) visually unacceptable conditions on the Forest	Areas meeting "unacceptable modification" VQO standards will be inventoried and rehabilitated or mitigated. Begin rehabilitation activities after inventory is complete.	X	X	X	X	X	X	X				X	X	X	X
	Protect and enhance visual qualities within the scenic corridor along Highway 191.		X		X									X	X

^{1/} VQO may vary from Retention to Maximum Modification in the inventory, but where this prescription is used, the inventoried VQO may be changed to meet livestock or wildlife management needs. It is not intended that the VQO of Maximum Modification will automatically be used in all cases. In highly sensitive areas a strong justification will be needed to make the change in inventoried VQO.

RECREATION - CONTINUED

Objective	Standards and Guidelines	Management Areas															
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r		
11. Comply with National legislation pertaining to cultural resource management	Develop an overview. ²	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Inventory areas having a high potential for cultural sites by 1990.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Inventory areas having moderate and low potential for cultural sites by 1995.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Evaluate and identify sites for nomination to the National Register.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Develop and implement a plan for the interpretation, protection, maintenance and/or mitigation of known significant cultural resource sites.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Conduct cultural resource surveys prior to any agency undertaking which could affect significant cultural values until inventories are complete.		X	X	X	X	X	X		X	X	X	X	X	X	X	X
	Coordinate management of cultural resources with the State Historic Preservation Office and others as needed.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Evaluate all administrative sites and structures for cultural significance.									X							
	Prevent damage to any significant cultural site.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

^{2/}"Overview" is an analysis summary of existing cultural resources and a projection of the potential cultural resources.

WILDERNESS

Goal: Administer the High Uintas Wilderness in accordance with the Utah Wilderness Act of 1984.

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
1. Manage within the "limits of acceptable change" system as defined by Stankey et al.	Identify area issues and concerns.															X
	Define and describe opportunity classes.															X
	Select indicators of resource and social conditions.															X
	Inventory selected existing resource and social conditions.															X
	Specify standards for resource and social indicators for each opportunity class.															X
	Identify alternative opportunity class allocations effecting area issues and concerns and existing resource and social conditions.															X
	Identify, evaluate and implement selected management actions for preferred alternative.															X
2. Regulate use to disperse wilderness visitors and reduce impacts.	Allow existing cabins to deteriorate naturally.															X
	Maintain trails to standard maintenance as defined in FSH 2309.18, Forest Service Handbook.															X
	Construct or realign trails to follow the natural contour of the land if necessary for user safety and protection of resources, not for user convenience - abandoned trail segments will be stabilized and obliterated and use discouraged.															X

WILDERNESS - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	Limit group sizes to 15 people and 20 horses per camp.														X
	Restrict, redesign and relocate trails: 1. Where shortcutting of switchbacks is creating erosion problems. 2. To avoid wet meadows, seeps and springs. 3. On hillsides where free running is eroding the tread. 4. Where there are multiple, parallel trails.														X
	Construct no new trails in the North Fork of the Duchesne River Drainage.														X
	Design and install bridges to protect wilderness values and provide for public safety.														X
	Corduroy or puncheon may be used for trail surfacing. Use native materials for barriers to prevent traffic from widening the tread.														X
	Reroute main trails away from lakes, fragile areas, and congregation sites. Where vegetation exists, and terrain permits maintain a vegetative strip or screen between the trail and lake or stream. Spurs providing access to lakes, streams, scenic vistas and lookouts may be constructed.														X
	Maintain only those cairns necessary to guide users across long, open, or rocky slopes or through meadows. Existing blazes on trees along well established heavily used routes will not be maintained.														X

WILDERNESS - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	o	r	
	Maintenance of dams, weirs, and stabilization improvements permitted within limits of Utah Wilderness Act of 1984. No new storage or transmission facilities.															X
	Installation and maintenance of hydrologic, meteorologic, climatological or telecommunications facilities are permitted where they are essential to flood warning, flood control and water reservoir operation purposes as provided by the Utah Wilderness Act. Limited motorized access may be permitted subject to conditions imposed by the Secretaries of Agriculture and Interior.															X
	Manage use by educational institutions. The following restrictions will apply to each permit: 1. Limit camp size to a maximum of 15 people with no more than 20 horses per camp. 2. Limit stay to 14 days. 3. Accept only one application per organizational group until May 1. After May 1, issue permits on a first-come, first-serve basis. 4. Allow no more than two groups per District at any one time. 5. North Fork of the Duchesne River drainage will have no more than 12 horses per camp.															X
	Allow use of helicopters for emergencies only when approved by the Forest Supervisor.															X
3. Regulate commercial outfitter and guides to protect the wilderness resources and minimize conflicts with non-commercial use.	Limit special use permits for commercial hunting and fishing operations to a maximum of 5 between July 1 and the end of the fall season.															X
	Restrict outfitters from establishing camp in areas where heavy recreation pressures exist and/or horse feed is minimal. Only temporary camps will be allowed in these areas.															X

WILDERNESS - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	Permit no camping at trailheads.															X
	When outfitter guides are required to pack in supplemental feed, only processed food incapable of germination will be allowed.															X
	Limit camp size to a maximum of 15 people with no more than 20 horses per camp.															X
	Limit camp size in the North Fork of the Duchesne River to a maximum of 12 people with no more than 12 horses per camp.															X
	Limit stay to 14 days per camp.															X
	Issue new commercial permits if:															X
	1. There is a demonstrated public need for the service.															
	2. National Forest resources and programs will not be unacceptably damaged or impaired.															
3. Manage wildlife, fish, range and watershed resources in conformance with the Wilderness Act.	Limit fish planting to lakes where fish were planted in the past. Regulate planting to help control human impacts at popular lakes.															X
	Re-introduction of species will be considered appropriate only where a vacant niche has been identified.															X
	Where the potential for migration to adjacent management areas exists, the impact of transplants on adjacent management areas will be included in the analysis.															X
	Reestablish native species classified as sensitive, threatened or endangered.															X

WILDERNESS - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	o	r	
	Grazing of livestock established prior to September 1984 shall be permitted to continue, subject to regulations. By 1988 place all allotments under management designed to protect the wilderness resources.															X
	Manage livestock use within present capacity of allotment.															X
	Maintain or restore range conditions to "good" or better.															X
	Maintain natural vegetative composition and diversity.															X
	Design new range improvements to be rustic in appearance and construct only where needed to protect the wilderness resources.															X
	Existing range improvements will be maintained or removed.															X
	Sheep bed grounds will be located away from springs, streams and lakes.															X
	Issue no new sheep and cattle grazing permits in areas currently unobligated.															X
	Located sheepherder camps where there will be little or no conflict with general public use and minimal resource impact.															X
	Predator control will be coordinated with the Animal Plant Health Inspection Service.															X
	Noxious weeds may be controlled to protect wilderness and downstream values by grubbing or with ground application herbicides.															X

WILDERNESS - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	Regulate recreation livestock to prevent deterioration of the forage resource at popular campsites and fishing areas.														X	
	Cooperate with Soil Conservation Service on systematic removal of four telemetry stations in the High Uintas Wilderness.														X	
4. Protect wilderness and other resource values during the exploration and development of mineral and energy resources on valid claims and leases.	Require mineral development to comply with visual quality objectives.														X	
	Prohibit seismic exploration that involves helicopters or other motorized equipment.														X	
	Request validity examinations under the following conditions: 1. All Notices of Intent or Plans of Operation. 2. Claim is illegally occupied or used (trespass). 3. Claim assessment work is causing unacceptable surface disturbance with little prospect of economic potential. 4. Applications for patent.															X
	Request mineral examination to determine validity on patent claim applications.															

WILDLIFE AND FISH

Goal 1: Manage fish and wildlife habitat to maintain or improve diversity and productivity.

Goal 2: Involve concerned government agencies, environmental organizations, and special interest groups in wildlife and fisheries management program.

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
1. Develop and implement habitat management plan that will include key eco-systems and maintain habitat for supporting T&E or sensitive plants and animal species and management indicator species	The wildlife program will include accomplishing non-structural habitat improvements on approximately 500 acres annually.		X	X	X	X	X		X	X	X	X	X	X	X
	Provide habitat capable of supporting a minimum of 5,600 elk and 43,700 deer.	X	X	X	X	X	X		X	X	X	X	X	X	X
	Evaluate and update existing aspen management plans every 5 years		X	X	X	X	X			X	X	X	X		X
	Maintain adequate wildlife cover within 100 feet of an opening of 10 acres or more.		X	X	X	X	X			X	X	X	X		X
	Maintain adequate downed material and standing snags for wildlife habitat as identified below: Aspen: 70% of maximum population potential or 1.3 snags/acre Douglas fir: 50% of maximum population potential or 1 snag/acre Lodgepole pine: 40% of maximum population potential or .7 snag/acre (Spruce-Alpine fir) Ponderosa pine: 80% of maximum population potential or 2.7 snags/acre Riparian: any species, 70% of maximum population potential or 1.3 snags/acre		X	X	X	X				X	X	X	X		X
	Complete management plans (Riparian, aspen, old-growth).		X	X	X	X				X	X	X	X		X
	Openings of up to 20 acres may be created for habitat improvement.							X							

WILDLIFE AND FISH - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	Identify and manage habitats capable of supporting self-sustaining trout populations.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Transitory range may be allocated to wildlife.				X	X	X			X	X	X	X	X	
	Identify and map elk calving areas, deer and antelope fawning areas, and sage grouse strutting and nesting areas for assessing cumulative impacts.	X	X	X	X	X	X		X	X	X	X	X	X	
	Designate and protect old growth areas for dependent species. Old growth should be a minimum of 160 contiguous acres and have old growth characteristics.	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Retain 5% of area in old growth conditions at all times (and close the old growth area to fuelwood harvesting).					X					X	X			
	Provide appropriate aquatic and terrestrial habitat analysis input to all resource management activities.		X	X	X	X	X	X	X	X	X	X	X	X	
2. Develop the species/habitat relationships of fish and wildlife.	Complete inventory of Management Indicator Species on the Forest to determine their occurrence, abundance, distribution, habitat requirements, and population trends.	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Establish and maintain thermal and security cover needs to meet the Forest's big game and Management Indicator Species habitat objectives.	X	X	X	X	X	X	X	X	X	X	X	X	X	
	Manage Bear Top Mountain giving preference to Rocky Mountain big horn sheep.		X	X	X	X	X			X	X	X	X	X	
	Analyze the need for, and acquire when appropriate, conservation pools in reservoirs to maintain fisheries habitat.		X	X	X	X	X			X	X	X	X	X	

WILDLIFE AND FISH - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	Maintain all streams for a biotic condition index (BCI) of 75 or above and a habitat condition index (HCI) of 42 or above.		X	X	X	X	X	X			X	X	X	X	X	X
	Complete aquatic inventories using General Aquatic Wildlife Survey (GAWS) and R-1 stream channel stability ratings on stream orders 3, 4, and 5. Complete inventory of all streams.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Mitigation activities associated with the CUP will be designed and implemented to protect or enhance habitat values for existing fish and wildlife species.		X	X	X	X	X				X	X	X			
	Where feasible, emphasis for terrestrial mitigation from the CUP will be in the area of land acquisition or habitat enhancement projects.		X	X	X	X	X				X	X	X			
	Emphasis for aquatic mitigation from the CUP will be the establishment of minimum stream flows and the physical enhancement of streams affected by the CUP.		X	X	X	X	X				X	X	X			
3. Manage the habitat of all T&E or sensitive plant and animal species to maintain or enhance their status.	Resource management activities will be allowed if they will not adversely affect any T and E or sensitive species.		X	X	X	X	X				X	X	X	X	X	
	Participate with state wildlife agencies in evaluating the potential for re-establishment of the peregrine falcon.	X	X	X	X	X	X				X	X	X	X	X	
	Give priority to structural habitat improvement work in streams containing Colorado River cutthroat trout strains.	X	X	X	X	X	X	X				X	X	X	X	

WILDLIFE AND FISH - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	o	r
	Complete inventory of sensitive plant and animal species on the Forest to determine their occurrence, abundance, distribution, habitat requirements, and population.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Consult with the U.S. Fish and Wildlife Service when actions have the potential to affect any threatened or endangered species.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4. Continue to identify species suitable for introduction.	Identify vacant niches and mitigate conflicts with other resources.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5. Develop support from wildlife interest groups for funding or labor for wildlife and fish projects.	Maintain contacts with local and regional wildlife and fish interest groups.	X	X	X	X	X	X	X	X	X	X	X	X	X	X

RANGE

Goal: Achieve satisfactory ecological condition on all rangelands. Maintain or obtain plant diversity to meet the requirements of NFMA.

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
1. Maintain or improve all range in a fair or better condition class.	Rangelands in unsatisfactory condition and which will not or cannot be improved, will not be allocated to livestock grazing.		X	X	X	X	X				X	X	X	X	X	X
	Improve rangeland classified as unsatisfactory where cost effective.		X	X	X	X	X				X	X	X	X	X	X
2. Prepare and implement a range allotment management plan for each grazing allotment, including recreation horse use, that will identify proper use levels.	Transitory range may be allocated to livestock.		X	X							X		X	X	X	X
	Sheep allotments that remain un-utilized for a period of 5 years may be considered for conversion to another class of livestock or closed.		X	X	X	X	X			X	X	X	X	X	X	X
	Continue a coordinated pest and predator control program with the Animal Plant Health Inspection Service.		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Revise range allotment plans to be consistent with Forest Plan.		X	X	X	X	X	X	X	X	X	X	X	X	X	X
Locate range fences to allow for movement of people and to exclude livestock from areas of concentrated recreational use.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	

RANGE - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	Maintain the established livestock closure on Goslin Mountain and Sheep Creek Canyon.					X							X		X
	Priority for new range structural improvements will be to develop water sources where there are no available sources within one mile. Design for development will allow for use by game animals and birds.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Give priority to restoring needed existing structural improvements before constructing new ones.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Protect springs and seeps from grazing livestock where resource damage is occurring.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Limit forage utilization by livestock of key browse species on big game winter range to 20%	X	X	X	X					X	X	X	X	X	X
3. Develop and implement an action plan for control of noxious weeds.	Control all group I noxious weeds by 1990 and all group II noxious weeds by 2000, as defined by FSM 2200.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4. Reduce administrative cost for cattle and sheep AUM's	Place additional responsibility and accountability on the permittees for livestock management and obtain at least 50% permittee participation in all range improvement construction or reconstruction costs	X	X	X	X	X				X	X	X	X	X	X
	Adjust allotment boundaries to reduce operating and management costs where possible.	X	X	X	X	X				X	X	X	X	X	X

TIMBER

Goal: Optimize wood fiber production to meet public demands consistent with other resource objectives and environmental constraints.

Objective	Standards and Guidelines	Management Areas																
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r			
1. Harvest timber comense- rate with timber allocation (Within Forplan)	Make available a minimum of 12,000 cords of firewood for personal use.		X	X	X	X							X	X	X	X	X	X
	Administer all timber sales and free use programs within the constraints of the Plan, and environmental assessments.		X	X	X	X							X	X	X	X	X	X
	Accomplish site preparation on all clearcut acres within 2 years after logging has been completed.		X	X	X	X							X	X	X	X	X	X
	Prepare silvicultural prescriptions that will include an economic analysis and be in accordance with all applicable standards and guidelines.		X	X	X	X							X	X	X	X	X	X
	Use logging systems and techniques capable of minimizing soil loss, compaction, and other resource impacts.		X	X	X	X							X	X	X	X	X	X
	Even-age management permitted		X	X	X	X							X	X	X			
	Plan one precommercial thinning by age 15.		X	X	X	X							X					
	Plan one or more commercial thinnings.		X	X	X	X							X					

TIMBER - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	Clearings up to the following sizes are permitted:														
	20 acre				X							X			
	40 acre	X				X					X		X	X	X X
	60 acre		X								X				
	Plan two or more commercial thinnings.												X		
	Timber harvest timed and located to increase or maintain forage production.				X										
	Manage timber for shortest rotation age possible.											X			
	Precommercially thin only 40% and commercially thin only 12% of harvested acres.												X	X	
	Stands generally managed on an uneven-aged basis:														
	Harvest in small units.													X	X X
	Harvest by single tree removal.													X	X X
	Rotation ages will be extended in ponderosa pine and silvicultural treatment will be greater than normal.													X	X X
2. Locate clearcut openings to achieve the desired Management Area resource objectives and meet NFMA objectives.	Stands may be harvested adjacent to openings: -That are 90% stocked with trees that have survived for a minimum of 2 years. -That have reached an average height sufficient to provide hiding cover for the Management Indicator Species using the area.														
		X	X												
							X						X		
	Leave areas of uncut timber between openings created by clearcuts large enough to meet all resource needs.	X	X	X	X							X	X	X	X X

TIMBER - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	That have reached an average height sufficient to provide needed wildlife hiding cover.						X							X	
	Where increases in water yield have reduced to 50% of total potential increase.													X	
	That have reached an average height sufficient to meet the adopted VQO.						X						X	X	X X
3. Accomplish timber stand improvements consistent with silvicultural needs and management prescriptions.	Use pesticides to achieve management objectives.	X	X	X	X	X		X		X	X	X	X	X	X X
	Conduct insect and disease detection surveys annually to determine hazard potential and needed control.	X	X	X	X	X	X	X	X	X	X	X	X	X	X X
	Harvest and silvicultural treatments will be located and timed														
	-to maintain or enhance wildlife habitat.						X						X	X X	X
	-to enhance recreation opportunities and/or provide public safety.						X	X					X	X	X X
	Maintain down materials for wildlife habitat: 2 to 4 tons per acre or 30% of slash created by clearcuts.												X		
	No scheduled harvest.	X							X	X	X				
	Optimize snow accumulation by scheduling small patchcuts (3-10 acres), or by strip cutting perpendicular to prevailing winds (5 to 8 tree heights wide).														X

SOIL, WATER, AND AIR

Goal 1: Increase water yields from National Forest Watersheds.

Goal 2: Improve and conserve the basic soil and water resources.

Goal 3: Manage for the maintenance of air quality related values (AQRV)

Objective	Standards and Guidelines	Management Areas															
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r		
1. Increase water yields through resource management activities.	Utilize appropriate modeling techniques to analyze cumulative impacts of sediment and water yielding resource activities. Determine sediment and water yield thresholds to meet aquatic habitat objectives.		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Utilize timber harvest units and other silvicultural activities to increase water yields.		X	X	X	X	X	X			X	X	X	X		X	X
	Protect all surface waters from chemical contamination.	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X
	Maintain or improve current stream channel stability ratings.		X	X	X	X	X	X			X	X	X	X		X	X
	The stream channel stability rating shown in Table I below will determine the percent of watersheds (1,000 acres or larger) allowed in equivalent clearcut area (ECA). Equivalent clearcut area includes actual clearcuts, partial cuts, and the supporting road system. The ECA of partial cuts is shown in Table II. Following timber harvest, the ECA is reduced as hydrologic recovery occurs as shown in Table III.		X	X	X	X					X	X	X	X		X	X

SOIL, WATER, AND AIR - CONTINUED

Table I. Percent ECA as determined by channel stability rating

<u>Stability Rating</u>	<u>%ECA Permitted*</u>	<u>Permitted % Water Increased</u>
Excellent	40	13
Good	30	10
Fair	20	7
Poor	10	3

*These will be further refined through resource inventories.

Table II. Relationship of partial cut to % ECA.

<u>Partial Cut % Crowns* Removed</u>	<u>%ECA</u>
20	3
30	12
40	25
50	40
60	60
70	77
80	88

* % basal area may be substituted.

Table III. ECA reduction during hydrologic recovery.

<u>Age of Treatment Years</u>	<u>Percent ECA Reduction</u>	<u>Percent ECA Remaining</u>
15	0	100
20	10	90
30	35	65
40	55	45
50	80	20
60	100	0

SOIL, WATER, AND AIR - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	Water yield improvement activities permitted			X	X								X	X	X	X
	if compatible with wildlife				X											
	if compatible with recreation					X	X									
	if compatible with VQO's						X									
	if low to moderate erosion hazard												X			
	if low landslide hazard												X			
2. Maintain or improve soil stability, site productivity and repair or stabilize damaged watersheds.	Complete watershed improvement projects identified in the watershed restoration backlog, emphasizing high value watershed where accelerated erosion exists.	X	X	X	X	X	X	X			X	X	X	X	X	X
	Encourage the Forest Service, Vernal City or Uintah County to purchase or exchange for private property within the Vernal Municipal Watershed.															X
	Maintain and protect established watershed improvement projects until project objectives have been met.	X	X	X	X	X	X	X			X	X	X	X	X	X
	Provide soil and water guidance to other resource activities.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Complete order three soil survey for the Forest.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Obtain at least 80% of original ground cover within 5 years after project completion.	X	X	X	X	X					X	X	X	X	X	X
	Stabilize road corridors and control road use to reduce soil erosion.	X	X	X	X	X	X	X			X	X	X	X	X	X
	Stabilize areas damaged by fire, mining, or other events.	X	X	X	X	X	X	X			X	X	X	X	X	X

SOIL, WATER, AND AIR - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	Design activities to minimize project-caused sediment rates, not to exceed a 125% increase of the pre-project rates the first year and a 105% increase at the end of five years.	X	X	X	X	X	X		X	X	X	X		X	X
	Conduct damage surveys following disasters to determine restoration needs and take corrective action as soon as funds become available.	X	X	X	X	X	X		X	X	X	X		X	X
	Provide mitigation measures to the Central Utah Project activities such as access, recreation developments and high lake stabilization.	X	X	X	X	X			X	X	X				
	Allow no activity that will lower water levels of natural water storage areas (lakes, ponds, etc.) that are currently undeveloped.	X	X	X	X	X			X	X	X	X		X	X
	Evaluate flood hazard and resource values for construction or reconstruction projects within the 100-year floodplain or riparian zone where facilities will not be allowed unless other alternatives have been reviewed and rejected as being more environmentally damaging.	X	X	X	X	X	X		X	X	X	X		X	X
	Avoid channelization of natural streams. Where necessary for flood control, or fisheries enhancement use stream geometry relationships to re-establish meanders, width/depth ratios, etc. All dredged material shall be removed above the high waterline or stabilized with armor such as riprap.	X	X	X	X				X	X	X	X	X	X	X

SOIL, WATER, AND AIR - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
4. Control and minimize air pollutant impacts from land management activities.	Integrate air resource management objectives into all resource planning and management activities.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Mitigate any adverse impacts from prescribed fire on the air resource of the National Forest and the air resource outside Forest Service Jurisdiction.		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Detect and monitor the effects of air pollution and atmospheric deposition on Forest resources. Monitor air pollutants when Forest Service goals and objectives are at risk.		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Preserve and protect air quality related values (AQRV) within the Flaming Gorge NRA and High Uintas Wilderness.		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Determine the amount of acceptable human-caused change in the ecological and social factors (Limits of Acceptable Change) of the Flaming Gorge NRA and the High Uintas Wilderness without loss of the present character.		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Determine the air quality or AQRV condition (base level) from which increments of limits of acceptable change will be measured.		X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Review permits for proposed pollutant emitting facilities, their potential effect on the AQRV, and make recommendations to the State air regulatory agencies.		X	X	X	X	X	X	X	X	X	X	X	X	X	X

MINERALS & ENERGY

Goal: Provide orderly exploration, development, and production of mineral and energy resources consistent with the use and protection of the other resource values.

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
1. Control mineral activities to protect other resources, and restore disturbances resulting from mining or leasing activities.	Accomplish needed reclamation work on abandoned and/or invalid mining claims, and oil and gas leases.		X	X	X	X	X	X			X	X	X	X	X	X
	Prohibit the depositing of material from drilling, processing, or site preparation in natural drainages or floodplains unless restricted to prevent contamination of overland flow.		X	X	X	X	X	X			X	X	X	X	X	X
	Surface occupancy will be allowed only where impacts on surface resources will be acceptable.		X	X	X	X	X	X			X	X	X	X	X	X
	Recommend against leasing and sale of minerals when critical adverse impacts cannot be mitigated.		X	X	X	X	X	X			X	X	X	X	X	X
	Recommend withdrawal of lands from mineral leasing when there are sensitive, unique surface resources that can not be adequately protected under current public laws and Federal regulations.				X	X	X	X	X			X	X	X	X	X
	Specific stipulations will be assigned on a case-by-case basis for all mineral activities and designed to protect other resource values.		X	X	X	X	X	X			X	X	X	X	X	X

¹ Stipulations applied in accordance with matrix in Appendix B.

MINERALS & ENERGY - CONTINUED


Objective	Standards and Guidelines	Management Areas															
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r		
	Prohibit open-pit phosphate mining visible from Flaming Gorge Reservoir or Highway 44 from Greendale to Manila.		X	X	X	X	X	X	X		X	X	X	X		X	X
	Prohibit surface occupancy of minerals and oil and gas leases within 500 feet of highways and lakes.		X	X	X	X	X	X	X		X	X	X	X		X	X
	Retain mineral entry withdrawal for the Sheep Creek Geological Area. Except for existing valid claims, the entire geologic area is withdrawn from all mineral entry.		X	X	X	X	X	X	X		X	X	X	X		X	X
	Mineral activities will not be allowed on areas where the erosion hazard rating or geologic hazard rating is high.		X	X	X	X	X	X	X		X	X	X	X		X	X
	Require leasees, prospectors and miners to complete reclamation work on all disturbed lands.		X	X	X	X	X	X	X		X	X	X	X		X	X
	Disposal of mineral waste material will be allowed only when there is no risk to the public or will not result in adverse environmental impacts.		X	X	X	X	X	X	X		X	X	X	X		X	X
2. Inventory, conserve, and determine in service needs, and establish proper use levels of all common variety minerals.	Maintain an inventory of both proven and probable mineral material availability.		X	X	X	X	X	X	X		X	X	X	X		X	X
	Estimate in-service demands and allow out-service use only in excess of that need.		X	X	X	X	X	X	X		X	X	X	X		X	X

RIPARIAN

Goal: Protect and enhance the unique and valuable characteristics of riparian areas.

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
1. Maintain or improve riparian areas and riparian dependent resource values including wildlife, fish, vegetation, watershed, and recreation in a stable or upward trend. Manage for species diversity.	Complete a riparian inventory and implement riparian management.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Maintain the hiding and thermal cover qualities of forested riparian areas giving priority to the preservation of old growth for cavity dependent species, the preservation of hiding cover adjacent to mineral licks, wallows, and calving or fawning areas, and the preservation of hiding and thermal cover along waterways.			X	X	X		X		X	X	X	X		X
	Maintain natural complexity and high relative productivity of riparian areas.		X	X	X	X	X	X		X	X	X	X		X
	Maintain capability of riparian areas to act as an effective sediment buffering zone in relation to upslope activities.		X	X	X	X	X	X		X	X	X	X		X
	Riparian area dependent resources will be given preferential consideration in cases of unresolvable conflicts.		X	X	X	X	X	X		X	X	X	X		X
	Restrict facilities and ground disturbing activities to areas outside riparian areas unless alternative routes have been reviewed and rejected as being more environmentally damaging.		X	X	X	X		X		X	X	X	X		X

RIPARIAN - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	Only land application of approved herbicides to control noxious weeds will be allowed provided that herbicides are not allowed to contaminate surface water.	X	X	X	X	X	X	X		X	X	X	X		X	X
	Riparian areas will be given a high priority for rehabilitation in range improvement, fish and wildlife improvement, watershed restoration, road maintenance, and KV programs.	X	X	X	X	X	X	X		X	X	X	X		X	X
2. Manage vegetation to enhance the riparian ecosystem.	Manage vegetation in riparian areas to be in good or excellent ecological condition, with a stable or upward trend.	X	X	X	X	X	X	X		X	X	X	X		X	X
	Allow a maximum of 50% use of current years growth on browse species in riparian areas.	X	X	X	X	X	X	X	X	X	X	X	X		X	X
	Special harvesting techniques to protect riparian zones, such as directional felling and cable yarding will be applied when needed to protect the riparian ecosystem.	X	X	X	X			X		X	X	X	X		X	X
	Prohibit landings and decking areas and limit temporary roads within riparian areas. 	X	X	X	X			X		X	X	X	X		X	X

LANDS

Goal: Increase public benefits and utilization through more efficient land use administration.

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
1. Protect and manage Flaming Gorge NRA in accordance with PL97-540.	Acquire in holdings identified during Congressional hearings for Flaming Gorge.													X	X	X
	Use eminent domain where necessary to prevent developments that are not compatible with the objectives of the NRA.													X	X	X
2. Increase land efficiency administration.	Support land adjustments identified under project BOLD.	X	X	X	X	X	X	X		X	X	X	X	X	X	X
	Survey and post 100 miles of the Forest boundary per decade until the entire Forest is posted.	X	X	X	X	X	X	X		X	X	X	X	X	X	X
	Complete identified rights-of-way acquisitions by end of first decade.	X	X	X	X	X	X	X		X	X	X	X	X	X	X
	Program to accomplish land exchange and purchase opportunities with State and private landowners.	X	X	X	X	X	X	X		X	X	X	X	X	X	X
	Resolve existing title claim and encroachment cases on a priority basis.	X	X	X	X	X	X	X		X	X	X	X	X	X	X
	Locate new or reconstructed fences on property boundary lines. Protect cadastral survey corners, mining claim corners, and other monuments from ground disturbing activities.	X	X	X	X	X	X	X		X	X	X	X	X	X	X

¹ State project to consolidate State landownership.

LANDS - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
	Future energy transmission corridors will be in conformance with corridor plan in accordance with appendix H of the Environmental Impact Statement.	X	X	X	X	X	X	X		X	X	X	X	X	X
	Schedule review of all withdrawals to determine need for continuation or revocation.	X	X	X	X	X	X	X		X	X	X	X	X	X
	Eliminate special uses that conflict with wild-life in identified wintering areas.	X	X	X	X	X	X	X		X	X	X	X	X	X
	Special Use Permit applications will be evaluated using the following criteria:														
	1. There is a demonstrated public need.	X	X	X	X	X	X	X		X	X	X	X	X	X
	2. National Forest resources and programs will not be unacceptably damaged or impaired.	X	X	X	X	X	X	X		X	X	X	X	X	X
	3. Private land is not available to accommodate the use.	X	X	X	X	X	X	X		X	X	X	X	X	X
3. Using the NEPA scoping process, provide input to the Federal Energy Regulatory Commission through the 4E Report prior to the issuance of a FERC license.	Design and construct permitted structures to conform to their environmental location.	X	X	X	X	X	X	X		X	X	X	X	X	X
	Provide instream flows for channel maintenance.	X	X	X	X	X	X	X		X	X	X	X	X	X
	Provide minimum water flows throughout the stream channel to maintain fisheries habitat and the functions of the aquatic and riparian ecosystems.	X	X	X	X	X	X	X	X		X	X	X	X	X

LANDS - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	Provide migration/or travel passages for game and livestock for any pipelines exceeding one-half mile in length.	X	X	X	X	X	X	X		X	X	X	X		X	X
	Provide for mitigation of recreational activities affected by the project. Mitigation measures will be scaled to the project specific impacts on the resources.	X	X	X	X	X	X	X		X	X	X	X		X	X
	Power transmission systems will be evaluated concurrent with the project.	X	X	X	X	X	X	X		X	X	X	X		X	X
	Applicant must have a FERC license or exemption prior to consideration for a project special use permit.	X	X	X	X	X	X	X		X	X	X	X		X	X
	Applicant must have an approved State Water Right authorizing use prior to consideration for a Project Special Use Permit.	X	X	X	X	X	X	X		X	X	X	X		X	X

FACILITIES

Goal: Design and manage Forest facilities to protect Forest resources and public safety.

Objective	Standards and Guidelines	Management Areas															
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r		
1. Locate, design, construct, reconstruct, and maintain roads and trails to serve the projected land management objectives at the lowest cost for transportation consistent with environmental protection and safety considerations.	Collect traffic data on selected roads to determine adequate design standards and maintenance levels.		X	X	X	X		X		X	X	X	X		X	X	
	Reconstruct arterial and collector roads to prevent resource damage and provide for user safety and protect financial investment.		X	X	X	X		X		X	X	X	X		X	X	
	Close and rehabilitate unneeded roads after completion of the required use.		X	X	X	X				X	X	X	X		X	X	
	Identify and transfer roads suited for jurisdictional transfer to appropriate counties.		X	X	X	X				X	X	X	X		X	X	
	Shape and/or crown the roads each time they are bladed to control water in the ditches and uniformly move water across the road to prevent surface and fill erosion.			X	X	X	X				X	X	X	X		X	X
	Implement approved road sign program.		X	X	X	X	X	X	X		X	X	X	X		X	X
	Identify opportunities for scenic turn-outs on roads generally kept open for public travel.		X	X	X	X				X	X	X	X		X	X	
	Design and construct roads to avoid adversely affecting critical wildlife areas.		X	X	X	X				X	X	X	X		X	X	
	Install culverts large enough to allow passage of flows with no more than 50% design risk within the life of the road.		X	X	X	X		X		X	X	X	X		X	X	

FACILITIES - CONTINUED

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
	Require dissipators any time that the culvert outlet spills onto slopes greater than 30%, or it extends out to a point higher than one foot above the ground surface.		X	X	X	X		X		X	X	X	X		X	X
	Design and install bridges, culverts, and other stream structures to maintain adequate fish passage.		X	X	X	X	X	X	X	X	X	X	X		X	X
	Minimize sedimentation, erosion during construction and continue restoration and erosion prevention measures where needed.		X	X	X	X	X	X	X	X	X	X	X		X	X
	Stockpile and preserve topsoil for revegetation of disturbed areas.		X	X	X	X				X	X	X	X		X	X
	Use dust abatement material to maintain road surface and provide for public safety.		X	X	X	X				X	X	X	X		X	X
	Construct intercepting dips to disperse water as needed to prevent surface erosion where drainage is not otherwise provided.		X	X	X	X				X	X	X	X		X	X
	Provide for aesthetics and public safety in locating, operating and reclaiming borrow pits.		X	X	X	X				X	X	X	X		X	X
	Clean and reshape roadway ditches to provide adequate drainage that does not undercut slopes.		X	X	X	X		X		X	X	X	X		X	X
	Dispose of slough material from backslopes in areas that will not detract from aesthetics, destroy vegetated areas, cause erosion, or enter drainage channels.		X	X	X	X		X		X	X	X	X		X	X
	Provide road cross drainage to minimize sediment transport energy.		X	X	X	X		X		X	X	X	X		X	X

FACILITIES - CONTINUED

Objective	Standards and Guidelines	Management Areas													
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r
3. Assure the safety of all dams, canals, bridges, and utilities.	Inspect all dams as scheduled to assure compliance with engineering specifications. Unsafe or unserviceable dams will be reconstructed to approved standards, placed under specific limitations, or removed from service, and suitable site rehabilitation will be required prior to permit termination.		X					X		X				X	X
4. Construct and maintain structures to protect financial investment, provide for public safety and protect other resources.	Riprap bridge abutments where the need exists to protect the investment and prevent soil loss.	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Design, install, and maintain the telecommunication system to support administrative activities.		X	X	X	X						X	X	X	X
	Provide, and ensure compliance with, specifications for the construction, maintenance and operation of utilities, including powerlines, pipelines, and radio/TV microwave sites, compatible with adjacent land uses, as prescribed in the Corridor Plan and by operating licenses/permits.		X	X	X	X						X	X	X	X

()

()

()

PROTECTION

Goal: Provide cost-efficient protection of Forest resources, users, and administrative sites.

Objective	Standards and Guidelines	Management Areas														
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r	
1. Develop and implement a cost efficient fire management program based upon resource values.	Maintain a fire management program to protect investments. (Consider effectiveness of presuppression, fuel reduction, and treatment areas).	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Use unplanned ignitions as prescribed fires only if a prescribed fire plan has been prepared and the fire is burning within prescription.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Maintain initial attack forces capable of meeting prescribed suppression strategies 90 percent of the time in an average fire year.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Complete fire management plans and prescriptions for all management areas. Fire management prescriptions shall be based on resource objectives and values within the management area and will address planned and unplanned ignitions.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2. Protect administrative sites and other high value areas from insects and disease.	Continue a preventive spray program to retain high value vegetation and maintain vegetative diversity.	X	X	X	X	X	X	X		X	X	X	X	X	X	
	Conduct insect and disease surveys in conjunction with hazard tree surveys in administrative and developed recreation sites.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	

PROTECTION - CONTINUED

Objective	Standards and Guidelines	Management Areas															
		a	b	d	e	f	g	h	i	k	l	n	n ₁	p	r		
	Apply Integrated Pest Management by observing and reporting potential insect and disease problems on both Federal and non-Federal lands for possible coordination action.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3. Implement a law enforcement program to protect forest resources.	Annually update and implement the Forest Law Enforcement Action Plan.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Continue cooperative funding of local law enforcement agency support to the law enforcement program on the National Forest.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
	Establish a cooperative program with local law enforcement agencies to be responsive to all reported criminal acts against persons or property and to maintain a preventative law enforcement presence in areas of concentrated and dispersed public use.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

E

●

D. OTHER MANAGEMENT PRINCIPLES AND GUIDELINES

●

●

D. OTHER MANAGEMENT PRINCIPLES AND GUIDELINES

The following management principles and guidelines will be considered in all management activities during the implementation of the plan:

1. Cooperation - The Forest Service will continue to inform and cooperate with other State and Federal agencies, local governments, Forest permittees and operators, special interest groups, and other interested individuals.

Planning and project activities will be coordinated with involved or interested individuals, agencies, and organizations. Those affected by management decisions will be notified promptly.

2. Coordination - The Forest Service will continue to accomplish some programs and practices through cooperative work agreements and new opportunities for cooperation may be sought. Some of the ongoing cooperative work activities to be continued include:
 - Consultation with the U.S. Fish and Wildlife Service on all activities which may have an affect on Threatened and Endangered species.
 - Coordination of livestock grazing programs with the Bureau of Land Management, State agencies, and permittees.
 - Water quality monitoring through State agencies.
 - Assistance to the Soil Conservation Service and the State of Utah for snow surveys, flood forecasting, and warning of potential disaster.
 - Assistance to the Environmental Protection Agency for acid rain surveys.
 - Cooperation with the Soil Conservation Service on the Soil Survey Program.
 - Providing information for river adjudication to the State of Utah.
 - Cooperative road maintenance agreements with Counties.
 - Mitigation activities on Central Utah Project impacts with the Bureau of Reclamation.
 - Cooperative law enforcement activities with the counties.
3. Project Analysis - Economic analysis and the evaluation of the cumulative effects of project activities will be considered in all resource management decisions. Specific management activities or projects, that are not addressed in the Forest Plan Final Environmental Impact Statement, will be evaluated in accord with the National Environmental Policy Act, prior to project initiation.

Interdisciplinary teams will be used in the evaluation process. Input from and the involvement of affected and concerned publics will be sought.

4. Administration of the Flaming Gorge National Recreation Area was established by Public Law 90-540 in 1968. The law specifically directs the Secretary of Agriculture to: "...administer, protect, and develop the Flaming Gorge National Recreation Area in a manner to best provide for: (1) public outdoor recreation benefits; (2) conservation of scenic, scientific, historic, and other values contributing to public enjoyment; and (3) such management, utilization, and disposal of natural resources as in his judgement will promote or are compatible with, and do not significantly impair the purpose for which the recreation area is established."

If there are any conflicts in management direction for the Flaming Gorge National Recreation Area, the Supplemental Direction will take precedence. The Supplemental Direction for the Flaming Gorge National Recreation Area is in Appendix A.

5. Civil Rights and Human Resource Programs - The Forest will continue to support the Civil Rights Act by providing all persons equal opportunity in the use and management of Forest resources and facilities. This will be done through the implementation of Affirmative Action Programs, work contracted through the Small Business Administration, and facility or program modifications to provide opportunities for the aged and the handicapped.

Community participation will be encouraged in a variety of human resource program areas. Special programs include: Youth Conservation Corp (YCC); Senior Community Service Employment Program (SCSEP); and Volunteers. The Forest will continue to inform the public of Forest programs and activities and involve them in the management decision-making process in an effort to be responsive to changing social and economic needs.

**E. PROJECTED ANNUAL OUTPUTS, ACTIVITIES,
AND COSTS FOR THE PREFERRED ALTERNATIVE**

E. PROJECTED ANNUAL OUTPUTS, ACTIVITIES, AND COSTS FOR THE PREFERRED ALTERNATIVE

TABLE IV-1. PROJECTED AVERAGE ANNUAL OUTPUTS FOR THE FOREST PLAN

OUTPUTS	MIH Code	Time Period				
		1985- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
RECREATION (MRVDS)						
Developed	W09	809	940	1119	1300	1476
Dispersed						
ROS - Rooded Natural	W07	409	475	566	657	745
Semi-Prim. Motor.	W05	53	62	74	85	97
Semi-Prim. Non-Motor.	W03	69	80	96	111	126
WILDERNESS (MRVD)						
ROS - Primitive	W01	220	263	263	263	263
Semi-Prim. Non-Motor.	W03	80	96	96	96	96
Semi-Prim. Motor.	W05	9	1	1	1	1
Management (MAcres)	W30	273.4	273.4	273.4	273.4	273.4
RANGE MAUMS	W66	81	84	91	99	108
TIMBER MMCF						
Sawtimber (Softwood)	X06	4.5	4.5	3.5	3.5	3.9
Sawtimber (Hardwood)	X09	0	0	.7	.7	.3
Roundwood	X07, X10	.6	.6	.5	.5	.5
Fuelwood	X08, X11	10.4	9.4	9.2	6.8	5.9
WATER AND SOILS (MAC/FT)						
Meeting Quality Goals	X87	882	929	942	952	958
Increase Over Natural	X80	5	14	28	40	48
Sediment (Total/Tons)	---	32	36	41	48	48
WILDLIFE AND FISH USE (MRVD)	W63	264	311	352	394	434

TABLE IV-2 PROJECTED AVERAGE ANNUAL ACTIVITIES FOR THE FOREST PLAN

ACTIVITIES	MIH Code	Time Period				
		1985- 1990	1991- 2000	2001- 2010	2011- 2020	2021- 2030
STRUCTURAL HABIT. IMPR. (STRUCT)	C03	15	15	15	15	15
NONSTRUCTURAL HABIT. IMPR. (AC)	C02	500	500	500	500	500
TIMBER						
Reforestation (MAcres)	E04	4.2	4.1	4.9	4.0	4.0
Timber Stand Imp (Acres)	E05	0	1565	356	254	2224
WATER AND SOIL (Acres)	F03			Backlog completed by 2000		
Resource Improvement		57	57	Backlog completed by 2000		

^{1/} Data presented past the first decade are projections based on trends.

TABLE IV-2 cont.						
ACTIVITIES	MIH Code	1985-1990	1991-2000	2001-2010	2011-2020	2021-2030
MINERALS (Cases)						
	G03/G04					
Leases and Permits	G05/G06	85	85	85	85	85
NoI and Op. Plans	G05/G06					
HUMAN COMMUNITY & DEV. (ENR YR)						
Human Resource Programs	---	Targets Retained at Regional Level				
LAND (Acres)						
Land Purchases & Acquisitions	J15	Targets Retained at Regional Level				
ROW Withdrawals Review	J04 J18					
Land Line Location	J06					
FACILITIES (Miles)						
Trail Construction		8	8	8	8	8
Road Construction/Reconstruction						
Arterial/Collector						
Construction	L04/L08	.8	.6	1.8	.7	.7
Reconstruction	L05/L09	1.2	.9	2.8	1.1	1.1
Local						
Construction	L12	1.0	2.4	0	0	5.0
Reconstruction	L05/L09	2.0	1.6	5.0	6.0	
Timber Purchaser						
Construction	L12	.9	0	0	1.1	0
Reconstruction	L13	.9	1.9	2.4	0	1.3
Construction	L14	19.0	23.6	29.6	28.6	25.2
		<u>25.8</u>	<u>31.0</u>	<u>41.6</u>	<u>37.5</u>	<u>33.3</u>

TABLE IV-3 PROJECTED AVERAGE ANNUAL COSTS FOR THE FOREST PLAN
(Millions of 1982 Dollars Undiscounted)

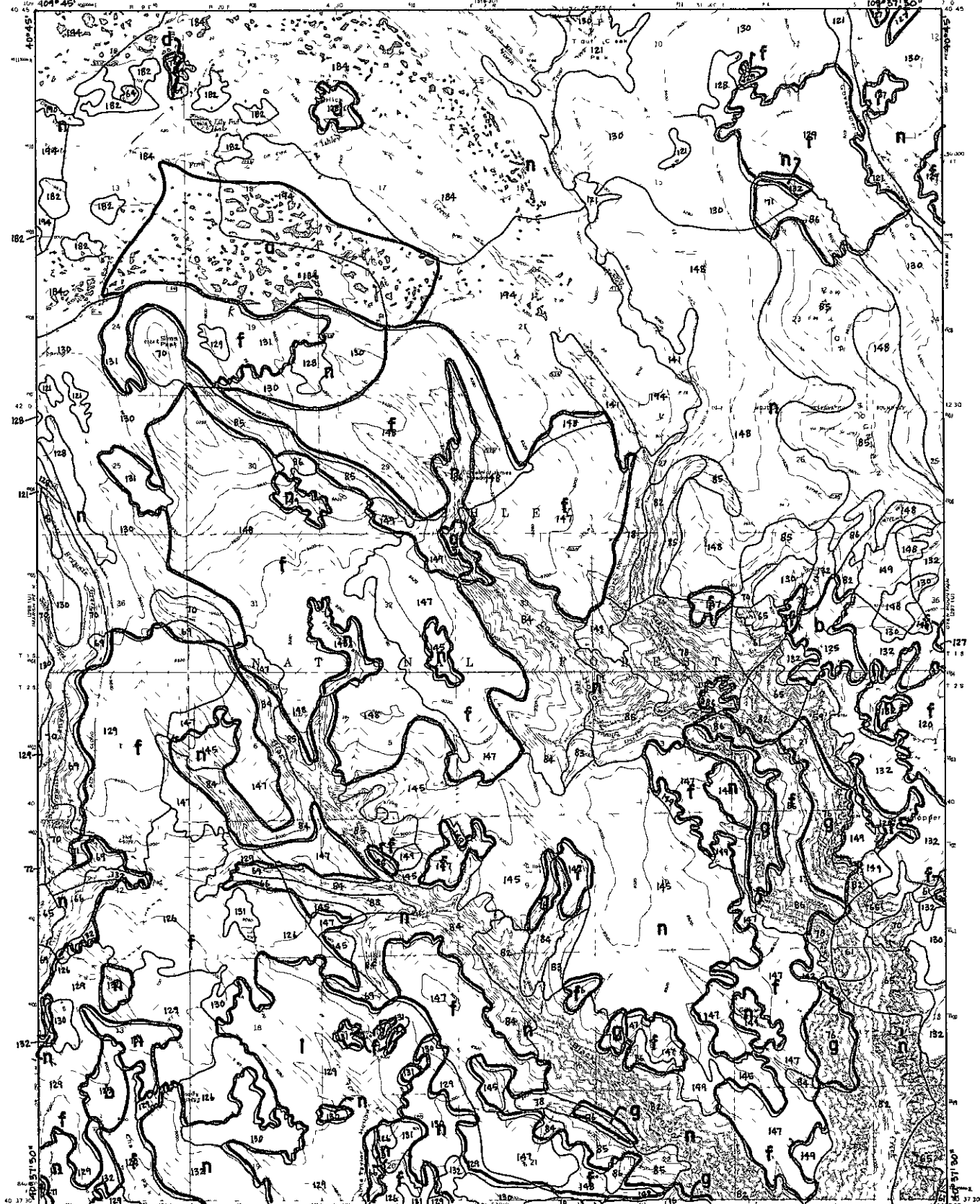
COSTS	1985-1990	1991-2000	2001-2010	2011-2020	2021-2030
FIXED COSTS					
General Administration	1.1	1.1	1.1	1.1	1.1
Protection*	.5	.5	.5	.5	.5
VARIABLE COSTS**					
Timber	1.524	1.454	2.157	1.138	2.100
Recreation Wilderness	2.972	3.429	3.903	4.400	4.887
Range, Wildlife, Water, Soils	<u>.904</u>	<u>1.118</u>	<u>1.240</u>	<u>2.762</u>	<u>1.313</u>
TOTAL FOREST BUDGET	7.0	8.1	9.1	9.9	9.9

* Protection includes costs for such things as minerals, special uses, land line location, land status etc.

**Totals for each element includes costs for road construction/reconstruction, road maintenance, support costs, design costs for all resources. Trail construction/reconstruction along with maintenance costs are included in recreation and wilderness elements.

**F. ADMINISTRATIVE UNIT DESCRIPTION,
MANAGEMENT AREA MAPS AND SCHEDULING
OF ANALYSIS AREA ENTRIES**

Ashley National Forest



1049 451
Published by the Geological Survey, from
reproduction with the U.S. Bureau of Reclamation
© of the U.S. and U.S.G.S.
Scale 1:50,000
Projection North American Datum of 1983
Map made by U.S. Forest Service, Ogden, Utah, 1977
Adapted and revised from 1968 photogram
and 1975 field data
Bill Lee, Manager
This map meets the National Map Accuracy Standards

TAYLOR MOUNTAIN 30'

ROAD CLASSIFICATION
Heavy Duty
Medium Duty
Light Duty
Unimproved Dirt

ANALYSIS AREA
Surveyed location approximate

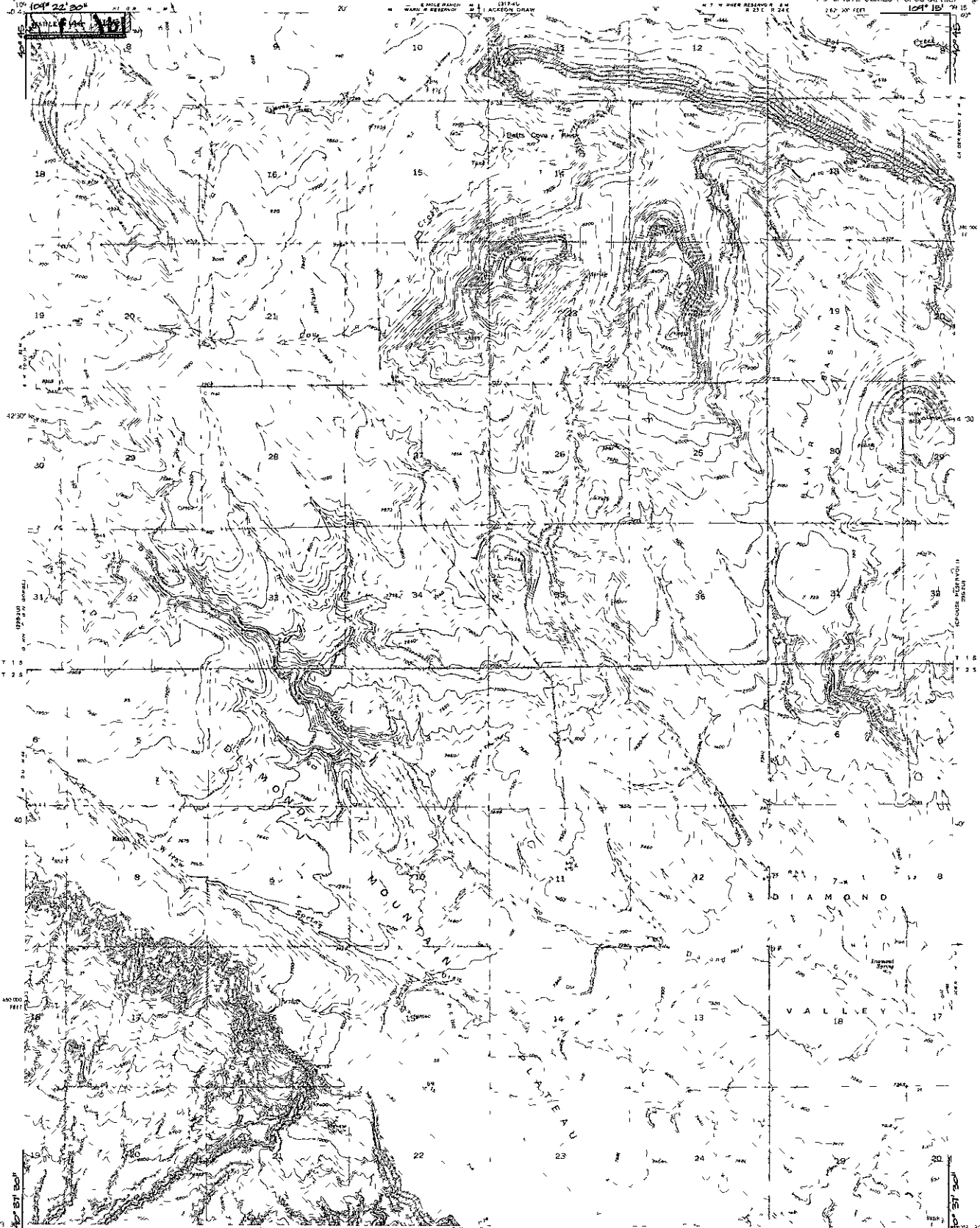
OTHER OWNERSHIP
MANAGEMENT AREA

100

900-911

n

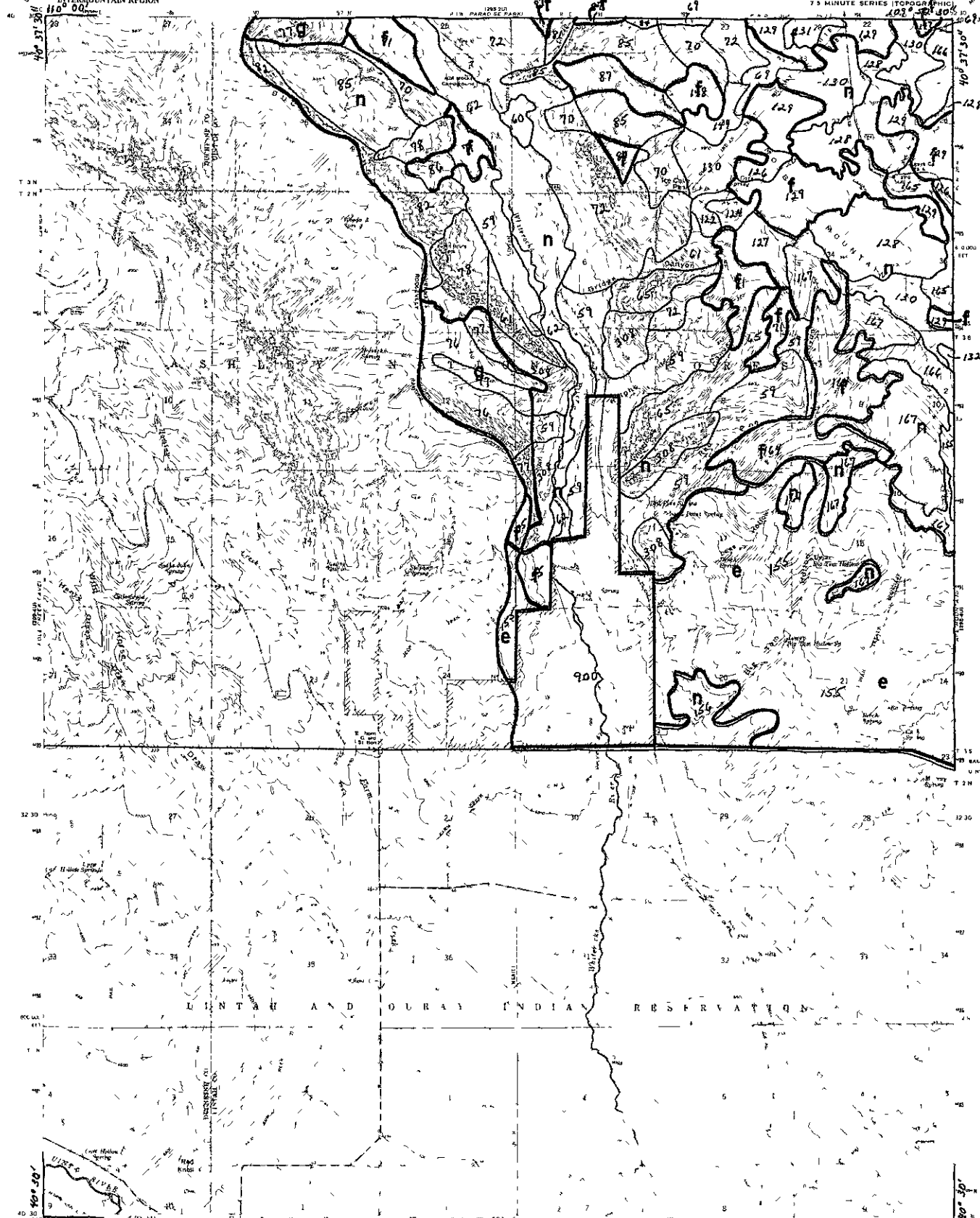
ASHLEY NATIONAL FOREST



ROAD CLASSIFICATION
Heavy Duty _____ Medium Duty _____
Light Duty _____ Unimproved Dirt _____

ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

BLAIR BASIN 33
100
900-911
n



Map of U.S. Forest Service
and adjacent public lands by the Geological Survey
to the U.S. Geological Survey
Topographic program in the
Intermountain Region
Page 1 of 1
Revised by U.S. Forest Service
and 1972 field staff
All other maps available from 1950 on request
and 1972 field staff
Salt Lake, no U.S. Market
This map complies with National Map Accuracy Standards

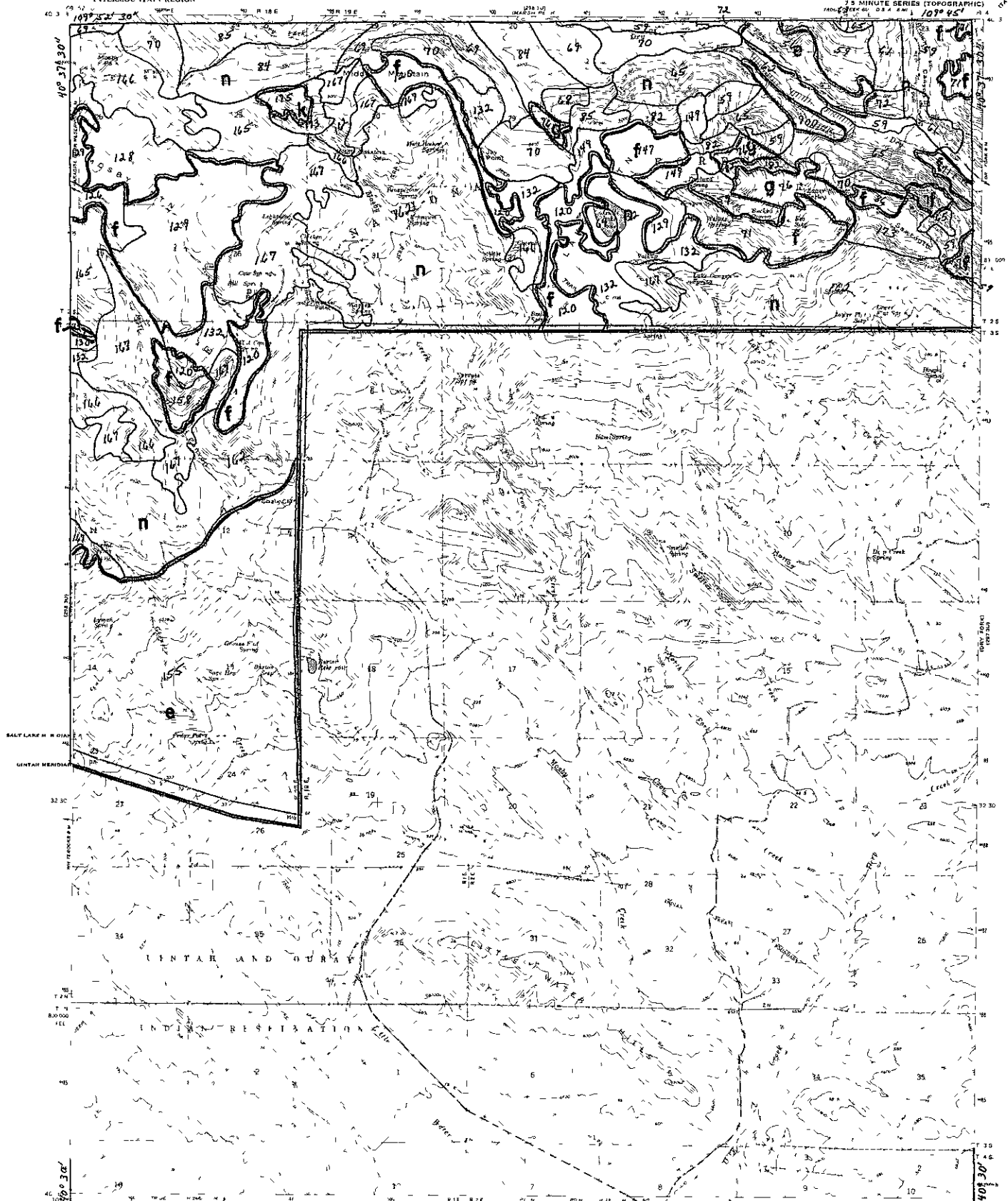
ROAD CLASSIFICATION
Heavy Duty ——— Medium Duty ———
Light Duty ——— Unimproved Dirt ———
ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

ICE CAVE PEAK 42

RANGER DISTRICTS
100

900-911

n



LAKE MOUNTAIN 43

LAKE MOUNTAIN
NATIONAL FOREST
VERNAL RANGER DISTRICT
(MARKED)

ROAD CLASSIFICATION

- Heavy Duty —————
- Med. or Duty ————
- Light Duty ————
- Unimproved Dirt - - - - -
- Trail - - - - -

ANALYSIS AREA

- TOWNSHIP AND SECTION LINE CLASSIFICATION
- Surveyed local on file

OTHER OWNERSHIP

Unsurveyed Sure. of Land

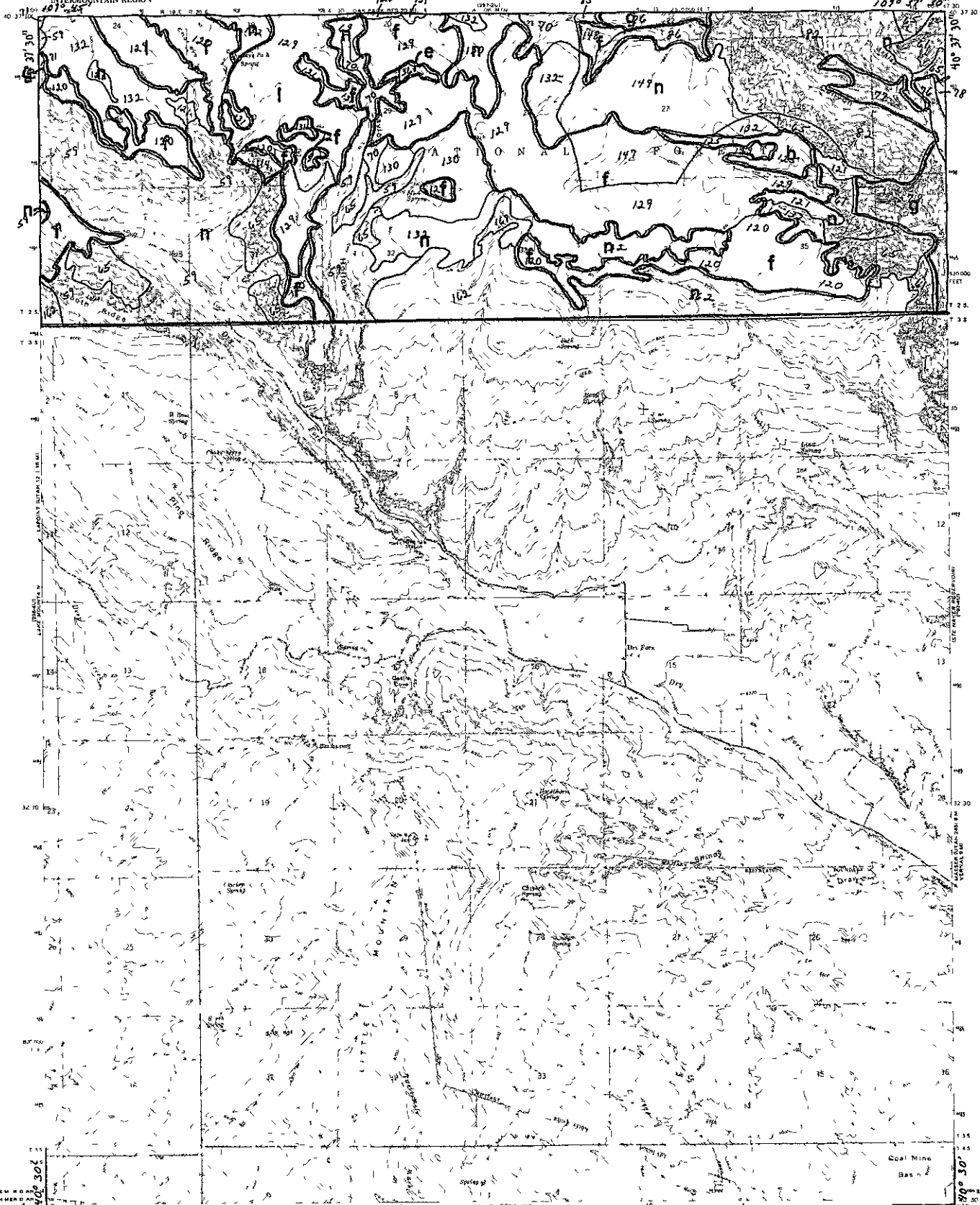
MANAGEMENT AREA

100

900-911

n

Revised when by U.S. F. 4415-10-10 (April 1973)
Additions and minor revisions from 1972 photogram
and 1972 field work
See U.S. and U.S. Fish and Wildlife Service
This map aligns with National U.S.G.S. Standard



109° 45' W
37° 30' N

Reproduced by U.S. Forest Service from Utah Jan 1972
Aerial photo and other source 1968 photograph
and 1972 field data
Set with and United States
This map conforms with N. 10 of 1880 Advisory Standard

ROAD CLASSIFICATION
Heavy Duty ——— Met am Duty ———
Light Duty ——— U Improved D r ———
Trail

ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

DRY FORK 44
VERNAL RANGER DISTRICT
(MARSH PEAK 6 SW)

100
900-911
n

ROOSEVELT RANGER DISTRICT
3

3. Roosevelt Ranger District - Administrative Unit 3 - 336,680 acres

A. Unit Description:

This unit, the Roosevelt Ranger District, is centrally located in the Ashley National Forest. It is bordered by the Vernal Ranger District on the east, the Duchesne Ranger District on the west, the Wasatch National Forest on the north, and forms the south boundary of the Forest adjoining the Uintah and Ouray Indian Reservation.

This Unit lies mostly in Duchesne County, Utah, although the extreme southeast corner of the unit is in Uintah County, Utah.

B. Physical Characteristics:

Three major drainages dominate the unit. From east to west they are the Uinta, Yellowstone, and Lake Fork. All of these streams drain to the Duchesne River which is a tributary of the Green - Colorado River System. The dominant character of the unit was produced by glaciation which formed broad cirque basins with many lakes and narrow "U" shaped canyons.

The backbone of the Uinta Range, an east-west trending mountain system, is formed by a narrow, sinuous ridge that extends the entire east-west length of the unit. Subordinate ridges of similar shape but in places higher elevations, extend south from the main ridge to separate the drainage basins. Within the Uinta Mountains there are 26 summits and subordinate peaks above 13,000 feet (Hansen 1969, p. 14). Nine of these peaks are on the ridge dividing the Uinta and Yellowstone drainages. This ridge contains Kings Peak which at 13,528 feet is the highest point in Utah.

The dominant ridge between the Yellowstone and Uintah Rivers culminates in the high point of the main divide. From this ridge, the main ridge crest, the subsidiary ridges extending south, and the floors of the cirque basins are progressively lower to the east and west. A singularly impressive feature of the high country is the vast expanses of cirque floor above timberline that shoulder up to the steep ridges of the drainage divide. The largest expanse of this area above timberline is at the head of the Yellowstone drainage. The percentage of cirque floor area above timberline becomes progressively smaller in the drainages to the east and west. Similarly, the lower elevations of the cirque floors decrease to the east and west from Yellowstone.

The lowest point in the unit, 6,800 feet, is located near Elkhorn Guard Station in the southeast corner. Plant communities on the south slope of the Uinta Mountains vary from those species ecologically adapted to high elevations where cold alpine climatic conditions prevail to species that are adapted to semi-desert conditions at lower elevations.

In general, the flora of this unit can be categorized into several broad vegetative types. These are: (1) alpine-arctic sedge, grass

and forb communities usually occurring above an elevation of 11,000 feet; (2) alpine shrub communities found primarily in the higher cirque basins; (3) climax subalpine fir-Englemann spruce forest; (4) seral dominant lodgepole pine forest; (5) climax Douglas-fir stands usually occurring below the spruce-fir and lodgepole pine types; (6) ponderosa pine stands often occurring with Douglas-fir and aspen at intermediate elevations; (7) aspen clones which occur as relatively pure stands or intermingled with conifer trees; (8) wet sedge-grass meadows are found in cirque basins and on flood plains adjacent to streams; (9) dry sedge-grass-forb meadows or parklands of the upland plateaus; (10) mixed mountain shrubs on well drained slopes primarily below the lower conifer and aspen belt; (11) mixed conifer-broadleaf tree groves found on the flood plains of the larger streams; (12) sagebrush-grasslands which vegetate alluvial fans of the side canyons and lower foothills; (13) pinyon pine-juniper woodlands grow at lower elevations on harsh dry sites; (14) riparian shrub thickets, occurring adjacent to stream channels. Important species are willow, river birch, thin leaf alder, dogwood, currant, gooseberry, and raspberry shrubs.

The physiographic and vegetative diversity described above was a major attraction and factor in the classification in 1931 of the High Uintas Primitive Area. This recognition culminated in 1984 with passage of the Utah Wilderness Act which included a High Uintas Wilderness of 460,000 acres on the Wasatch and Ashley National Forests.

A total of 200,612 acres of the High Uintas Wilderness is included in this Administrative Unit (3).

C. Roosevelt Ranger District Exceptions to the Prescription:

Standards and guidelines for the Management Areas included within this Administrative Unit are applicable with the following modifications or exceptions:

Management Area b (ME2-MI3) - this moderate intensity timber management prescription is scheduled for implementation in decades 2, 3, 4, 5, 9, and 10. The roadside corridors for the lower Uinta and Lake Fork drainages include portions of this Management Area. These drainages serve as access to the High Uintas Wilderness and for the existing and proposed developed recreation sites in the Lake Fork drainage. As primary access corridors, they will be managed to conform to Management Area f standards and guidelines during decade 1. During the first decade, progress on the proposed developed recreation sites on or near the proposed Tasketch Reservoir should be used to determine changes in Management Area assignment for incorporation in the first scheduled Forest Plan revision.

Management Area e (ME4-MI4) - this Management Area occurs on Analysis Area 136 and Analysis Area 155 on the Vernal Ranger District. Implementation on Analysis Area 136 is scheduled during decade one. Implementation of Analysis Area 155 is scheduled during decade two and is a result of tentative identification of the area as key winter range for big game species. Management of Analysis Area 155 during decade one will be under the Standards and Guidelines specified for Management Area n, except that:

1. Key habitat should be inventoried and identified during decade one;
2. No permanent facilities or development should be allowed that would impair the key habitat characteristics during decade one; and
3. Any boundary revisions resulting from 1 above should be documented and incorporated in the first scheduled Forest Plan revision.

D. Management Areas within Roosevelt Ranger District (For details see Standards and Guidelines in this Chapter:

Management Area b - Management Emphasis (ME)2 - Management Intensity (MI)3 - 324 acres
Management Area d - ME3 - MI4 - 503 acres
Management Area e - ME4 - MI4 - 5,684 acres
Management Area f - ME5 - MI3 - 16,602 acres
Management Area g - ME5 - MI4 - 14,377 acres
Management Area i - ME7 - MI3 - 200,612 acres
Management Area k - ME8 - MI4 - 629 acres
Management Area n - ME11 - MI2 - 97,921 acres

Management areas are aggregations of analysis areas that have the same management prescription and are shown on the following tables. Management emphasis and management intensity numbers were used for identification during the FORPLAN modeling and are shown here to maintain prescription identity. The acreage figures indicate total acres for each management area.

Administrative Unit 3 - Roosevelt Ranger District

Analysis Areas Number	Total Acres in the Unit	Management Areas															
		b.		d.		e.		f.		g.		i.		k.		n.	
		ME2 Acres Allocated	MI3 Decade Implemented	ME3 Acres Alloc	MI4 Decade Impl	ME4 Acres Alloc	MI4 Decade Impl	ME5 Acres Alloc	MI3 Decade Impl	ME5 Acres Alloc	MI4 Decade Impl	ME7 Acres Alloc	MI3 Decade Impl	ME8 Acres Alloc	MI4 Decade Impl	ME11 Acres Alloc	MI2 Decade Impl
57	26															26	7
59	1,936											7	1			1,929	1
308	682															682	1
61	805															805	1
62	1,116															1,116	1
63	90															90	1
64	1,048															1,048	1
65	480	211	4									25	1		244	7	
68	140														140	11	
69	1,975											16	1		1,959	6	
70	7,446							36	11			136	1		7,274	2,3,4,5	
71	2,372							2,369	5,9			3	1				
72	1,435							34	7							1,401	6,7
76	1,029									1,029	1						
77	757									757	2						
78	2,850									413	1	678	1		1,759	1	
79	200									5	1	5	1		190	1	
80	2,945									132	1	2,731	1		82	1	
81	1,356									233	1	545	1		578	1	
82	2,011									22	1	626	1		1,363	9,11	
84	4,686											3,245	1		1,441	6,7	
85	28,728									1,546	1	18,587	1		8,595	11,12	
86	3,031							2,636	3,4,7, 8,9	208	1	187	1				
87	1,516							1,002	9,8	514	1						
120	87							87	1								
121	1,471															1,471	1
122	554															554	1
124	42															42	1
125	167	113	2,3,4					37	1						17	8	
127	368							368	1								

Administrative Unit 3 - Roosevelt Ranger District

Analysis Areas Number	Total Acres in the Unit	Management Areas																	
		b.		d.		e.		f.				g.		i.		k.		n.	
		ME2 Acres Allocated	MI3 Decade Implemented	ME3 Acres Alloc	MI4 Decade Impl	ME4 Acres Alloc	MI4 Decade Impl	ME5 Acres Alloc	MI3 Decade Impl	ME5 Acres Alloc	MI4 Decade Impl	ME7 Acres Alloc	MI3 Decade Impl	ME8 Acres Alloc	MI4 Decade Impl	ME11 Acres Alloc	MI2 Decade Impl		
128	1,317															1,317	7		
129	2,605							2,605	4,5										
130	11,262							528	2			20	1			10,714	1,2,7,8,9,11		
131	1,928							1,365	4							563	6		
132	965															965	3,4,5,6,7		
134	16															16	1,8,9,11		
135	7															7	5,9		
136	38					38	1												
140	84															84	1		
141	430															430	1		
142	225															225	1		
144	65							65	1,2,3,4,5										
147	276							266	5,6		10	1							
148	5,341							852	1		334	1	479	1		3,676	10,11,12		
149	446															446	6		
150	33							27	1,8		6	1							
155	2,478					2,478	2												
156	908															908	1		
162	6,541															6,541	1		
314	428															428	1		
163	922															922	1		
164	31							31	2,3,4										
165	1,243															1,243	6		
166	1,845															1,845	5,11		
167	5,219															5,219	3,4,5,8		
316	523															523	11		
168	2,586															2,586	2,3,4,5		
169	3,976															3,976	4,5,11		
170	2,880					2,880	1												
171	288					288	2												
173	760															760	1		
315	588							588	1										
174	1,617							1,455	2,3,4							162	6,9		
175	629													629		9,10			

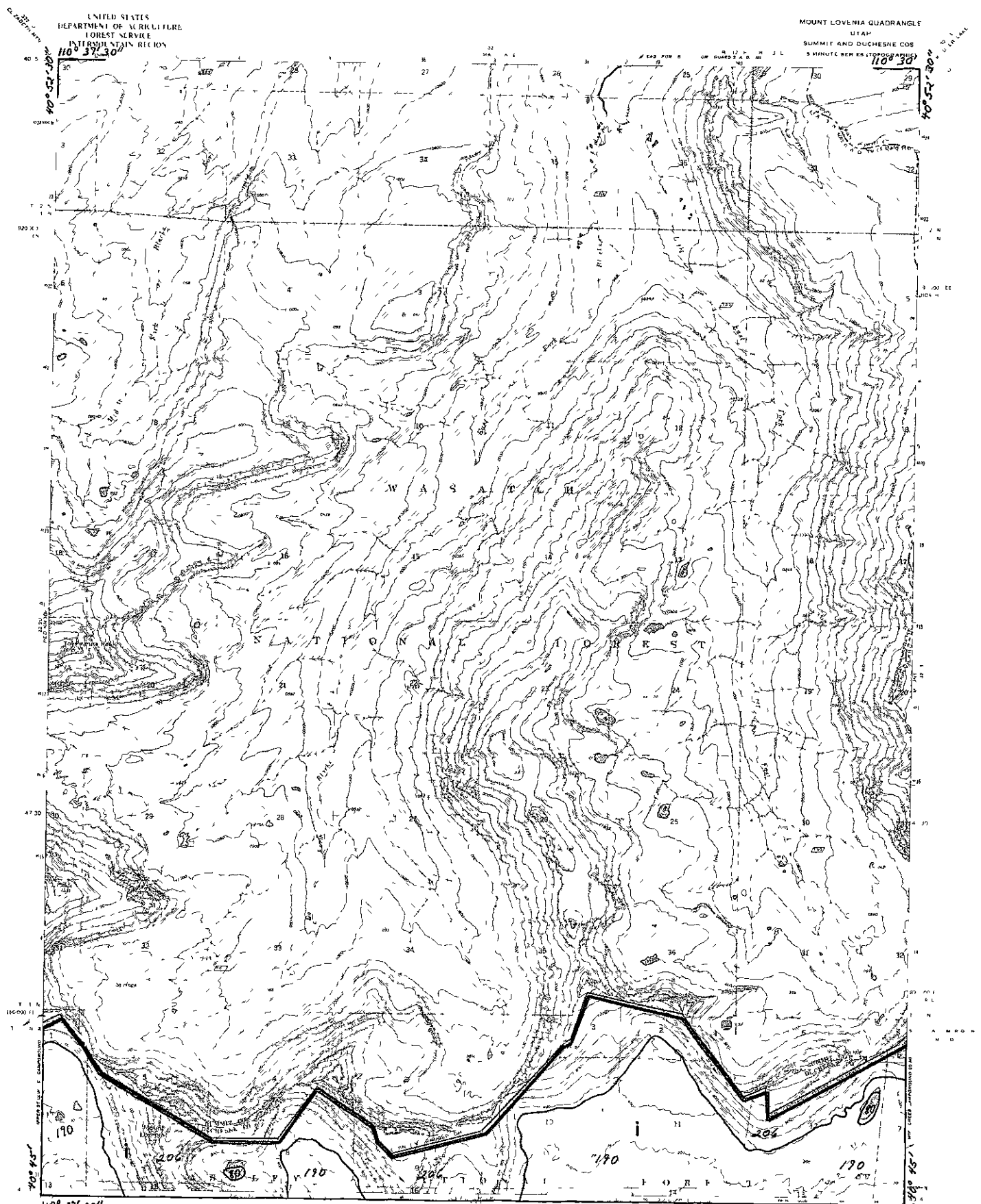
Administrative Unit 3 - Roosevelt Ranger District

Management Areas

Analysis Areas Number	Total Acres in the Unit	b.		d.		e.		f.				g.		i.		k.		n.	
		ME2 Acres Allocated	MI3 Decade Implemented	ME3 Acres Alloc	MI4 Decade Impl	ME4 Acres Alloc	MI4 Decade Impl	ME5 Acres Alloc	MI3 Decade Impl	ME5 Acres Alloc	MI4 Decade Impl	ME7 Acres Alloc	MI3 Decade Impl	ME8 Acres Alloc	MI4 Decade Impl	ME11 Acres Alloc	MI2 Decade Impl		
317	1,132							1,132	2,3,4,5										
178	503			503	1														
179	251																	251	1
181	51																	51	1
182	738																	738	10
183	3,813																	3,813	6
184	5,613							18	3			38	1					5,557	1,2,3,4,5
185	330																	330	6
186	535							535	3,4,5										
189	1,780									204	1	746	1					830	1
190	28,276									498	1	27,527	1					251	1
191	12,362									413	1	11,665	1					284	1
193	624									59	1	462	1					103	6
194	67,866							355	3	3,452	1	58,968	1					5,091	1,2,3,4,5
195	218							213	3,4	5	1								
203	313							9	1			33	1					271	1
204	65																	65	1
205	185							6	1									179	1
206	43,963									1,318	1	42,164	1					481	1
207	5,996									309	1	4,538	1					1,037	1
208	32,206									2,798	1	27,181	1					2,227	1
Totals	336,680	324	-----	503	-----	5,684	-----	16,602	-----	14,377	-----	200,612	-----	629	-----	-----	-----	97,921	-----

Roosevelt Ranger District - 3

Quads in this section: 9, 10, 11, 12, 13, 14, 22, 23, 24, 25, 26, 27, 28,
36, 37, 38, 39, 40, 41, 42



MOUNT LOVENIA 10

ANALYSIS AREA

OTHER OWNERSHIP

MANAGEMENT AREA

100

900-911

n

ROAD CLASSIFICATION

10A 15MI

ROOSEVELT BASSIN

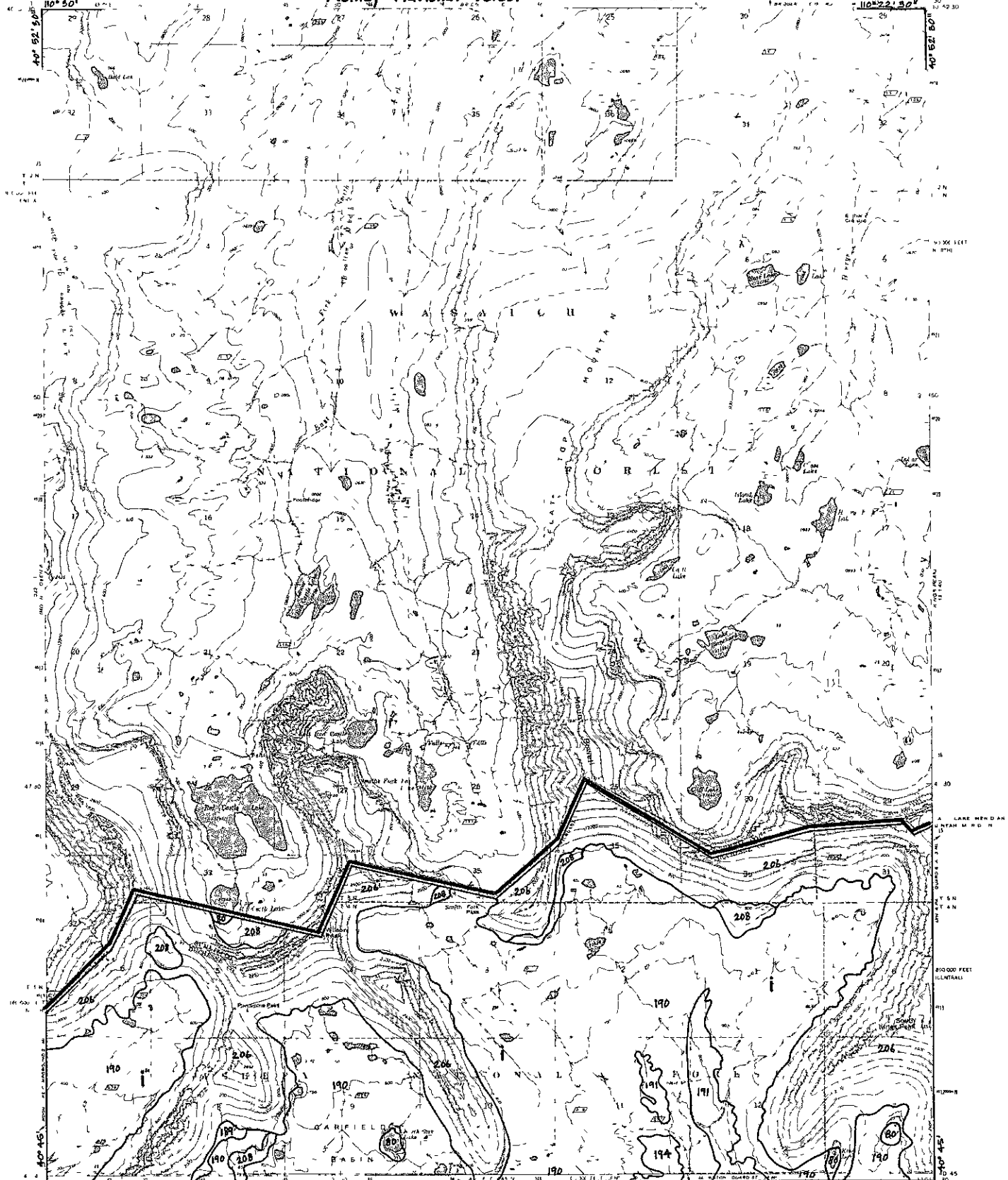
100

n

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
INTERMOUNTAIN REGION

Ashley National Forest

MOUNT POWELL QUADRANGLE
UTAH
SUMMIT AND DULCHESNE COUS
7.5 MINUTE (1:25,000) TOPOGRAPHIC



110° 50' 110° 22' 50'

MOUNT POWELL 11

ANALYSIS AREA

OTHER OWNERSHIP

MANAGEMENT AREA

100

900-911

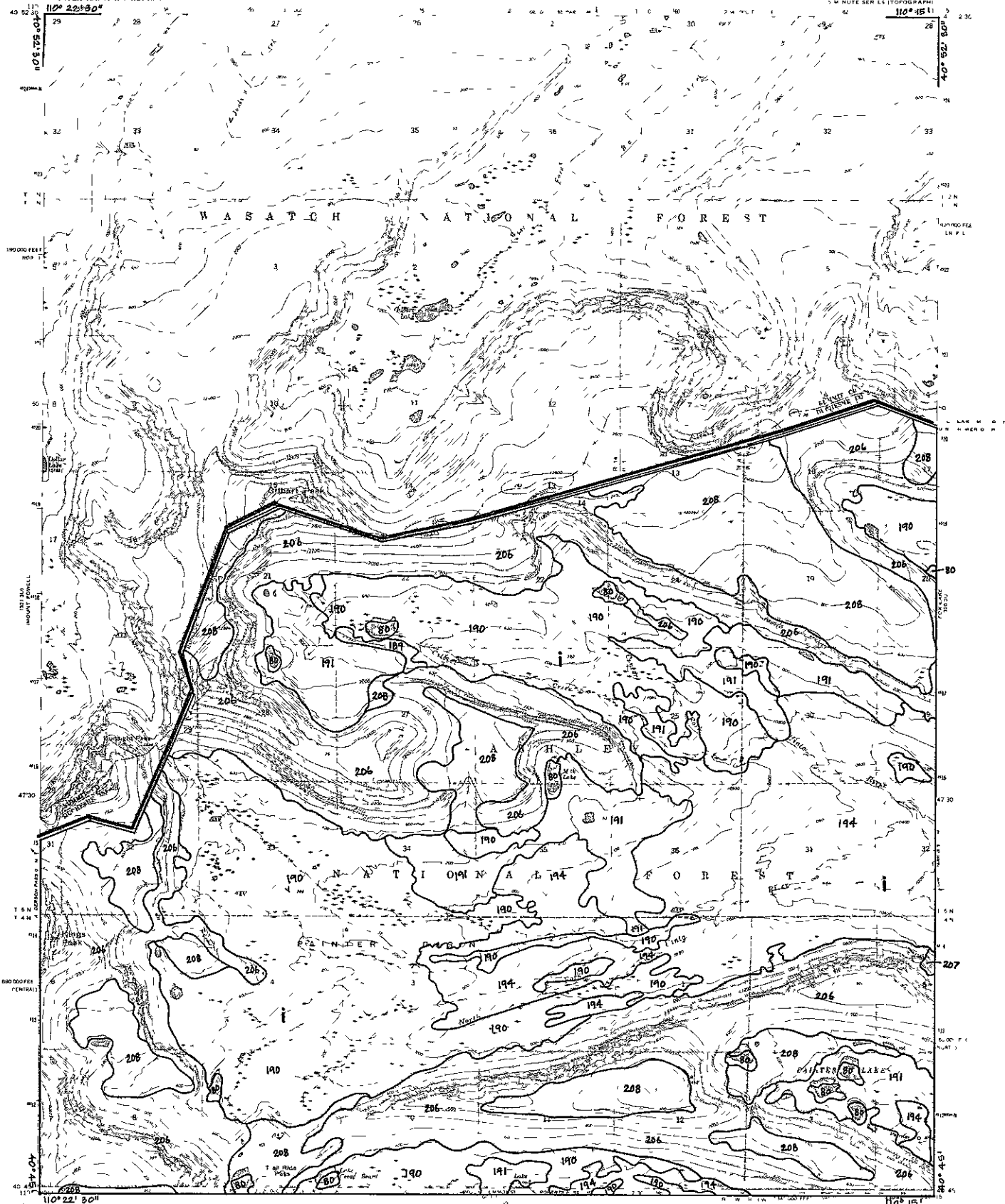
n

ROAD CLASSIFICATION

TOWNSHIP AND SECTION LINE CLASSIFICATION

Universal Scale of Feet

Ashley National Forest



ANALYSIS AREA

OTHER OWNERSHIP
MANAGEMENT AREA

KING'S PEAK 12

100

900-911

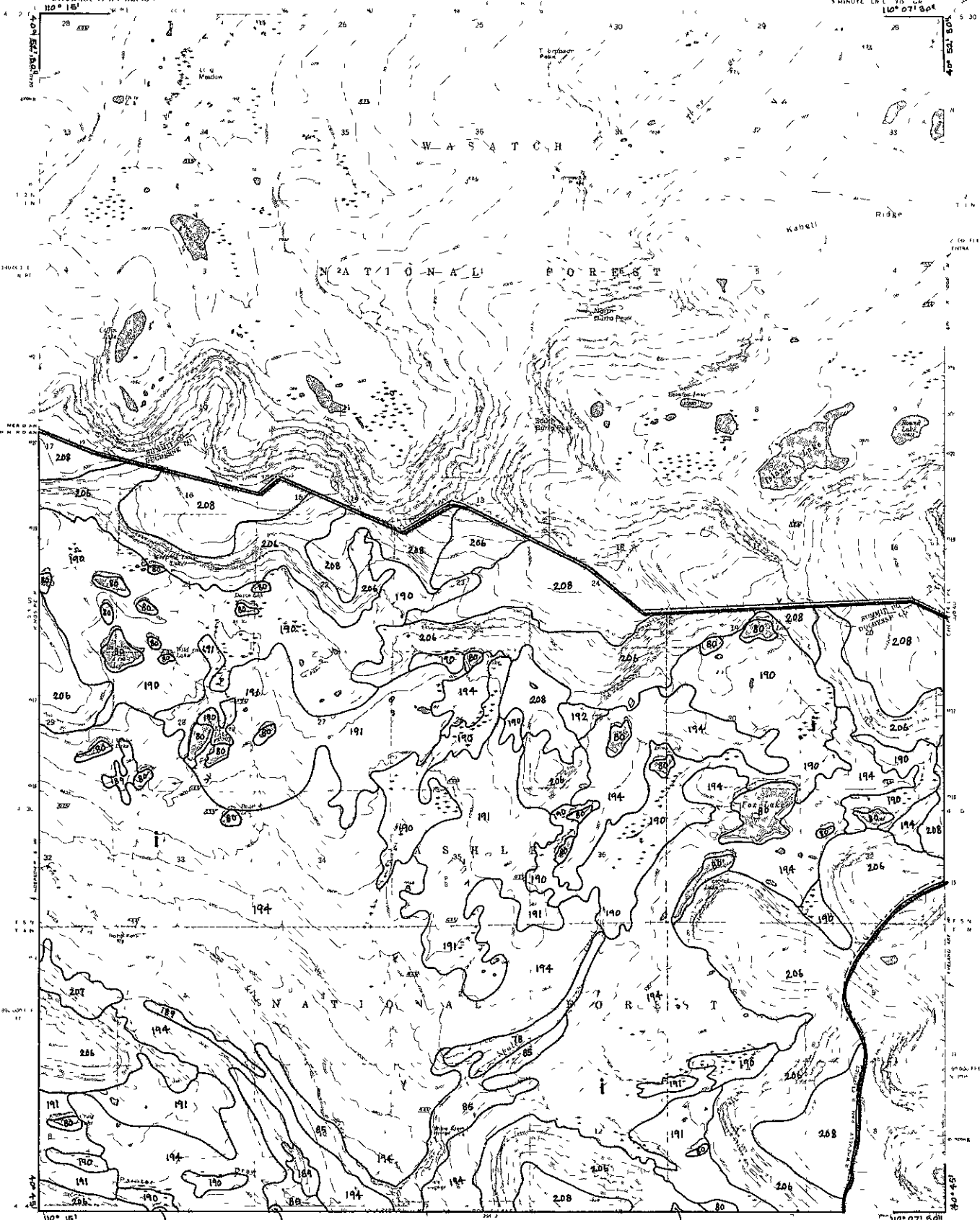
n

ROAD CLASSIFICATION

TOWNSHIP AND SECTION LINE CLASSIFICATION

U.S. GOVERNMENT PRINTING OFFICE

Ashley National Forest



ROAD CLASSIFICATION
T.R.

TOWNHIP AND SECTION LINE CLASSIFICATION

OTHER OWNERSHIP

MANAGEMENT AREA

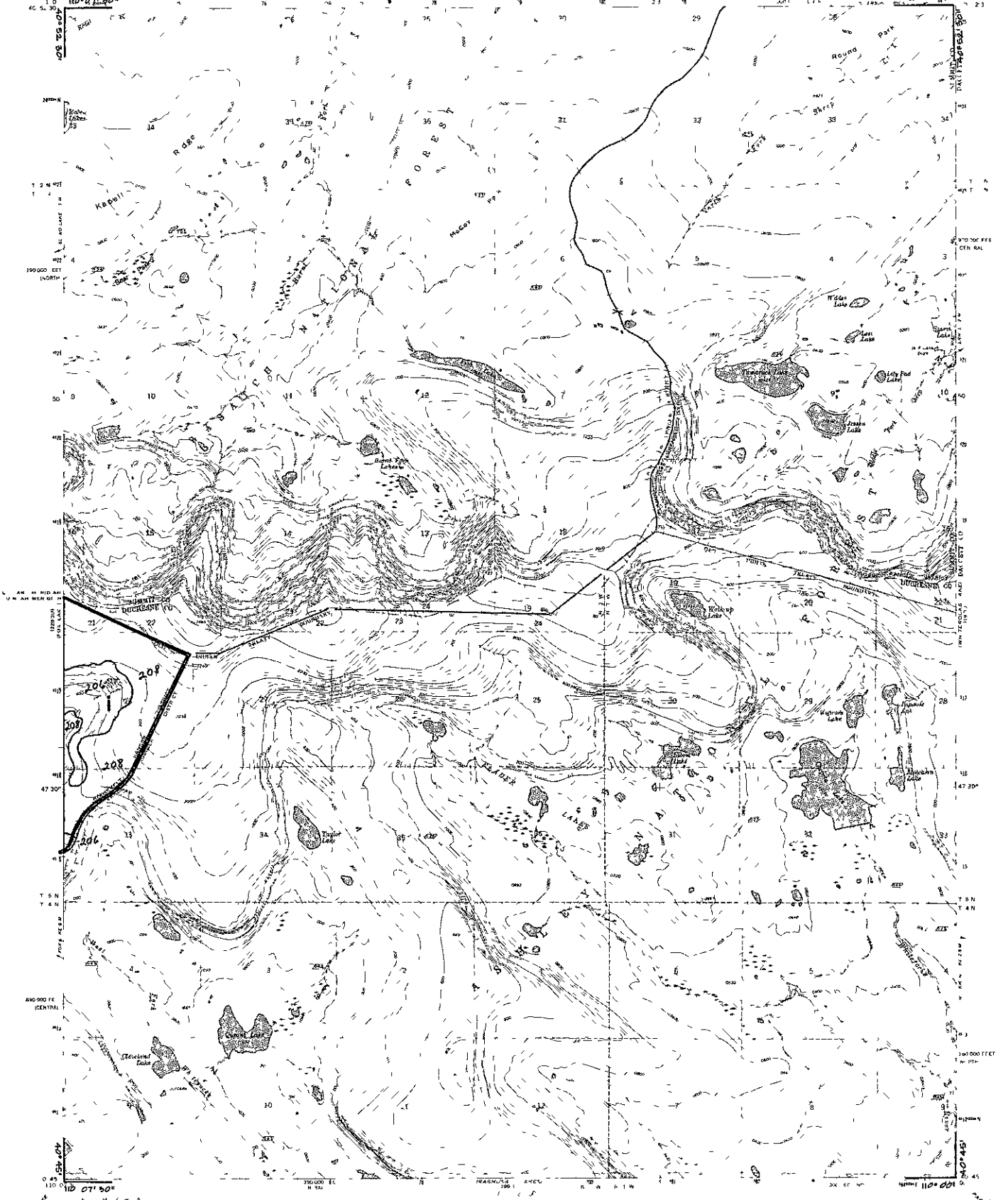
FOX LAKE 13
100

900-911

n

U.S. GEOLOGICAL SURVEY
WASHINGTON, D.C.

Ashley National Forest



CHEPETA LAKE 14

ANALYSIS AREA
TOWNSHIP AND SECTION LINE CLASSIFICATION BY
Surveyed location in the
OTHER OWNERSHIP
Unsurveyed Bureau of Land
Management, pro action

GILBERT PEAK 1 SE
100
900-911

MANAGEMENT AREA

n

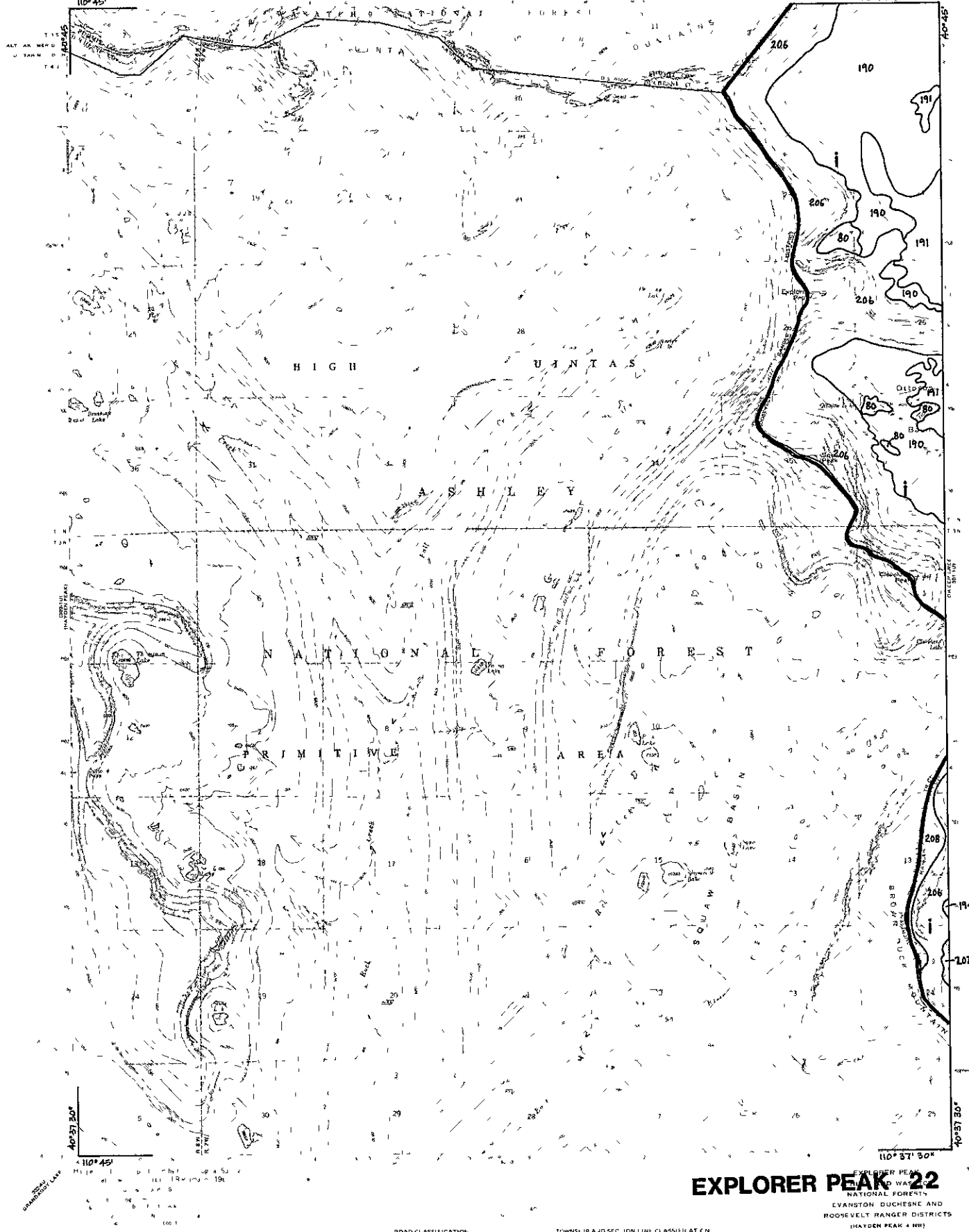
Orthophotograph prepared from 1:50,000 scale
aerial photograph taken September 26, 1970
Photography corrected by automatic
correction

ROAD CLASSIFICATION
Light D by Unimproved E

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
INTERMOUNTAIN REGION
110° 45'

Ashley National Forest

EXPLORER PEAK QUADRANGLE
UTAH SUMMIT AND
DUCHESNE COS
7.5 MINUTE SERIES TOPOGRAPHIC
110° 37' 30"



EXPLORER PEAK 22

NATIONAL FOREST
EVANSTON DUCHESNE AND
ROOSEVELT RANGER DISTRICTS
(HAYDEN PEAK 4 NW)
1972
301 20

ROAD CLASSIFICATION
Heavy Duty ———— Med. in Duty ————
Light Duty ———— In micro eq. lit. ————
T. 11

TOWNSHIP AND SECTION LINE CLASSIFICATION
————— Survey location reliable

ANALYSIS AREA
U.S. Survey of Land Management projection

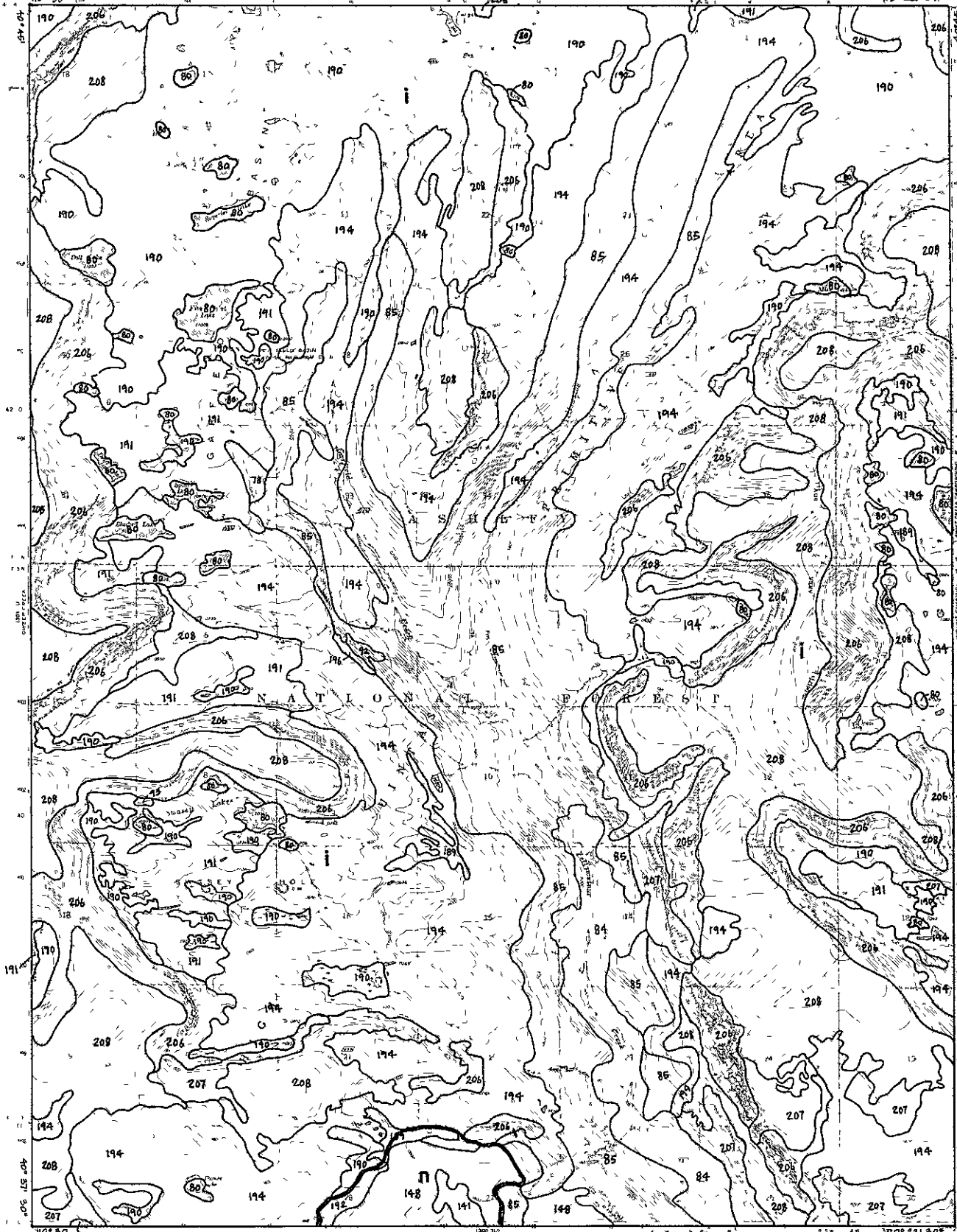
OTHER OWNERSHIP

100

900-911

U.S. Forest Service, Office of Planning and Administration, Denver, Colorado
Aerial photography from 1:50,000 scale
Photomagnified by automatic color process

Ashley National Forest



Scale: 1 inch = 1 mile
Map Date: 1972
Map No. 100-911

ROAD CLASSIFICATION
Heavy Duty ———— Medium Duty ————
Light Duty ———— Unimproved Dirt ————

TOWNSHIP AND SECT ON LINE CLASSIFICATION
ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

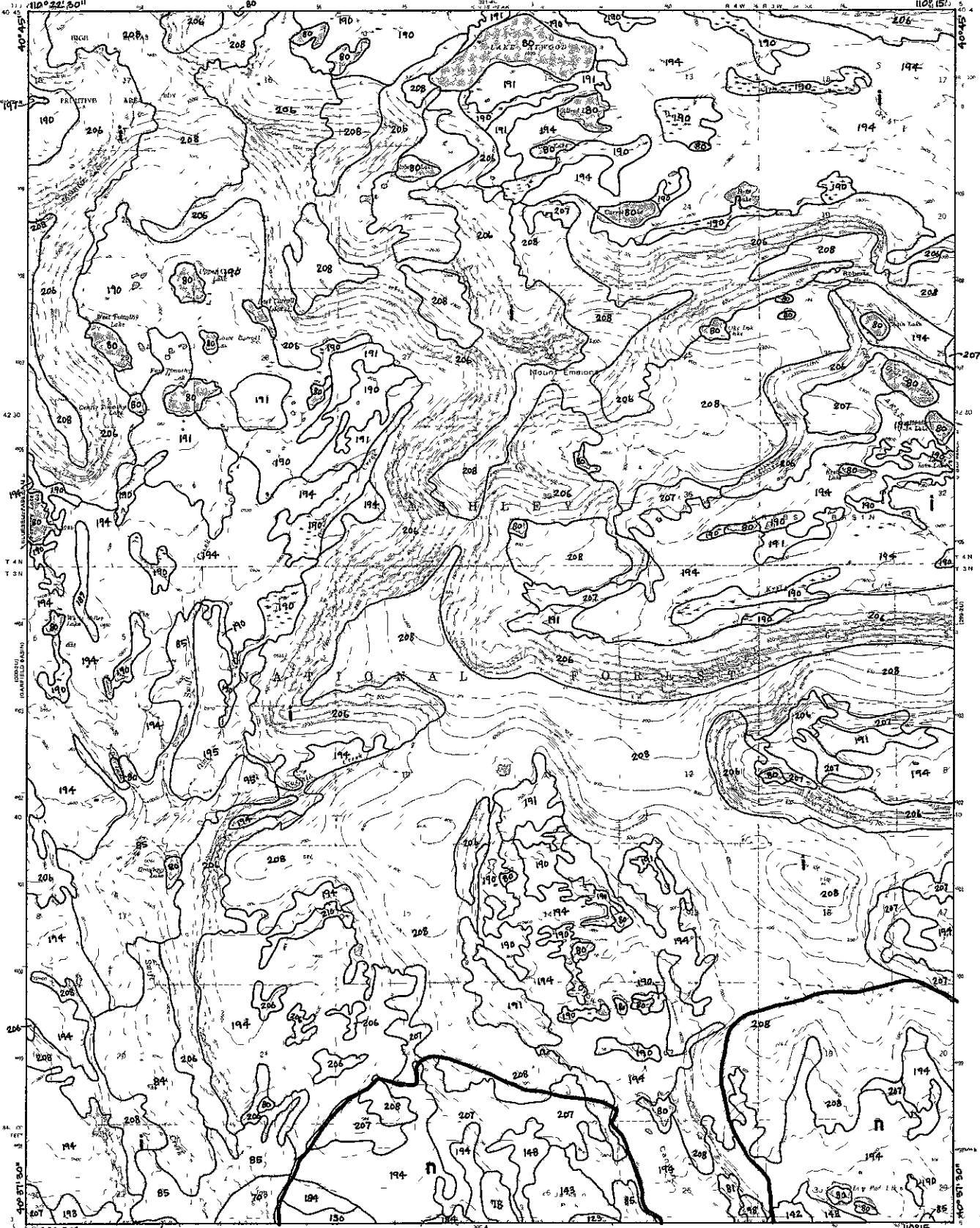
GARFIELD BASIN
100

100

900-911

n

Ashley National Forest



MOUNT EMMONS 25

MOUNT EMMONS
UTAH FOREST SERVICE
GILBERT PEAK 3 NE

100

900-911

n

ANALYSIS AREA

OTHER OWNERSHIP

MANAGEMENT AREA

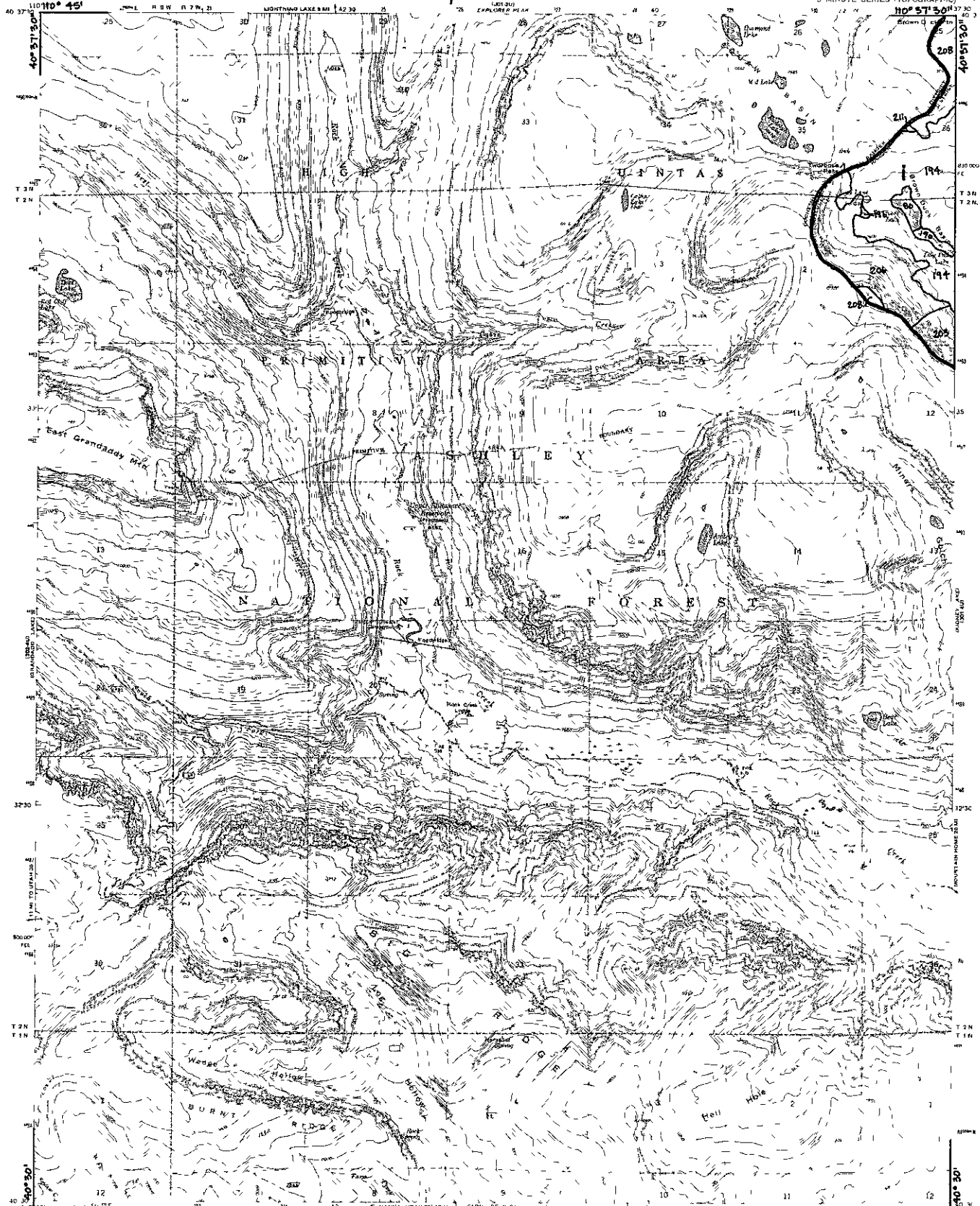
ROAD CLASSIFICATION

Heavy Duty Medium Duty
Light Duty Unimproved

Revised by: J. F. ...
Scale: 1 inch = 2 miles
Date: ...

Ashley National Forest

TWOROOSE PASS QUADRANGLE
UTAH DUCHESE CO
7.5 MINUTE SERIES (TOPOGRAPHIC)



110° 45' 00" W
40° 31' 30" N

110° 31' 30" W
40° 31' 30" N

Revised 1964 U.S.F. Interloc. Order U.S. 10-3
Add. 1964 U.S.F. Interloc. Order U.S. 10-3
Scale 1:25000
UT 100-100-100

ROAD CLASSIFICATION
Heavy Duty _____ Medium Duty _____
Light Duty _____ Unimproved _____
T all _____

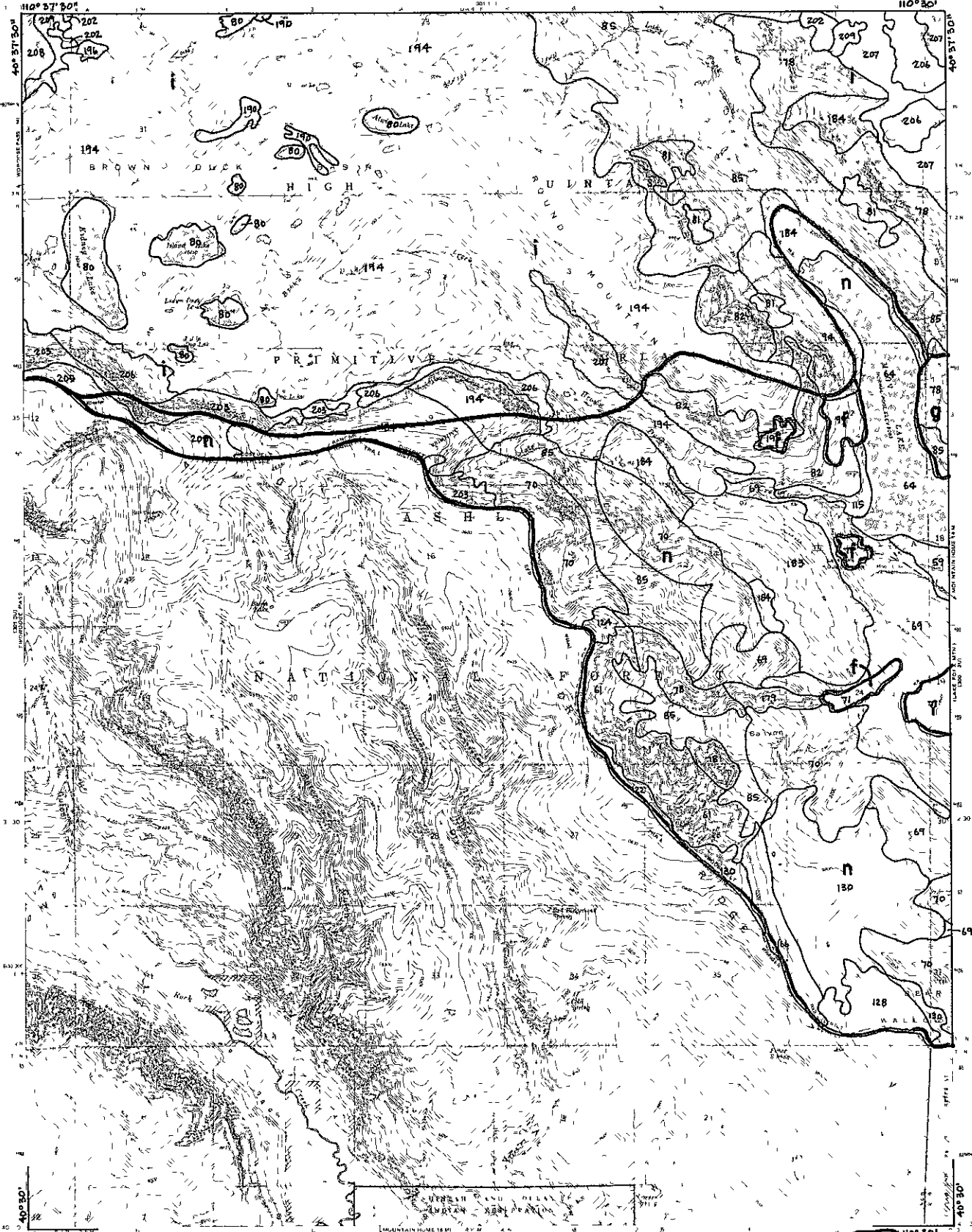
ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

TWOROOSE PASS 36

100
900-911
n

Ashley National Forest

Scale 1:50,000
G.S. 2500



ANALYSIS AREA

KIDNEY LAKE 37

100
900-911
301 4U
n

OTHER OWNERSHIP

MANAGEMENT AREA

ROAD CLASSIFICATION
Heavy Duty ———— Med. H.D. by ————
Light Duty ———— Unimproved Dirt ————

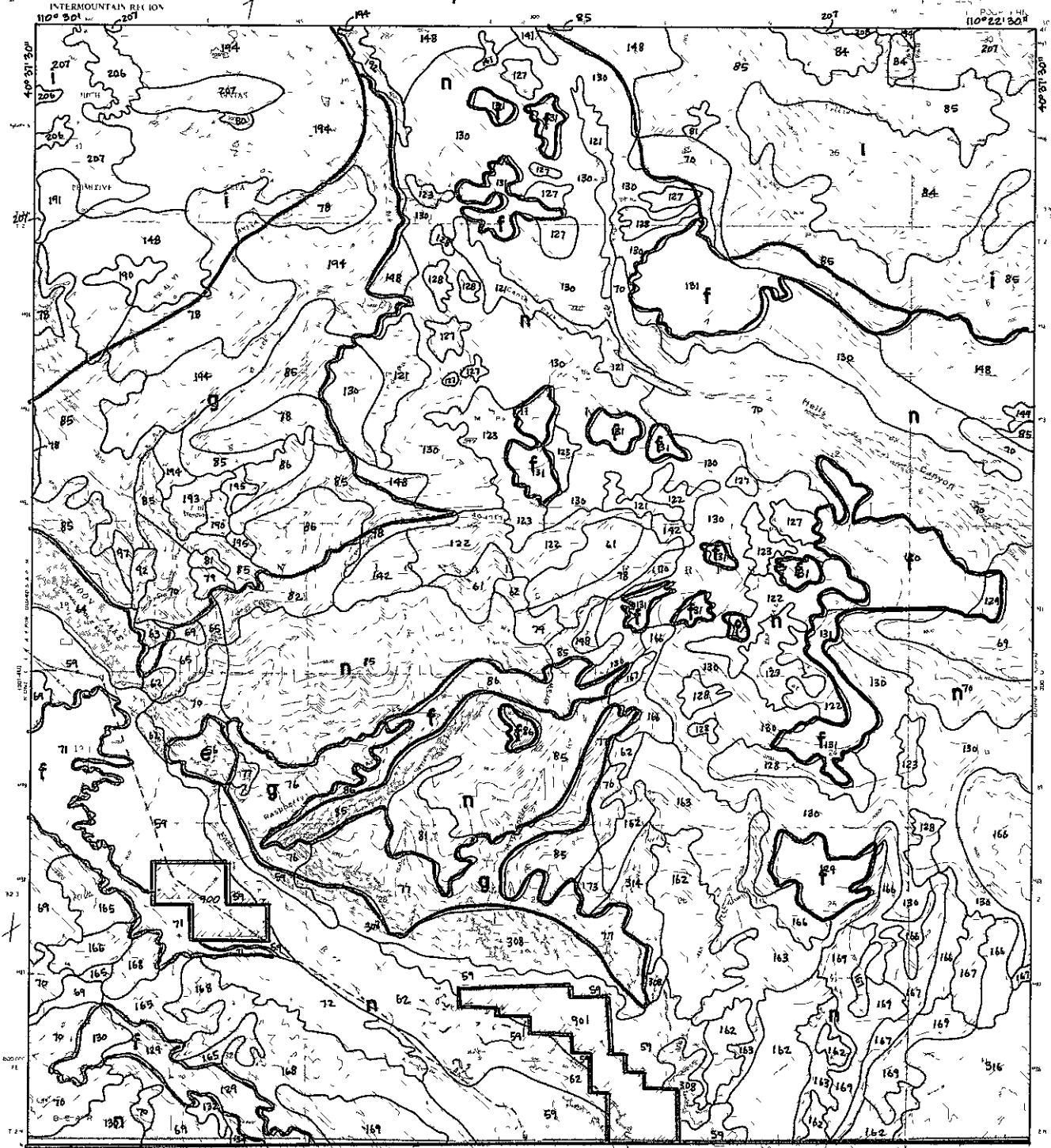
TOWNSHIP AND SECTION LINE CLASSIFICATION
Surveyed 1/20/1978

Revised 1/1/78
And re-issued 1998 photos
V. 10
Orthophoto and a plan view 8/1/78
and a photograph taken 2/27/1978
Photomaps by aerial photo interpretation

Surveyed 1/20/1978
Management protection

Ashley National Forest

LAKE FORK MOUNTAIN QUADRANGLE



LAKE FORK MOUNTAIN 38

ANALYSIS AREA

OTHER OWNERSHIP

MANAGEMENT AREA

ROAD CLASSIFICATION

Heavy Duty —————

Medium Duty —————

Light Duty —————

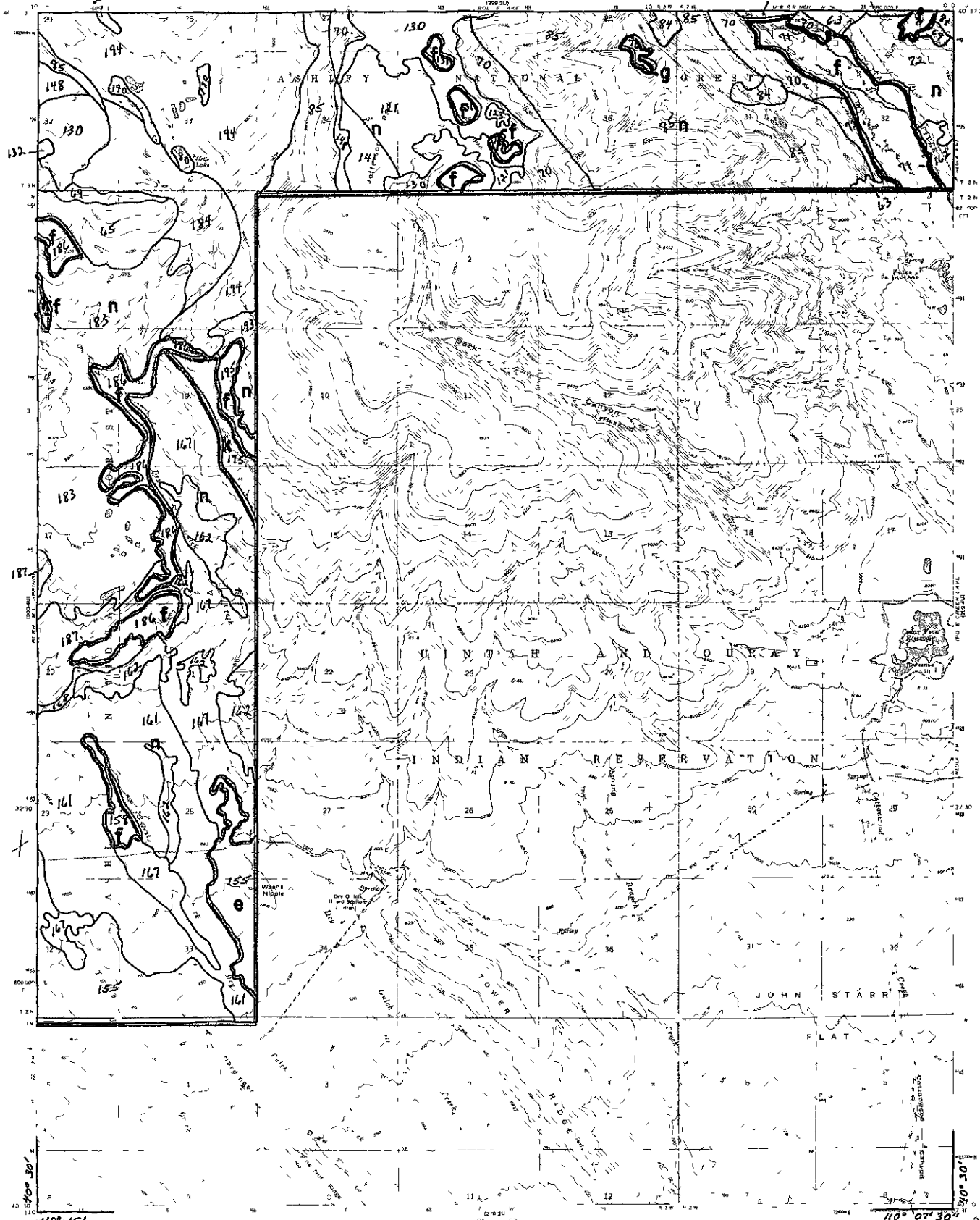
T. 11

100

900-911

n

Approx. Scale: 1 inch = 1 mile
 U.S. GEOLOGICAL SURVEY
 1:50,000
 1950
 7.5-MINUTE QUADRANGLE
 T. 11 N. R. 36 E. S. 36
 U.S. GEOLOGICAL SURVEY



HELLER LAKE 40

ANALYSIS AREA

HELLER LAKE
ASHLEY NATIONAL FOREST
LAND USER DESIGNATION
(011 - FOREST)

100

900-911

n

ROAD CLASSIFICATION

Heavy Duty _____ Medium Duty _____

Light Duty _____ Unimproved DIRT _____

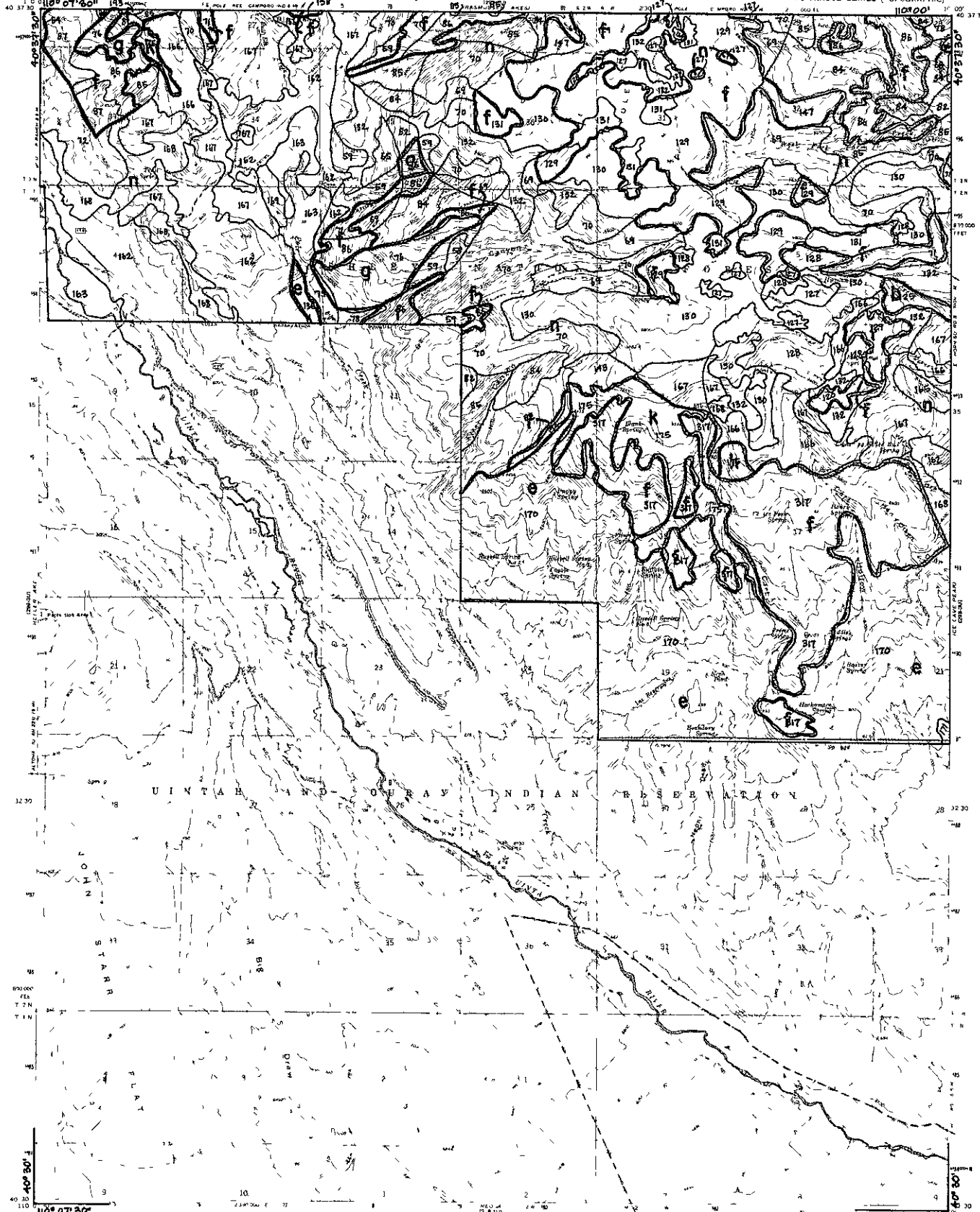
Trail _____

OTHER OWNERSHIP

MANAGEMENT AREA

Revised by USFS M.D. 3rd Ed. 1972
All names and line evidence from 1920 topographic
at 1:25,000 scale
U.S. Mountain
T-1 map, modified with National Map Act by SI 1482

Ashley National Forest

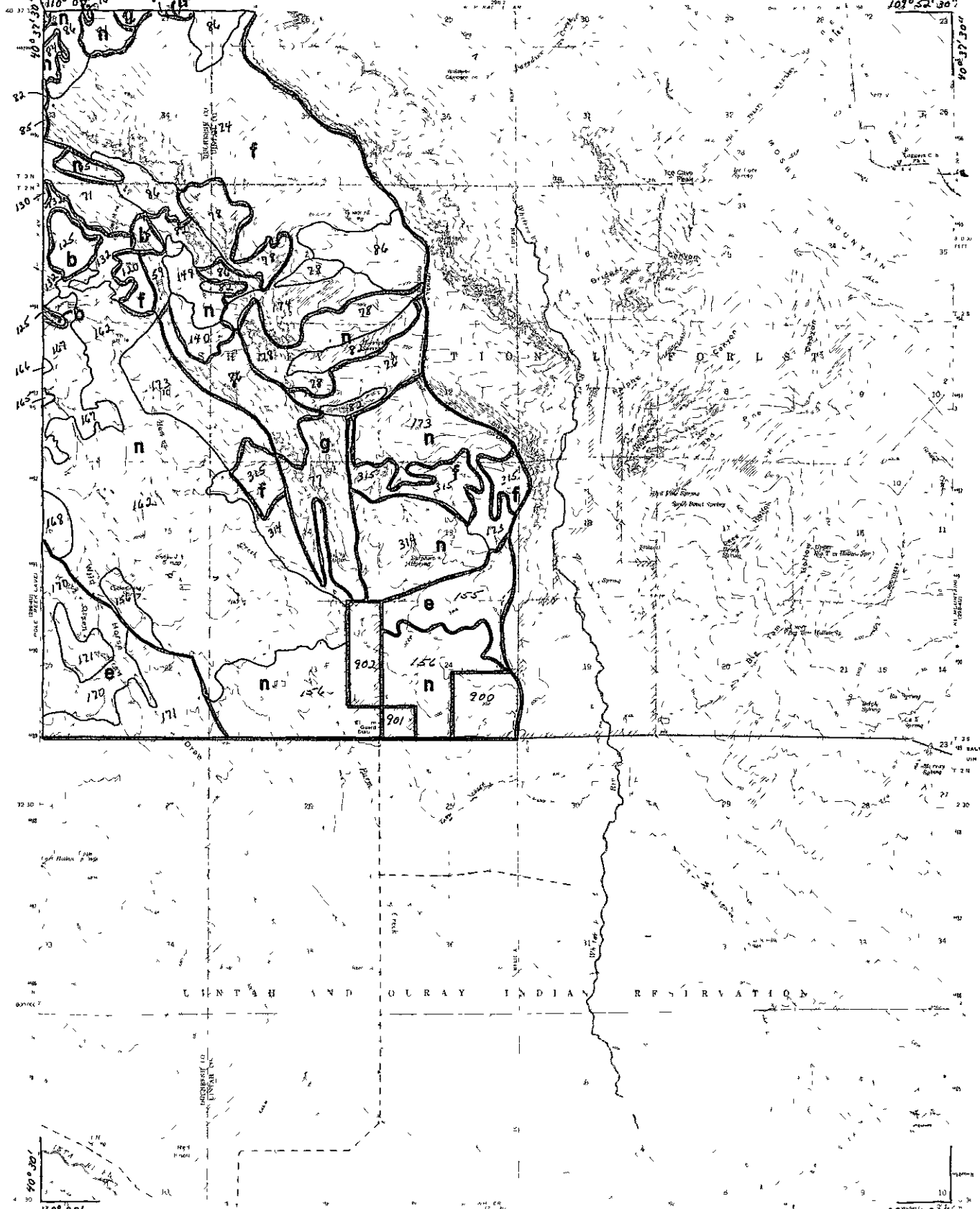


110° 07' 30" W
40° 30' N
U.S. Forest Service
Edited and printed by the author in 1960
Copyright © U.S. Forest Service
Scale 1:50,000
Revised by U.S. Forest Service, Ogden, Utah, 1972
Additional information available from 609 on topography
and 1972 this sheet
Utah State
This map complies with National Map Accuracy Standards

ROAD CLASSIFICATION
Heavy Duty _____ Medium Duty _____
Light Duty _____ Unimproved Dirt _____
T.M.

ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

POLE CREEK CAVE
UTAH-DUCHECNE CO.
900-911
n



ICE CAVE PEAK 42

ICE CAVE PEAK
NATIONAL FOREST
VERNAL AND ROOSEVELT
RANGER DISTRICTS
(MARSH PEAK 3 SW)
1972
208 310

100

900-911

n

ROAD CLASSIFICATION

TOWN PLANNING SECTION LINE CLASSIFICATION

ANALYSIS AREA

OTHER OWNERSHIP

MANAGEMENT AREA

Map 1 based on U.S. Forest Service maps and other sources.
Aerial photography used in this map was taken in 1966, 1968, and 1972.
Scale: 1 inch = 1 mile.
This map is prepared by the Forest Service, U.S. Department of Agriculture.
Photography was provided by the U.S. Geological Survey.
10

DUCHESNE RANGER DISTRICT
4A

4A Duchesne Ranger District (North Unit) - Administrative Unit 4A - 157,183 acres

A. Unit Description:

This unit, the North Unit of the Duchesne Ranger District, is the western most portion of the Ashley National Forest on the south slope of the Uintas. It is bordered on the east by the Roosevelt Ranger District, on the north by the Wasatch National Forest, the Wasatch and Uinta National Forests on the west, and forms the boundary of the Ashley National Forest on the south. This unit lies mostly within Duchesne County, although a small area on the west edge lies in Wasatch County, Utah.

B. Physical Characteristics:

Two major drainages dominate the unit. From east to west they are Rock Creek and North Fork Duchesne River. All of these streams drain to the Duchesne River which is a tributary of the Green - Colorado River System. The dominant character of the unit was produced by glaciation which formed broad cirque basins with many lakes and narrow "U" shaped canyons.

The backbone of the Uinta Range, an east-west trending mountain system, is formed by a narrow, sinuous ridge that extends the entire east-west length of the planning unit. Subordinate ridges of similar shape, but, in places, higher elevations, extend south from the main ridge to separate the drainage basins.

Plant communities on the south slope of the Uinta Mountains vary from those species ecologically adapted to high elevations where cold alpine climatic conditions prevail to species that are adapted to semi-desert conditions at lower elevations.

In general, the flora of this unit can be categorized into several broad vegetative types. These are: (1) alpine-arctic sedge, grass and forb communities usually occurring above an elevation of 11,000 feet; (2) alpine shrub communities found primarily in the higher cirque basins; (3) climax subalpine fir-Engelmann spruce forest; (4) seral dominant lodgepole pine forest; (5) climax Douglas-fir stands usually occurring below the spruce-fir and lodgepole pine types; (6) ponderosa pine stands often occurring with Douglas-fir and aspen at intermediate elevations; (7) aspen clones which occur as relatively pure stands or intermingled with conifer trees; (8) wet sedge-grass meadows are found in cirque basins and on flood plains adjacent to streams; (9) dry sedge-grass-form meadows or parklands of the upland plateaus; (10) mixed mountain shrubs on well drained slopes primarily below the lower conifer and aspen belt; (11) mixed conifer-broadleaf tree groves found on the floodplains of the larger streams; (12) sagebrush-grasslands which vegetate alluvial fans of the side canyons and lower foothills; (13) pinyon pine-juniper woodlands grow at lower elevations on harsh dry sites; (14) riparian shrub thickets occurring adjacent to stream channels. Important species are willow, river birch, thin leaf alder, dogwood, currant, gooseberry, and raspberry shrubs.

The physiographic and vegetative diversity described above was a major attraction and factor in the classification in 1931 of the High Uintas Primitive Area. This recognition culminated in 1984 with passage of the Utah Wilderness Act which included a High Uintas Wilderness of 460,000 acres on the Wasatch and Ashley National Forest.

A total of 72,814 acres of the High Uintas Wilderness is included in this Administrative Unit.

D. Management Areas within Duchesne Ranger District - North Unit (for details see Standards and Guidelines in this Chapter):

Management Area b - Management Emphasis (ME)2 - Management Intensity (MI)3 - 1,066 acres
Management Area d - ME3 - MI4 - 214 acres
Management Area f - ME5 - MI3 - 10,175 acres
Management Area g - ME5 - MI4 - 6,544 acres
Management Area i - ME7 - MI3 - 72,814 acres
Management Area k - ME8 - MI4 - 2,343 acres
Management Area n - ME11 - MI2 - 64,031 acres

Management areas are aggregations of analysis areas that have the same management prescription and are shown on the following tables. Management Emphasis and management intensity numbers were used for identification during the FORPLAN modeling and are shown here to maintain prescription identity. The acreage figures indicate total acres for each management area.

Administrative Unit 4 - Duchesne Ranger District (North Unit)

Analysis Areas		Management Areas													
		b.		d.		f.		g.		i.		k.		n.	
Number	Total Acres in the Unit	ME2 Acres Allocated	MI3 Decade Implemented	ME3 Acres Alloc	MI4 Decade Impl	ME5 Acres Alloc	MI3 Decade Impl	ME5 Acres Alloc	MI4 Decade Impl	ME7 Acres Alloc	MI3 Decade Impl	ME8 Acres Alloc	MI4 Decade Impl	ME11 Acres Alloc	MI2 Decade Impl
59	5,172									17	1			5,155	9
308	262													262	1
61	2,860													2,860	1
62	1,255					20	1							1,235	1
63	846					34	1							812	1
64	85													85	1
65	2,056	888	4			18	4			109	1			1,041	7
67	175													175	2
68	148													148	11
69	1,126					10	6			9	1			1,107	6
70	6,512					46	11			119	1			6,347	2,3,4,5
71	4,070					4,066	5,9			4	1				
72	476					12	7							464	6,7
76	1,557							1,557	1						
77	71							71	2						
78	3,470							503	1	825	1			2,142	1
79	386							15	1	10	1			361	1
80	1,412							63	1	1,309	1			40	1
81	1,520							260	1	613	1			647	1
82	3,991							43	1	1,243	1			2,705	9,11
309	1,538									1,538	1				
84	295							11	1	203	1			81	6,7
85	9,068							489	1	5,870	1			2,709	11,12
86	1,516					1,319	3,4,7,8,9	104	1	93	1				
87	242					159	7,8	83	1						
120	1,177					1,177	1,2								
121	618													618	1
122	2,828					15	1							2,813	1
124	263													263	1
125	265	178	2,3,4			60	1							27	8
127	461					461	1								

Administrative Unit 4 - Duchesne Ranger District (North Unit)
Management Areas

Analysis Areas		b.		d.		f.		g.		i.		k.		n.	
		ME2	MI3	ME3	MI4	ME5	MI3	ME5	MI4	ME7	MI3	ME8	MI4	ME11	MI2
Number	Total Acres in the Unit	Acres Allocated	Decade Implemented	Acres Alloc	Decade Impl	Acres Alloc	Decade Impl	Acres Alloc	Decade Impl	Acres Alloc	Decade Impl	Acres Alloc	Decade Impl	Acres Alloc	Decade Impl
128	406													406	7
129	48					48	4,5								
130	2,760					131	2			5	1			2,624	1,2,7, 8,9,11
132	541													541	3,4,5, 6,7
140	845													845	1
141	371													371	1
142	210							18	1					192	1
144	93					93	1,2,3,4,5								
146	14													14	7
147	38					38	5,6								
148	1,444					235	1	92	1	130	1			987	10,11,12
149	846													846	6
162	4,254													4,254	1
164	120					105	2,3,4							15	7
165	283													283	6
167	4,326													4,326	3,4,5,8
168	601													601	2,3,4,5
173	1,061													1,061	1
174	150					135	2,3,4							15	7,9
175	2,343											2,343	9,10		
177	272													272	1
178	214			214	1										
179	252													252	1
182	256													256	10
184	2,911					8	3			73	1			2,830	1,2,3,4,5
186	1,192					1,192	3,4,5								
189	511							59	1	214	1			238	1
190	5,171							78	1	5,049	1			44	1
191	4,023							129	1	3,806	1			88	1

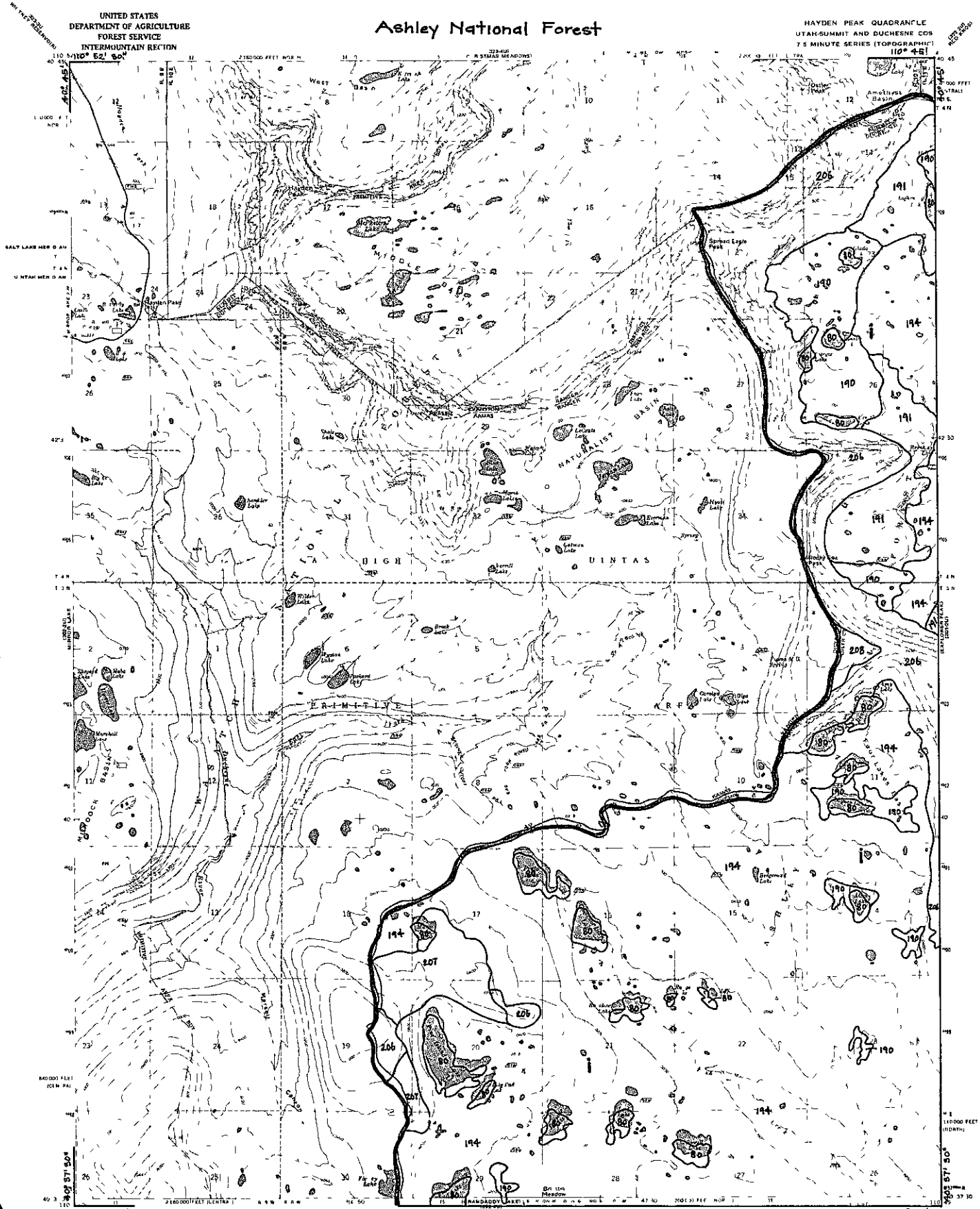
Administrative Unit 4 - Duchesne Ranger District (North Unit)
Management Areas

Analysis Areas Number	Total Acres in the Unit	b.		d.		f.		g.		i.		k.		n.	
		ME2 Acres Allocated	MI3 Decade Implemented	ME3 Acres Alloc	MI4 Decade Impl	ME5 Acres Alloc	MI3 Decade Impl	ME5 Acres Alloc	MI4 Decade Impl	ME7 Acres Alloc	MI3 Decade Impl	ME8 Acres Alloc	MI4 Decade Impl	ME11 Acres Alloc	MI2 Decade Impl
193	1,030							98	1	764	1			168	6
194	36,285					187	3	1,813	1	31,473	1			2,812	1,2,3,4,5
195	514					441	3,4							73	5
203	2,116					61	1			220	1			1,835	1
204	1,619													1,619	1
205	3,239					104	1							3,135	1
206	13,239							415	1	12,666	1			158	1
207	2,291							153	1	1,730	1			408	1
208	5,577							490	1	4,722	1			365	1
Totals	157,183	1,066	-----	214	-----	10,175	-----	6,544	-----	72,814	-----	2,343	-----	64,031	-----

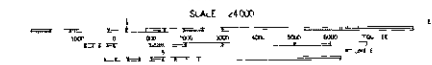
Duchesne Ranger District - 4A

Quads in this section: 21, 22, 23, 34, 35, 36, 37, 48, 49, 50, 51

Ashley National Forest



Map 300-31-90's Forest Service
Edited and published by the Geological Survey 1972
This is USGS USGCMO's 20 U.S. Forest Service
Topographic map showing terrain features and contour lines
Scale 1:62,500 (1 inch = 1 mile) Field notes 1972
Projection is 317000 Northings x 1216000
Easting. UTM Zone 12N. UTM datum is WGS 84
Scale 1:62,500. North Arrow is true
Projection is U.S. Forest Service. UTM Zone 12N
Scale 1:62,500. North Arrow is true
Scale 1:62,500. North Arrow is true



ROAD CLASSIFICATION
Heavy Duty ——— Medium Duty ———
Light Duty ——— Unimproved Dirt ———
Trail ———

ANALYSIS AREA
TOWNSHIP AND SECTION LINE CLASSIFICATION
Surveyed location reliable
OTHER OWNERSHIP
Unsurveyed Bureau of Land Management protection
MANAGEMENT AREA

HAYDEN PEAK 21
WASATCH AND ASHLEY
FORESTS
EVANSTON AND HAYDEN DUCHECNE
RANGERS DISTRICT
(HAYDEN PEAK)

1973
900-911

n

Ashley National Forest



EXPLORER PEAK 22
ANALYSIS AREA
TOWNSHIP AND SECTION LINE CLASSIFICATION

EXPLORER PEAK
UTAH-SUMMIT AND
DUCHESSNE COS.
100
ROOSEVELT DISTRICTS
(MOUNTAIN DISTRICTS)

ROAD CLASSIFICATION
Heavy Duty ——— Met. Cn. D. ty ———
Light Duty ——— Unimproved D. ———

OTHER OWNERSHIP
Management contract on

1972
900-911

n

Reprinted by U. S. Forest Service, Ogden Utah, 1972
All rights reserved. No revision from 1970 showing on
42 15 2 and 401
See also and various Monographs

Ashley National Forest



ANALYSIS AREA **OWEEP CREEK** **1892** **23**

OTHER OWNERSHIP

MANAGEMENT AREA

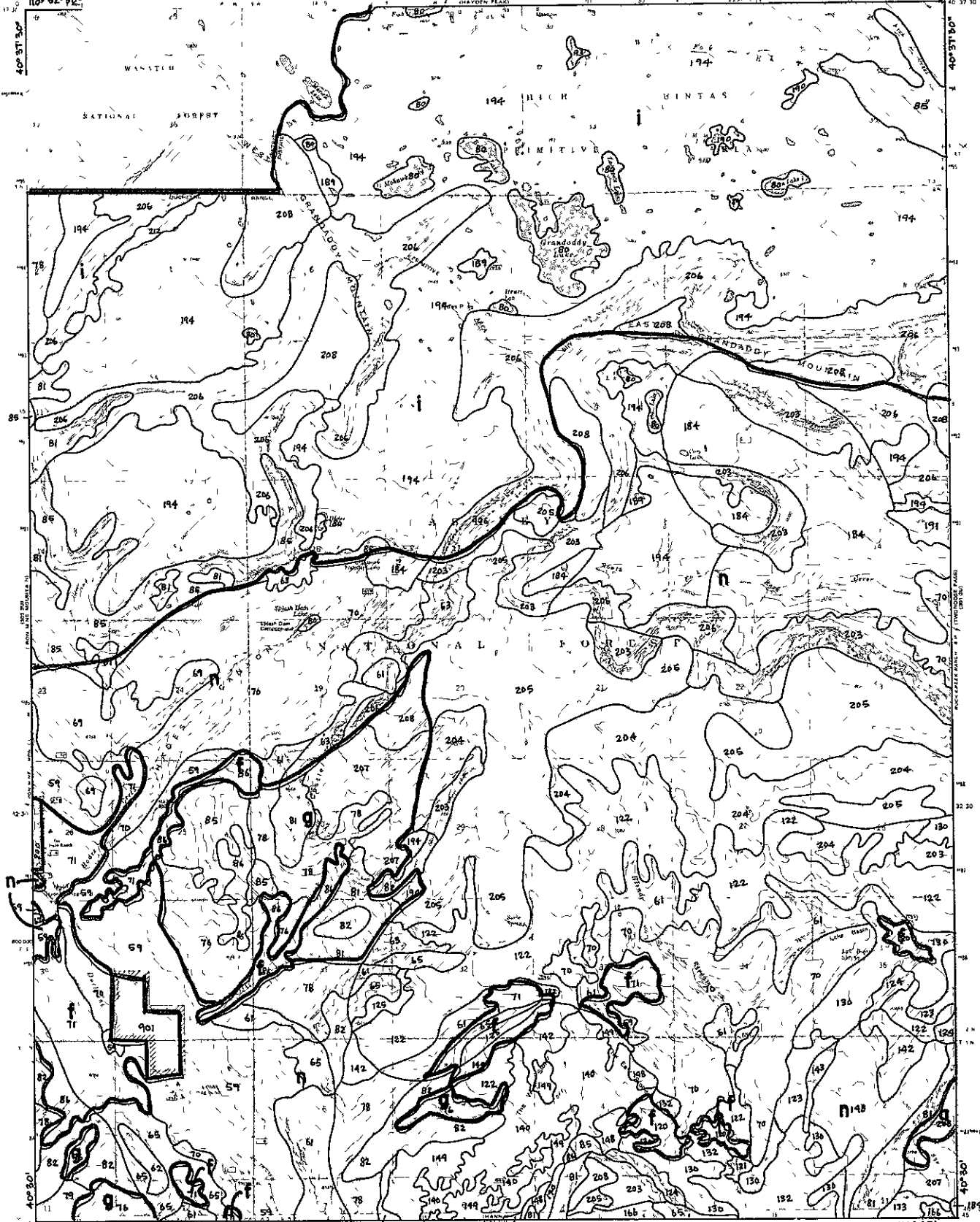
900-911

n

Revised by U.S. Forest Service, Ogden Utah 1972
Aerial photo used in this map is 1969 photography
USGS 2 10000 500
Unlabeled

ROAD CLASSIFICATION
Heavy Duty ——— Med um Duty ———
Light Duty ——— Un improved ———
Surveyed local on or after
Unimproved Source of Land
Management per 1 actio

Ashley National Forest

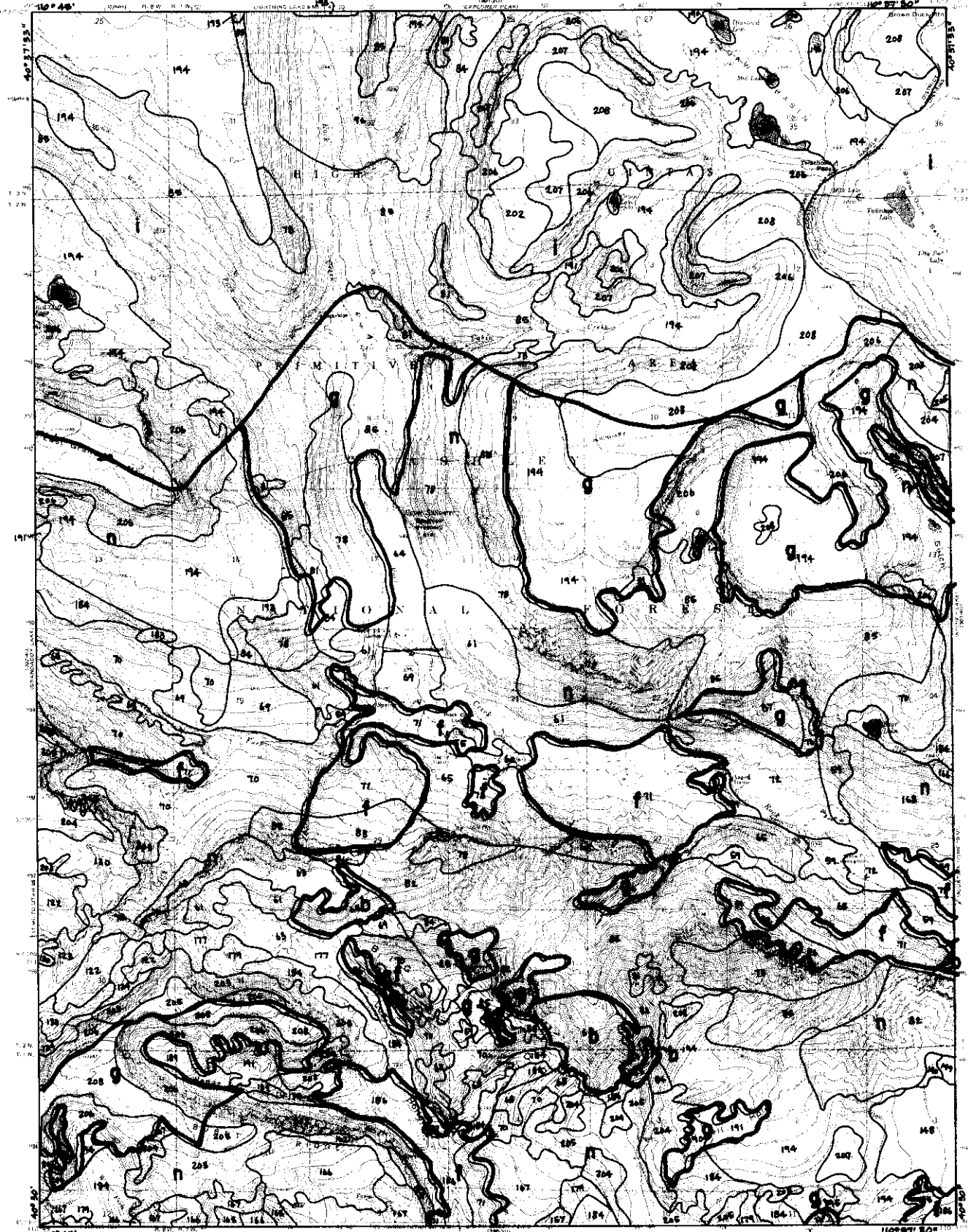


Map of Granddaddy Lake, Utah, showing the analysis area. The map is a 7.5-minute series topographic map. The analysis area is outlined in black. The map is titled 'GRANDDADDY LAKE QUADRANGLE' and 'UTAH-DULLESNE CO'. The coordinates are 110° 45' West and 40° 37' North. The map is a 7.5-minute series topographic map.

ROAD CLASSIFICATION
Heavy Duty ——— Medium Duty ———
Light Duty ——— Unimproved Dirt ———
T all

GRANDDADDY LAKE 95
ANALYSIS AREA
TOWNSHIP AND SECTION LINE CLASSIFICATION
OTHER OWNERSHIP
Unsurveyed Bureau of Land
MANAGEMENT AREA
900-911
n

Ashley National Forest



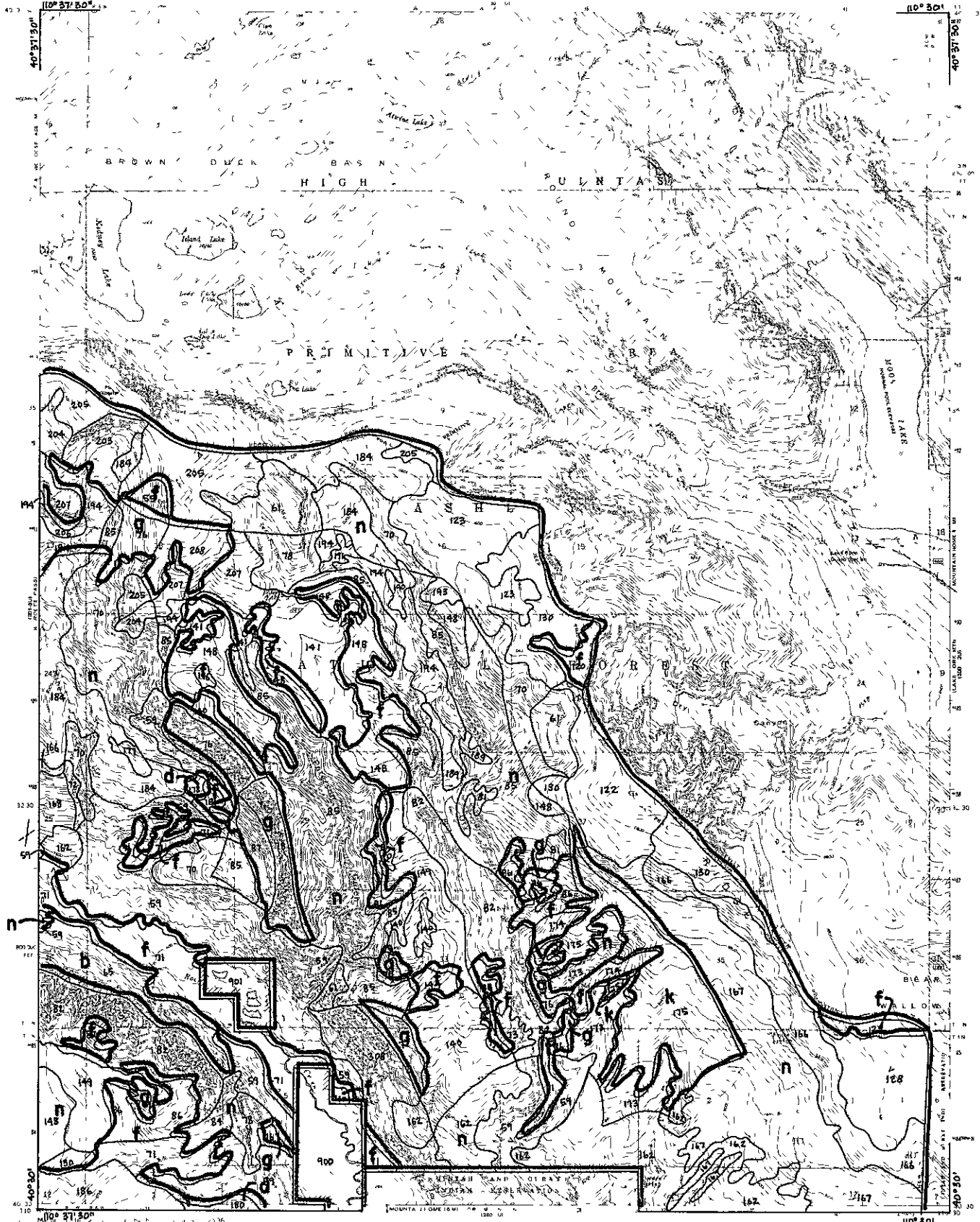
This map was prepared by the Geographical Party 1967
in cooperation with the Bureau of Soils under
contract no. U-25, and the U.S. G.S.
Topographic engineering methods and data
were used in the preparation of this map.
The map is based on U.S. G.S. maps and
data. It is not a substitute for a field
survey. It is not a legal document.
Published by the Forest Service, U.S. G.S.
and other sources from 1967 to 1972.
Utah - Duchesne Co. 7.5 Minute Series
1972 Road Act
Utah - Duchesne Co.

ROAD CLASSIFICATION
Heavy Duty
Medium Duty
Light Duty
Unimproved Dirt
Trail

ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

TWOROOSE PASS 36
TWOROOSE PASS
ASHLEY NATIONAL FOREST
DUCHESNE AND ROCHESTER
RANGER DISTRICTS
MAY 1967
100
900-911
n

Ashley National Forest



Scale 1:50,000
1" = 1 mile
1" = 1.6 kilometers

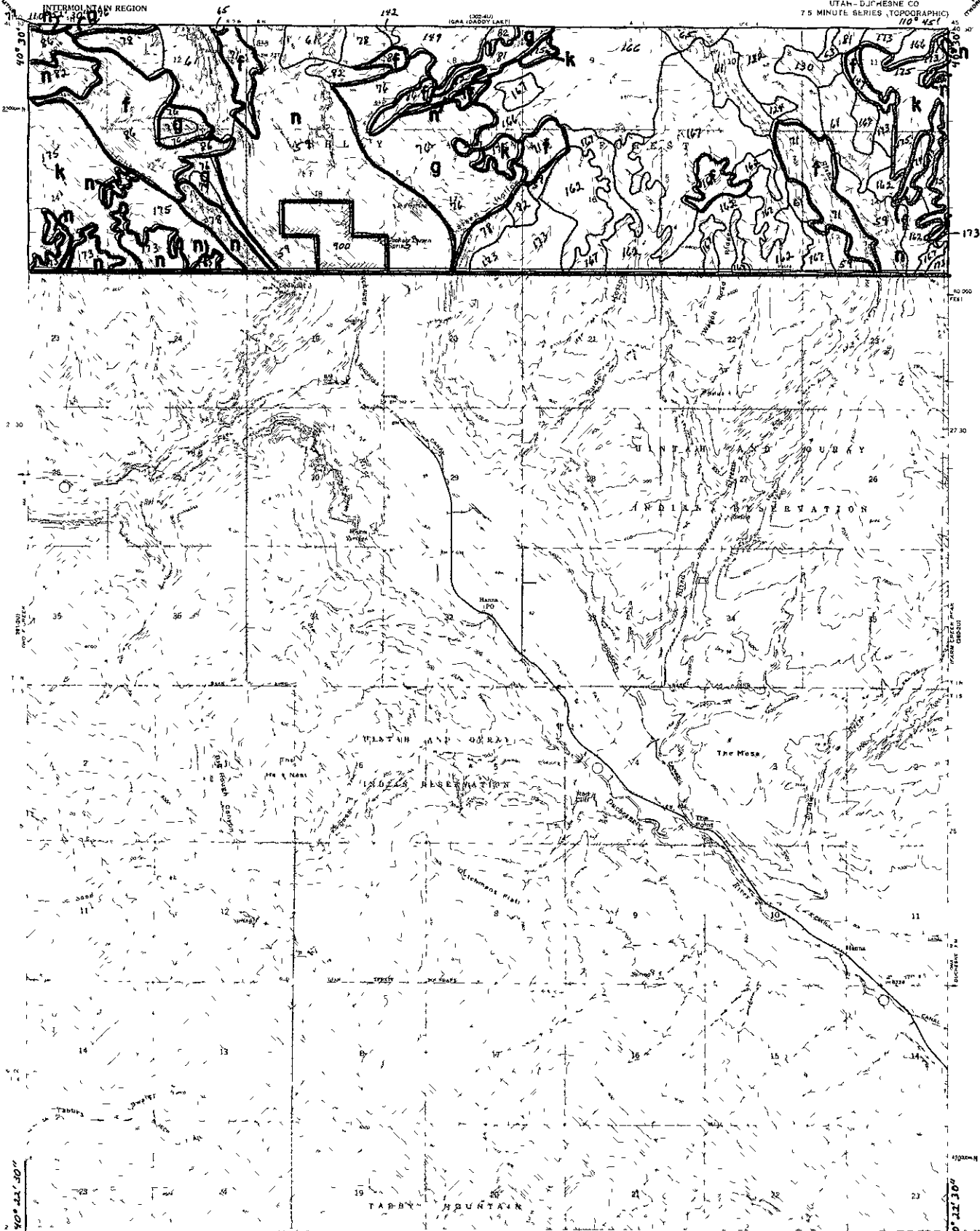
ROAD CLASSIFICATION
Heavy Duty ——— 1162 M Duty ———
Light Duty ——— Unimproved Dirt ———
T All ———

ANALYSIS AREA
TOWNSHIP AND SECTION LINE CLASSIFICATION
S ne ad local reliable
OTHER-OWNERSHIP
Unimproved Bureau of Land
Management protection
MANAGEMENT AREA

KIDNEY LAKE 37

ASHLEY NATIONAL FOREST
RANGE DISTRICT
100
900-911
n

Revised from U.S. Geol. Surv. Topog. Map No. 1922
Additions and modifications made in 1972 and 1973
and 1974 field work
Unshaded



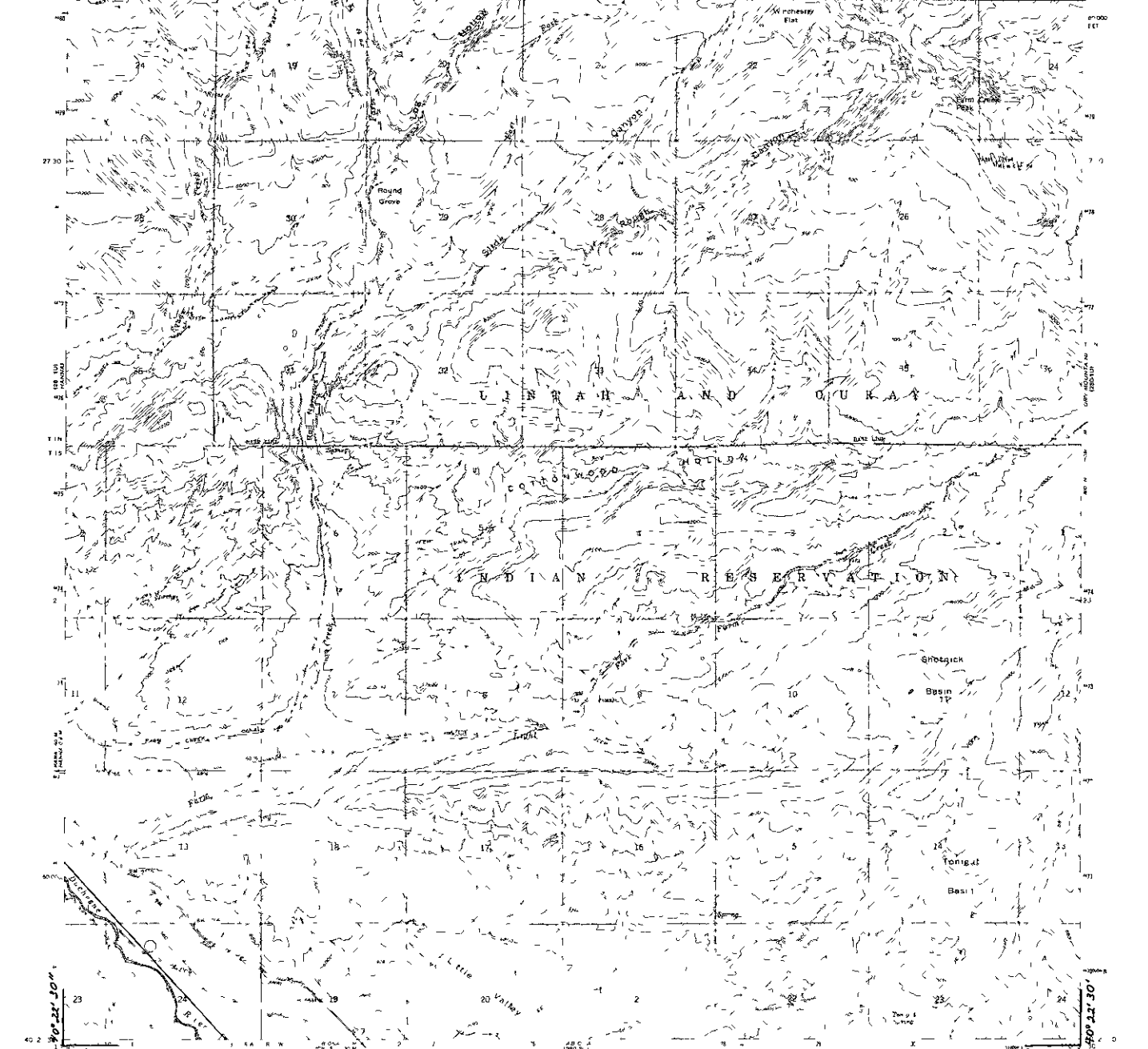
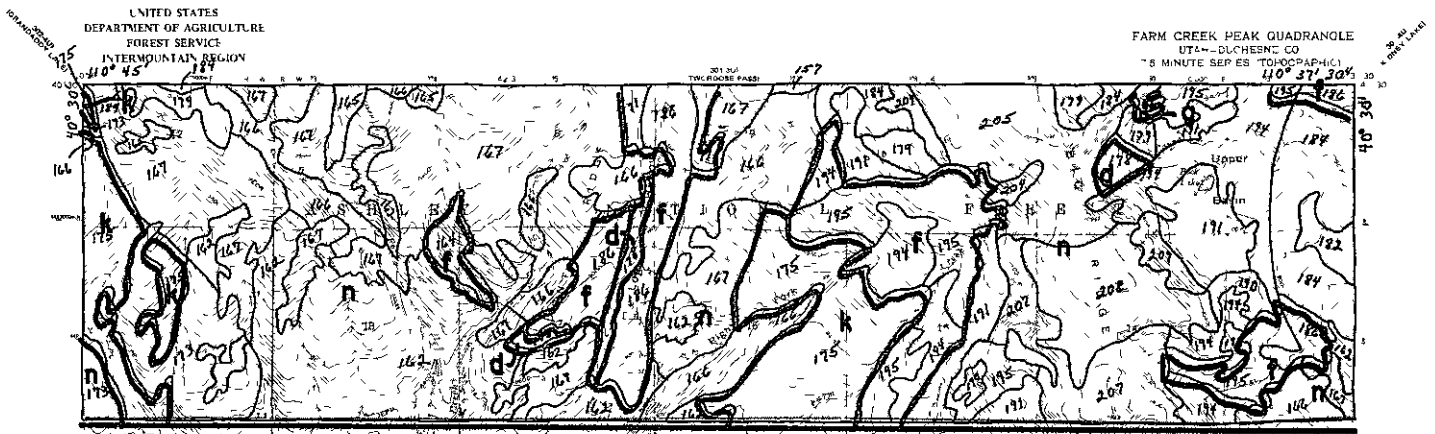
710° 53' 30" ...
Scale 1:50,000
Revised by U.S. Forest Service, Ogden, Utah, 1973
Additions and minor revisions from 1970 photogram
and 1972 field data
Utah: Marston

UTM 48Q AND 188E MAGNETIC NORTH
DECLINATION: T CENTER OF SHEET

ROAD CLASSIFICATION ON
Heavy Duty ———— Med. um Duty ————
Light Duty - - - - - Unimproved Dirt - - - - -
T & L - - - - -

ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA
Management protection

ASHLAND FOREST
HANNA 49
900-911
n



FARM CREEK PEAK 50

ANALYSIS AREA
TOWNSHIP AND SECTION LINE CLASSIFICATION

ROAD CLASSIFICATION
 Heavy Duty _____ Medium Duty _____
 Light Duty _____ Unimproved Dirt _____
 T All _____

OTHER OWNERSHIP

MANAGEMENT AREA

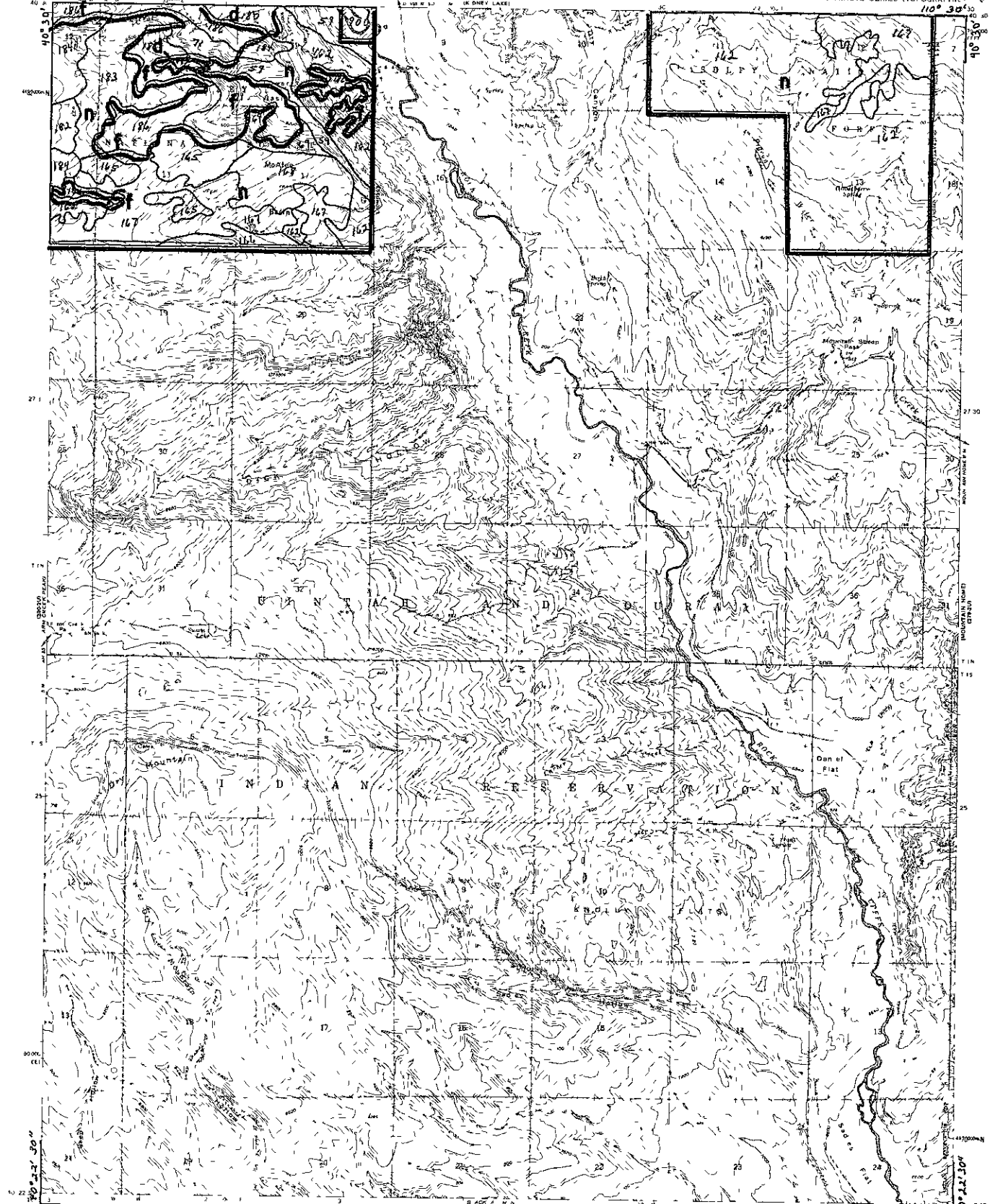
100

900-911

n

Revised from U.S. Forest Service, Ogden, Utah, 1972
 All new and revised sections to 1980 plus up to
 and 10 a total of
 Utah Meridian

Surveyed and on file
 Unsurveyed Bureau of Land
 Management pro action



Scale 1:50,000
UTAH-DUCHESNE 70
5 MINUTE SERIES (TOPOGRAPHIC)
1952 Edition
Revised 1958
Original Survey 1908-1912
Photoreduced from 1908-1912
Photograph
UTAH-DUCHESNE 70
5 MINUTE SERIES (TOPOGRAPHIC)

UTAH-DUCHESNE 70
5 MINUTE SERIES (TOPOGRAPHIC)
1952 Edition
Revised 1958
Original Survey 1908-1912
Photoreduced from 1908-1912
Photograph
UTAH-DUCHESNE 70
5 MINUTE SERIES (TOPOGRAPHIC)

ROAD CLASSIFICATION
Heavy Duty _____ Medium Duty _____
Light Duty _____ Unimproved D/R _____
T.S. _____

ANALYSIS AREA
Surveyed location reliable

OTHER OWNERSHIP
Surveyed location approximate
Management Unit, etc.

MANAGEMENT AREA

DRY MOUNTAIN 51

100'

900-911

n

DUCHESNE RANGER DISTRICT
4B

4B Duchesne Ranger District (South Unit) - Administrative Unit 4B - 202,123 acres

A. Unit Description:

This unit, the South Unit of the Duchesne Ranger District, has traditionally been considered as a separate unit of the District. It is physically separated from the rest of the Ashley National Forest and has different physical and vegetative characteristics.

The unit predominantly borders the Uintah and Ouray Indian Reservation lands on the north, public land administered by the Bureau of Land Management on the east, predominantly private land on the south, and adjoins the Uinta National Forest on the west.

The southwestern corner of the Unit lies in Utah and Wasatch Counties with the majority of the unit falling in Duchesne County, Utah.

B. Physical Characteristics:

This unit is a northward sloping plateau (Tavaputs Plateau) formed by the uplifting of the Uinta Sediment. It is sharply dissected by several major drainages. The plateau is drier and lower on the northern edges, which are covered with pinyon-juniper, rising to conifer stands and then to grass ridges along the southern edge.

Elevations range from about 6,000 feet near Gilsonite Draw to 10,336 feet at Strawberry Peak. It is broken by many large canyons: Avintaquin, Timber, Lake, Sams, Right Fork Indian, Left Fork Indian, Sowers, Antelope, Cottonwood, and Gilsonite Draw. The soils are derived from shale parent material and are heavy textured.

This unit is divided by U.S. Highway 191 which splits it from north to south in Indian Canyon. Lands to the east of Highway 191 (Indian Canyon) are generally lower in elevation and include primarily vegetation types such as sagebrush-grasslands and pinyon-juniper. To the west of Indian Canyon, higher elevations include additional vegetative types such as aspen, Douglas-fir, and subalpine fir-Englemann spruce.

Minerals exploration, particularly oil and gas, and grazing of domestic livestock have traditionally been the heaviest resource demands. However, recreation activities, particularly hunting, and small amounts of timber harvest have been increasing in recent years. This unit receives moderate user pressure from the Price, Utah area, which has been in an energy development "boom" during the late 1970's and early 1980's.

C. Administrative Unit Exceptions to the Prescription:

Standards and guidelines for the Management Areas included within this Unit are applicable with the following modification:

Management Area a. (ME1-MI1) - this Management Area (MA) occurs as a single block in the vicinity of Cow Hollow. It is inventoried as a potential candidate Research Natural Area. Field work has not been done at this time so no search or establishment report is available. When field work is done, a decision will be made to either drop this from potential candidate status or to prepare an establishment report and recommend for Research Natural Area classification. The area is placed in a custodial management prescription (ME1-MI1) until the above decision is made. If the decision is to drop the area it will be managed under the same standards and guidelines as the surrounding area (ME11-MI2). If the decision is to proceed with RNA classification, a site specific plan for the management of the area will be prepared.

D. Management Areas within Duchesne Ranger District - South Unit
(for details see Standards and Guidelines in this Chapter:

Management Area a - Management Emphasis (ME)1 - Management Intensity (MI)1 - 694 acres
Management Area d - ME3 - MI4 - 62,222 acres
Management Area e - ME4 - MI4 - 8,398 acres
Management Area f - ME5 - MI3 - 22,972 acres
Management Area n - ME11 - MI2 - 107,837 acres

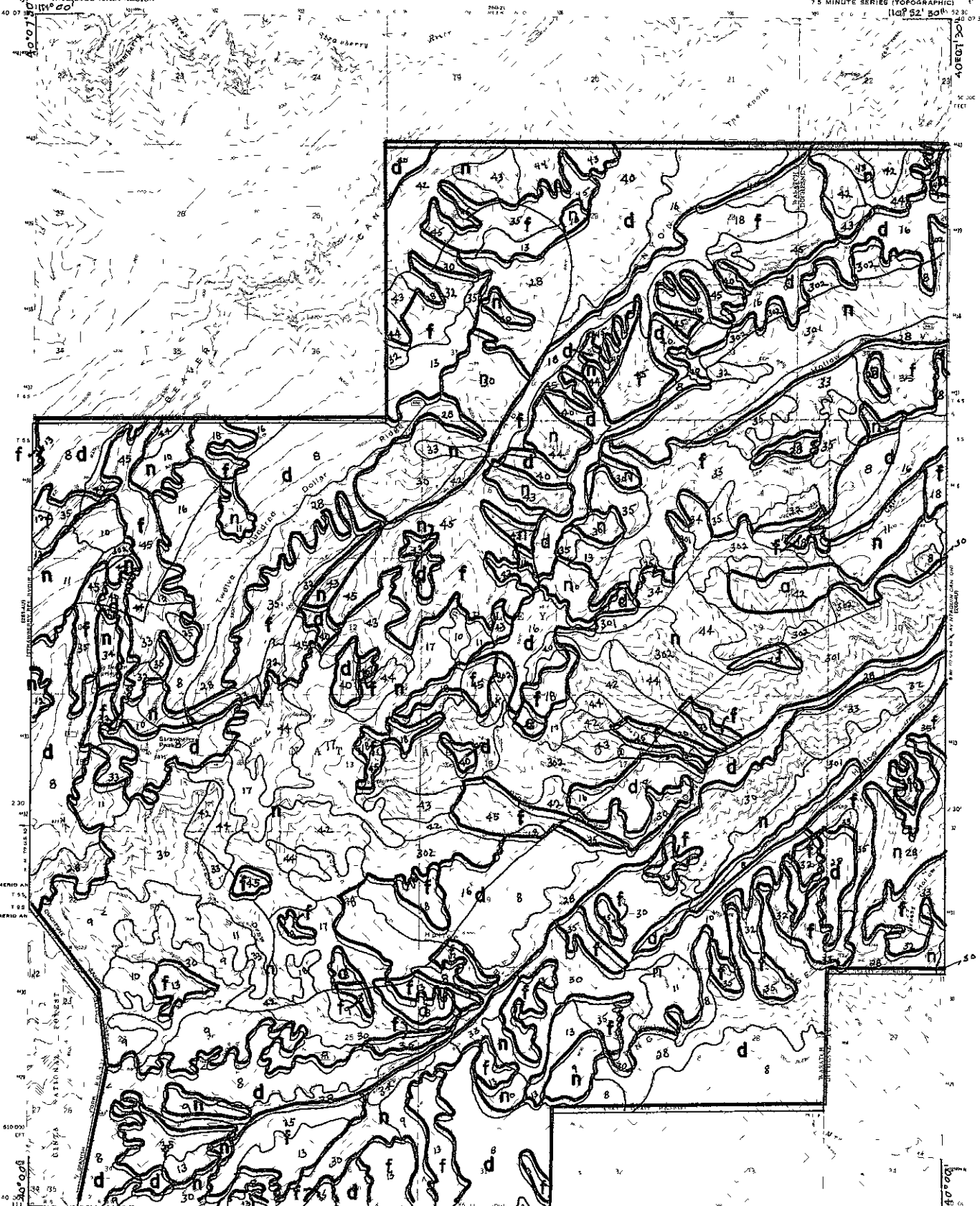
Management areas are aggregations of analysis areas that have the same management prescription and are shown on the following tables. Management emphasis and management intensity numbers were used for identification during the FORPLAN modeling and are shown here to maintain prescription identity. The acreage figures indicates total acres for each management area.

Administrative Unit 4 - Duchesne Ranger District (South Unit)

Analysis Area Number	Total Acres in the Unit	a.		b.		d.		e.		f.		n.	
		ME1 Acres Allocated	MI1 Decade Implemented	ME2 Acres Alloc	MI3 Decade Impl	ME3 Acres Alloc	MI4 Decade Impl	ME4 Acres Alloc	MI4 Decade Impl	ME5 Acres Alloc	MI3 Decade Impl	ME11 Acres Alloc	MI2 Decade Impl
7	8,398							8,398	2,4				
8	31,872					31,872	1,2						
9	2,744	232	1									2,512	1
10	632											632	8
11	2,372											2,372	8
12	1,310									312	2	998	1,2,5,6
13	4,647									4,647	3,4,5		
15	3,441											3,441	1
16	9,086					9,086	1					783	1
17	864	81	1										
18	1,232	72	1							1,160	4,5		
28	19,565					6,396	2					13,169	1
29	27,785											27,785	1
30	14,747											14,747	1
301	6,309											6,309	1
32	1,691									1,522	4	169	7
33	7,240									6,516	2,3,4	724	8
34	2,318											2,318	11
35	5,438									5,438	3,4,5		
40	15,177	309	1			14,868	1						
41	13,697											13,697	1
42	7,356											7,356	1
302	2,559											2,559	1
43	1,426											1,426	9
44	7,618									778	3	6,840	7,8
45	2,599									2,599	4,5		
Totals	202,123	694				62,222		8,398		22,972		107,837	

Duchesne Ranger District - 4B

Quads in this section: 57, 58, 59, 64, 65, 66, 67, 68, 69, 70, 70C, 70D,
70G, 70H



ANALYSIS STRAWBERRY PEAK 1058

OTHER OWNERSHIP

MANAGEMENT AREA

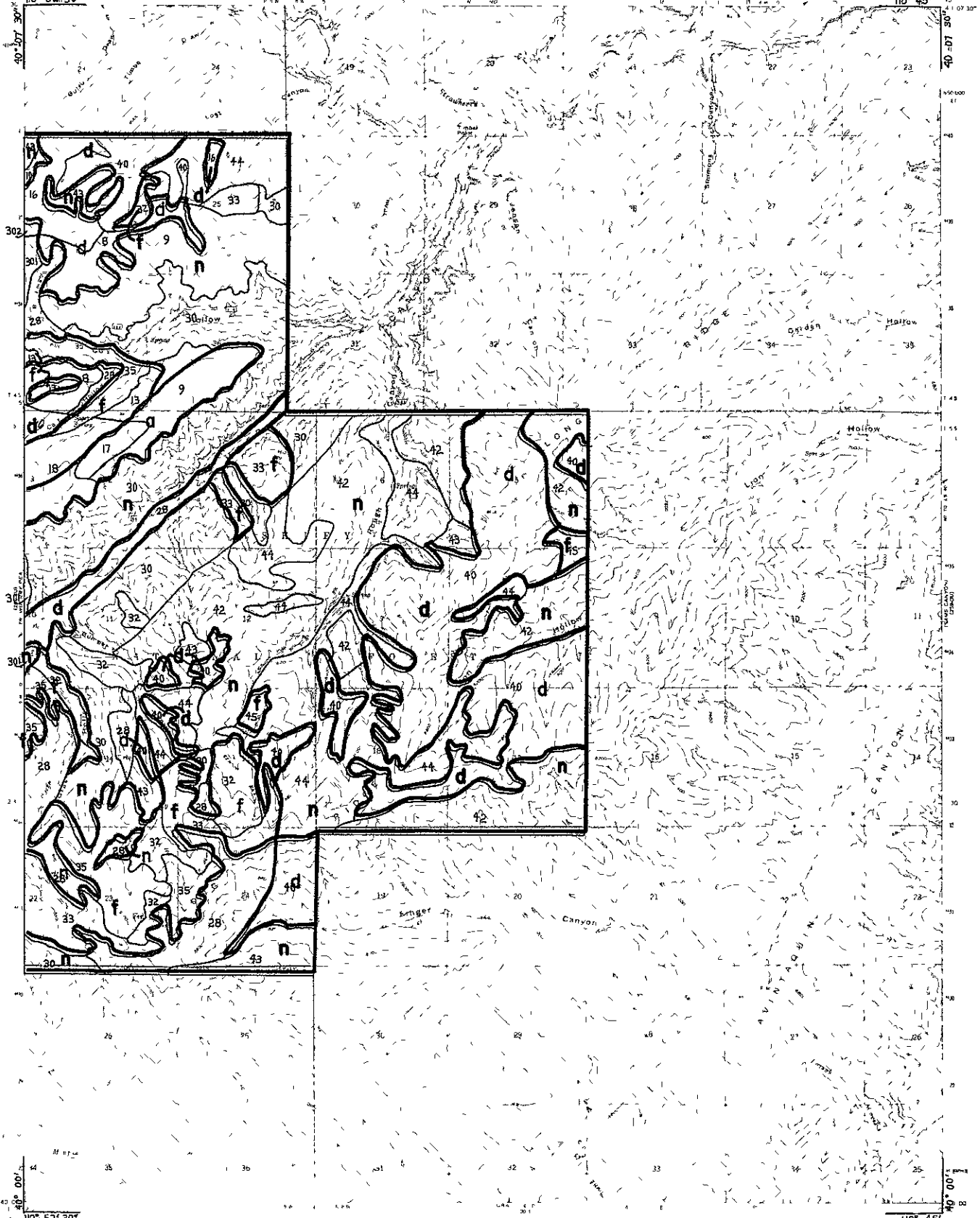
900-911

n

ROAD CLASSIFICATION
 Heavy D.T. _____
 Light D.T. _____

Reproduction by U.S. Forest Service Open Utah 10 2
 Additional information see back cover from 9-1-1950 up
 1972 (44) 10 11
 Salt Lake, UT, Utah Market, Inc.

Ashley National Forest



File No. J.S. 1000-5000 C-10-10-1-2
Scale 1:50,000
Date of Issue 1950
Sheet 2 of 2
Unit 1 Mile

ROAD CLASSIFICATION
Heavy Duty _____
Med. um. Duty _____
Light Duty _____
Trail _____

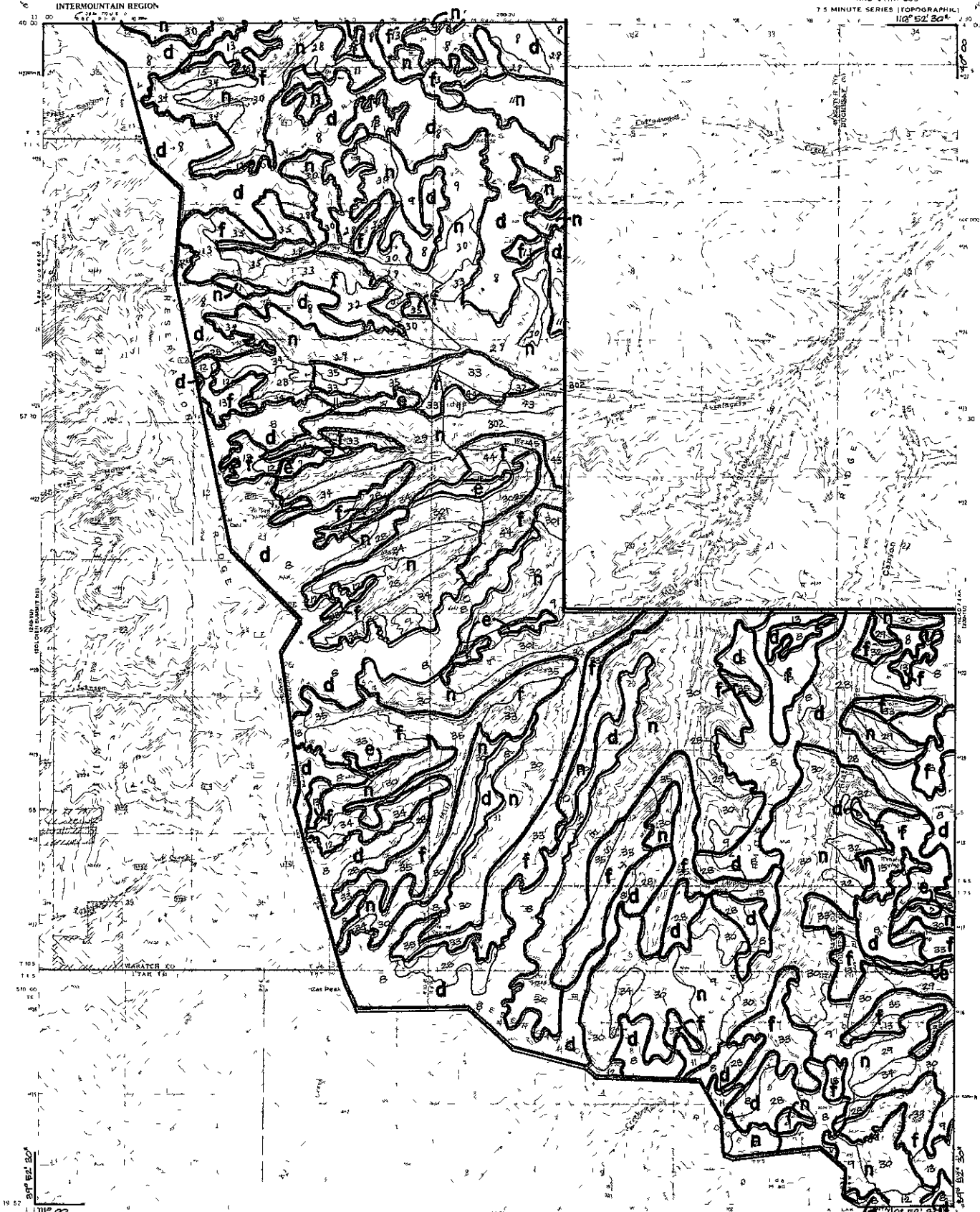
ANALYSIS AREA AVINTAQUIN CANYON 59

OTHER OWNERSHIP

MANAGEMENT AREA

900-911

n



ANALYSIS AREA

FLAT RIDGE AND AROUND
SPANISH FORK AND DUCHESE
RANGERS DISTRICT
(KYUNE NW)

OTHER OWNERSHIP

MANAGEMENT AREA

900-911

n

ROAD CLASSIFICATION

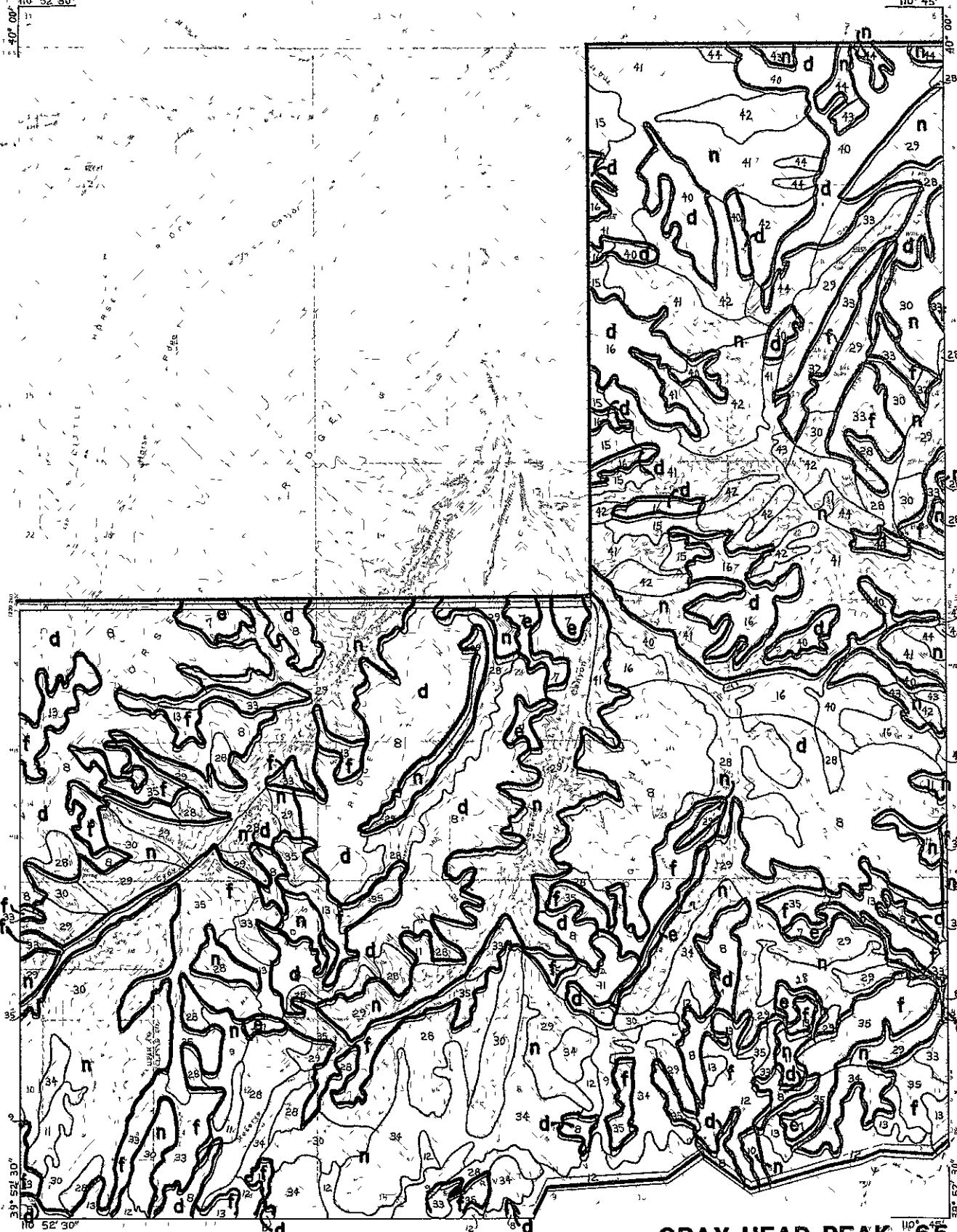
Heavy Duty ——— Map on Overlay
Light Duty ——— Map on Overlay

TOWNSHIP AND SECTION LI CLASSIFICATION

LI Surveyed Bureau of Land

Reproduced by GPO for sale (5049) 10-18
Approved for release distribution in GPO topographic
and 1972 7500 200
Both Lakes and Utah Mountains
7.5 minute series with National Map Accuracy Standards

Ashley National Forest



GRAY HEAD PEAK 65

ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

100
900-911
n

PLAN LASSI 1 AT 07
V. 1000 1000 1000
DATE 10 10 10

Ashley National Forest



JONES HOLLOW 66

ANALYSIS AREA

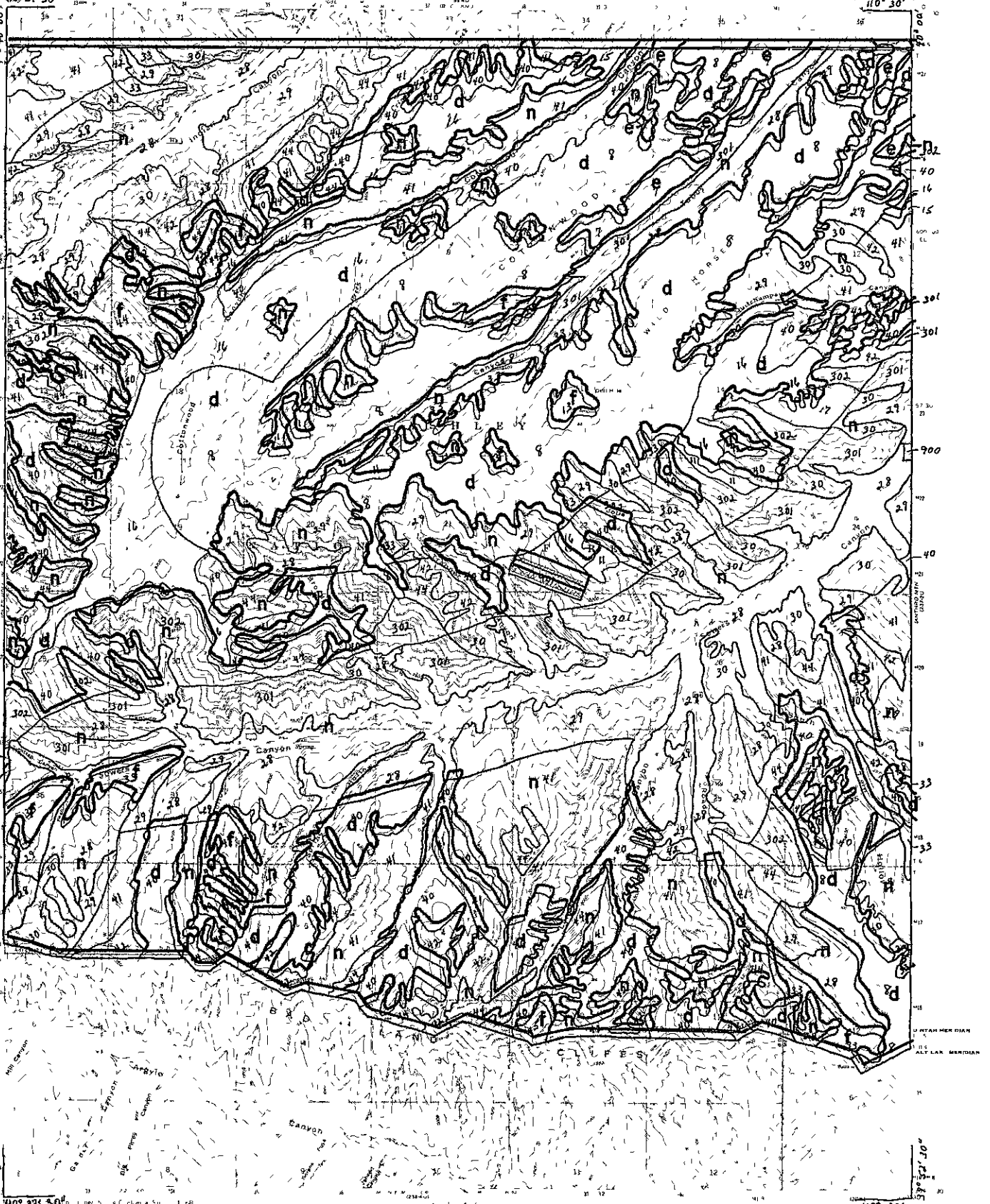
OTHER OWNERSHIP

MANAGEMENT AREA

JONES HOLLOW 66
100

900-911

n



100° 37' 30" W
39° 55' 00" N

100° 30' W
39° 55' 00" N

Revised by U.S.F. and Geologic Survey, Utah, 1972
All other data from various sources, including U.S. Geological Survey, 1968, and other sources.
Scale: 1 inch = 1 mile

ROAD CLASSIFICATION

Heavy Duty ——— Main D. ty ———
Light Duty ——— Un imp. over D. ty ———

Trail

ANALYSIS AREA

OTHER OWNERSHIP

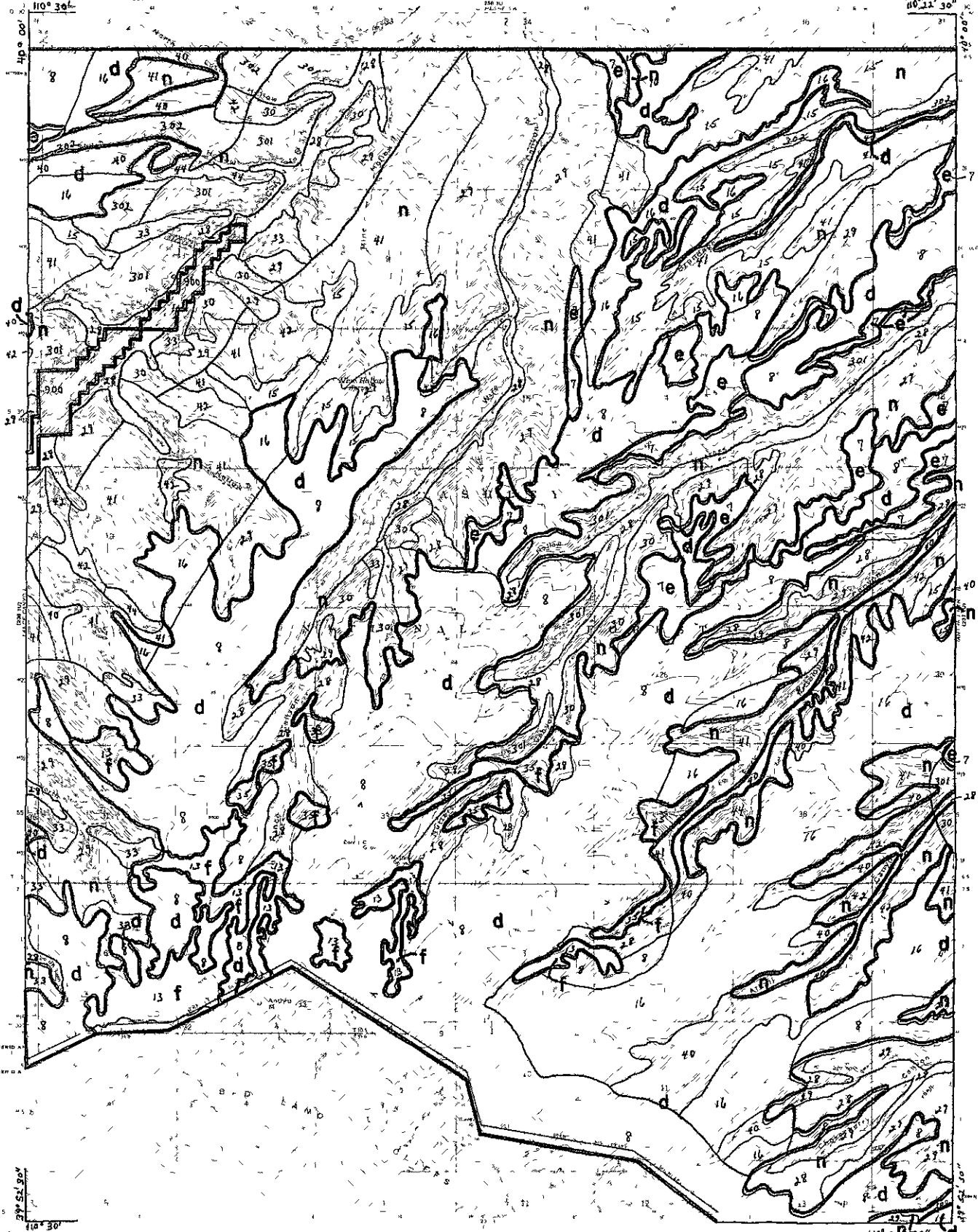
MANAGEMENT AREA

LANCE CANYON 67

900-911

n

Management precontract on

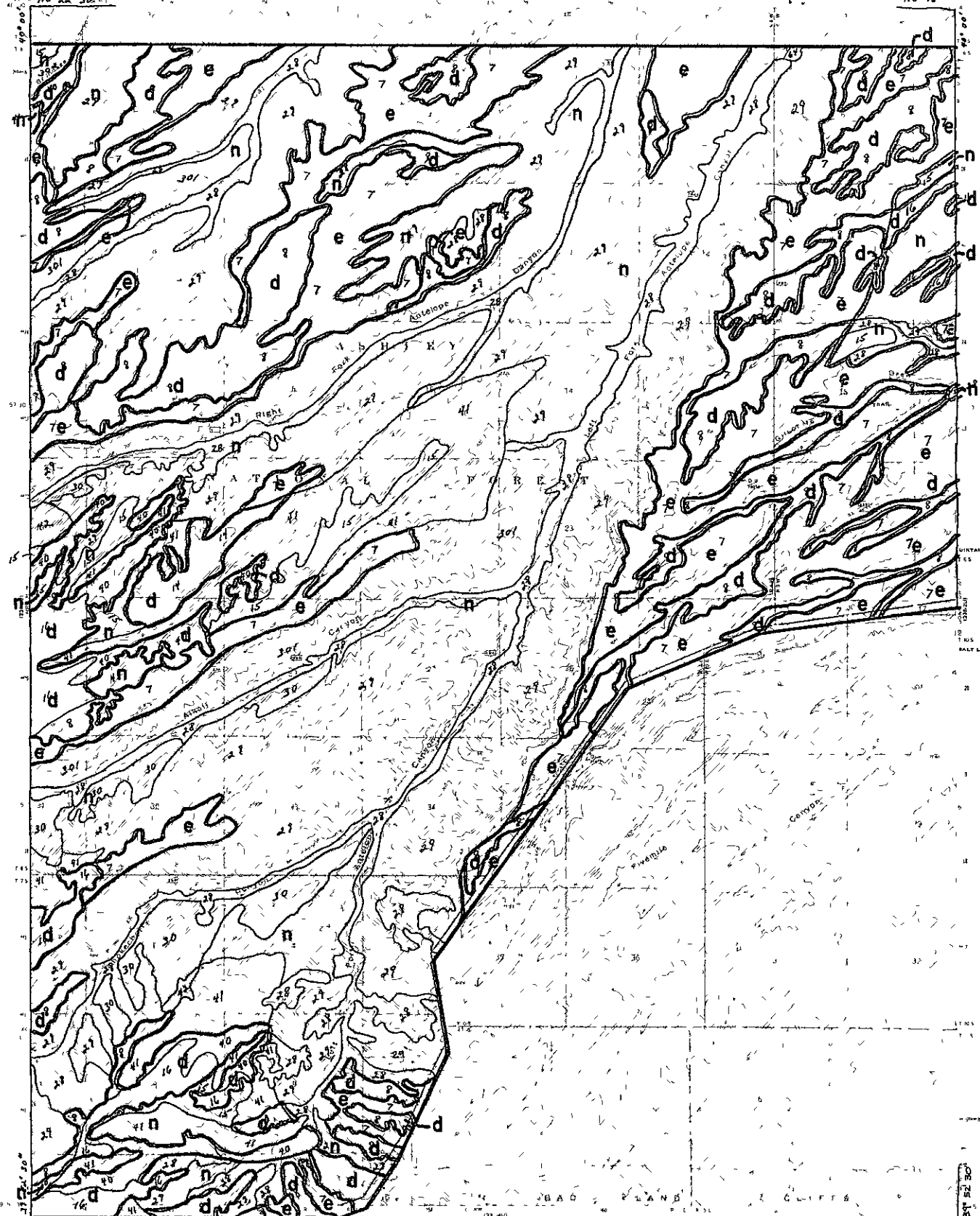


ANTHRO MOUNTAIN 68

ASHLEY NATIONAL FOREST
MANAGEMENT AREA
1972

ROAD CLASSIFICATION
Heavy D ———— Med RD ————
Light rd - - - - - 5' center to center
ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

100
900-911
n



ANTHRO MOUNTAIN NE 69

ANTHRO MOUNTAIN NE 69
ASHLAND NATIONAL FOREST
DUCHESNE COUNTY DISTRICT
(MOUNT BARTLES & MC)
1972

Revised and U.S. Forest Service, Ogden, Utah 842
A 110° 22' 30" (approx. 688 ft. top of S)
and 1972 (date of)

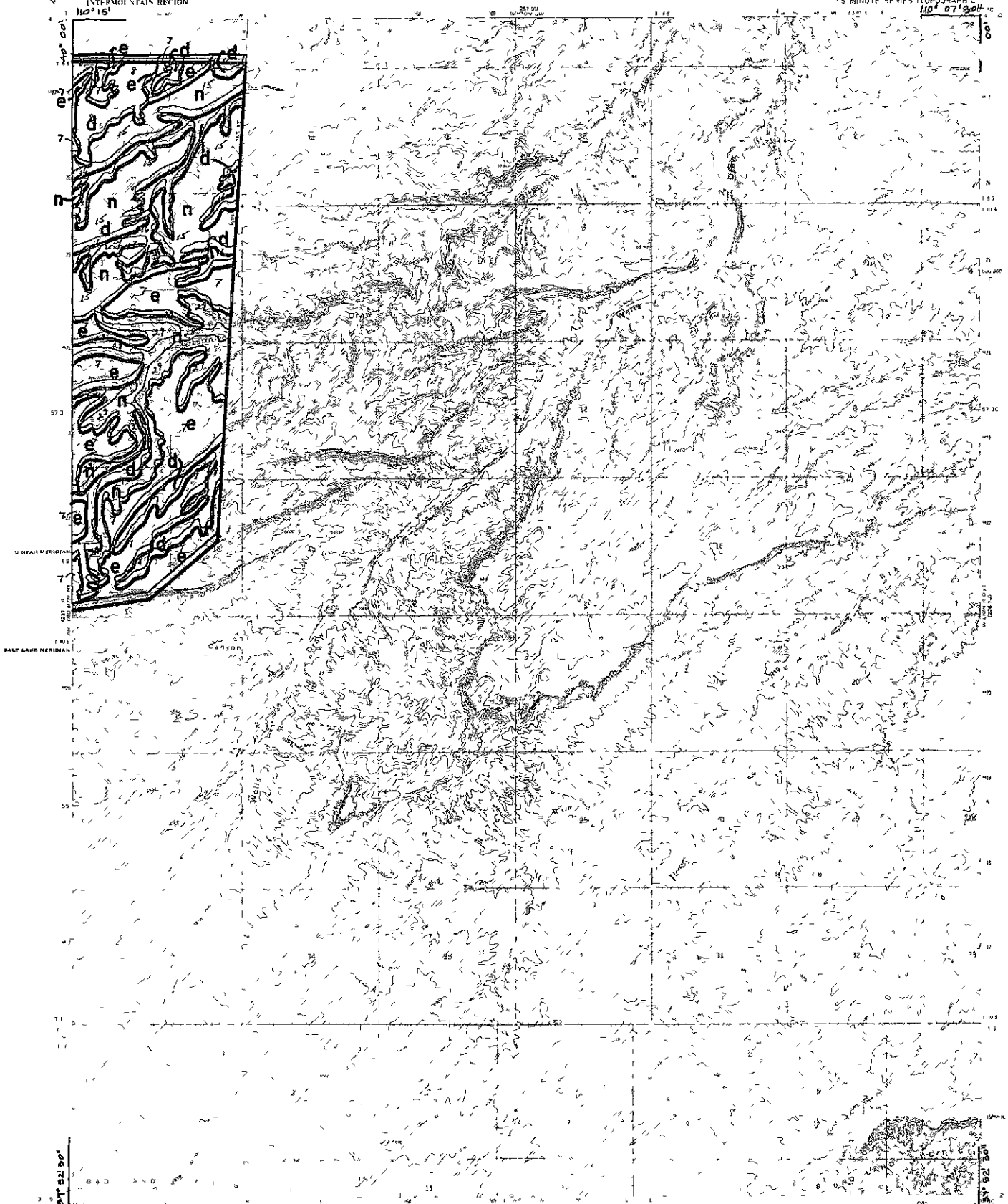
ROAD CLASSIFICATION
Heavy Duty ————
Light Duty ————
Mad in Duty ————
Unimproved Dirt ————
T 41

ANALYSIS AREA

OTHER OWNERSHIP

MANAGEMENT AREA

100
900-911
n



GILSONITE DRAW 70

100

900-911

n

ANALYSIS AREA

OTHER OWNERSHIP

MANAGEMENT AREA

ROAD CLASSIFICATION
 Heavy Duty ——— Medium Duty ———
 Light Duty ——— Unimproved Dirt ———
 Township and Section Line Classification
 Surveyor's local or made

Unsurveyed Boundaries of Land
 All in several distinct

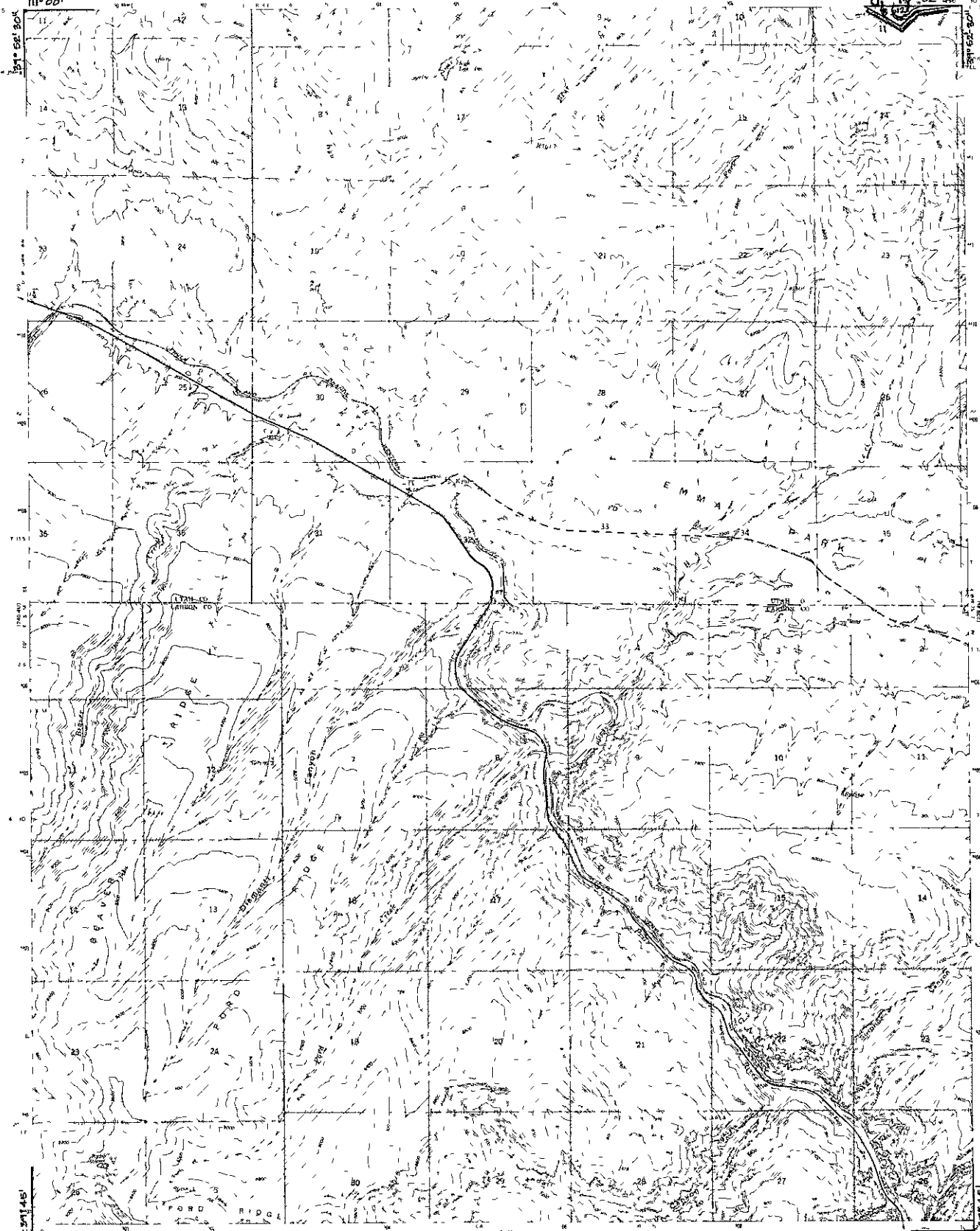
Scale: 1" = 1 Mile
 0 1 2 3 4 5 Miles

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
INTERMOUNTAIN REGION
111° 00'

Ashley National Forest

KYUNE QUADRANGLE
UTAH UTAH AND
CARBON COS

7.5 MINUTE SERIES TOPOGRAPHIC
1:25,000



1112.00' 5 10' 15' 20' 25' 30' 35' 40' 45' 50' 55' 60' 65' 70' 75' 80' 85' 90' 95' 100'

111° 00' 111° 15'

KYUNE 70C
NATIONAL BUREAU OF SURVEYING
SUCHEM RANGER DISTRICT
(KYUNE 69)

ROAD CLASSIFICATION
Heavy Duty ——— Medium Duty ———
Light Duty ———

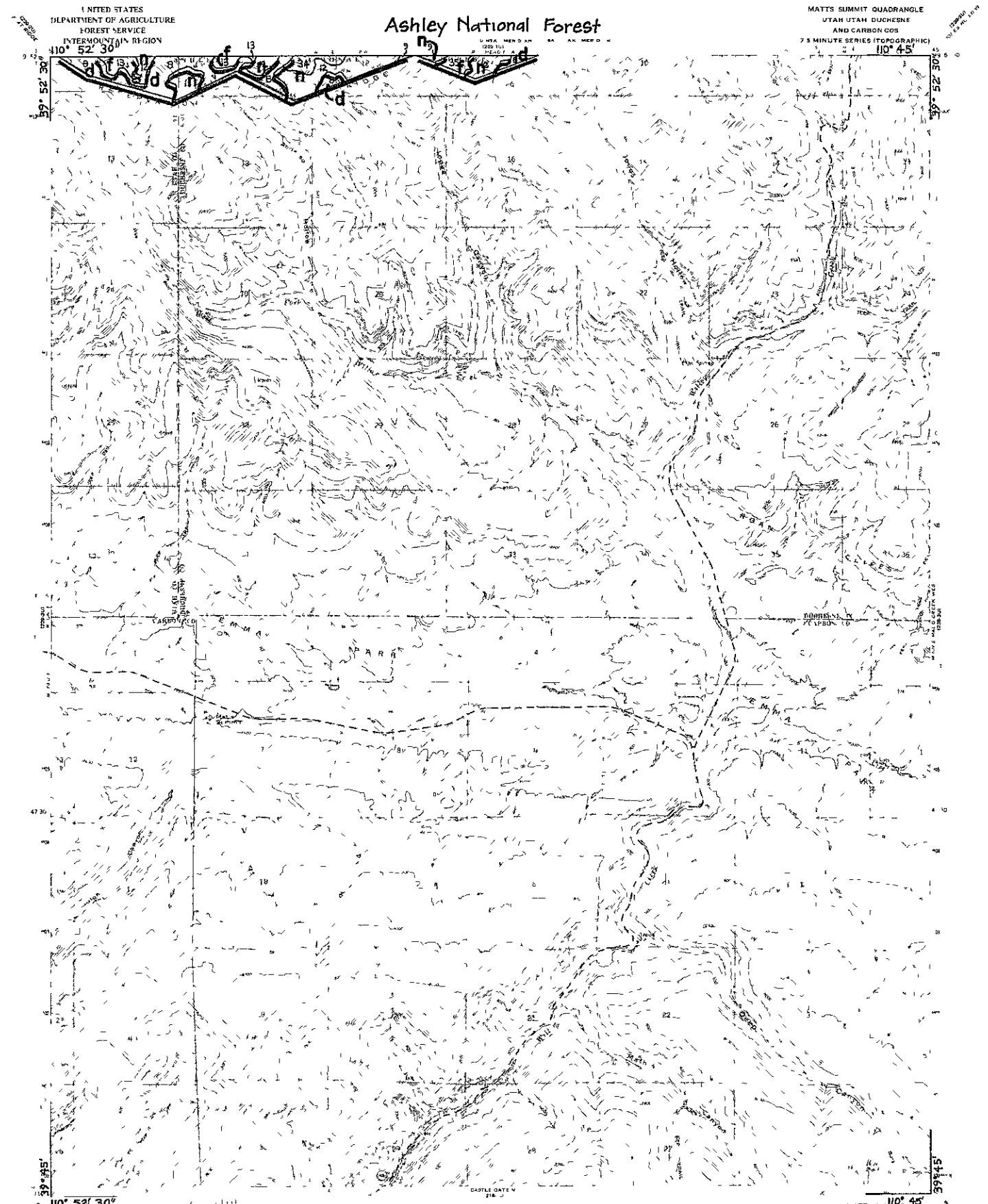
ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

100'

900-911

n

Ashley National Forest



Republihan S. Div. Ser. Data. Use 0 2
Acct. No. 100 100 100 100 100 100 100 100 100 100
No. 100 100 100 100 100 100 100 100 100 100
Ser. No. 100 100 100 100 100 100 100 100 100 100

ROAD CLASSIFICATION

Heavy Duty ———— Medium Duty ————
Light Duty - - - - - Unimproved Dirt - - - - -

ANALYSIS AREA

TOWNSHIP AND SECT. OF LINE CLASSIFICATION

OTHER OWNERSHIP

Unsurveyed Bureau of Land Management Section

MANAGEMENT AREA

MATTS SUMMIT 700

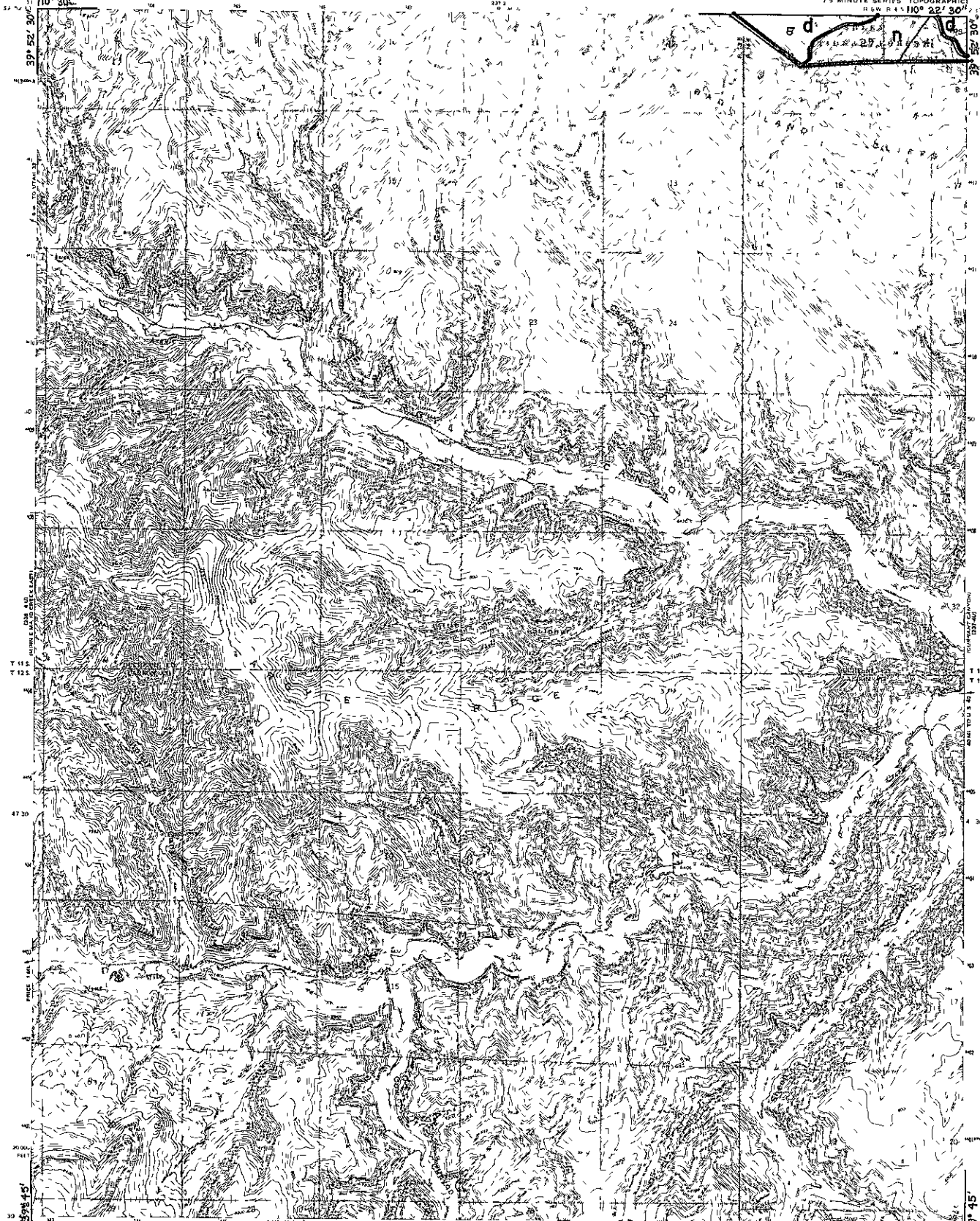
MATTS SUMMIT 700
NATIONAL FOREST
DUCHESNE RANGER DISTRICT

100

900-911

n

Ashley National Forest



107.30 ft and put sheet by P. C. Geological Survey 1968
1. by the S. A. D. N. A. S.
2. by the S. A. D. N. A. S.
3. by the S. A. D. N. A. S.
4. by the S. A. D. N. A. S.
5. by the S. A. D. N. A. S.
6. by the S. A. D. N. A. S.
7. by the S. A. D. N. A. S.
8. by the S. A. D. N. A. S.
9. by the S. A. D. N. A. S.
10. by the S. A. D. N. A. S.
11. by the S. A. D. N. A. S.
12. by the S. A. D. N. A. S.
13. by the S. A. D. N. A. S.
14. by the S. A. D. N. A. S.
15. by the S. A. D. N. A. S.
16. by the S. A. D. N. A. S.
17. by the S. A. D. N. A. S.
18. by the S. A. D. N. A. S.
19. by the S. A. D. N. A. S.
20. by the S. A. D. N. A. S.
21. by the S. A. D. N. A. S.
22. by the S. A. D. N. A. S.
23. by the S. A. D. N. A. S.
24. by the S. A. D. N. A. S.
25. by the S. A. D. N. A. S.
26. by the S. A. D. N. A. S.
27. by the S. A. D. N. A. S.
28. by the S. A. D. N. A. S.
29. by the S. A. D. N. A. S.
30. by the S. A. D. N. A. S.
31. by the S. A. D. N. A. S.
32. by the S. A. D. N. A. S.
33. by the S. A. D. N. A. S.
34. by the S. A. D. N. A. S.
35. by the S. A. D. N. A. S.
36. by the S. A. D. N. A. S.
37. by the S. A. D. N. A. S.
38. by the S. A. D. N. A. S.
39. by the S. A. D. N. A. S.
40. by the S. A. D. N. A. S.
41. by the S. A. D. N. A. S.
42. by the S. A. D. N. A. S.
43. by the S. A. D. N. A. S.
44. by the S. A. D. N. A. S.
45. by the S. A. D. N. A. S.
46. by the S. A. D. N. A. S.
47. by the S. A. D. N. A. S.
48. by the S. A. D. N. A. S.
49. by the S. A. D. N. A. S.
50. by the S. A. D. N. A. S.
51. by the S. A. D. N. A. S.
52. by the S. A. D. N. A. S.
53. by the S. A. D. N. A. S.
54. by the S. A. D. N. A. S.
55. by the S. A. D. N. A. S.
56. by the S. A. D. N. A. S.
57. by the S. A. D. N. A. S.
58. by the S. A. D. N. A. S.
59. by the S. A. D. N. A. S.
60. by the S. A. D. N. A. S.
61. by the S. A. D. N. A. S.
62. by the S. A. D. N. A. S.
63. by the S. A. D. N. A. S.
64. by the S. A. D. N. A. S.
65. by the S. A. D. N. A. S.
66. by the S. A. D. N. A. S.
67. by the S. A. D. N. A. S.
68. by the S. A. D. N. A. S.
69. by the S. A. D. N. A. S.
70. by the S. A. D. N. A. S.
71. by the S. A. D. N. A. S.
72. by the S. A. D. N. A. S.
73. by the S. A. D. N. A. S.
74. by the S. A. D. N. A. S.
75. by the S. A. D. N. A. S.
76. by the S. A. D. N. A. S.
77. by the S. A. D. N. A. S.
78. by the S. A. D. N. A. S.
79. by the S. A. D. N. A. S.
80. by the S. A. D. N. A. S.
81. by the S. A. D. N. A. S.
82. by the S. A. D. N. A. S.
83. by the S. A. D. N. A. S.
84. by the S. A. D. N. A. S.
85. by the S. A. D. N. A. S.
86. by the S. A. D. N. A. S.
87. by the S. A. D. N. A. S.
88. by the S. A. D. N. A. S.
89. by the S. A. D. N. A. S.
90. by the S. A. D. N. A. S.
91. by the S. A. D. N. A. S.
92. by the S. A. D. N. A. S.
93. by the S. A. D. N. A. S.
94. by the S. A. D. N. A. S.
95. by the S. A. D. N. A. S.
96. by the S. A. D. N. A. S.
97. by the S. A. D. N. A. S.
98. by the S. A. D. N. A. S.
99. by the S. A. D. N. A. S.
100. by the S. A. D. N. A. S.

WOOD CANYON ZOG

ANALYSIS AREA
OTHER OWNERSHIP

MANAGEMENT AREA

ROAD CLASSIFICATION
Heavy Duty ———— Medium Duty ————
Light Duty ———— Unimproved Dirt ————

TOWNSHIP AND SECTION LINE CLASSIFICATION
Surveyed locat on 3000 m t

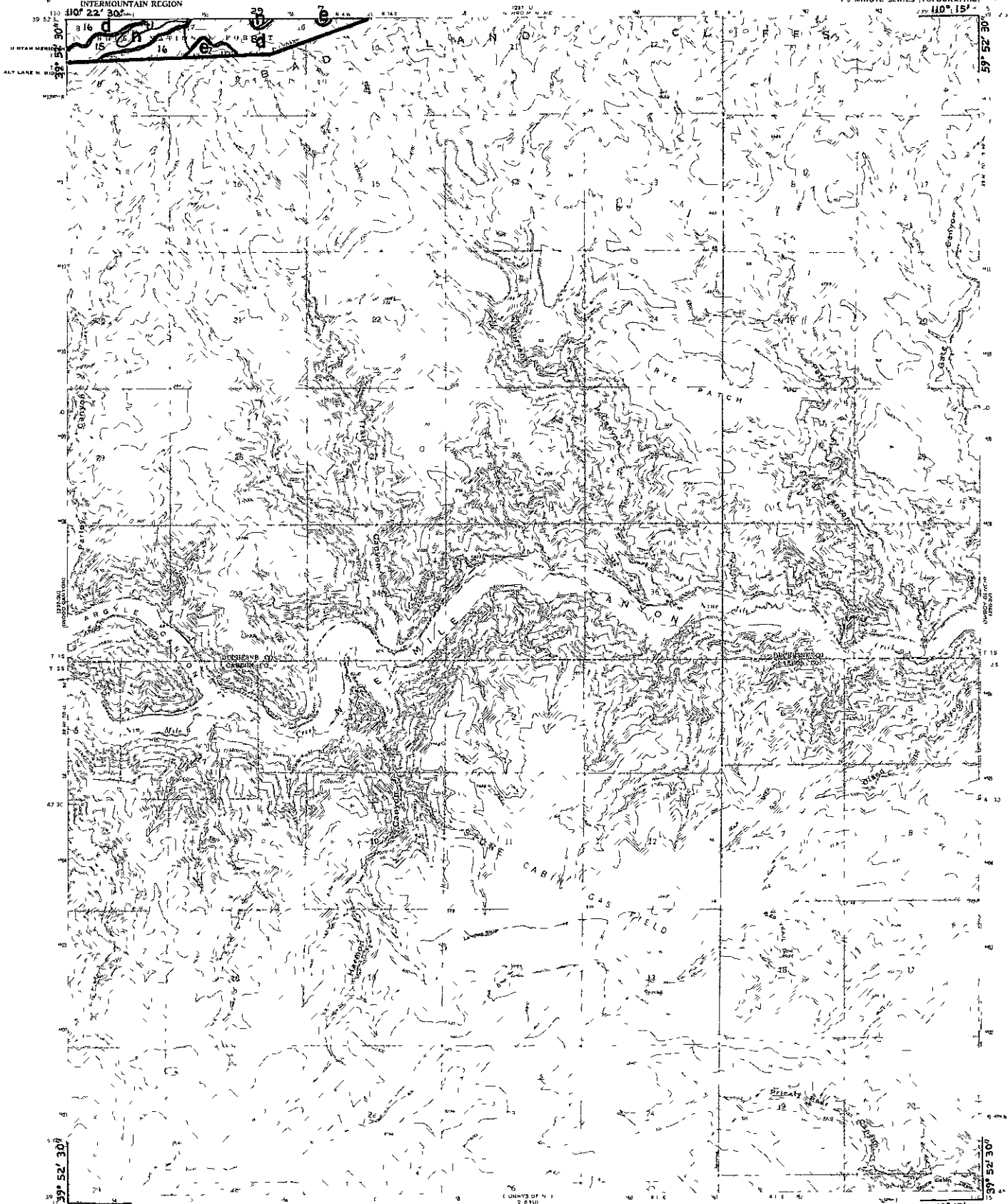
WOOD CANYON
100
900-911
n

Ashley National Forest

UNITED STATES
DEPARTMENT OF AGRICULTURE
FOREST SERVICE
INTERMOUNTAIN REGION

CURRENT CANYON QUADRANGLE
UTAH BUCHESNE AND
CARBON CO'S

7 1/2 MINUTE SERIES (TOPOGRAPHIC)



CURRENT CANYON 7 1/2

CURRENT CANYON 7 1/2
QUADRANGLE DISTRICT
(MOUNT BARTLES 1 SE)

ROAD CLASSIFICATION

Heavy Duty ——— Medium Duty ———
Light Duty - - - - - Unimproved Dirt - - - - -
Trail - - - - -

ANALYSIS AREA
OTHER OWNERSHIP
MANAGEMENT AREA

100
900-911
n

100° 22' 30"
39° 52' 30"

100° 22' 30"
39° 52' 30"

100° 22' 30"
39° 52' 30"

100° 22' 30"
39° 52' 30"

G. SCHEDULE OF PROPOSED & PROBABLE PRACTICES

RECREATION CONSTRUCTION / RECONSTRUCTION SCHEDULE ^{1/}

Project Name or Description	District	MIH	Unit of Measure	Outputs by Year												
				87	88	89	90	91	92	93	94	95	96			
Spillway Boating Site	Flaming Gorge	A05	PAOT	400												
Little Hole Boating Site	Flaming Gorge	A05	PAOT	400												
Arch Dam Group Campground	Flaming Gorge	A05	PAOT	300												
Greendale Group Campground	Flaming Gorge	A05	PAOT	300												
Deer Run Campground	Flaming Gorge	A05	PAOT		230											
Cedar Springs Campground	Flaming Gorge	A05	PAOT				140									
Mustang Ridge Campground	Flaming Gorge	A05	PAOT			520										
Jarvis Boating Campground	Flaming Gorge	A05	PAOT							47						
Avintaquin Water System	Flaming Gorge	A05	PAOT					80								
Dripping Springs Group	Flaming Gorge	A05	PAOT		165											
Uinta Canyon Trailhead	Roosevelt	A06	PAOT		150											
Grizzly Ridge Winter Sports Site	Vernal	A06	PAOT				500									
Hades Trailhead	Duchesne	A06	PAOT							215						
Iron Springs Group North	Vernal	A06	PAOT										365			
Iron Springs Group South	Vernal	A06	PAOT													315
Little Hole	Flaming Gorge	A10	Miles													
General D-1 Reconstruction	Flaming Gorge															
Lower Little Hole	Flaming Gorge	A11	Miles													
Canyon Rim	Flaming Gorge	A11	Miles													
Twin Lakes Creek (Bridge)	Vernal	A10	Each													
General D-2 Reconstruction	Vernal															
Fox Queant	Roosevelt	A10	Miles													
High Line Trail	Roosevelt	A10	Miles													
Chain Lakes - Attwood	Roosevelt	A10	Miles													
General D-3 Reconstruction	Roosevelt															
Jackson Park	Roosevelt	A10	Miles													
Brown Duck Bridge	Roosevelt	A10	Each				3 Bridges									
West Fork Rock Creek	Duchesne	A10	Miles													
D-4 General Reconstruction	Duchesne															
Rock Creek	Duchesne	A10	Miles													
Highline Trail (west from Hacking Lake)	Vernal	A10	Miles													
Yellowstone Creek	Roosevelt	A10	Each							4 Bridges						
Lake Fork Drainage	Roosevelt	A10	Each				3 Bridges			6 Bridges						
Upper Fall Creek	Duchesne	A10	Each										Bridge			
Upper Rock Creek	Duchesne	A10	Each										Bridge			

^{1/} Heavy maintenance at selected sites will be programmed annually in addition to the reconstruction schedule shown here.

Cultural Resource Management

Cultural Resource Overview completed by 1992, condition, occurrence, etc.
 Evaluate sites for significance, when appropriate nominate up to one site per year for National Register Listing.

FOREST ACTION SCHEDULE
 WILDLIFE MANAGEMENT

Activity Name or Description	District	MIH Code	Unit of Measure	Output Unit by Year									
				87	88	89	90	91	92	93	94	95	96
<u>Aspen Management</u>													
Taylor Mountain Aspen Treatment	D-2	C02	Acres	5	5	5	5	5	5	5	5	5	5
Diamond Mountain Aspen Treatment	D-2	C02	Acres	5	5	5	5	5	5	5	5	5	5
Lake Mountain Aspen Treatment	D-2	C02	Acres	50									
Grouse Creek Aspen Treatment	D-2	C02	Acres		50								
Little Lake Aspen Treatment	D-2	C02	Acres			50							
Dry Gulch Aspen Treatment	D-3	C02	Acres	5									
Petty Mountain Aspen Treatment	D-3	C02	Acres			10							
Pole Creek Aspen Treatment	D-3	C02	Acres	5									
Farm Creek Aspen Treatment	D-3	C02	Acres		5								
Timothy Creek Aspen Treatment	D-3	C02	Acres				5	5					
Upper Burnt Mill Aspen Treatment	D-3	C02	Acres						5				
Bull Elk Aspen Treatment	D-3	C02	Acres							5			
Hominey Creek Aspen Treatment	D-3	C02	Acres								5		
Log Hollow Aspen Treatment	D-4	C02	Acres	5	5	5	5	5	5	5	5		
Roads Canyon Aspen Treatment	D-4	C02	Acres		10		10		10				
Avintaquin Aspen Treatment	D-4	C02	Acres	10		10							
McAfee Basin Aspen Treatment	D-4	C02	Acres					10	10	10			
<u>Pinyon-Juniper/Mountain Brush Management</u>													
Bear Top Mountain Prescribed Burn	D-1	C02	Acres	400		400			400				
Goslin Mountain Prescribed Burn	D-1	C02	Acres		400		400			400			
Greendale P-J Openings				5	5	5	5	5	5	5			
Lower Pole Creek Sage Burn	D-3	C02	Acres	50									
<u>Water Developments</u>													
Bear Top Mountain Guzzler	D-1	C03	Structures	1									
Sheep Creek Lake Potholes	D-1	C03	Structures	2	2								
Gilsonite Guzzler	D-4	C03	Structures	1									
Wire Fence Guzzler	D-4	C03	Structures		1								

WILDLIFE CONTINUED

Activity Name or Description	District	MIH Code	Unit of Measure	Output Unit by Year										
				87	88	89	90	91	92	93	94	95	96	
<u>Road Closures</u>														
Brush Creek	D-2	C02	Miles	1										
Center Park	D-3	C02	Miles	3										
Jackson Park	D-3	C02	Miles		2									
Rock Spring/Farm Creek	D-3	C02	Miles		2									
Big Ridge	D-4	C02	Miles	3										
Cow Hollow	D-4	C02	Miles		4									
<u>Waterfowl Projects</u>														
Gull Lake Island Construction	D-2	C03	Structures		6									
<u>Fisheries Projects</u>														
Carter Creek Fisheries Project	D-1	C03	Structures	6										
Hickerson Park Stream Rehabilitation	D-1	C03	Structures	5	5									
Big and Little Brush Creek Hab. Imp.	D-2	C02	Miles		2									
N. Fork Ashley Creek Habitat Improvement	D-2	C02	Miles			6								
Lake Fork R. Bank Stabilization	D-3	C02	Miles	3										
Avintaquin Creek Habitat Improvement	D-4	C03	Structures	20										
Rock Creek/N.F. Duchesne River Habitat	D-4	C02	Miles	2	2	2	2	2 (C.U.P. Funded)						
<u>Inventories/Studies</u>														
Flaming Gorge Alluvial Fisheries Study	D-1	C01	Studies	1	1	1	1							
Peregrine Falcon Reintroduction Study	D-1	C01	Studies	1			1							
Bald Eagle and Osprey Inventory	Forestwide	C01	Inventory	2	2	2	2	2	2	2	2	2		
Old Growth Timber Inventory	Forestwide	C01	Inventory	1	1	1	100%							
Elk Calving Areas Inventory	Forestwide	C01	Inventory	1	1	1	1							
Deer Fawning Areas Inventory	Forestwide	C01	Inventory	1	1	1	1							
Sagegrouse Strutting/Nesting	Forestwide	C01	Inventory	1	1	1	1	1	1	1	1	1		
Aspen Inventory/Plan Update	Forestwide	C01	Inventory	1	100%		1							
Cumulative Effects Elk Model	Forestwide	C01	Studies	1	1	1	1							
Riparian Inventory/Plan Preparation	Forestwide	C01	Inventory	1	1	1	100%							
Instream Flow Quantification	Forestwide	C01	Inventory	(Same as schedule for Watershed Action Plan)										
<u>Maintenance</u>														
Wildlife/Fish Structural Maintenance	Forestwide	C04	Structures	15	15	15	15	15	15	15	15	15		

RANGE IMPROVEMENTS
STRUCTURAL
ACRES

Project Name or Description	District	MIH Code	Unit of Measure	Total Acres by Year										
				87	88	89	90	91	92	93	94	95	96	
Topping Outspring	D-3	D05	Structure	1										
So. Merkley Pond	D-2	D05	Structure	1										
Cove Spring	D-2	D05	Structure	1										
Wildhorse Spring	D-1	D05	Structure	1										
Buttonhook Spring	D-4	D05	Structure	1										
Strawberry Ponds	D-4	D05	Structure	2										
Farm Creek #1 W.D.	D-3	D05	Structure	1										
Farm Creek #2 W.D.	D-3	D05	Structure	1										
Lee Hollow Spring	D-2	D05	Structure	1										
Cottonwood Guzzler	D-4	D05	Structure	1										
Hickerson Park - N. Fork Division Fences	D-1	D05	Miles	1										
Hickerson Park - N. Fork Division Fences	D-1	D05	Miles	1										
Adams Creek Fence	D-3	D05	Miles	1										
Cottonwood Pipeline	D-3	D05	Miles	1										
Gull Lake Fence	D-2	D05	Miles	1										
Farm Creek #3 W.D.	D-3	D05	Structures		1									
Farm Creek #4 W.D.	D-3	D05	Structures		1									
Hideout Spring	D-1	D05	Structures		1									
Limestone Spring Extension	D-2	D05	Structures		1									
Dry Ridge Division Fence	D-4	D05	Miles		1									
Log Hollow Unit Fences	D-4	D05	Miles	3										
Log Hollow Guzzler	D-4	D05	Structures		1									
Log Hollow Pipe Line Extension	D-4	D05	Miles		3									
Larson Hollow Spring Development	D-4	D05	Structure			1								

RANGE IMPROVEMENTS
STRUCTURAL
ACRES - CONTINUED

Project Name or Description	District	MIH Code	Unit of Measure	Total Acres by Year										
				87	88	89	90	91	92	93	94	95	96	
Sheep Cr. - Long Park Division Fence	D-1	D05	Miles			1	1	1						
Adams Creek Fence	D-3	D05	Miles			1								
Brown Spring	D-4	D05	Structures			1								
Squaw Spring	D-2	D05	Structures			1								
Dodds Spring	D-2	D05	Structures				1							
Lake Basin Ponds	D-4	D05	Structures				2							
McAfee Basin Division Fence	D-4	D05	Miles				1							
Farm Cr. W.D. #5	D-3	D05	Structures				1							
Farm Cr. W.D. #6	D-3	D05	Structures				1							
Aspen Spring	D-1	D05	Structures					1						
Yellow Spring	D-1	D05	Structures					1						
Mill Hollow W.D.	D-4	D05	Structures					1						
Unit 3 Road Ponds	D-2	D05	Structures					2						
Lyles Hole Spring	D-2	D05	Structures							1				
Cottonwood Division Fence	D-4	D05	Miles							2				

NON STRUCTURAL IMPROVEMENTS

Project Name or Description	District	MIH Code	Unit of Measure	Total Acres by Year										
				87	88	89	90	91	92	93	94	95	96	
Antelope - Alkali Burn	D-4	D03	Acres		100									
Pine Hollow Burn Spray	D-2	D03	Acres			200								
Yellowstone Sage Control	D-3	D03	Acres	400										
Dry Gulch Sagebrush	D-3	D03	Acres		200									
Gilsonite Sagebrush	D-4	D03	Acres		100									
Antro Mountain Sagebrush	D-4	D03	Acres			100								
Gorge Sp. Sagebrush	D-2	D03	Acres			160								
Barker Sagebrush	D-2	D03	Acres				300							
Grasshopper Flat Sagebrush	D-2	D03	Acres					300						
Yellowstone No. 2	D-3	D03	Acres						300					
Farm Creek Sagebrush	D-3	D03	Acres							300				
Noxious Weed Control	Forestwide	D03	Acres	50	50	50	50	50	50	50	50	50	50	50

RANGE MANAGEMENT ACTIVITY SCHEDULE

Project Name or Description	District	MIH Code	Unit of Measure	Year to be completed										
				87	88	89	90	91	92	93	94	95	96	
Reanalyze range rated as poor or very poor by last REA.	A11	D02	Acres				20,000							
Improve range to satisfactory ecological condition by 2005. 1/ 1/3 of area identified.	A11	D07	Acres										1/	
Inventory and analyze transitory range.	A11	D02	Acres				A11							
Conduct follow-up examinations in at least the season-long grazing unit through two complete grazing cycles or allotments under intensive management with new or revised management prescriptions.	A11	D07	NA	X	X	X	X	X	X	X	X	X	X	X
Conduct follow-up examinations on areas sensitive to grazing annually on allotments not under intensive management.	A11	D07	NA	X	X	X	X	X	X	X	Y	X	X	X
Review and revise range allotment plans to be consistent with the Forest Plan.	A11	D01	Plans	Approximately 7 plans each year.										
Complete remaining Management Plans. (3 plans)	D-3 D-4	D01	Plans	1	1	1								

TIMBER SALE SCHEDULE
MMBF

Sale Name	Administrative Unit	Acres	LP	ES	Volume			87	88	89	90	Periods						
					SAF	PP	DF					91	92	93	94	95	96	
1. Summit III Salvage	1B	400					2.5											
2. Powerline Salvage	1B	150	1.1					1.1										
3. Powerline Salvage	2	300	1.8					1.8										
4. Oaks Park Salvage	2	300	3.2					3.2										
5. North Dry Gulch	3	550					2.2	2.2										
6. Hicks Park Salvage	2	250	1.3						1.3									
7. Horseshoe Park Salvage	2	350	3.0					3.0										
8. McAfee Basin	4	600	1.0	1.0	0.5	0.5		3.0										
9. Manila Park Salvage	2	400	3.0															
10. Larvae Lake Salvage	2	400	3.0							3.0								
11. Head Allen Creek Salvage	1B	250	0.5	1.5							2.0							
12. Little Brush Creek II Salvage	2	150	1.0								1.0							
13. Ranger Peak Salvage	2	400	3.0								3.0							
14. Cart Creek Salvage	2	300	1.5								1.5							
15. Spirit Lake Salvage	1B	600	3.0										3.0					
16. Old Mill Salvage II	2	300	1.5										1.5					
17. Highline Salvage	2	400	2.0										2.0					
18. Corral Park Salvage	2	900	4.5										4.5					
19. Sols Canyon	1B	500		0.5	0.5		2.0											
20. Reader Creek Salvage	2	300	2.0	0.5										3.0				
21. Summit Park II Salvage	2	300	2.0											2.5				
22. South Bennion Salvage	3	300	2.0											2.0				
23. Mill Fork	4	150	0.5	0.5										1.0				
24. Cow Hollow	1B	500		0.5	0.5		2.0											
25. Death of James Salvage	2	500	3.0												3.0			
26. Flume Salvage	2	600	3.0												3.0			
27. Crow Canyon Salvage	3	200	1.0												1.0			
28. Birch Creek Salvage	1B	500	2.5														2.5	
29. Ridgetop II Salvage	2	500	2.5														2.5	
30. Lost Park Salvage	2	500	3.0														3.0	
31. Johnson Salvage	2	300	1.0	0.5													1.5	
32. Bear Willow Salvage	3	100					0.4										0.4	
33. West Hell's Canyon	3	50					0.3										0.3	
34. S. Fork Rock Creek	4	150	0.8														0.8	

TIMBER SALE SCHEDULE (CONTINUED)
MMBF

Sale Name	Administrative Unit	Acres	LP	ES	Volume			Periods											
					SAF	PP	DF	87	88	89	90	91	92	93	94	95	96		
35. Leona Springs Salvage	1B	400	2.5															2.5	
36. Meander II Salvage	2	400	2.5															2.5	
37. West Fork II Salvage	2	350	2.0															2.0	
38. Ashley Twins Salvage	2	150	1.0															1.0	
39. Deer Park Salvage	2	250	1.5															1.5	
40. Poie Creek Lake Salvage	3	150	1.0															1.0	
41. Beaver Creek	4	100		0.5														0.5	
42. Head Eagle Creek Salvage	1B	500	2.5																2.5
43. Julius Park Salvage	2	300	1.5																1.5
44. Lake Park II Salvage	2	400	2.0																2.0
45. Anderson Creek Salvage	2	400	2.5																2.5
46. Coyote Salvage	2	200	1.0																1.0
47. Goose Egg	3	200	1.0																1.0
48. Blind Stream	4	100					0.5												0.5
TOTAL OF ALL SALES		16,350	78.7	5.5	1.5	5.9	4.5	10.8	7.3	6.0	7.5	11.0	10.5	10.0	11.0	11.0	11.0	11.0	
Miscellaneous Small Sales	1B							4.3	7.0	6.6	5.5	3.4	3.9	4.0	4.4	4.4	4.4	4.4	
	2							3.8	4.9	4.9	5.1	3.7	4.0	3.8	3.5	3.5	3.5	3.5	
	3							1.0	1.0	2.4	1.8	1.8	1.5	2.1	1.3	1.3	1.3	1.3	
	4							1.1	0.8	1.1	1.1	1.1	1.1	1.1	0.8	0.8	0.8	0.8	
Total Small Sales	All							10.2	13.7	15.0	13.5	10.0	10.5	11.0	10.0	10.0	10.0	10.0	
GRAND TOTAL	All							21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	

The above listed sales could change somewhat in size and year offered, or could be replaced by different sales in some cases, depending upon budgets, environmental conditions, or social and economic conditions.

Timber to be Harvested from Allowable Sale Quantity
(Annual Basis for First Decade)

	<u>Live</u>	(MMBF) <u>Dead</u>	<u>Total</u>
Sawtimber and other products	4.0	17.0	21.0

Personal Use Firewood Provided
(Annual Basis for First Decade)

12,000 cords

Site Preparation for Natural Regeneration
(Annual Basis for First Decade)

1,100 acres

This acreage involves lodgepole pine stands, which can be improved through silvicultural treatment. These areas include stagnated stands (usually under 3" diameter), large pole sized stands (6"-7" in diameter) that are 80% or more dead from mountain pine beetle attack, and partial cut stands that do not have enough remaining basal area alive to recover.

SOIL/WATER/AIR
WATERSHED IMPROVEMENT PROJECTS
(Improvement Needs Inventory)

Project Names	District Administrative Unit	Total Area (Acres)	Total Cost \$M	Priority
Upper Sheep Creek	Flaming Gorge/1B	40	13.0	High
Lodgepole				
Hickerson				
Long Park				
Birch Creek				
N. Fork Sheep				
Deep Creek Timber Sale	Flaming Gorge/1B	10	2.0	High
Little Meadow	Roosevelt/3	20	7.9	High
South Unit Gullies	Duchesne/4B	150	100.0	High
South Unit Upland				
Erosion	Duchesne/4B	50	15.0	High
Iron Mine Burn	Duchesne/4A	80	10.0	High
Blind Stream -				
E/W Slopes	Duchesne/4A	75	10.3	High
Lake Canyon Gullies	Duchesne/4B	39	20.0	High
Dry Fork Right Fork				
Wilbur Spring				
Middle Right Fork				
Lower Right Fork				
Bear Gulch				
Timber Canyon	Duchesne/4B	15	15	High
Trout Creek Borrow	Vernal/2	5	2.0	High
Flaming Gorge W. Side	Flaming Gorge/1A	15	14.0	Medium
Lucerne				
Henry's Fork				
Flaming Gorge E. Side	Flaming Gorge/1A	30	12.0	Medium
Pipeline				
Scraper Spring				
Arch Dam				
Flaming Gorge Upper	Flaming Gorge/1A	12	10	Medium
Current/Sage Creek				
Coop with BLM				
D-2 Road Maintenance	Vernal/2		FR&T Funds	Medium
Red Cloud Loop				
Dyer Park				
Bis Park				
Hacking Lake				
Long Park				
Brownie Creek				
Paradise Park				
Center Creek				
Pot Creek				
Horseshoe Park				
Taylor Mountain				
Alma Taylor				
Hells Canyon	Roosevelt/3	4	10.0	Medium
Baum Lake	Duchesne/4A	40	10.0	Medium

WATERSHED IMPROVEMENT PROJECTS
(Improvement Needs Inventory)

Project Names	District Administrative Unit	Total Area (Acres)	Total Cost \$M	Priority
D-1 Roads and TRails	Flaming Gorge/1B	23	10.6	Low
Cart Creek				
Dowd Mountain				
Carter Dugway				
W. Carter Dugway Roads				
Irrigation Facilities	Flaming Gorge/1B	42	8.0	Low
Log Park Borrowpit				
Carter Canal				
Pole Mountain	Roosevelt/3	22.5	7.0	Low
Pole Creek Sinks				
Bennion Park				
Pole Mountain Slump				
Pole Creek Meadow				
Dry Gulch	Roosevelt/3	10	2.0	Low
Lime Kiln Area				
Heller Lake				
South Unit Roads	Duchesne/4B	150	40.0	Low

ACTION PLAN FOR INSTREAMFLOW QUANTIFICATION FOR
SECURING FAVORABLE CONDITION OF FLOW BY WATERSHED

Fiscal Year	Name of Watershed	NFS Watershed Code
1987	Ashley, Dry Fork	009
1988	Sheep Creek	002
1989	Uinta River	020
	Lake Canyon	018
	Yellowstone	017
	Crow Canyon	022
1990	Bullionville (Big and Little Brush)	010
	Whiterocks	021
1991	Stockmore (North Fork Duchesne)	011
	Rock Creek	012
1992	Timber Canyon	013
	Avintaquin	014
	Gilsonite Draw	015
	Lake Canyon	016
	Indian	019
	Antelope Canyon (Sowers)	023
1993	Carter Creek	003
	Greendale	004
1994	Lower Henrys Fork	001
	Blacks Fork	024
	Dutch John	005
1995	Vermillion	006
	Diamond Gulch	007
	Jackson Draw	025

AIR - SCHEDULING

Identify the AWRV's and establish the Base Level for the Flaming Gorge NRA and High Uintas Wilderness by 1990.

SOIL AND WATER
INVENTORY

Watershed improvements needs inventory	Annual over 10 year plan
Water use requirements and rights inventory update annually after 1989	1987, 1988, 1989
Stream reach inventory and channel stability evaluation. Same dates and watershed as instream flows quantification for scheduling	

SOIL RESOURCE INVENTORY

1987	Completion of field work South Unit Survey Area order III
1987	Write-up of Survey for South Unit
1987-1989	Vernal Municipal Watershed order II
(1987-1988)	Completion of field work - required documentation
(1988-1989)	Write-up of Vernal Municipal Watershed
1990-1995	Soil Resource Inventory of Forest order III
1987	Memorandum of Understanding with S.C.S. for survey of Forest to include all but the South Unit and the Wyoming portion of the N.R.A.

WRENSS: See timber sale schedule. WRENSS will be completed on timber compartments the year the EA is scheduled for completion, and on timber sales as needed.

GEOLOGICAL HAZARD INVENTORY

Complete approximately 25,000 acres per year.

RIPARIAN

Complete Riparian Community Inventory for the Forest by 1989.

Complete Riparian Management Plan by 1990.

ARTERIAL/COLLECTOR ROAD PLAN
Construction and Reconstruction Projects

Project	Description	District	Miles
Sheep Creek Geological Road #10218			
Upper Section	Reconstruction (3 mile overlay and chip/seal and and 6 mile chip/seal)	1	9.0
Lower Section	Reconstruction (Asphalt with chip/seal)	1	3.0
Hickerson Park #10221	Reconstruction (Crushed Aggregate Surfacing)	1	17.5
Little Hole Road #10075	Reconstruction (Asphalt Paving)	1	5.3
Red Cloud Loop #10018	Reconstruction	2	14.1
Trout Cr to Charlies Park	(Crushed Aggregate Surfacing)		
Kane Hollow to Trout Creek	(Crushed Aggregate Surfacing)	2	12.7
Taylor Mtn. Road #10044	Reconstruction (Asphalt Paving 4.1 Miles Crushed Aggregate 5.1 Miles)	2	9.3
Reservation Ridge #10147	Reconstruction (Crushed Aggregate Surfacing)	4	8.0
North Fork Duchesne River Road	Reconstruction (Minor curve realignment, widening and crushed aggregate surfacing)	4	3.5

ASHLEY NATIONAL FOREST
SIGN PLAN AND INVENTORY

D-1 FLAMING GORGE RANGER DISTRICT

		WARNING	REGULATORY	GUIDE	TOTAL \$
1984	Install	4365	886	845	6096
	Replace				
	Repair		25	25	50
85	Install	27670	3479	7869	39018
	Replace				
	Repair	3393	130	666	4189
86	Install	31771	535	5483	37789
	Replace				
	Repair				
87	Install	36121	3624	17408	57153
	Replace				
	Repair				
88	Install	1818	564	12369	14751
	Replace				
	Repair			56	56
89	Install	525	261	913	1699
	Replace				
	Repair	1491	260	230	1981
90	Install	18607	379	9521	28507
	Replace				
	Repair	7084	1947	1434	10465
91	Install				
	Replace				
	Repair	2266	242	1012	3520
92	Install	696	515	14242	15453
	Replace				
	Repair	9182	1952	3111	14245
93	Install				
	Replace				
	Repair	709	288	2096	3093
94	Install	4145	380	775	5300
	Replace				
	Repair	246	76	193	515
95	Install	219	2291	20234	22744
	Replace				
	Repair	31773	46	1309	33128
96	Install	37447	190	4735	42372
	Replace				
	Repair				
97	Install	38795	2340	17678	58813
	Replace				
	Repair	277	279	2490	3046
98	Install	10308	416	31445	42169
	Replace				
	Repair	151	105		256
TOTAL		269,059	21,210	156,139	446,408

ASHLEY NATIONAL FOREST SIGN PLAN AND INVENTORY

D-2 VERNAL

		WARNING	REGULATORY	GUIDE	TOTAL \$
1984	Install Replace	7507			7507
	Repair				
85	Install Replace				
	Repair				
86	Install Replace	46728	2752	34069	83549
	Repair				
87	Install Replace				
	Repair				
88	Install Replace	6519	351	7694	14564
	Repair				
89	Install Replace				
	Repair				
90	Install Replace				
	Repair				
91	Install Replace				
	Repair	21198	1440	6229	28867
92	Install Replace			397	397
	Repair				
93	Install Replace	617	242	10762	11621
	Repair	2988	192	1511	4691
94	Install Replace	9693			9693
	Repair				
95	Install Replace				
	Repair				
96	Install Replace	33519	1621	30401	65541
	Repair				
97	Install Replace				
	Repair			104	104
98	Install Replace	5223	231	6372	11826
	Repair	234	88	3629	3951
TOTAL		134,226	6,917	101,168	242,311

ASHLEY NATIONAL FOREST SIGN PLAN AND INVENTORY

D-3 ROOSEVELT

		WARNING	REGULATORY	GUIDE	TOTAL \$
1984	Install Replace	9437	38	3466	12941
	Repair				
85	Install Replace	18469	1119	18044	37632
	Repair				
86	Install Replace				
	Repair				
87	Install Replace				
	Repair				
88	Install Replace	5586	388	4376	10350
	Repair				
89	Install Replace				
	Repair	1258	29	585	1872
90	Install Replace				
	Repair	8182	660	3838	12680
91	Install Replace				
	Repair				
92	Install Replace				
	Repair				
93	Install Replace				
	Repair	2430	224	973	3627
94	Install Replace	10372	932	13070	24374
	Repair				
95	Install Replace	15520	735	16759	33014
	Repair				
96	Install Replace				
	Repair				
97	Install Replace				
	Repair				
98	Install Replace	4496	293	3692	8481
	Repair	937	493	1817	3247
TOTAL		76,687	4,911	66,620	148,218

ASHLEY NATIONAL FOREST SIGN PLAN AND INVENTORY

D-4 DUCHESNE

		WARNING	REGULATORY	GUIDE	TOTAL \$
1984	Install Replace				
	Repair				
85	Install Replace	20698	172	7125	27995
	Repair				
86	Install Replace				
	Repair				
87	Install Replace				
	Repair				
88	Install Replace	46179	1331	35136	82646
	Repair				
89	Install Replace	6542	67	13854	20463
	Repair				
90	Install Replace				
	Repair	10933	90	1468	12491
91	Install Replace	752	105	16114	16971
	Repair				
92	Install Replace				
	Repair				
93	Install Replace	11687	2035	9460	23182
	Repair				
94	Install Replace				
	Repair	3121	32	3200	6353
95	Install Replace	14634	121	7074	21829
	Repair				
96	Install Replace				
	Repair	350	68	3028	3446
97	Install Replace				
	Repair				
98	Install Replace	50259	949	37335	88543
	Repair				
TOTAL		165,155	4,970	133,794	303,919

BUILDINGS DISPOSAL AND CONSTRUCTION

Following is a summary of projects.

Disposal of Buildings

The following buildings have been identified for disposal:

A. Flaming Gorge District:

1. Warehouse at Antelope.

B. Roosevelt District:

1. Old office building and fire cache at Altonah.
2. Elkhorn Guard Station - All buildings except barn and pasture.
3. Residence in Roosevelt.

C. Duchesne District:

1. Dwelling at Indian Canyon Guard Station
2. Residence in Duchesne.

Construction and Renovation

High Priority Projects

A. Flaming Gorge District:

1. Manila Office - The offices at Manila should be remodeled.

B. Vernal District/Supervisor's Office:

1. Vernal Storage and Pesticide Building - A new building at the Vernal Warehouse complex needs to be constructed to provide general and flammable storage for the Vernal District and Supervisor's Office and pesticide storage for the Forest. This new building would also replace an old wood frame warehouse.

Other Projects

A. Flaming Gorge District:

1. Residences - Fourteen residences need minor remodeling at Dutch John and Manila.
2. Trailer Pads - Five trailer pads at Dutch John should be constructed to provide for employee owned mobile homes.

B. Vernal District/Supervisor's Office:

1. Purchase of Vernal Office - Vernal Office or a similar office should be purchased if life cycle costs are less expensive than renting.

2. Colton Guard Station - Buildings at Colton Guard Station need minor remodeling, including plumbing and the water system.

C. Roosevelt District:

1. Purchase of Roosevelt Office - Roosevelt Office or a similar office should be purchased if life cycle costs are less expensive than renting.
2. BOR Constructed Lake Fork Work Center - The Bureau of Reclamation (BOR) plans to construct a building with a small office and a bunkhouse at Lake Fork near Moon Lake and proposed Taskeech Reservoir.

D. Duchesne District:

1. Duchesne Bunkhouse - The bunkhouse at Duchesne should be expanded or remodeled to provide separate male/female accommodations.
2. BOR Constructed Rock Creek Work Center - The Bureau of Reclamation (BOR) plans to construct a bunkhouse/dwelling just below Upper Stillwater Dam.
3. BOR Stockmore Work Center - An existing office, shop, and warehouse, and trailer pads currently used by the BOR will be transferred to the Forest within the next 5-10 years.

SCHEDULING - PROTECTION

Complete a fire prevention, detection, presuppression, and suppression analysis by September 1987 and update annually thereafter.

Complete a Forest-wide fuels inventory by November 1986 and define treatment strategies by 1988.

Develop suppression strategies based upon expected net value change from wildfires by 1989.

Conduct insect and disease surveys of all trees in administrative sites annually.

Continue a preventative spray program to protect green pines in administrative sites.

Annually update the Forest Law Enforcement Action Guide.

CHAPTER V

IMPLEMENTATION and DIRECTION of FOREST PLAN

V. IMPLEMENTATION AND DIRECTION OF THE FOREST PLAN

A. IMPLEMENTATION DIRECTION

1. Consistency with other Management Instruments

During implementation of this Forest Plan, the administration and management of the Forest will be guided by existing and future laws, regulations, policies, and standards and guidelines. The Forest Plan is designed to supplement, not replace, direction from these sources except in specific instances.

The existing management plans, or portions of these plans where appropriate, can be used for management of the Forest providing they do not conflict with Forest plan direction. All outstanding and future permits, contracts, co-op agreements and other instruments for use and occupancy will be brought into conformance by October 1, 1987.

2. Budget Proposals

The Forest Plan provides the management direction for developing multi-year implementation programs. The practices shown in the Schedule of Proposed Practices are translated into multi-year program budget proposals which identify the needed expenditures. The processes complement the Forest planning process as vehicles for requesting and allocating the funds needed to carry out the planned management direction. The Forest's proposed annual program budget is the basis for the requested funding. Upon approval of a final budget for the Forest, the Annual Program of Work is finalized and carried out. The accomplishment of the Annual program is the incremental implementation of the management direction of the Forest Plan.

3. Environmental Analysis

Future environmental analysis required to carry out activities in the Plan will usually be tiered to the Forest Plan and EIS. Information appropriate for project-related decisions rather than land use decisions, will normally be utilized in such environmental analysis.

Projects and activities permitted within the Plan will be subjected to environmental analysis as they are planned for implementation (Forest Service Manual FSM 1952). If the environmental analysis for the project shows that: (1) the management area prescription and standards can be complied with; (2) little or no environmental effects are expected beyond those identified and documented in the Forest Plan final EIS; (3) Economic efficiency was considered as a criteria in the selection of a preferred alternative, the analysis may result in a categorical exclusion. A Decision Notice may be used to document the decision (FSM 1951). An analysis file and/or a project file will be available for public review, but this will not necessarily be documented in the form of an Environmental Assessment or Environmental Impact Statement.

Assessment of the environmental consequences of local projects is done in conformance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations (40 CFR 1500-1508). All projects on National Forest System lands will meet NEPA requirements.

B. MONITORING AND EVALUATION

This Monitoring and Evaluation Plan is designed to provide feedback to managers. It will provide information on procedures for monitoring the effects of Plan implementation.

More specifically this plan will determine:

- If the Forest is achieving the goals and objectives of the Plan as predicted.
- If the standards and guidelines are being applied as specified in the Plan.
- If the effects of implementation are as predicted.
- If the Forest's program and management are resolving the planning issues.
- If the cost of implementing the Plan is as predicted.

The monitoring plan that follows is comprised of the following components.

1. MIH Code - the numerical identifier of the item to be monitored.
2. Activity, practice or effort - a specific statement of what will be monitored.
3. Monitoring technique - a description of the technique and sources of information to be employed. To the extent possible, existing reporting systems and standard methods will be used.
4. Sample size or number.
5. Expected precision - the accuracy with which data is collected. Expected reliability - a measure of how accurately the monitoring reflects the situation. Precision and reliability are qualitatively rated as High (H), Moderate (M), and Low (L).
6. Responsibility - the person who will coordinate the monitoring activity. Line responsibility rests with the Forest Supervisor and the District Rangers. This responsibility may be delegated as necessary.
7. Measurement frequency - the schedules of samples are stated in part of years or years and also include some measure of sample size or number.
8. Reporting period - the interval between reports summarizing monitoring results for a particular activity or practice. The sampling period should be long enough for specialists to capture significant information.
9. Variation which would initiate further evaluation/standard - statement describing the tolerance limits within which actual performance can vary from predicted performance. When these limits are exceeded, further evaluation is required.

Monitoring and Evaluation Program

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
Recreation Developed Recreation								
A07	Condition of Facilities (declining from designed standards)	Annual RIM Reports Total \$ needed to bring facilities to Condition Class II or I, Field Observations	100%	H/M	District Ranger & Recreation Staff	Annual	3 Years	Each developed site maintains a three-year average of less than Condition Class II and/or a public safety problem exists.
A07	Site condition (where there's a visible problem or the vegetative management plan directs it).	Transects and Photo Points at selected key sites and establish a data base where needed	As Needed	H/M	District Ranger & Recreation Staff	5 Years	5 Years	Campsite Condition below Class 2, using the Limits of Acceptable Change in Appendix C.
A07	Developed Site Service - (Whether Forest is able to operate and maintain sites at standard service level).	PACT-Days - Mgmt. Attainment Report	100%	H/H	District Ranger & Recreation Staff	Annual	5 Years	PACT-Days FSM (standard) Five-Year Average exceeds or declines from the Forest Plan objective by 10%
A07	Developed Site Use - Amount and Distribution (does demand exceed supply? Whether construction/reconstruction is needed.)	Double sample or any other statistically sound technique at indicator sites. In addition, random sample all fee sites	100%	M/M	District Ranger & Recreation Staff	Annual	Annual	Use of individual site exceeds 60% of theoretical capacity for the summer season or daily use exceeds capacity on more than 5% of the days in the summer season. The five-year average developed site use for the Forest varies from projected demand by more than 20%

^{1/} Where more than annual, measurements and reports will be equally staggered each year.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
<u>Recreation</u>								
A08	Dispersed Recreation Dispersed Visitor Use (Summer and winter)	Road counters Parking lot counts Trail Counters Annual RIM Reports	100%	M/L	District Ranger & Recreation Staff	Annual	5 Years	Visitor use varies from projected demand by greater than 20%
A08	Dispersed Site Condition	Photo Points, transects at key sites adjacent to water	As Needed	H/M	District Ranger & Recreation Staff	5 Years	5 Years	Campsite Conditions below Class 3 using the Limits of Acceptable Impact in Appendix D.
A12	Trail Condition	Trail condition surveys	As Needed	M/M	District Ranger & Recreation Staff	25%	4 Years	When 20% of trail mileage falls below established management objectives and planned maintenance levels.
A01	Off-Road Vehicle Use	1) Field observations 2) Public complaints 3) Closure violations 4) Acres impacted 5) Project EA's	100%	H/M	District Ranger & Recreation Staff	Annual	5 Years	An increase of 10% in acreage needing conflict resolution or an intense use conflict. Increase in substantial complaints. If use conflicts with management goals for the management area.
A08	Changes in R.O.S. classification mix	Compare R.O.S. changes with inventory	100%	H/H	Recreation Staff	Annual	5 Years	10% change in accepted R.O.S. mix from projected classifications.
<u>Cultural Resources</u>								
A02 & A03	Completion of cultural resource investigation for all site disturbing activities.	Compare completed cultural resource investigations against list of site - disturbing projects.	100%	H/h	District Ranger & Recreation Staff	Annual	Annual	Less than 100% compliance.
A04	Compliance with protection or mitigation plans.	On-site inspection of properties addressed by protection or mitigation plans.	100%	H/H	District Ranger & Recreation Staff	Annual	5 Years	Any change in the property from base line data in plans.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
Recreation	Visual Resources							
A02	Compliance with Visual Quality	Landscape Architect evaluate one retention travel route selected at random annually during and after project. Also, evaluate a minimum of two or 10% of randomly selected projects, whichever is more, of previous year's projects.	One Two	H/M	District Ranger & Recreation Staff	Annual	Annual	More than one sampled project does not meet VQO in a given year. One or more projects in two successive years does not meet VQO
<u>Wilderness</u>								
B03	Conditions of campsites and surrounding area are declining from the current situations.	Limits of acceptable change at key sites	100%	H/M	District Ranger & Recreation Staff	5 Years	5 Years	Limits of change analysis shows that the condition class has declined one class on 25% of inventoried sites. ^{2/}
B03	Amount and Distribution of Human Use	Trail registration, trail counters, and trailhead counts with periodic intensive sample verification.	100%	M/M	District Ranger & Recreation Staff	Annual	Annual	Human use exceeds area capacity identified in this Plan.

^{2/} Condition classes will be determined prior to the first reporting period.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
C01	Fish and Wildlife Management Indicator Species Elk and Mule Deer	Annual CDWR population estimates. Wildlife Habitat Relationship Models.	100%	M/M	District Ranger & Wildlife Staff	Annual	5 Years	Change in use of key habitat areas. (wallows, fawning and calving areas.) $\pm 20\%$ in population estimates within a herd unit.
	Cutthroat Trout and Macroinvertebrates	Annual DWR population estimates and/or macroinvertebrate studies.	100% (where baseline data exists) or as needed.	M/M	District Ranger & Wildlife Staff	5 year intervals or as required in project EA's.	5 Years	20% change in population, age, or size classes. When BCI drops below 75.
	Goshawk	Timber stand data, EA's, Wildlife Habitat Relationship Model	100% of designated stands	M/M	District Ranger & Wildlife Staff	10 Years	10 Years	Any reduction in acreage below 5% of total old growth conditions.
	Golden Eagle	Survey data	100% of known nesting sites	M/M	District Ranger & Wildlife Staff	5 Years	5 Years	$\pm 10\%$ change in nesting activity
	Yellowbellied Sapsucker, Warbling Vireo	Timber stand data, Habitat diversity modeling	100% of data base	M/M	District Ranger & Wildlife Staff	10 Years	10 Years	$\pm 10\%$ change in hardwood acreage.
	Lincoln's Sparrow, Song Sparrow	Habitat modeling	100% of data base	M/M	District Ranger & Wildlife Staff	5 Years	5 Years	$\pm 10\%$ in riparian acreage.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
	Fish and Wildlife							
	White-tailed Ptarmigan	UDWR Population Census	100%	M/M	District Ranger & Wildlife Staff	Annual	5 Years	20% drop in annual population or 5% drop in 5-year trends.
	Sage Grouse	UDWR lek surveys and brood counts, winter ground use surveys	100%	M/M	District Ranger & Wildlife Staff	Annual	5 Years	10% drop in breeding populations.
C01	Threatened and Endangered and Sensitive Species Osprey (Sensitive)	Survey data of nesting sites	100% of known sites	M/M	District Ranger & Wildlife Staff	Annual	5 Years	±10 change in nesting activity.
	Bald Eagle	Winter survey with UDWR	100%	M/M	District Ranger & Wildlife Staff	Annual	Annual	±10% drop in winter counts over a 5-year period.
	T&E species adjacent to Forest or potential residents	UDWR and Fish & Wildlife Service population surveys and inventories	100%	M/M	District Ranger & Wildlife Staff	As scheduled	As identified	Positive identification of Forest occurrence.
	Plants on Forest listed as sensitive	Habitat and population inventories	100%	M/M	District Ranger & Wildlife Staff	To be determined at completion of inventory	As requested	Any management activity affecting critical habitat.
C01	Validation of aquatic habitat quality.	R-4 GAWS Analysis Habitat Condition Index (HCI), lake surveys	As Needed	M/H	District Ranger & Wildlife Staff	10 Years	10 Years	When HCI drops below 42. When natural streambank stability drops below 80%. When BCI drops below 75.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
D01	Range condition and trend.	Parker 3-step studies, nested frequency studies, R-4 Condition and Trend methods	As Needed or prescribed in AMP and 100% of areas in poor or very poor condition	M/M	District Ranger & Range Staff	As scheduled	10 Years	Greater than 10% decline in acres by condition class or 10% increase in acres in downward trend within any allotment.
D01	Measurement of forage utilization for compliance with established standards, Standards in Allotment Management Plans (AMP), and Forest Plan.	Grazing impact studies, Forest Standards and Guidelines, Allotment Management Plans.	As per AMP schedule	M/M	District Ranger & Range Staff	Annually	Annually	When utilization deviates $\pm 10\%$ from levels set in Allotment Management Plans and/or use levels do not conform with those set specifically by Forest Standards and Guidelines.
D01	Quality of all projects associated with the implementation of the AMP (if they are done to standards)	E.A., AMP, field inspections, ID team review	Projects on one Allotment per District per year	H/M	District Ranger & Range Staff	2 Years	2 Years	Lack of following R-4 procedures for follow-up on nonstructural projects and/or lack of any structural development meeting design standards.
D01	Adequacy of AMP's	Range inspections, permittee meeting, ID team review	10% per year	H/H	District Ranger & Range Staff	Annual	10 Years	Any variation from AMP objectives.
	<u>RNA's</u>							
	(Unauthorized) intrusions or alterations in established and proposed RNA's.	Transects, photo points. Establish data base where necessary	100%	H/M	District Ranger & Watershed Staff	Annual	Annual-3 years	Each RNA evaluated separately. Annual measurement shows evidence of unauthorized intrusions 2nd indication shows continuation of unauthorized intrusions. Change may be triggered depending on severity, at any time during reporting.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
E06	Timber Harvest practices in retention, partial retention, and areas affecting riparian areas.	Review of timber sale prescriptions, VQO, and wildlife objectives prior to and after projects.	20%	M/M	District Ranger Timber Staff	Annual	Annual	Violation of visual quality objectives. Riparian area damage.
E06	Timber Sale Schedule	Review 5-year schedule to ascertain that timber sales will be offered on schedule and volume will not exceed 10-year sale quantity.	100%	H/M	District Ranger & Timber Staff	Annual	Annual	A 25% deviation annually or a 10% deviation in a 5-year period in timber volume offered or sold
E04	Accomplish site preparation within 2 years after logging and have adequate stocking within acceptable time period (as defined in the silvicultural prescription).	Silvicultural prescription, survival exams	100% of those being restocked	H/H	District Ranger & Timber Staff	Annual	Annual	Regeneration does not meet restocking requirements as defined by silvicultural prescription by more than 3 years.
E06	Assure harvest will not promote disease and insect increases.	Silvicultural prescriptions, survival and silvicultural exams, ground and aerial surveys, post sale reviews.	10%	M/H	District Ranger & Timber Staff	Annual	Annual	Unacceptable results of silvicultural/entomologist review.
E05	Timber stand improvement accomplishments.	Stocking surveys, accomplishment reports	100% of those scheduled for inventory	M/M	District Ranger & Timber Staff	Annual	Annual	Less than 75% accomplishment of scheduled TSI in 5 years, or less than 50% accomplishment per year. New research indicates spacing or guidelines are not optimal.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
Timber								
E06	Check compliance of timber sale program to assure that estimates of effects to other resources (such as recreation, opening sizes in relation to wildlife, and economic efficiencies) were appropriate.	Sale reviews, EA's, sale contracts, permits.	1 sale per District per year	M/M	District Ranger, Timber Staff, & original ID Team	Annual	Annual	Sale reviews question validity of estimates of effects.
E04	Fuelwood consumption and supply	Determine supply by fuels inventories, and acres available; demand by permits issued, and public input.	100%	H/M	District Ranger & Timber Staff	Annual	Annual	Supply is not meeting demand, or projected supply will not meet demand within 10 years.
E07	Verify classification of suitable and unsuitable lands.	Examine lands during silvicultural exams, timber sale cruises, and inventories, to ground true capabilities.	10% of Forest	M/M	District Ranger & Timber Staff	Annually, concurrent with projects	10 Years	If over 10% of land was found to be incorrectly identified.
	Assure prescriptions are practical before contract preparation.	Environmental assessment, presale and administrative reviews, with reviews by economists and a transportation planner.	1 sale	M/H	District Ranger, Timber Staff	Annual	Annual	Unacceptable results of a team review.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision/Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
	Timber Assure prescriptions are practical before contract preparation.	Environmental assessment, presale, and administrative reviews, with reviews by economists and a transportation planner.	1 sale	M/H	District Ranger & Timber Staff	Annual	Annual	Unacceptable results of a team review.
	Soil, Water and Air							
F09	Water yield increases.	Samples collected by Forest using flow measurements, grab samples, and DH-48 sediment sampler following USGS standard methods. Conductivity, suspended sediment, and turbidity will be analyzed by Utah State Health Laboratory.	Paired watershed stations 1) Brownie Creek 2) No. Fk. Dry Fork and USGS gauges	H/H	District Ranger & Watershed Staff	Grab samples taken daily May through June and once every two weeks July through September. Automated samples continuous.	Annual	Violation of State Water Quality Standards or a 20% increase in predicted sediment yield. A 20% change over 5 years from projected water yield.
F09	Changes in channel stability rating.	Stream Reach Inventory and channel stability evaluation.	High priority streams	M/M	District Ranger & Watershed Staff	Annual	Annual	Rating lowered to next sequential classification as per R-4 standards.
F01	Cumulative sediment impacts and water yield augmentation.	WRENSS hydrologic modeling	All proposed timber compartment environmental assessments.	H/M	District Ranger & Watershed Staff	Ongoing	Ongoing	Violation of State Water Quality Standards or variation in water yield increases as stated in Forest Standards and Guidelines

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
F09	Soil, Water, and Air Water quality changes on the Vernal Municipal Watershed.	Grab samples taken to analyze bacteriological parameters, suspended sediment, and turbidity.	Two stations 1) Dry Fork Sinks 2) Ashley Spring	M/L	District Ranger & Watershed Staff	3 times annually	Annual	Violation of State Water Quality Standards.
	Effectiveness of soil and water improvement projects.	Annual accomplishment reports. Photo points, field inspections, standard methods, EA and Project Plan, Land Treatment Handbook	100% of new projects (for 3-year projects continuously) and 20% per year over 3 years old.	H/M	District Ranger & Watershed Staff	Annual	Annual	Unacceptable deviation from EA or Project Plan Objectives.
	Project effectiveness for soil resource protection.	Project Reviews, EA's, contracts, permits.	1 project per District per year.	M/M	District Ranger & Watershed Staff	Annual	Annual	Project reviews question validity of soil protection measures or mitigation effects.
	Changes in soil productivity due to management activities:	Soil sampling before and after the activity on identified areas.	Randomly, on selected soil types to meet management objectives.	M/M	District Ranger & Watershed Staff	Ongoing	5 Years	15% increase in bulk density or 50% decrease in pore space. 20% loss of nutrients.
	Compaction	Bulk density						
	Erosion	Erosion plots and transects						
	Fertility	Fertility sampling						

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
	Soil, Water, and Air							
	Progress made towards establishing benchmark soils critical for management	Standard SCS methods and soil inventory	3 samples/benchmark soil	H/M	Watershed Staff	Ongoing	Annual	Less than 40% accomplishment in 5-year period.
A12	Compliance with Utah and Wyoming State Air Quality Standards by Forest activities.	Visual observation, accepted techniques and methods. Wyoming and Utah State Air Standards.	100% of all activities affecting air-quality	M/M	Fire Staff, or Staff responsible for activity & District Ranger	Ongoing	Any Violation	Violation of State Air Quality Standards and adverse public reactions.
290	Changes in air quality related values (AQRV's) from off-Forest sources.	Flaming Gorge NRA - visibility High Uintas Wilderness -macroinvertebrate studies zooplankton studies lichen studies water chemistry soil mapping precipitation chemistry visibility Rest of Forest - visibility	Representative lakes or watersheds	H/H	District Ranger & Soil/Water/Air Staff	Ongoing	5 Years	AQRV's reduced beyond <u>3</u> / ₃ limits of acceptable change.

3/ Limits will be established before first reporting period.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
Riparian								
F09	Changes in riparian areas due to land management activities.	Sequential photo points, field observation, Stream Reach Inventory, range condition classification, and EA's.	High priority riparian area identified in Forest Riparian Management Plan. All environmental assessments.	H/M	District Ranger & Watershed Staff	Annual	Annual	Violation of Forest Riparian Standards and Guidelines.
Minerals								
G06	Effectiveness of Lease Stipulations and Operating Plan requirements.	Field inspections, EA's, Operating Plans, Lease Stipulations	100% of Lease Operating Plans.	M/M	Minerals Staff & District Ranger	Ongoing	Annual	Lease Stipulations and Operating Plan requirements are found inadequate to meet resource protection needs.
G06	Effectiveness of Notices of Intent and Operating Plans for locatable operations.	Field inspections, EA's, NOI, and Operating Plans	100% of active cases	M/M	Minerals Staff & District Ranger	Ongoing	Annual	Operating plan requirements are found inadequate to meet resource protection needs.
Protection - Fire								
P02	Adequacy of fire prevention programs.	Measure of number of person-caused fires.	100%	H/H	Fire Staff	Annual	5 Years	20% increase in cumulative 5-year average.
P08	Number of wildfires, acres burned, and values affected.	Frequency by size, distribution, and intensity level, 5100-29 reports.	100%	H/H	Fire Staff	Annual	5 Years	20% increase in cumulative 5-year average in any of the factors.
P10	Reduce activities fuels to acceptable levels.	Field measurement after fuel treatment.	30% of projects	M/M	District Ranger & Fire Staff	Annual	5 Years	Exceeding fuel level guidelines by 10% or failure to make targets.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
Protection - Insect Disease								
P35	Effectiveness of dwarf mistletoe suppression projects to protect regeneration.	Field Reviews	Follow-up on projects	M/M	Timber Staff	Annual	5 Years	Infestation in precommercially thinned areas.
	Manage vegetation at developed recreation sites and/or administrative sites and other high value sites to protect against Mountain Pine Beetle	Field Surveys	100%	H/H	District Ranger & Recreation & Lands Staff	Annual	Annual	10% loss of dominate trees on site.
Protection - Law Enforcement								
P24	Law enforcement effectiveness.	Number of violations, resource damage, and failure to follow F.S. regulations.	Forest-wide	H/H	District Ranger & Administrative Officer	Annual	Annual	10% increase in violations or resource damage.
Lands								
J01	Compliance of energy transmission systems to the Construction, Operation, and Maintenance (COM) Plans.	Field inspections, EA, COM Plans	100%	H/H	District Ranger & Lands Staff	As needed on construction Annual on maintenance	Annual	Any deviation from COM Plan requirements.
J06	Effectiveness of property boundary posting and maintenance	Field observations for encroachments and deficiencies identified during posting.	10% annual (of posted boundary)	H/H	District Ranger & Recreation & Lands Staff	Annual	10 years	Any deviation from R-4 Posting and Maintenance Standards.
J18	Adequacy of public access to National Forest Lands	Road & Trail Right-of-Way Acquisition Plan, public comments, resource development needs, RPA Inventory	100%	H/H	District Ranger & Recreation & Lands Staff	Annual	Annual	Failure to acquire 90% of planned acquisitions in a 5-year period.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
<u>Lands</u>								
J10	Occupancy Trespass	Observed violations and trespass reports 1981 Inventory	100%	H/M	District Ranger & Recreation & Lands Staff	Annual	Every 5th year	Number of occupancy trespasses unresolved exceeds the 1981 inventory
	Compliance with terms and conditions of all special use permits.	Field or office inspections, permits, EA's, Operating plans, design specifications, permittee records.	100% (as prescribed in FSM 2700)	H/H	District Ranger & Recreation Staff	Annual	Annual	Any deviation from public health and safety requirements, and any lack of maintenance adversely affecting resource values.
<u>Facilities</u>								
L2-18, 29	Road and bridge construction and reconstruction	Field review of EA's and design criteria	100% of new construction and 20% of reconstruction or a whole project.	H/H	District Ranger & Engineering Staff,	Annual	Annual	Unacceptable results of an ID team review.
L19	Road maintenance	Road logs and condition surveys. Annual maintenance inspections.	20% of total annually	H/H	Engineering Staff	Annual	5 Years	20% variation in any one year or 10% over a 5-year period.
L19	Effectiveness of road protection methods	Road closure orders, permits, Travel Plan, and on-site inspections.	20% Annually	H/M	Engineering Staff	Annual	5 Years	Any failure of road closure method to prevent violations.
A07, E06, L25	Building Maintenance (Administrative)	Inspection Reports, Site Plans	100%	M/M	District Ranger	Annual	Annual	Failure to maintain buildings to prescribed standards.

MIH Reference Code	Activity, Practice, or Effect to be Measured	Monitoring Technique/Data Source	Sample Size	Expected Precision Reliability	Responsible Official	Measurement Frequency	Reporting Period	Variation Which Would Cause Further Evaluation and/or Change in Management Direction
L19	Effectiveness of roadway signing (including sign maintenance) Facilities	Sign Handbook, on-site inspection, Sign Plan, Accident Records, and public comments	33 1/3% /year	H/H	District Ranger & Engineering Staff	3 Years	3 Years	A 15% deviation from sign plan and 5% increase in accidents. Forest-wide or significant increase by site. Any deviation from sign maintenance standards.
L-31	Potable Water	Lab analysis	100%	H/H	District Ranger & Engineering Staff	As per State and F.S. Standards	Annual	Meeting less than State and F.S. requirements.
L28	Dam Safety Operation and Maintenance	Special Use Permit, Dam Handbook, Operating Plan, State requirements, Inspections	100%	H/H	District Ranger & Engineering Staff	As per State and F.S. requirements	Annual	Failure to meet maintenance and safety requirements with threshold limits in established time frames.
	Response of public to Forest Management	Socially Responsive Management (SRM) Techniques	100%	M/M	Socially Responsive Management Coordinator	Continuous	Annual	When an emergency or existing issue becomes a disruptive issue.
	Accomplishment of funded goals and objectives approved in the annual program of work.	Performance reviews. Agreed upon goals and objectives, Management Attainment Report	100%	H/H	District Ranger & Forest Staff	6 months	Annual	Less than agreed upon accomplishment of goals and objectives.

C. REVISION and AMENDMENT

The Forest Supervisor may change the schedule of Proposed Practices and Monitoring Plan to reflect differences between proposed annual budgets and appropriated funds. Such scheduled changes will be considered an amendment to the Forest Plan, but shall not be considered a significant amendment, or require the preparation of an environmental impact statement, unless the changes significantly alter the long-term relationship between levels of multiple-use goods and service projected under planned budget proposals as compared to those projected under actual appropriations.

The Forest Supervisor may amend the Forest Plan. Based on an analysis of the objectives, guidelines, and other contents of the Forest Plan, the Forest Supervisor shall determine whether a proposed amendment would result in a significant change in the Plan. If the change resulting from the proposed amendment is determined to be significant, the Forest Supervisor may implement the amendment following appropriate public notification and satisfactory completion of NEPA procedures.

A Forest Plan shall ordinarily be revised on a 10-year cycle or at least every 15 years. It also may be revised whenever the Forest Supervisor determines that conditions or demands in the area covered by the Plan have changed significantly or when changes in RPA policies, goals, or objectives would have a significant effect on forest level programs. In the monitoring and evaluation process, the interdisciplinary team may recommend a revision of the Forest Plan at anytime. Revisions are not effective until considered and approved in accordance with the requirements for the development and approval of the Forest Plan. The Forest Supervisor shall review the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have changed significantly.

This Forest Plan will be revised when necessary but no later than October 1, 2000.

APPENDICES



APPENDIX A

FLAMING GORGE NATIONAL RECREATION AREA

SUPPLEMENTAL DIRECTION

APPENDIX A

FLAMING GORGE NATIONAL RECREATION AREA SUPPLEMENTAL DIRECTION

I. MISSION AND GOALS

The legislation establishing the NRA specified three broad missions and management goals. Specifically, the Secretary of Agriculture is directed "to administer, protect, and develop the Flaming Gorge National Recreation Area in a manner to best provide for (1) public outdoor recreation benefits; (2) conservation of scenic, scientific, historic, and other values contributing to public enjoyment; and (3) such management, utilization, and disposal of natural resources as in his judgment will promote or are compatible with, and do not significantly impair the purpose for which the recreation area is established."

Future management of the NRA under this broad framework will be to:

- A. Continue to provide a high quality, varied recreation experience to the full capacity of the area. Some of the important elements of this are:
 - 1. Provide sanitary and pleasing facilities.
 - 2. Protecting and fully developing opportunities for appreciation and enjoyment of the natural environment including historical and cultural values.
 - 3. Recognizing that the area has a capacity determined by basic resource and social factors. Either or both may limit use of the area before demand is fully satisfied. Plans, development, and management will be based upon these capacities.
 - 4. Recognizing that the quality recreational experience provided by the area is direct function of the diverse natural character of the land and landscape. Maintaining the undeveloped character of most of the NRA will be necessary if the quality recreational experience is to be continued. Development of facilities to relatively high scale will be concentrated in a few areas of heavy public use, but most lands will remain undeveloped, with natural forces playing the dominant role.
- B. Encourage utilization of resources where compatible with recreation. Uses which may be compatible at some level are:
 - 1. Grazing of domestic livestock.
 - 2. Hunting and fishing.
 - 3. Harvest of forest products
 - 4. Development of private facilities both on and adjacent to NRA lands.
 - 5. Use of NRA lands for rights-of-way, easements, or other improvements that are in the public interest.
 - 6. Mining and off-road vehicle travel.

- C. Provide for the safety and enjoyment of the user by:
 - 1. Assuring adequate maintenance of facilities.
 - 2. Assuring an adequate level of law enforcement.
 - 3. Providing for a safe recreation experience on land and water.
 - 4. Developing and maintaining a quality VIS program.
 - 5. Designing adequate facilities and transportation system.
- D. Involve the public, other agencies, and organizations in the planning and development processes.
- E. Provide public services and resource protection and management which are most cost-effective.

II. MANAGEMENT DECISIONS, STATE DIRECTION AND COORDINATION OF THE RESOURCE USES, ASSOCIATED PRIVATE LAND USES AND RECREATIONAL CONSIDERATIONS FOR THE ENTIRE NRA.

A. Management Decisions for Ecological Components.

1. Climate

- (1) Design, where appropriate, facilities to permit year-round use. This is especially important in the pinyon-juniper types and the northern desert.
- (2) As winter activities increase, warn the public of the potential for hazardous climatic conditions.
- (3) Continue to study and implement methods of providing sun and wind protection.

2. Air

- (1) Establish and adopt standards and a monitoring system so that air and noise pollution can be recognized and prevented or action taken to promptly bring it to the attention of those responsible when it occurs. Consider and include recreational and scenic values in setting air pollution standards on the NRA. Standards will meet or exceed the quality standards of the States of Utah and Wyoming.
- (2) Protect the NRA from serious air pollution originating outside its boundaries through involvement in the establishment and enforcement of adequate air quality regulations for these areas. Create public awareness of the NRA clean air and water values.
- (3) Except in emergency situations, operate noisy maintenance machinery at times other than periods of heavy public use. A machine that emits sounds of 35 decibels or more is considered noisy.
- (4) Minimize visual, air, and noise pollution along major routes of travel, at administrative sites, and in areas of concentrated public use.
- (5) Design and execute prescribed burning operations in a manner and under conditions which will minimize the adverse effects of smoke as an air pollutant.

3. Geology and Soils

- (1) Determine and use soil characteristics and land type associations data as key management tool in all proposed plans, uses, and activities.
- (2) Study and implement ways to maintain or improve soil capability.
- (3) Provide basic soils information and a quality up-to-date interpretive program that will create an awareness, understanding, and appreciation of the environment and the basic ecological relationships. Groups coming to the NRA to study and learn about specific subjects will be encouraged in this direction.
- (4) Promptly stabilize the soil on areas disturbed by modern man's activities by planting, seeding, and other soil stabilizing measures.
- (5) Manage forested areas to provide maximum recreation, wildlife, and esthetic benefits consistent with maintaining satisfactory watershed and soil conditions.

4. Water

- (1) Maintain or improve on-the-ground conditions favorable to optimum quality, quantity, and/or a timing of water yields.
- (2) Maintain natural streamflows unless necessarily altered to provide greater overall benefit to other resource uses or activities.
- (3) Develop and maintain on site and downstream water quality commensurate with foreseeable water uses.
- (4) Establish and adopt standards and a monitoring system so that water pollution can be recognized and prevented. Whenever pollution occurs, bring it to the attention of those responsible. Consider and include recreational and scenic values in setting water pollution standards on the NRA. Standards will meet or exceed standards of the States of Utah and Wyoming.
- (5) Protect the NRA from air and water pollution originating outside its boundaries through involvement in the establishment and enforcement of adequate water and air quality regulations for these areas. Create public awareness of NRA clean water values.
- (6) Continue to encourage the Bureau of Reclamation to maintain water levels in the reservoir and river that optimize recreational benefits and are consistent with other Colorado River Storage Project purposes.

- (7) Continue to work with Bureau of Reclamation and the Wyoming and Utah State Wildlife Agencies to improve the fishery within the Flaming Gorge NRA.
- (8) Review and update the contingency plan for emergency oil spills in Upper Henry's Fork.

5. Vegetation

- (1) Implement appropriate livestock management systems to correct any adverse effects upon other resource values. Determine optimum productivity levels and incorporate into management systems.
- (2) Manage pinyon-juniper to provide for maximum wildlife habitat and esthetics. Sage-grass-browse and openings of various sizes and shapes should be maintained and expanded where slopes, watershed conditions, soils, and esthetics considerations permit.
- (3) Manipulate vegetative cover where appropriate to improve ground cover, preserve natural beauty, increase diversity, and reduce fire hazard.
- (4) Protect riparian vegetation, channel banks, and stream regimen.
- (5) Direct efforts towards maintaining uneven-aged forest stands to enhance natural beauty and diversity.
- (6) Manage for forest stands that will maintain or improve the recreational and scenic values.

6. Wildlife and Fish

- (1) Manage wildlife to provide for the maximum diversity of game and non-game species rather than directing management towards production of only a few key species.
- (2) Inventory, protect, enhance, or maintain habitat for threatened, endangered, and unique wildlife species.
- (3) Improve winter range for deer and elk and all range for antelope.
- (4) Provide for wildlife habitat needs in range improvements and other non-wildlife oriented projects.
- (5) Provide for big game in the management of areas used by both livestock and big game.
- (6) Maintain or improve fish habitat.

- (7) Coordinate management of fur-bearers with the State wildlife agencies in a manner that will minimize adverse affects on other major resources, uses, or activities.
- (8) Maintain and encourage nesting areas and other critical habitat of waterfowl, raptors, and other birdlife.
- (9) Avoid development and occupancy patterns that may hinder wildlife movement, migration routes, and habits.
- (10) Work with the State wildlife agencies to determine optimum big game populations.
- (11) Animal damage control will be carried out on a demonstrated need basis upon request by the Forest Service, and by a method approved by the Forest Service.
- (12) Manage pinyon-juniper and other forested lands to provide for maximum wildlife habitat and esthetics. Sage-grass-browse openings of various sizes and shapes should be maintained and enhanced where slope, watershed conditions, soils, and esthetic considerations permit.
- (13) Provide water for wildlife when constructing livestock and recreational water developments.
- (14) Encourage the State Highway Department to sign big game crossings on Forest highways.
- (15) Encourage the nonconsumptive use of wildlife.

7. Minerals

- (1) Permit mining and related activities that will not create undesirable impacts upon recreational or scenic values or on air and water quality.
- (2) Allow amateur gold panning and gem stone hunting where such activity has recreational value and will not damage or destroy other resources.

B. Management situation, assumptions, and decisions for social - cultural - economic contexts

1. Outdoor Recreation

- (1) Restrictions on numbers of visitors at one time may need to be imposed. The tolerable carrying capacity is the key to future development and management. Study and implement ways to control use. Strongly consider the reservation theory of recreational use for accomplishing this. Controlled ingress to the NRA could be easily provided by establishment of 4 or 5 entrance points and be very effective in regulating use.

- (2) Continually strive to find modern up-to-date means of providing facilities and services, i.e., launching boats by a crane or tramway could eliminate congestion and the need for more ramps.
- (3) Concentrate the large public recreational developments in complexes. Smaller satellite campgrounds, hunter and fishing camps, boating camps, rest stops, and observation sites are suited for and can be developed to provide for dispersed use. Adequate buffers between developments will be provided.
- (4) The length of season that facilities will remain open will depend on design, demand and available funds. If demand is low and/or funds are not available to maintain them to existing standards, they will be closed after considering other alternatives.
- (5) Promote public enjoyment and safety and preserve natural beauty in the administration and maintenance of the reservoir, Green River, and related improvements.
- (6) Design, where appropriate, facilities to permit year-long use. This is especially important in the pinyon-juniper types and the northern desert.
- (7) Provide minimum standard, approved sanitation facilities throughout the NRA in remote undeveloped areas where use is encouraged.
- (8) Place special emphasis on providing for boat and water-oriented sanitation needs.
- (9) Provide no amusement park type facilities.
- (10) Provide for multi-family, multi-vehicle camping sites. Give special consideration in planning to providing for the increased use of vehicle campers, trailers, and motor homes.
- (11) Provide facilities for group or organization use. Separate them from other users. Limit numbers permitted in these sites to the designed carrying capacity of the sites.
- (12) Provide necessary facilities for boating camps on the reservoir.
- (13) Designate additional overflow areas containing safe, sanitary, and minimal facilities within or near major complexes.
- (14) Maintain open spaces and undeveloped areas throughout the NRA. Continue to concentrate and cluster facilities for

intensive public use. Develop only a relatively-small proportion of the total NRA area, leaving most of the land available for back country-type recreational activities.

- (15) Designate snow play areas and cooperate with the State and local agencies and groups in providing trails and related facilities for snowmobilers and cross-country skiers when there is a demand for this type of activity.
- (16) Locate winter play areas where they do not interfere with big game winter range and where hazards are minimal.
- (17) Encourage and provide for a variety of recreational activities.
- (18) Develop the majority of overnight camping facilities in complexes near but not directly adjacent to the water's edge.
- (19) Enforce and abide by existing solid waste and sewage disposal regulations.
- (20) Construct and maintain improvements to meet the public need. They should be esthetically pleasing and blend with or complement the surrounding area.
- (21) Avoid development and occupancy patterns that may unnecessarily hinder wildlife movement, migration routes, and habitats.
- (22) Schedule range livestock use during "pre" and "post-tourist" seasons, in areas of heavy public use where conflicts exist. Normally, livestock will not be allowed in designated recreation sites.
- (23) Implement the ORV Plan to the extent possible under available financing. Limit motor vehicle travel to existing roads. Monitor ORV use and take corrective actions necessary to prevent resource damage including noise impacts, minimize conflicts with other uses, and to provide for public health and safety.
- (24) Locate and construct all roads to standards that will complement or enhance existing or potential recreational values as well as provide opportunities for the pleasure driver.
- (25) Provide for public access to shoreline areas; both trails and roads are needed.
- (26) Design the majority of roads to handle year-long use.

- (27) Primary access into a few selected sites should be designed for hikers and motorized cross-county vehicles.
- (28) Provide for public safety in the location, design, construction, maintenance, and administration of all facilities and improvements.
- (29) Maintain and/or establish special safety precautions and measures where people concentrate or where unusually hazardous conditions exist.
- (30) Encourage commercial development by the private sector, both on and off National Forest lands, where appropriate and compatible with NRA standards and objectives.
- (31) Design and construct recreation facilities which create minimum adverse impacts on soils, water quality, visual qualities, wildlife and fish, and cultural resources.
- (32) Design and construct recreational facilities to a standard which does not exceed the needs of the average person who will use the facilities, and which generally meet the criteria of least cost of operation and maintenance in the long-term.
- (33) Construct vehicle parking and sanitation facilities in areas where concentrated public use is causing adverse environmental effects, or take administrative measures to control such use.

2. Esthetics

- (1) Strive to restore scenic values in areas where they have been deteriorated or destroyed, by vegetative manipulation, planting, additional cutting to blend corridors, etc.
- (2) Preserve natural beauty in the administration and maintenance of the reservoir, Green River, and related improvements.
- (3) Manage pinyon-juniper and other forested lands to provide for maximum wildlife habitat and esthetics. Sage-grass-browse and openings of various sizes and shapes should be maintained and enhanced where slope, watershed conditions, soils, and esthetic considerations permit.
- (4) Manipulate vegetative cover where appropriate to improve ground cover, increase diversity, preserve natural beauty, and reduce fire hazard.
- (5) Manage wildlife to provide for the maximum diversity of game and non-game species rather than directing management towards production of only a few key species.

Provide for and encourage the non-consumptive use of the wildlife resource, i.e., viewing, photography, etc., as well as for hunting.

- (6) Minimize adverse effects on esthetic values from maintenance of existing power and telephone lines and gas or water pipelines.
- (7) Discourage new overhead utility lines unless within or directly adjacent to existing cleared rights-of-way, or if the physical situation does not lend itself to locating underground (oil and gas pipelines included). Encourage the underground placement of existing overhead utility lines, where practical.
- (8) Design recreational improvements to maintain as much as practical the scenic values of the immediate area.
- (9) Maintain open spaces and undeveloped areas throughout NRA.
- (10) Construct and maintain improvements to meet the public need. They should be esthetically pleasing and blend with or complement the surrounding area.
- (11) Leave dead or dying trees that benefit wildlife and esthetics and are not a threat to the public or spreading insects or disease.
- (12) Consider using Forest Service crews for tree removal as a method to minimize damage to the recreational and scenic values on timber sales near roads or other places receiving close public scrutiny.
- (13) Direct efforts towards maintaining uneven-aged forest stands to enhance natural beauty.
- (14) Manage for well-stocked forest stands that will maintain or improve the recreational and scenic values.
- (15) Design livestock grazing systems so that the visiting public can view livestock properly utilizing the range resource.
- (16) Fire protection programs will be geared to keep pace with the higher risks and hazards and important recreation values. Areas of heavy public use, the canyon lands, and areas of scenic beauty will need special protection.
- (17) Convert flammable vegetation to less flammable cover types in high value areas where fire risks are high and major esthetic values would not be lost.
- (18) Provide scenic viewpoints along Forest highways.

- (19) Consider scenic values and protection of natural beauty in any activity which will affect air, water, or land resources.
- (20) Complete a visual resource inventory and analysis prior to initiating any land use activity which may have significant visual effects. Use the landscape management alternatives which are developed in the analysis as a basis for planning the activity.

3. Timber

- (1) Manage timber stands for less than maximum production of forest products, and for maximum recreation, wildlife, and esthetic benefits consistent with maintaining satisfactory watershed conditions.
- (2) Determine what proportion of the total forest products yield from commercial, productive forest lands should be harvested, and program these stands for harvest. Harvest levels will be consistent with requirements of P.L. 90-540 and management direction stated in this plan.
- (3) Until it is determined what sustained yield of forest products may be harvested from commercial, productive forest lands, manage forests using cultural methods which simulate the natural ecologic processes, which insure diversity of plant and animal communities, and which protect recreational and scenic values.
- (4) Continue to manage and harvest forest products at a high standard consistent with NRA objectives.
- (5) Direct efforts towards maintaining uneven-aged stands to enhance natural beauty and diversity. Lodgepole pine may be managed in even-aged stands two acres or less in size.
- (6) Leave dead or dying trees that benefit wildlife and esthetics and are not a threat to the public or are not spreading insects or diseases.
- (7) Schedule timber removal operations during winter months in areas bordering roads, trails, campgrounds, other areas of concentrated public use, and scenic backdrop areas.
- (8) Require close utilization of all merchantable material in commercial timber harvest operations. Give extra attention to slash disposal including 100 percent cleanup of slash where necessary to preserve scenic and recreational values.
- (9) Protect residual trees in debris disposal programs.

- (10) Consider using Forest Service crews for tree removal as a method to minimize damage to the recreational and scenic values utilizing winter operations.
- (11) Construct no new roads which have primary utility for timber harvest unless the roads can be effectively closed to public travel both during the logging operations and following. Wherever possible, harvest timber either by use of the existing road system, by winter logging without roads, or by using temporary roads which can be effectively closed and obliterated following logging.
- (12) Permit commercial removal of firewood only when necessary to meet NRA management objectives.
- (13) Salvage timber from burned areas only where logging methods to be employed will protect or improve recreational, esthetic and wildlife values.
- (14) Avoid activities and development or occupancy patterns that may unnecessarily hinder wildlife movement, migration routes, and habits.
- (15) Select less palatable grass species for planting in key timber regeneration areas to discourage concentrations of livestock and game animals.
- (16) Promptly investigate and, where appropriate, minimize insect, disease, and other damage.
- (17) Encourage research into new ways to create and maintain attractive forested areas as well as protect young trees and shrubs from insects, disease, and rodent damage.
- (18) Take advantage of, or create, opportunities to interpret good forestry practices to further visitor understanding.

4. Forage

- (1) Implement appropriate livestock management systems to correct any adverse effects upon other resource values that have been created by grazing.
- (2) Schedule range livestock use during "pre" and "post-tourist" seasons, in areas of heavy public use where conflicts exist. Normally, livestock will not be allowed in designated recreation sites.
- (3) Design livestock grazing systems so that the visiting public can view livestock properly utilizing the range resource in areas where heavy recreational use does not occur.

- (4) Select less palatable grass species for planting along road rights-of-way and in key timber regeneration areas to discourage concentrations of livestock and game animals.
- (5) Design range fences to allow necessary and desirable movements of people and wildlife.
- (6) Prevent livestock damage to newly disturbed areas and cut and fill slopes on roads.
- (7) Allow no concentrations of range livestock or pack and saddle stock that conflict with the objectives for which the NRA was established. Require feeding of supplements to pack and saddle stock where necessary to protect watershed, recreational, and other resource values.
- (8) Provide for big game in the management of areas used by both livestock and big game. Allocate forage needed for wildlife on range allotments.
- (9) Provide water for wildlife when constructing livestock and recreation water developments. These would normally be at the natural water source.
- (10) Provide cover needed by upland game and birds around watering places, wherever possible.
- (11) Provide for wildlife habitat in range improvements and other non-wildlife oriented projects.
- (12) Encourage a joint state, county, and federal program to control noxious weeds, using safe, approved methods. The Henrys Fork area and spotty areas where livestock are fed are highest priority for control.
- (13) Fence for livestock control, where necessary, for public safety along roads and highways.
- (14) Conflicts between grazing and recreation will be resolved in favor of recreation.
- (15) Participate with BLM in preparation of environmental statements and grazing management plans for BLM grazing allotments to assure that management direction stated in this plan is included.

5. Interpretation

- (1) Locate, inventory, and protect values which have educational, cultural, historical, or interpretive potential until such time as they can be developed and managed.

- (2) Incorporate "learning and doing type" opportunities in VIS interpretation for organized groups as well as individuals.
- (3) Provide basic information and a quality up-to-date interpretive program that will create an awareness, understanding, and appreciation of the environment and the basic ecological relationships, as well as an understanding and appreciation of Forest Service management practices and resource utilization activities. Groups coming to the NRA to study and learn about specific subjects will be encouraged.
- (4) Utilize VIS to achieve public safety, anti-littering, anti-vandalism, and resource protection goals.
- (5) Provide current information to the visitor about public safety hazards and requirements by use of news media.

6. Special Land Uses

- (1) Specialized improvements such as motels, stores, electrical hookups, and other refined facilities will normally be provided by existing concessionaires or the private landowners within and surrounding the NRA.
- (2) Existing permittees will normally be given first opportunity to provide or expand services if it is determined there is a demonstrated public need for them. If these services are not already provided for in the current permit (allowing, however, minor changes in the permit) or if the demand for such services is in a location outside the immediate permitted area, existing permittees will not be given preference. Furthermore, new concessionaires will normally be discouraged if the public demand for goods and services can be practically met on private lands near or within the NRA.
- (3) Authorize special land uses only to meet demonstrated public needs, where the need cannot feasibly be met outside the NRA, and where foreseeable effects on other existing or potential uses and activities are acceptable. Use of the National Forest in furtherance of private land development will be allowed only where it is compatible or improves the management objective for the adjacent NRA lands.
- (4) Correct features of existing special land uses that are incompatible with NRA objectives. Assure compliance with existing permit stipulations.
- (5) Permit no commercial removal of duff, humus, or topsoil. When topsoil is removed for non-commercial construction

or development purposes, it will be replaced where possible.

- (6) Require professionally-prepared master plans for all concessions. Prior to issuance of new or revised permits for public services, such plans, including feasibility and economic studies, will be prepared by the permittees.
- (7) Allow no amusement park type facilities.
- (8) Minimize adverse effects on esthetic values from maintenance of existing power and telephone lines and gas or water pipelines.
- (9) Discourage new overhead utility lines unless within or directly adjacent to existing cleared rights-of-way, or the physical situation does not lend itself to locating underground (oil and gas pipelines included). Encourage the underground placement of existing overhead utility lines, where practical.
- (10) Enforce and abide by existing solid waste and sewage disposal regulations.
- (11) Conflicts between recreational or scenic values and land uses will be resolved in favor of the former.

7. Mineral Use

- (1) Permit only those mining and related activities that will avoid undesirable impacts upon recreational values and esthetics.
- (2) Locate and construct all roads to standards that will complement or enhance existing or potential recreational values.
- (3) Allow no above-ground processing or refining of minerals.
- (4) Allow no open pit mining operations.
- (5) Allow no above-ground mining or drilling operations which would be visible from the reservoir, Green River, major developed recreation sites, or major traveled roads.
- (6) Authorize no oil or gas drilling within 1/2 mile of the reservoir, Green River, or 1/2 mile of live streams flowing directly into the reservoir unless positive methods are used to control petroleum spills at the drilling sites.
- (7) Obliterate and rehabilitate all roads, trails, drill pads, trenches, ponds, or other types of earth disturbance resulting from mining, prospecting, or oil and gas operations.

- (8) Permit no commercial removal of duff, humus, or topsoil. When topsoil is removed for non-commercial construction or development purposes, it will be replaced where possible.
- (9) Avoid development and occupancy patterns that may unnecessarily hinder wildlife movement, migration routes, and habits.
- (10) Evaluate and act on mining and associated water requests on a case-by-case basis utilizing the NEPA process.
- (11) Where practical, rehabilitate scars from previous mining activities.
- (12) Conflicts between public recreational or scenic values and minerals use will be resolved in favor of the former.

8. Water Use

- (1) Encourage the Bureau of Reclamation to maintain a water level in the reservoir and river that optimizes recreational benefits and is consistent with other Colorado River Storage Project purposes.
- (2) Provide water for wildlife in constructing livestock and recreation water developments.
- (3) Inventory, safeguard, or assure availability of water needed to meet existing and future Forest Service requirements.
- (4) Continue to work with the Bureau of Reclamation and other Federal, State and local agencies in the planning and appropriation process for water uses.
- (5) Enforce and abide by existing solid waste and sewage disposal regulations.
- (6) Assure safety for downstream people, property, watershed, and other values in the installation and maintenance of water storage and diversion structures and facilities.

9. Population and Economy

- (1) Involve the public and representatives from all appropriate federal, state, county, and local agencies in planning, development, and policy formulation for the NRA. Place special emphasis upon gaining and maintaining cooperative working relationships with out-Service groups, agencies, and individuals.
- (2) Specialized improvements such as motels, stores, electrical hookups, and other refined facilities will

normally be provided by existing concessionaires or the private landowners within and surrounding the NRA.

- (3) Existing permittees will normally be given first opportunity to provide or expand services if it is determined there is demonstrated public need for them. If these services are not already provided for in the current permit (allowing, however, minor changes in the permit) or if the demand for such services is in a location outside the immediate permitted area, existing permittees will not be given preference. Furthermore, new concessionaires will normally be discouraged if the public demand for goods and services can be practically met on private lands near or within the NRA.
- (4) Cooperate with and encourage private landowners and other public land agencies that have property within and near the NRA to develop and operate their lands in a manner that will complement and not conflict with the management objectives of the NRA. The opposite is also true.
- (5) Encourage and assist local, county, and State agencies to maintain a quality law enforcement and public safety program in coordination with Forest Service efforts.
- (6) Continue to provide employment to qualified local residents.

10. Cooperation

- (1) Involve the public and representatives from all appropriate federal, state, county, and local agencies in planning, development, and policy formulation for the NRA. Place special emphasis upon gathering and maintaining cooperative working relationships with out-Service groups, agencies, and individuals.
- (2) Coordinate with and encourage counties to enact and enforce strong zoning ordinances and building codes to protect and enhance the values for which the NRA is established.
- (3) Cooperate with and encourage private landowners and other public land agencies that have property within and near the NRA to develop and operate their lands in a manner that will complement and not conflict with the management objectives of the NRA. The opposite is also true.
- (4) Coordinate planning, development, and use between federal, state, and private lands within the NRA.
- (5) Encourage and assist local, county, and state agencies to maintain a quality law enforcement and public safety program.

- (6) Provide leadership in the field of public safety by maintaining, in cooperation with other agencies, a professional program designed to stay current with public demand and the complex changing social trends.
- (7) Encourage the Bureau of Reclamation to maintain a water levels in the reservoir and river that maximize recreational benefits.
- (8) Encourage other involved individuals, groups, and agencies to inform and involve the Forest Service in their plans and programs that affect the NRA.

11. Cultural Resources

- (1) Locate, inventory, and protect values which have educational, cultural, or interpretive potential until such time as they can be developed and managed. Complete cultural resource inventory for the entire NRA land area.
- (2) In consultation with the appropriate State Historical Preservation Officer, evaluate any archeological or historical sites or structures located by cultural resource inventories for possible nomination to the National Register of Historic Places.
- (3) Specific properties with potential for classification on state or national historical registers or with significant cultural values will not be transferred, sold, demolished, or altered.
- (4) Initiate no land-disturbing projects until cultural values have been determined to be absent or present by a professional quality reconnaissance or survey, in keeping with Executive Order 11593. Where properties are located which are eligible for listing in the National Register, determination of whether or not the proposed project may proceed as planned or be altered, and mitigation required, will be made in consultation with the appropriate State Historic Preservation Officer, the State Archaeologist, or other professional authorities. All actions taken will be consistent with the Advisory Council on Historic Preservation "Procedures for the Protection of Historic and Cultural Properties" (36 CFR 800.4) (Forest Service Manual 2363.22).
- (5) Obtain financing and manpower to enforce the provisions of the Antiquities Act and guard against losses and vandalism at historical sites.

C. Management decisions for protection and management.

1. Fire

- (1) Prevent or minimize damage to watershed, vegetation, recreational, interpretive, and esthetic values in locating, constructing, and maintaining firelines and fire access roads and in all other fire suppression activities.
- (2) Revegetate and stabilize firelines and fire access roads to prevent accelerated erosion and improve scenic, wildlife, and recreational values.
- (3) Rehabilitate burns resulting from wildfire and prescribed burning to provide soils stability and restore recreational, wildlife, and esthetic values.
- (4) Establish fire restrictions or closures and intensify fire prevention and suppression programs during periods of heavy recreational use and high fire danger.
- (5) Locate improvements (where choices can be made) in areas of low fire hazard or in areas that can be adequately safeguarded.
- (6) Fire protection programs will be geared to keep pace with the higher risks and hazards and important recreational values. Areas of heavy public use, the canyon lands, and areas of scenic beauty will need special attention.
- (7) Design and execute prescribed burning operations in a manner and under conditions which will minimize the adverse effects of smoke as an air pollutant.
- (8) Convert flammable vegetation to less flammable cover types in high value areas where fire risks are high and major esthetic values would not be lost.
- (9) Manipulate vegetation cover by use of fire where appropriate to provide variety, improve ground cover and wildlife habitat, preserve natural beauty, and reduce fire hazard.
- (10) Salvage timber from burned areas only where logging methods to be employed will protect or improve recreational, esthetic, and wildlife values.
- (11) Utilize VIS to achieve public safety and fire prevention goals.

2. Transportation

- (1) Obtain financing and implement the Forest ORV and Travel Plan. Prevent safety problem, conflicts between ORV travel and other uses, and resource damage caused by indiscriminate off-road vehicle use.

- (2) Locate and construct all roads to standards that will complement or enhance existing or potential recreational and scenic values.
- (3) Stabilize and restore ground cover on or adjacent to system, abandoned, or closed roads and trails where damage has occurred or where it is occurring.
- (4) Locate and construct a well-designed and adequate internal and circulatory transportation system of roads and trails to standards which fully provide for soil stability, recreational, wildlife and esthetic values.
 - (a) Avoid construction practices that will lower water tables below desirable levels, particularly in parks and meadows.
 - (b) Locate, construct, and maintain roads and trails to avoid or to minimize effects of stream channel changes.
 - (c) Minimize and mitigate damage to recreation, esthetic, soil, water, vegetation, and fish habitat values where a stream channel change is essential.
- (5) Provide for public access to shoreline areas; both trails and roads are needed.
- (6) Construct no new roads which have primary utility for timber harvest unless they can be effectively closed to public travel during and after logging. Wherever possible, harvest timber either by use of the existing road system, by winter logging without roads, or by using temporary roads which can be effectively closed and obliterated following logging.
- (7) Sign big game crossing on roads and highways where needed.
- (8) Avoid constructing access roads with long tangents visible from points where these roads leave major travel routes.
- (9) Providing for the pleasure driver will be the primary objective in the development of future roads within the NRA.
- (10) Construct and maintain to minimum standards those roads where management objectives call for limited access only.
- (11) Develop adequate hiking and riding trails where they can be provided without damaging the resource or conflicting with other major public uses.

- (12) Design the majority of roads to handle year-round use.
- (13) Primary access into a few selected sites should be designed for hikers and motorized cross-county vehicles.
- (14) Encourage the development of the Dutch John airport facilities and related improvements.
- (15) Minimize visual, air, and noise pollution along major routes of travel, at administrative sites, and in areas of concentrated public use.
- (16) Avoid development and occupancy patterns that may unnecessarily hinder wildlife movement, migration routes, and habits.
- (17) Prevent livestock damage to newly disturbed areas and cut and fill slopes on roads.
- (18) Update rights-of-way plans and begin program of acquiring needed access to the NRA.
- (19) Coordinate with other federal, state, and county agencies in transportation system planning.
- (20) Obtain financing and bring road system to at least the minimum standard of maintenance.
- (21) Exclude aircraft from use of the reservoir surface. Coordinate with the FAA to indicate on aeronautical maps that the reservoir surface is restricted against aircraft landings.

3. Insect and Disease

- (1) Promptly investigate and, where appropriate, minimize insect, disease, and other damage.
- (2) Encourage a joint state, county, and federal program to control noxious weeds, using safe, approved methods. The Henrys Fork area and spotty areas where livestock are fed are highest priority for control.
- (3) Combine silvicultural treatments with direct hand treatment of insect infested stands to minimize insect damage.
- (4) Encourage vegetation manipulations or other management practices which foster biological diversity in preference to artificial methods of insect and disease control having only short-term benefits.

4. Research

- (1) Emphasize the need and importance for continuing a meaningful and management-oriented research program on the NRA. The Forest Service and area colleges should be utilized to provide the majority of these services.
- (2) Plan research project to provide meaningful and useful results for the land manager.
- (3) Encourage research into new ways to create and maintain attractive forested areas.

5. Administrative Improvements

- (1) Eliminate or minimize adverse impacts on soil, water, and other values in the location, construction, and maintenance of permanent and temporary buildings and related facilities.
- (2) Minimize visual, air, and noise pollution along major routes of travel, at administrative sites, and in areas of concentrated public use.
- (3) Provide for current timely maintenance of administrative improvements, close or remove improvements that create safety or health hazards to the public or Forest Service employees. Also, improvements will not be allowed to become eyesores.
- (4) Provide for public safety and comfort while protecting and enhancing esthetic values in the planning and construction of new improvements.

6. Land Ownership Adjustments and Land Controls

- (1) Acquire in fee title or partial interest to control privately-owned lands within the NRA (a) where state law and county zoning ordinances are inadequate to prevent serious conflicts, and (b) where non-conforming and conflicting private land uses occur or are imminent. Update the Land Acquisition Plan.
- (2) Update right-of-way plans and begin program of acquiring needed access to the NRA.
- (3) Specialized improvements such as motels, stores, electrical hookups, and other refined facilities will normally be provided by existing concessionaires or the private landowners within and surrounding the NRA.
- (4) Coordinate with and encourage counties to enact and enforce strong zoning ordinances and building codes to protect and enhance the values for which the NRA is established.

- (5) Existing permittees will be given first opportunity to provide or expand services if it is determined there is a demonstrated public need for them. If these services are not already provided for in the current permit (allowing, however, minor changes in the permit) or if the demand for such services is in a location outside the immediate permitted area, existing permittees will not be given preference. Furthermore, new concessionaires will normally be discouraged if the public demand for goods and services can be practically met on private lands near or within the NRA.
- (6) Authorize special land uses only to meet demonstrated public needs and where foreseeable effects on other existing or potential uses and activities are acceptable. Use of the National Forest in furtherance of private land development will be allowed only where it is compatible or improves the management objectives for the adjacent NRA land.
- (7) Enforce and abide by existing solid waste and sewage disposal regulations.
- (8) Encourage other involved individuals, groups, and agencies to inform and involve the Forest Service in their plans and programs that affect the NRA.
- (9) Cooperate with and encourage private landowners and other public land agencies that have property within and near the NRA to develop and operate their lands in a manner that will complement and not conflict with the management objectives of the NRA. The opposite is also true.
- (10) Coordinate planning, development, and use between federal, state, and private lands within the NRA.

7. Public Safety

- (1) Provide for public safety in the location, design, construction, maintenance, and administration of all facilities and improvements.
- (2) Provide current information to the visitor about public safety hazards and requirements.
- (3) Assure safety for downstream people, property, watershed, and other values in the installation and maintenance of water storage and diversion structures and facilities.
- (4) Maintain and/or establish special safety precautions and measures where people concentrate or where usually hazardous conditions exist.

- (5) Fence for livestock control, where necessary, for public safety along roads and highways.
- (6) Promote public enjoyment and safety and preserve natural beauty in the administration and maintenance of the reservoir, Green River, and related improvements.
- (7) Design, where appropriate, facilities to permit year-round use. This is especially important in the pinyon-juniper types and the northern desert. As winter snow play activities increase, there will be a demand for all-year facilities in higher elevations. The public will need, however, to be warned of the hazardous climatic conditions that can occur in the spring, fall, and winter. Also, the safety and comfort of the public must be considered when designing such facilities.
- (8) Utilize VIS to help achieve public safety and fire prevention goals.
- (9) Encourage and assist local, county, and State agencies to maintain a quality law enforcement and public safety program.
- (10) Provide leadership in the field of public safety by maintaining, in cooperation with other agencies, a professional program designed to stay current with public demand and the complex, changing social trends.

III. MANAGEMENT AREAS AND UNITS

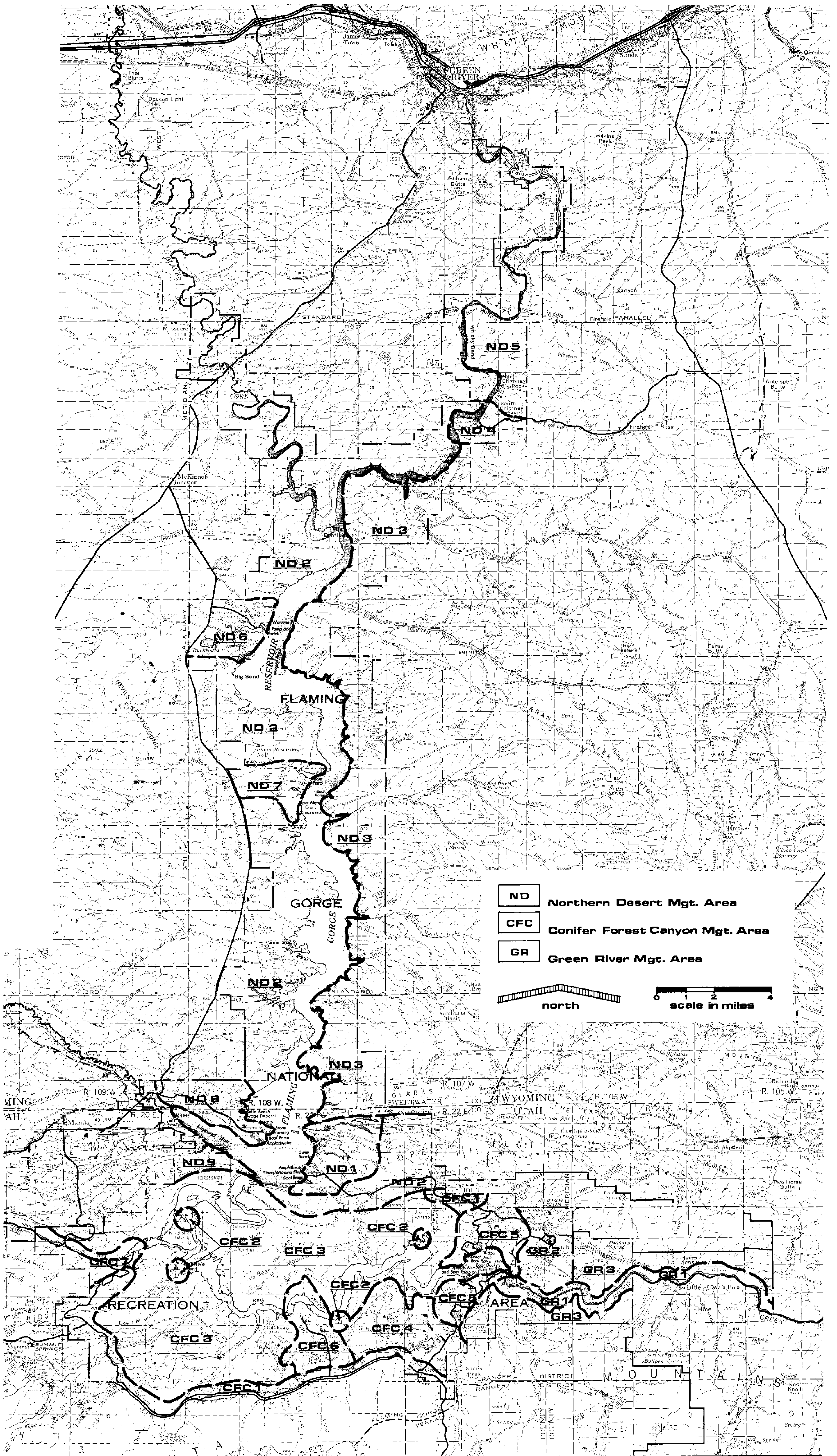
A. Description of Management Areas and Units.

Management areas are major subdivisions within the NRA. Three have been designated: the Northern Desert (ND); Coniferous Forest-Canyon (CFC); and the Green River Corridor (GR). Land types and uses are the primary distinguishing factors that help to define management areas. Each of the three sections dealing with the management area has specific management direction.

Each management area is divided into management units. In the ND Management Area there are 9 management units, in the CFC Management Area there are 7 management units, and in the GR Management Area there are 3 management units. All lands within the NRA are included within some management unit. These units are established to identify those lands, resources, uses, and activities where special attention is required. Each management unit has specific management decisions.

The management direction and management decisions, whether for an area or unit, apply to that area or unit only, and are not intended to be general statements applying to the entire NRA.

The management areas and management units are shown on the following map.



Map of Management Areas and Units
 (Map From Original Management Plan)

Flaming Gorge National Recreation Area
Ashley National Forest

B. Northern Desert Management Area (ND)

1. Antelope Flat Management Unit ND-1

a. Management Direction

Administer the Antelope Flat Management Unit as a major high density recreation complex. The ultimate recreation development scale for most facilities is 4 or 5. Spring Creek would be a 1 or 2 development.

b. Management Decisions

- (1) Encourage the public to visit Antelope Flat to view the Flaming Gorge.
- (2) Minimize water hazards caused by winds through a public safety education program directed at boaters using the area.
- (3) Study ways to eliminate the wind and water hazard. Possible solutions include installing a breakwater or building an emergency ramp in a protected location such as Spring Creek or Jug Hollow. This problem should be solved prior to major expansion of the site.
- (4) Facility expansion within the safe carrying capacity should be completed to keep up with the demand and as the road from the north is improved. This should be done on a current basis once the wind and water hazards are reduced. If they are not corrected, no expansion of facilities will occur. If possible, expansion should occur where existing power, water, road, and sewer systems can be utilized.
- (5) Permit no new concessionaire facilities until the operations at Lucerne, Cedar Springs and Dutch John cannot handle the business generated by the Antelope complex.
- (6) Plant and care for sufficient numbers of trees so that they ultimately will provide shade and protection from the wind. Existing trees should be given adequate care to insure maximum growth.
- (7) Artificial shelters should be provided in the majority or all of the units in the campground. This will disperse use and not create beat-out conditions in the units that have shelters.
- (8) Provide facilities for ice fishermen as demand increases and finances permit.
- (9) Improve roads to Jug Hollow and Spring Creek. Gravel the road and also provide adequate maintenance. Do not hard

surface these roads unless major recreational facilities are constructed along them.

- (10) Continue to explore new methods of water supply and treatment.

2. Open Spaces Management Unit ND-2

a. Management Direction

Administer this unit for primitive recreation (small site development, i.e., toilet, table, grill, or any combination) and water oriented activities. Maintain and enhance the open character and scenic contrasts between land and water. The ultimate recreation development scale for the unit is 2.

b. Management Decisions

- (1) Provide for access to the water when developing for recreational use. Access may be by foot in some instances.
- (2) Establish sites suitable for boat camps if needed and determined to be cost-effective.
- (3) Developed sites will be spaced so that they do not create a crowded atmosphere.
- (4) Adequate facilities will be installed so that the sanitation needs of the public will be taken care of.
- (5) Permit hard surfaced roads on U.S. Highway 191, from Dutch John Camp to the Antelope Complex; and from Dutch John Gap to Minnies Gap only.
- (6) Inventory and protect sagegrouse strutting grounds with coordination from the Utah and Wyoming wildlife agencies.
- (7) Intensify water-oriented, administrative and public safety activities. Encourage local boating organizations to become established and to assist in these programs. Also, encourage and assist, where appropriate, the Wyoming Game and Fish Department to provide additional effective help. Maintain close cooperation with all groups and agencies involved with water-oriented activities.
- (8) Determine if the stories about Massacre Hill and Cherokee trail are valid. If so, provide protection and/or interpretation. Protect the integrity of the sites and the immediate surrounding areas until authenticity of the stories can be determined.

- (9) Provide road maintenance to avoid watershed problems on system roads, and strive to eliminate use on unauthorized roads.
- (10) Continue to use grazing management plans to solve over-grazing and resource damage problems.
- (11) Intensify management and take action to protect the habitat of threatened species within the unit.
- (12) Complete management planning for each segment of the reservoir shoreline which is receiving concentrated recreational use. Determine what level of recreational opportunity and what recreational facilities should be provided, what access is needed, what roads should be closed, and what user restrictions should be placed in effect.

3. Remote Area Management Unit ND-3

a. Management Direction

Manage this unit to provide opportunities for a remote or primitive type recreational experience. The recreation development scale for the unit is 1 or 2.

b. Management Decisions

- (1) Maintain Forest Road 106 to a standard that will permit safe vehicle use during dry periods. Retain the present location except where realignment is needed for safety or watershed purposes. Do not hard surface the road.
- (2) Spur roads running to the west from Forest Road 106 will be maintained in a primitive condition that will provide for safe travel and protect watershed conditions. Truck or 4-wheel drive use only will be recommended on these roads. Exceptions to this will be the roads to Brinegar Ranch and Upper Marsh Creek recreation site.
- (3) Provide scattered sanitation facilities in unit, where needed to protect the resource, where the heaviest use occurs or is desired. Other improvements associated with campgrounds will not be provided except at Upper Marsh Creek.
- (4) Discourage boat launching except from the Upper Marsh Creek ramp or other areas that are protected from the wind.
- (5) Study to determine if additional roads are needed for management. Until study is complete, no new roads will be permitted.

- (6) Encourage the BLM to administer the lands adjoining this unit in a manner that complements the management direction outlined for this unit.
- (7) Intensify management and take action to protect the habitat of threatened species within this unit.
- (8) Complete management planning for each segment of the reservoir shoreline which is receiving concentrated recreational use. Determine levels of recreational opportunity and recreational facilities to be provided, access needs, roads to be closed, and what user restrictions should be placed in effect.

4. Firehole Management Unit ND-4

a. Management Direction

Administer the Firehole Management Unit as a major high density recreation development. The ultimate recreation development scale for the unit is 4 or 5.

b. Management Decisions

- (1) Plant trees for an oasis effect to provide sun and wind protection. Planted trees will receive adequate care so that maximum growth can be achieved.
- (2) Provide sanitation facilities for ice fishermen.
- (3) Forest Service employees will be stationed at Firehole campground during the summer season. These employees will handle the operation and maintenance jobs and prevent or stop vandalism. Facilities to house these employees will be needed.
- (4) Prepare plans for widening and extension of the boat ramp so that when the water does go below the present ramp, it can be extended.
- (5) Provide boating sanitation station.

5. Upper Green River Management Unit ND-5

a. Management Direction

Provide and encourage dispersed and river floating recreation activities. The recreation development scale will be 1 or 2.

b. Management Decisions

- (1) Permit no "bedroom" type or high density recreation improvements.

- (2) Increase fire prevention program where landbased visitors concentrate.
- (3) Permit no improvements on islands or areas where there are opportunities for an exploring adventure.
- (4) Inventory and protect nesting raptors. Coordinate with Wyoming Game and Fish Department in this project.
- (5) Strongly discourage proposed off-site activities that could reduce or detract from the water quality and recreation values of this unit or the reservoir.
- (6) Study unit and if appropriate provide new management direction. The study will inventory the resources and their potentials for development. Protection of geese and the providing of nesting structures will be an important management consideration. Also, the potential for providing small camps in Lauder Bottom, Cordwood Bottom, Whalen Bottom, Boat Bottom and Middle Firehole should be analyzed. The study will determine if the unit should continue to be managed for remote and undeveloped uses where it is so close to developable private lands and the town of Green River. Until new management direction is established allow no new roads and maintain those in existence to a primitive but safe standard.
- (7) Intensify fire prevention efforts during spring and fall.
- (8) Reduce fire hazard through vegetative type conversions, the use of fire as a management tool, or both.
- (9) Determine if conflicts exist between geese and humans.

6. Buckboard Management Unit ND-6

a. Management Direction

Administer the Buckboard Management Unit as a major, high density recreational development. The recreation development scale for this complex is 4 or 5.

b. Management Decisions

- (1) Plant and care for sufficient numbers of trees so that they ultimately will provide shade and protection from the wind. Existing trees should be given adequate care to insure maximum growth.
- (2) Complete construction of existing Forest Service public recreational facilities. This should be done as soon as possible and before expansion occurs. Improve and winterize administrative facilities at the same time.

- (3) Encourage concessionaire to expand and develop according to the master development plan for the area and as a demonstrated public need occurs. Temporary and undesirable facilities will be corrected first.
- (4) Develop facilities in a manner that will encourage antelope to remain in area so they may viewed by the visitor.

7. Squaw Hollow Management Unit ND-7

a. Management Direction

Administer the Squaw Hollow Management Unit as having potential as a major high density recreational development. Potential development scale is 4 or 5.

b. Management Decisions

- (1) Prepare a master development plan for site.
 - (a) Overhead power lines will be discouraged.
 - (b) Prior to deciding if power will be brought to the site, a study will be made to determine alternative power sources, including the line location and the construction and maintenance costs for the power. If these services cannot be reasonably provided, power will not be installed.
 - (c) Study and make a recommendation as to the possibility of obtaining water from wells and the reservoir.
 - (d) Determine whether or not boat ramp should be lengthened.
- (2) Study the possibility of planting trees once the master plan is completed so that shade and protection from the wind and sun will be started in advance of campground development.
- (3) Protect the site from overuse by livestock.
- (4) Eliminate the noxious weed problem.
- (5) Improvements should ultimately be designed for use all year.
- (6) Realign existing facilities so that a minimum of site damage occurs from use.
- (7) Concessionaire operated marina and related services will not be permitted at Squaw Hollow as adequate services are

available at Buckboard to the north and Lucerne to the south.

8. Lucerne Management Unit ND-8

a. Management Direction

Administer the Lucerne Management Unit as a major, high density recreation complex and provide services for the public that are appropriate for such a site. Improve site to a recreation development scale of 4 or 5.

b. Management Decisions

- (1) Complete a recreation master plan for both Forest Service and concessionaire facilities.
- (2) Designate and develop overflow areas where adequate sanitation and parking are available. Water may be provided if available nearby.
- (3) Provide for adequate shade and wind protection through tree planting and artificial shelters.
- (4) Encourage concessionaire to provide trailer hookups and other needed services and facilities.
- (5) Campground expansion should occur within 5 years. It will be designed for high density, bedroom type use.
- (6) Harden campground.
- (7) Encourage private enterprise in Manila to provide motels, trailer parks and other supporting facilities that will assist in relieving use pressure on Lucerne. When expanding parking lots in the unit, provide adequate space for visitors who have their headquarters in Manila or surrounding areas but use the complex part of the time.
- (8) Provide VIS facilities first at the Linwood Bay overlook and second at Indian Rock art site. Protect rock art site until it can be interpreted.
- (9) Allow livestock use in the area where it will not conflict with recreation uses.
- (10) If additional forage for antelope is required, livestock use will be curtailed or eliminated in this management unit.
- (11) Consider the winter presence of the northern bald eagle in planning and site-alteration activities.

(12) Limit motor vehicle travel to designated routes.

9. Linwood Bay Management Unit ND-9

a. Management Direction

Administer this unit for dispersed and satellite recreational development and use that is coordinated with water-oriented activities.

b. Management Decisions

- (1) Encourage, well-zoned and planned recreational developments on the adjoining private lands that will enhance NRA values.
- (2) NRA management in this unit will be designed to complement proposed adjoining private land developments.
- (3) Public access and use of the shoreline will be maintained. No uses will be permitted that would limit public use.
- (4) Study all lands where trespass is occurring. Resolve through issuance of annual special use or grazing permits where the lands are not now needed for public recreation or by taking formal trespass action if cooperative efforts fail.
- (5) Strive to maintain the green appearance of shoreline through cooperative agreements with adjoining private landowners as long as the other values of the NRA can be protected. If they cannot be protected, the pastures will be allowed to revert to natural vegetation.
- (6) Resolve conflicts relating to stock watering. Watering rights for access to the reservoir only and not for grazing. Lanes may need to be constructed to provide for the watering of stock and to limit grazing. The purchase of these stock watering rights may offer an opportunity to solve the problem. This should be researched and the purchases made if the owners are willing to sell and the price is reasonable.
- (7) Fencing of the entire Forest boundary may ultimately be required. Some should be done immediately to control unauthorized uses. Some fences exist and should be maintained.
- (8) Permit no concessionaire operated and constructed developments until there is a demonstrated public demand and the existing facilities at Lucerne cannot provide adequate services.

- (9) Coordinate efforts with private landowners and the county to control the spread of whietop and other noxious weeds.
- (10) Improve the Henrys Fork recreation site to a 2 or 3 development scale. It will not become a major recreation complex but will remain a satellite (less than 30 units) low-density type recreation facility.
- (11) Study the unit and prepare a recreational development plan. The plan will:
 - (a) Comply with general NRA direction and the decisions made in this management unit.
 - (b) Locate potential recreational opportunities.
 - (c) Encourage dispersed-type recreation adjacent to the water and preferably where access already exists.
 - (d) Provide for protection and management of the Henrys Fork River above the high water line of the reservoir.
 - (e) Provide for recreational satellite developments similar to those on Henrys Fork if the potential exists.
 - (f) Study the desirability of developing portions of the unit as an overflow camping area.
 - (g) Provide for winter and summer shoreline fishing and day-use activities.
 - (h) Complete waterfowl management plan and implement if it can be reasonably coordinate with other uses.
- (12) Provide for adequate access to NRA. Obtain rights-of-way if needed.
- (13) Eliminate safety hazards at Linwood coal mine.
- (14) Continue to work with Utah and Wyoming wildlife agencies in studying the waterfowl situation, and determine potential for habitat management.
- (15) Consider the winter presence of the northern bald eagle in planning and site alteration activities.

C. Conifer Forest Canyon Management Area (CFC)

1. Scenic Highways Management Units CFC-1

a. Management Direction

Maintain and improve the scenic qualities of the unit. Limit improvements to those that will provide interpretation, a scenic view, picnicking, a rest stop, and possibly hunter camps. Recreation development scales of 1 or 2 will be permitted.

b. Management Decisions

- (1) Identify areas where overuse is causing resource damage or safety problems. Close these areas to camping.
- (2) Permit no additional borrow areas.
- (3) Rehabilitate existing borrow areas with waste from road slides and other material that is cleaned up by the State highway department. The rehabilitation will be done in a planned and designed manner and native vegetation reestablished.
- (4) Permit waste materials to be deposited in locations where the scenic values are protected or improved.
- (5) Revegetate disturbed areas where it is possible to do so.
- (6) Close or repair and rehabilitate dirt roads that are creating resource damage and are scenically unpleasing.
- (7) Provide interpretive development at the Cart Creek and Greendale overlooks.
- (8) Encourage the management of livestock so they can be viewed from Highway 44. Road shoulders and disturbed areas that are being revegetated will not be grazed. Forage utilization that damages the esthetics or watershed values or large concentrations of livestock will not be permitted.
- (9) Study and implement means to maintain or improve big game winter, spring or fall ranges adjacent to U.S. Highway 191 and parts of Highway 44. Control of invading pinyon-juniper will be done in a manner that will not destroy the esthetics. Big game should not be encouraged to concentrate adjacent to the road as they create safety hazards to the motorist. Cooperate in this program with the Utah Division of Wildlife Resources.
- (10) Permit no activities that would destroy future potential for developing an entrance portal to the NRA. Encourage the development and manning of such portals on all major entrances routes to the area.
- (11) Consider public safety in all activities which may affect highway travel.

- (12) Manage forest stands in this unit to improve or enhance visual qualities. Maintain healthy, vigorous, uneven-aged stands including large mature trees. Give extra attention to cleanup and disposal of debris.

2. Boat Camps Management Unit CFC-2

a. Management Direction

Maintain the sites as boating campgrounds. Reverse the trend of uncontrolled use and the resulting damage to the resources. The ultimate recreation development scale will be 2 or 3.

b. Management Decisions

- (1) Prepare and implement a management plan. The plan will include the following:
 - (a) The potential for expansion of each site.
 - (b) A means to improve vegetative cover and lower the fire hazard.
 - (c) Proposals for controlling indiscriminate travel throughout the sites, by providing hardened and adequate trails.
 - (d) Provisions to provide firewood to the sites by using driftwood picked up in the reservoir.
 - (e) How to remain within the safe carrying capacity of the site and still provide for boaters desiring to camp in their boats at the docks or the adjacent shore.
- (2) Discourage the use of these sites by large groups through a program of education and regulation.
- (3) Minimize the adverse conditions created by the rank vegetation that accumulates during low water at Hideout by removal of debris, as manpower permits.

3. Undeveloped Areas Management Unit CFC-3

a. Management Direction

Protect and enhance the esthetic and recreational values of the unit. Provide for and encourage undeveloped or remote-type recreational opportunities for the visitor (ultimate development scale 1-2).

Recreation development scales of 1 or 2 will normally be provided. Some boat camps could be improved to development scale 3.

Allow natural forces to play the dominant role in the Bear Mountain portion of the unit. Develop no recreation facilities in this portion.

b. Management Decisions

- (1) Inventory and determine which roads are to be maintained as a part of the transportation system and those to be closed.
- (2) Maintain existing roads that will remain on the transportation system (with the exception of the Dowd Mountain road) to a primitive standard. Provide for watershed protection and safe travel.
- (3) Study the southern rim of Red Canyon to determine the need for additional trails.
- (4) Along the plateau lands north and south of the reservoir and canyon lands permit and encourage remote type camping. Provide only scattered sanitation improvements south of the reservoir, and no recreational facilities north of the reservoir. Recreation developments of scale 1 or 2 will be made on Dowd Mountain or where organization camps may be constructed.
- (5) Encourage the non-consumptive use of wildlife in this unit.
- (6) Inventory potential boating campsites and plan for their development if these types of facilities are determined to be cost-effective, and if the need they serve cannot be met in existing campgrounds with road access. Provide both family-type and small, group (up to 40) facilities.
- (7) Provide well-placed sanitation facilities in heavily-used, undeveloped areas along the reservoir shoreline.
- (8) Manage the reservoir to avoid boating congestion. Use restrictions in some areas may be required.
- (9) Permit no activities adjacent to the private lands in Eagle Creek Basin that would damage or destroy its values. The same principle applies to private land in that the owner should not carry on activities that would detract or damage the surrounding NRA values.
- (10) Discourage improvement of the road to Eagle Basin to standard that would open the area to heavy public use.
- (11) Allow borrow and waste areas where they can be adequately screened from public view and the resource damage kept to a minimum. An inventory should be made in advance to determine where such activities can be permitted.

Special care must also be given when planning access roads to these sites. Such roads must be adequately designed and maintained and yet not encourage heavy public use.

- (12) Inventory and protect osprey and other raptor nesting sites.
- (13) Silviculturally manage the timber stands to make old timber sales more attractive.
- (14) Study the portion of the unit north of the reservoir and, if appropriate, establish new management direction. Complete an intensive ecological inventory as a basis for determining future management.
- (15) Until management direction is determined for the portion of the unit north of the reservoir, prohibit developments or activities which increase the presence or influence of man, except for wildlife enhancement projects which do not significantly alter the landscape.
- (16) Prepare a prescribed natural fire management plan for the portion of the unit north of the reservoir. Consider the following among other alternatives for fire management:
 - (a) Nonsuppression of all wildfires.
 - (b) Nonsuppression under certain specified conditions.
 - (c) Modification of the suppression policy to allow control at least cost.
 - (d) Use of prescribed fire or managed wildfire to create vegetative diversity and to reduce fuel load.
- (17) Authorize no grazing of domestic livestock on a regular basis in the portion of the unit north of the reservoir.
- (18) Authorize the introduction of bighorn sheep in the Bear Mountain vicinity following determination that any significant adverse environmental effects can be avoided or mitigated.
- (19) Study and implement pinyon-juniper control projects that will improve biological diversity and wildlife habitat and that will not detract from esthetic values. Cooperate with the Utah Division of Wildlife Resources in the design and conduct of the projects.

4. Greendale Management Unit CFC-4

a. Management Direction

Manage this unit in harmony with the adjoining private lands in a manner that will not detract from the high recreational values of either. A recreation development scale of 3 will be provided.

b. Management Decisions

- (1) Provide a buffer adjacent to private lands. This buffer area will permit compatible uses but be designed to maintain the scenic values and natural character of the land.
- (2) Private use of NRA lands under special use permits will be considered only if there are no other practical means to provide the services and they are needed and not just desired for convenience. Also, if permitted, such improvements will be totally planned and constructed in a manner that will minimize damage to the resource values.
- (3) Prepare and implement a management plan for the Swett Ranch immediately. The plan will provide for protection and enhancement of the historical values and avoid activities that could result in their loss, damage, destruction, or alternation.
- (4) Inventory facilities and provide protection for the Swett Ranch until the management plan can be prepared and implemented.
- (5) Work closely with private landowners and encourage only improvements that will maintain or enhance the values of the surrounding NRA lands. The opposite is also true in that the Forest Service will not carry on activities that will detract from private land values.
- (6) Maintain scenic backdrop qualities.
- (7) Release no water for private land use that is owned by the Forest Service and may be needed for use on the NRA.
- (8) Study potential sites that may be suitable for organization use. If possible, develop one area for this activity. Provide for varied size of groups, i.e., from 25 to 250 PAOT. Permit no permanent improvements to be installed or possessory rights to be established by various groups. Group camps will be permitted on a year-to-year basis only, and they may be required to use different sites each year.
- (9) Study and implement pinyon-juniper control projects that will improve wildlife habitat and will not detract from esthetic values. Cooperate with the Utah Division of Wildlife Resources in the design and conduct of the projects.

- (10) Limit motor vehicle travel to existing routes, and prohibit oversnow motorized travel where there are conflicts with winter use by big game animals.

5. Cedar Springs - Bootleg-Mustang Management Unit CFC-5

a. Management Direction

Manage this unit as a high-density use recreation complex. Provide for a quality recreational experience within the established carrying capacity of the unit. Recreation development scales from 2 - 4 will be provided.

b. Management Decisions

- (1) Provide tables, grills or fireplaces in Bootleg Camp-ground where they are lacking.
- (2) Prepare and maintain master plan for Cedar Springs, including the concessionaire development.
- (3) Complete work already planned for Cedar Springs.
- (4) Allow no new concessionaires in unit until it is proven there is a demonstrated public need for them and the existing permittees cannot absorb the increases.
- (5) Improve exhibits and other media at Dam Visitor Center. Exhibits should provide basic orientation of the NRA and local Bureau of Reclamation facilities.
- (6) If the interpretive master plan determines there is a need, prepare improvement plans for Vista House and schedule them to be completed.
- (7) Offer planning assistance to the Bureau of Reclamation and encourage them to expand their interpretation in the Dam.
- (8) Relocate road to Canyon Glen so it can be used during high water. An alternative would be to use it as a boating camp when the road is closed.
- (9) Plan ways to minimize boating congestion in the unit. Implement the plan with the cooperation of other agencies that are involved in water management.
- (10) Encourage the maintenance and improvement of the big game range. Consider browse planting. Study and implement pinyon-juniper control projects that will not detract from scenic or recreation values. Cooperate with the Utah Division of Wildlife Resources in the design and conduct of the projects.

- (11) Study and provide, if possible, an area adjacent to Mustang Ridge or Pipe Creek where cross-county or trail riding of two wheeled motorized equipment may be allowed.
- (12) Prepare plans within 5 years for potential expansion of existing camping facilities and construction of new ones. If possible, these facilities should be completed at the same time the road from Colorado is finished.
- (13) Limit motor vehicle travel to existing routes, and prohibit oversnow motorized travel where there are conflicts with winter use by big game animals.

6. Red Canyon Management Unit CFC-6

a. Management Direction

Manage the unit as a high density recreation complex on a development scale of 3 within the established carrying capacity of the unit.

b. Management Decisions

- (1) Close undeveloped areas to camping in this unit during the summer.
- (2) Encourage orderly, well planned expansion of the Red Canyon Lodge facilities.
- (3) Study the potential for winter use of the area. Control snowmobiling to prevent harassment of wildlife and damage to vegetation and esthetics.
- (4) Maintain adequate buffers between facilities. Do not allow improvements that will infringe upon the open spaces and screening that each facility has.
- (5) Direct management around the private lands towards maintaining a near-natural, forested appearance. Activities that would reduce the private land values will not be permitted. The opposite is also true. The landowner should be encouraged to only carry on activities that will not detract from the surrounding NRA values. Encourage an orderly, well planned development on private lands.
- (6) Permit no organization or group occupation of the undeveloped part of this unit except on day-use basis.
- (7) Prepare plans for expanding existing facilities where it can be accomplished without impairing the qualities of the unit.

- (8) Continue to improve the quality of interpretation in and adjacent to the visitor center, which will be maintained as a focal point for FS-VIS in the NRA.

7. Sheep Creek Management Unit CFC-7

a. Management Direction

Manage the unit to obtain the optimum recreational benefits and still maintain its scenic and other resource qualities. Construct facilities to a development scale of 2 to 4.

b. Management Decisions

- (1) Prepare functional development and management plans for the entire Sheep Creek Canyon. Implement them as soon as possible. Some high density improvements that provide mainly bedroom facilities (exceptionally close together) may be desirable.
- (2) Until the development plan for the unit can be prepared the following will be done.
 - (a) Close or limit use in one area at a time where rest and rehabilitation is needed and will be provided.
 - (b) Provide sufficient sanitary facilities. Close areas where they do not exist.
 - (c) Plant shade producing vegetation where it has died out or is in a decadent condition.
- (3) Study means to improve the big game forage in the unit in cooperation with the Utah State Division of Wildlife Resources. Browse planting may be possible.
- (4) Determine if existing wells could, with treatment, provide suitable and adequate water for recreationists.
- (5) Permit no diversion of water from Big Springs or Sheep Creek except for what is being used now at Bennett Ranch.
- (6) Discourage, or do not permit, any mining operations that are not compatible with the objectives of the NRA or detract from recreation and esthetic values, and air and water quality.
- (7) Continue to investigate ways of providing water at Carmel Campground and other sites within the unit.
- (8) Allow no developments where there is potential for damage from flooding.

(9) Allow no overnight camping in areas where potential safety hazards exist from flooding, until after the spring runoff.

(10) Close the entire canyon to public use if threat of flooding is imminent.

D. Green River Management Area (GR)

1. Green River Corridor Management Unit GR-1

a. Management Direction

Maintain an exciting river in a near-pristine environment. Manage the area for a "trophy" river experience navigable to the novice float boater.

Provide for public enjoyment of the unusual and outstanding recreational opportunities that exist without damaging or destroying them. Maintain the adventurous spirit of a float trip for the novice boater. Recreation development scales of 1-3 will be provided depending upon the sites and their location.

b. Management Decisions

(1) Provide signing or other information methods warning float boaters of the possible change in river water elevation.

(2) Encourage the Bureau of Reclamation to maintain a satisfactory water release from the dam during peak recreation use season.

(3) Do not expand the Spillway ramp facilities.

(4) Permit no outfitter-guides to establish a base of operations on or adjacent to the Spillway Boat Ramp that will limit or curtail public use of the site.

(5) Determine if Little Hole campground should be entirely or partially converted to a day-use-only site or left as is.

(6) Consider expanding the Little Hole parking lot to include on its eastern edge the Northwest Pipeline Corporation natural gas pipeline right-of-way. Coordinate with the Northwest Pipeline Corporation.

(7) Reduce fire hazards in Little Hole Campground.

(8) Develop no facilities at Little Hole that are likely to be flooded.

- (9) Improve sanitation facilities to handle safe carrying capacity in the Little Hole parking lot.
- (10) Provide a safe, improved trail from Spillway Ramp to Little Hole Campground. Also minimize erosion problems on the trail.
- (11) Determine if improved trails should be constructed below Little Hole. If so, provide them.
- (12) Exclude horse use and motorized travel from Spillway Ramp to Little Hole.
- (13) Study the situation of motor vehicle use along the trail section between Little Hole and the Forest Boundary, and determine if it should be closed to motorized travel.
- (14) Encourage enactment and enforcement of zoning laws that will protect the Glenn property from undesirable developments. If this is not possible acquire fee title or scenic easements to assure the needed protection occurs.
- (15) Study sanitation problem between the dam and Red Creek. Determine if toilets are needed.
- (16) Allow no campfires between the dam and Little Hole except in emergencies.
- (17) Employ intensive fire prevention measures at Spillway and Little Hole Boat Ramps on the river and in VIS centers.
- (18) Permit no camping between the dam and Little Hole.
- (19) Inventory and take action to prevent noxious weed build-up.
- (20) Encourage, through management, the enhancement of all forms of wildlife. Special protection may need to be provided for goose nesting areas, raptors and cougars.
- (21) Maintain the "blue ribbon" quality of fishing the river. Coordination and cooperation between the Forest Service and the Division of Wildlife Resources and Bureau of Reclamation will be necessary to improve the fisheries habitat in the river.
- (22) Study the need to control or limit the use of fire by recreationists below Little Hole.
- (23) Complete a complex plan for National Forest lands within the Green River Corridor identifying such things as carrying capacity, resource impacts, and management objectives.

- (24) Allow no structures to be constructed until a need for them is definitely established and their impact can be accurately assessed.
- (25) Encourage noncommercial use and strive to maintain the river primarily for novice boaters.
- (26) Continue gathering use statistics to evaluate year-to-year use.
- (27) Encourage placing of the river into the Wild and Scenic River Classification that is appropriate.
- (28) Protect cultural sites and complete inventory.
- (29) Consider hard-surfacing of roads and trails in the Little Hole Campground to reduce present damage to soils and vegetation resulting from uncontrolled traffic.
- (30) Do not allow construction of the Browns Park road along the Green River.
- (31) Coordinate management of the area with other interested local, State, and Federal agencies.

2. Dutch John Management Unit GR-2

a. Management Direction

Maintain and improve existing facilities. Provide new, well planned and designed facilities and services on the basis of a demonstrated public need. The ultimate recreation development scale for Forest Service improvements is 3.

b. Management Direction

- (1) Follow the Dutch John master plan in the development and expansion of the town area.
- (2) Encourage the relocation and expansion of the concessionaire adjacent to Dutch John to take place as soon as the water and access problems are resolved.
- (3) Encourage well planned development of airport and related facilities.
- (4) Continue to permit Christmas tree sales and post cutting in areas surrounding Dutch John. Provide for adequate slash abatement.
- (5) Study and implement pinyon-juniper control projects that will improve wildlife habitat and not detract from the

esthetic values of the unit. Cooperation with the Utah Division of Wildlife Resources will be required.

- (6) Encourage the State of Utah to improve the appearance of their borrow area.
- (7) Permit no expansion of the Dutch John sanitary landfill that would require removal of additional pinyon-juniper unless it is carefully screened from the normal visitor's view.
- (8) Maintain Arch Dam Overflow as an overflow camping area.
- (9) Authorize no activity or use within the Goslin Creek inventoried roadless area that would degrade its natural characteristics.

3. Undeveloped Areas Management Unit GR-3

a. Management Direction

Manage unit to maintain its scenic qualities and provide for wildlife and undeveloped area uses. The exception to this is Dripping Springs and the Little Hole road. These facilities will be maintained and, when appropriate, improved. Recreation development to scales from 1 to 3 will be provided.

b. Management Decisions

- (1) Improve big game spring, fall, and winter ranges where the scenic values can be protected or enhanced. Study and implement pinyon-juniper control projects. Cooperation and participation with the Utah Division of Wildlife Resources will be needed.
- (2) Permit no uses that significantly degrade or destroy the esthetic backdrop values of the unit.
- (3) Permit no additional recreational camp or picnic grounds to be constructed in the area. Expansion of Dripping Springs Campground will be allowed if there is suitable land adjacent to it for this purpose.
- (4) Maintain and enforce present closures on the Little Hole and Pipe Creek roads.
- (5) Permit no new road or trail construction in this unit, except where temporary roads might be required to remove insect infested timber.
- (6) Monitor insect infestations in the southern part of this unit. If timber is harvested from the adjoining National

Forest lands, consideration should be given to removal of the adjoining infested and insect prone trees on the NRA.

- (7) Inventory and protect known sites that have historical interest. Interpret if appropriate.
- (8) Study Little Hole road and determine if it should be hard surfaced.
- (9) Silviculturally treat insect problem areas with land treatment as necessary.
- (10) Control vehicle access into the Pipe Creek area, and coordinate with trail users.
- (11) Authorize no activity or use within the Goslin Creek inventoried roadless area that would degrade its natural characteristics.

APPENDIX B



Use of Standard and Supplemental Stipulations

- a. The Standard Stipulation (Appendix I) is attached to all oil and gas leases and therefore is mandatory.
- b. Supplemental or Special Stipulations should be used to supplement or expand, where necessary the Standard Stipulation (See following table).
- c. Supplemental Stipulations 1 through 10 are designed to address specific conditions. Supplemental Stipulations 11 through 13 are designed to combine several areas of concern in one stipulation. They can be used as substitutes for one or more of the first stipulations.
- d. Supplemental Stipulation 14 is an alternative to many of the other supplemental stipulations. It alerts the lessee/operator to special values or uses within the leasehold which require special handling and may result in higher operating costs. This stipulation may be exclusionary; it allows use and occupancy if the operator can meet the restrictions or standards.
- e. Stipulations 18 through 21 may be used if necessary.
- f. Review of the Standard Stipulation and supplemental stipulation 14 will reveal that most of the common concerns are provided for by these stipulations. The FS/BLM Memorandum of Understanding, (Appendix I) provides for a site-specific evaluation and an opportunity for inclusion of additional necessary stipulations to protect any site-specific values identified at the time the Application for Permit to Drill (APD) is filed.
- g. All of the Special Stipulations were designed for oil and gas leases. However, they can be made applicable to other leaseables, subject to revision to adapt them to a leaseable mineral. All revisions will be subject to approval by the BLM before attachment to a lease.
- h. Leases that expire will be reviewed and stipulations updated in accordance with current direction prior to being reissued.

Minimum Special Stipulations as a Condition of Mineral Leases

Special stipulations to be recommended to the Bureau of Land Management as a condition of mineral lease (Not all inclusive - subject to site evaluation)

Area/Environmental Condition →

No.	Stipulation Summary ^{1/}	Management Area G	Developed Recreation Sites	Administrative Sites	Significant Cultural Area	High Mass Instability Steep Slopes 35% South Unit 40% Rest of Forest	Riparian	Seasonal Wildlife Habitat	T & E Habitat	Special Areas (Sheep Creek, etc.) NRA	Management Area A RNA's	Sensitive Soils (aquic, unstable, high erosion)	Critical Wildlife	All Areas	Retention and Partial Retention
1.	No surface occupancy - entire lease	X									X				
2.	Visual - road, structure, etc.														X
3.	No surface occupancy - legal subdivision				X						X				X
4.	No surface occupancy adjacent to road, river, trail, etc.														X
5.	No drilling or storage near reservoirs, archeological sites, etc.				X		X								
6.	No surface occupancy - steep slopes					X									
7.	No surface occupancy - seasonal							X				X		X	
8.	Prohibit activity - muddy or wet periods													X	
9.	Restricted trail/road													X	
10.	Visual - painting or camouf														X
11.	No surface occupnacy - (May replace numbers 1, 2, and 6)		X	X	X	X		X							X

^{1/} See Appendix for complete text of Stipulations

Special stipulations to be recommended to the Bureau of Land Management as a condition of mineral lease (Not all inclusive - subject to site evaluation)

Area/Environmental Condition →

No.	Stipulation Summary ^{1/}	Management Area G	Developed Recreation Sites	Administrative Sites	Significant Cultural Area	High Mass Instability Steep Slopes 35% South Unit 40% Rest of Forest	Riparian	Seasonal Wildlife Habitat	T & E Habitat	Special Areas (Sheep Creek, etc.) NRA	Management Area A RNA's	Sensitive Soils (aquic, unstable, high erosion)	Critical Wildlife	All Areas	Retention and Partial Retention
12.	Drilling, storage, surface disturbance next to (May replace numbers 4 and 5)		X	X			X								X
13.	No surface disturbance, exploration, drilling (May replace number 7)							X						X	
14.	Controlled or limited surface use		X	X											
15.	Activity coordination						X	X		X					
16.	Protection of T & E species								X						
17.	Not applicable							X		X					
18.	Coordinated Exploration														
19.	Conditional no surface occupancy												X		X
20.	Unstable soils						X	X						X	
21.	Special wildlife and fisheries habitat														

^{1/} See Appendix for complete text of Stipulations

Standard and Special Stipulations for Leasing

STANDARD STIPULATION

STIPULATION FOR LANDS OF THE NATIONAL FOREST SYSTEM
UNDER JURISDICTION OF
DEPARTMENT OF AGRICULTURE

The licensee/permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of the National Forest System (NFS) when not inconsistent with the rights granted by the Secretary of the Interior in the license/prospecting permit/lease. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of a permit/operation plan by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest development roads, within and outside the area licensed, permitted or leased by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior.

All matters related to this stipulation are to be addressed

To

at

Telephone No.:

who is the authorized representative of the Secretary of Agriculture.

Signature of Licensee/Permittee/Lessee

Special Stipulations for Leasing

1. All of the land in this area is included in _____ (recreation or special area, etc.). Therefore, no occupancy or disturbance of the surface of the land described in this lease is authorized. The lessee, however, may exploit the oil and gas resources in this lease by directional drilling from sites outside this lease. If a proposed drilling site lies on land administered by the Bureau of Land Management, or by the Forest Service, a permit for use of the site must be obtained from the BLM District Manager or the Forest Service District Ranger, before drilling or other development begins.
2. No access on work trail or road, earth cut or fill, structure or other improvement, other than an active drilling rig, will be permitted if it can be viewed from the _____ (road, lake, river, etc.)
3. No occupancy or other activity on the surface of _____ (legal subdivision) is allowed under this lease.
4. No occupancy or other surface disturbance will be allowed within _____ feet of the _____ (road, trail, river, creek, canal, etc.). This distance may be modified when specifically approved in writing by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
5. No drilling or storage facilities will be allowed within _____ feet of _____ (live water, the reservoir, the archaeological site, the historical site, the paleontological site, etc.) located in _____ (legal subdivision). This distance may be modified when specifically approved in writing by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
6. No occupancy or other surface disturbance will be allowed on slopes in excess of _____ percent, without written permission from the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
7. In order to _____ (minimize watershed damage, protect important seasonal wildlife habitat, etc.), exploration, drilling, and other development activity will be allowed only (during the period from _____ to _____, during dry soil period, over a snow cover on frozen ground). This limitation does not apply to maintenance and operation of producing wells. Exceptions to this limitation in any year may be specifically authorized in writing by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
8. In order to minimize watershed damage during muddy and/or wet periods, the authorized officer of the Federal surface management agency, through the authorized officer, BLM, may prohibit exploration, drilling, or other development. This limitation does not apply to maintenance and operation of producing wells.

9. The _____ Trail/Road will not be used as an access road for activities on this lease except as follows: (No exceptions, weekdays during recreation season, etc.)
10. To maintain esthetic values, all semi-permanent and permanent facilities may require painting or camouflage to blend with the natural surroundings. The paint selection or method of camouflage will be subject to approval by the authorized officer, BLM, with the concurrence of the authorized officer of the Federal surface management agency.
11. No occupancy or other activity on the surface of the following described lands is allowed under this lease:

Reasons for this restriction are:

Examples of appropriate reasons for this restrictions are:

- a. Steep slopes.
- b. Specific ecosystem, ecological land unit, land type or geologic formation which presents hazards such as mass failure.
- c. Special management units such as: Recreation Type I, water supply, administrative site, etc.

() Approximately ____% of lease

12. No _____ will be allowed within _____ feet of the _____. This area contains _____ acres and is described as follows:

Reasons:

First blank to be filled in with one or more of the following: drilling, storage, facilities, surface disturbance, or occupancy. Second and third blanks to be filled in with one or more of the following:

- a. _____ feet wildlife habitat essential to specific species.
- b. _____ feet peripheral or unique vegetative type.
- c. 200 feet either side of center line of roads or highways.
- d. 500 feet or normal high waterline on all streams, rivers, ponds, reservoirs, lakes.
- e. 600 feet of all springs.
- f. 400 feet of any improvements.

13. In order to (minimize)(protect) _____, _____ will be allowed only during _____. This does not apply to maintenance and operation of producing wells and facilities. Lands within leased area to which this stipulation applies are described as follows:

Reasons:

First blank to be filled in with one or more of the following:

- a. Watershed damage.
- b. Soil erosion.
- c. Seasonal wildlife habitat (winter range, calving/lambing area, etc.)
- d. Conflict with recreation.

Second blank to be filled in with one or more of the following:

- a. Surface disturbing activities.
- b. Exploration.
- c. Drilling.
- d. Development.

Third blank to be filled in with one or more of the following:

- a. Period from _____ to _____.
- b. Dry soil periods.
- c. Over the snow.
- d. Frozen ground.

14. Controlled or Limited Surface Use Stipulation. This stipulation may be modified when specifically approved in writing by the authorized officer, BLM, with concurrence of the Federal surface management agency. Distances and/or time periods may be made less restrictive depending on the actual on-the-ground conditions.

The lessee/operator is given notice that all or portions of the lease area may contain special values, may be needed for special purposes, or may require special attention to prevent damage to surface and/or other resources. Any surface use or occupancy within such special areas will be strictly controlled or, if necessary, excluded. Use or occupancy will be authorized only when the lessee/operator demonstrates that the special area is essential for operations in accordance with a surface use and operations plan which is satisfactory to the Geological Survey and the Federal surface management agency for the protection of such special areas and existing or planned uses. Appropriate modifications to imposed restrictions will be made for the maintenance and operation

of producing oil and gas wells; however, in extremely critical situations, occupancy may only be allowed in emergencies.

After the Federal surface management agency has been advised of specific proposed surface use or occupancy on these lands, and on request of the lessee/operator, the agency will furnish more specific locations and additional information on such special areas which now include:

(Legal land description to lot and/or quarter, quarter section)

Reason for Restriction:

Duration of Restrict: (year-round, month(s))

15. Activity Coordination Stipulation. This lease includes lands within 1/ _____ which has resource values sensitive to high levels of activity. In order to minimize impacts to these resources, special conditions such as unitization prior to approval of operations, and/or other limitations to spread surface disturbance activities over time and space may be required prior to approval and commencement of any operations on the lease.

16. Protection of Endangered or Threatened Species. The Federal surface management agency is responsible for assuring that the area to be disturbed is examined prior to undertaking any surface-disturbing activities on lands covered by this lease to determine effects upon any plant or animal species listed or proposed for listing, as endangered or threatened, or their habitats. If the findings of this examination determine that the operation may detrimentally affect an endangered or threatened species, some restrictions to the operator's plans or even disallowances of use may result.

The lessee/operator may, at this discretion and cost, conduct the examination on the lands to be disturbed. This examination must be done by or under the supervision of a qualified resource specialist approved by the surface management agency. An acceptable report must be provided to the surface management agency identifying the anticipated effects of the proposed action on endangered or threatened species or their habitat.

17. Not applicable.

18. Coordinated Exploration Stipulation. All or portions of the lands covered by Lease No. _____ are within the _____ Area, an area of critical environmental concern. Therefore the lessee agrees that:

a. In order to protect the special resource values, drilling on the subject lease will be authorized only under a plan of operation

1/ Visually Sensitive Area, Areas of Threatened and Endangered Species

approved pursuant to the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. 181 et seq. and;

- b. All plans of operation will contain a provision vesting in the Secretary, USDI, or his duly authorized representative(s) control over the rate of drilling and development including in particular the spacing of wells and such other conditions as may be deemed necessary.
19. *Conditional No Surface Occupancy Stipulation.* The lessee agrees not to occupy or use the surface of the leased lands in _____ (legal description) except for certain limited uses as permitted in writing by an authorized officer of the surface management agency. This stipulation, at a later date, may be modified, supplemented, eliminated, or remain unchanged. Alteration of the stipulation will be conditional upon the preparation of a site specific environmental assessment, or if required, an environmental statement. In the event this stipulation is eliminated, it will be replaced by a coordinated exploration stipulation and other special stipulations as required to protect the surface resources.
 20. The lands within this leasehold contain unstable/highly erodible soils. Therefore, prior to entry onto the lands, the lessee (operator) will discuss the proposed activities jointly with the Area Oil and Gas Supervisor or his representative and the Forest Supervisor or his representative. Additional measures for the protection of the soils may be required. Such measures may include:
 - a. No surface occupancy of selected areas;
 - b. Restriction on surface entry during periods of excessive runoff;
 - c. Special reclamation techniques;
 - d. Special requirements for reserve pits and drilling fluid systems.
 21. The lease area contains critical habitat for certain wildlife species. Of paramount concern on this lease area area: _____ . Therefore, prior to entry onto the leasehold, the operator will jointly discuss the proposed activities with the Area Oil and Gas Supervisor or his representative, the Forest Supervisor, or his representative, and the Utah/Wyoming Game and Fish Department. Additional measures may be required to protect the above species and habitat features; these include:
 - a. No surface occupancy of selected areas.
 - b. Restrictions on season of operation.
 - c. Special reclamation techniques and/or requirements.
 - d. Restrictions on rate of development and spacing and location of wells.
 - e. Special road closure requirements.

NOTE: Stipulation 11 may be used in place of 1, 3, and 6.
Stipulation 12 may be used in place of 4 and 5.
Stipulation 13 may be used in place of 7, given greater definition as to restriction.

INTERIM
MEMORANDUM OF UNDERSTANDING
BETWEEN
THE BUREAU OF LAND MANAGEMENT
AND
THE FOREST SERVICE

The Bureau of Land Management, Department of the Interior, and the Forest Service, Department of Agriculture, hereby agree that the procedures set forth below shall be followed with respect to mineral leasing, mineral lease applications, and mineral prospecting permit applications as described below which involve National Forest System lands. These procedures are adopted to ensure cooperative, timely and orderly action by the Bureau of Land Management and the Forest Service with respect to such leasing and permitting activity consistent with the assigned functional responsibilities of each agency. The agencies also agree to issue regulations which explain their respective responsibilities. This Memorandum will expire when final regulations governing these procedures become effective.

I. PURPOSE

This agreement establishes the procedures for recommendation or consent by the Forest Service in the issuance of leases and prospecting permits on National Forest System lands for all minerals except coal.

A. Recommendation

Recommendations by the Forest Service are the mechanism established by this agreement to allow the Forest Service, as surface managing agency, to review potential leasing and permitting actions on National Forest System lands, for all minerals except coal, under the Mineral Leasing Act of 1920, 30 U.S.C. § 181 et seq.

B. Consent

Consent by the Forest Service is statutorily required for potential leasing and permitting actions on Forest Service lands under the Mineral Leasing Act for Acquired Lands, 30 U.S.C. § 351 et seq., section 402 of Reorganization Plan No. 3 of 1946, 5 U.S.C. Appendix, the Geothermal Steam Act of 1970, 30 U.S.C. § 1001 et seq., and any statute creating a special area under Forest Service jurisdiction which requires such consent (e.g. 30 U.S.C. § 192c).

II. RESPONSIBILITIES

A. Initiation - Bureau of Land Management

1. Applications for noncompetitive leases and prospecting permits. Noncompetitive oil and gas lease applications (43 CFR Subpart 3111), noncompetitive geothermal lease applications (43 CFR Subpart 3210) and prospecting permit applications (43 CFR Subpart 3510) shall be filed with the Bureau of Land Management. After preliminary adjudication, applications which involve National Forest System lands will be submitted to the Forest Service for review as described below in section II.B.

2. Noncompetitive simultaneous leasing and competitive leasing.

Noncompetitive simultaneous leasing shall be conducted under the procedures set out in 43 CFR Subparts 3112 and 3211. Competitive leasing shall be conducted in accordance with the procedures set out in 43 CFR Subparts 3120 and 3220 and § 3521.2. The Bureau of Land Management will first identify parcels or areas which are available for simultaneous or competitive leasing. Descriptions of these parcels or areas will then be submitted to the appropriate Forest Service office for review as described below in section II.B.

B. Forest Service Review

1. Basis for review.

The Forest Service will review mineral leasing and permitting submittals to determine the effect of the potential mineral activities on other resource values and on the purposes for which the particular lands are administered. The Forest Service will be responsible for compliance with the National Environmental Policy Act of 1969 with respect to activities being reviewed by that agency.

2. Recommendation or consent.

Based on its review of the proposed leasing or permitting activities, the Forest Service will either:

a. Recommend, or consent to, the proposed activity with standard stipulations included in the lease or permit and, if necessary, add special stipulations to be included in the lease or permit in order to protect other identified resource values, including a prohibition against occupancy of the surface of all or part of the lease or permit; or

b. Recommend against, or refuse consent to, the proposed activity if it would seriously interfere with other resource values or with the purposes for which the lands are being administered, and special stipulations will not provide adequate mitigation.

3. Completion of review.

Upon completion of review, the Forest Service will forward to the appropriate Bureau of Land Management office its recommendation, or its decision whether to consent, on the proposed leasing or permitting activity.

C. Bureau of Land Management Action

1. Applications for noncompetitive leases and prospecting permits.

a. Forest Service recommendation. Where the Forest Service recommends a course of action for a particular lease or permit application, the Bureau of Land Management will review the Forest Service analysis and exercise its independent judgment whether the recommended special stipulations are appropriate or whether the lease or permit should not be issued. Upon request from the Bureau of Land Management, the Forest Service will provide additional information or justification for its recommendation. If agreement cannot be reached, the matter will be submitted to the Washington, D.C., offices of both agencies. If the Bureau of Land Management concurs in the recommendation of the Forest Service, it will notify the applicant at the appropriate time of the Forest Service recommendation and its basis and the decision of the Bureau of Land Management based upon its independent judgment.

b. Forest Service consent. Where the Forest Service forwards a decision concerning a particular lease or permit application based upon its statutory authority to consent to mineral leasing, the Bureau of Land Management will treat the parcel or area in accordance with the decision of the Forest Service. The Bureau of Land Management will inform the applicant at the appropriate time of the Forest Service decision and its basis and the specific statutory authority of the Forest Service with regard to the particular application.

2. Noncompetitive simultaneous leasing and competitive leasing

a. Forest Service recommendation. Where the Forest Service submits a recommendation concerning a particular parcel or area, the Bureau of Land Management will review the analysis of the Forest Service to determine whether the recommendation is appropriate. Upon request from the Bureau of Land Management, the Forest Service will provide additional information or justification for its recommendation. If agreement cannot be reached, the matter will be submitted to the Washington, D.C. offices of both agencies. If a particular parcel or area is

made available for leasing, the Bureau of Land Management will notify the prospective lessee at the appropriate time of the Forest Service recommendation and its basis and the decision of the Bureau of Land Management based upon its independent judgment.

b. Forest Service Consent. Where the Forest Service forwards a decision concerning a particular parcel or area based upon its statutory authority to consent to mineral leasing, the Bureau of Land Management will treat the parcel or area in accordance with the decision of the Forest Service. The Bureau of Land Management will inform the applicant at the appropriate time of the Forest Service decision and its basis and the specific statutory authority of the Forest Service with regard to the particular application.

3. Further processing.

After the procedures described above are completed, the Bureau of Land Management will process all mineral lease applications, all prospecting permit applications, and the leasing of all parcels or areas in accordance with the regulations set out in 43 CFR Subchapter C and other relevant regulations, as supplemented by this agreement.

4. Final authority.

a. The Bureau of Land Management has the ultimate discretionary authority to decide whether a particular mineral lease or prospecting permit will be issued, except where the Forest Service exercises its statutory authority and does not consent to leasing.

b. It is the general practice of the Bureau of Land Management to accept Forest Service recommendations.

III. TIMELY PROCESSING

Each agency will strive to process applications in a timely manner. Delays may occur, however, when a particular lease application requires extensive review under the National Environmental Policy Act of 1969 or when a particular office of either agency is burdened with an unusually large number of applications.

IV. EFFECT ON PRIOR AGREEMENTS

This Memorandum of Understanding implements the agreements contained in (1) an exchange of letters between the Secretaries of Agriculture and Interior in 1945 concerning leasing under the Mineral Leasing Act of 1920 of lands under Forest Service administration, and (2) a procedure, dated November 8, 1946, agreed to by the two Secretaries concerning leasing under section 402 of Reorganization Plan No. 3 of 1946. This Memorandum supersedes, to the extent inconsistent, the exchange of letters between the Acting Chief,

Forest Service, dated April 20, 1972, the Acting Director, Geological Survey, dated July 7, 1972 and the Acting Director, Bureau of Land Management, dated April 29, 1974.

Date: 12/24/80

Frank Gregg
Director, Bureau of Land Management

Date: 12/30/80

J. M. Peterson
Chief, Forest Service

APPENDIX C

LIMITS OF ACCEPTABLE CHANGE

(DEVELOPED RECREATION SITES)

APPENDIX C
LIMITS OF ACCEPTABLE CHANGE
(DEVELOPED RECREATION SITES)

Condition Class	Visible Indicators	Management
1	Ground vegetation flattened but not permanently injured. Minimal physical change except for possibly a simple rock fireplace.	These sites are barely recognizable as camping areas. If not in situations known to be sensitive to use (e.g. wet or slump areas), no management action is necessary. Maintain current use level or allow increase if nearby sites must be closed.
2	Ground vegetation worn away around fireplace or center of activity.	Site change now apparent but still within acceptable limits. These areas are readily identified as campsites and will continue to attract use. Future use should be carefully monitored to detect adverse change.
3	Ground vegetation lost on most of the site, but humus and litter still present in all but a few areas.	This is a transitional condition. Considerable change in plant cover is evident but little sign of soil problems. The condition may be accepted as normal in areas of high attraction. However, modification of current use patterns and intensities may be needed to prevent further damage.
4	Bare mineral soil widespread. Tree roots exposed on the surface.	Deterioration is accelerating. If current level and type of use continues, soil erosion, loss of tree cover, and aesthetic degradation are likely. Withdraw these sites from use and allow recovery. Some artificial rehabilitation may be desirable to speed recover. If site is reopened, insure that use patterns are adjusted to prevent reinjury.
5	Soil erosion obvious. Trees reduced in vigor or dead.	Natural recovery will be extremely slow. The sites should be closed permanently and alternate ones located. If the site is critical to the recreation pattern, extensive rehabilitation will be required to return it to acceptable condition.

From: Frissell, Sidney S. Jr.
 1978 Judging Recreation Impacts on Wilderness Campsites, Journal of Forestry 76:481-483.

APPENDIX D

LIMITS OF ACCEPTABLE CHANGE

(DISPERSED RECREATION)

APPENDIX D
LIMITS OF ACCEPTABLE CHANGE
(DISPERSED RECREATION)

Condition Class	Visible Indicators	Management
1	Ground vegetation flattened but not permanently injured. Minimal physical change from existing conditions at time of development.	Those changes occurring outside of developed areas adjacent to trails, family units, roads, and parking spurs. No management action is necessary. Maintain current use level and management practices.
2	Some ground vegetation lost around developed facilities and new paths are developing across undeveloped areas within the site.	Vegetative and soil damage is now apparent, but well within acceptable limits. Additional barriers, tent pads, and hardened trails may be needed to control use. Site needs closer monitoring to detect adverse change.
3	Ground vegetation lost on most of the area between facilities, but litter and humus present on the areas disturbed. Overstory shows signs of damage due to competition and root exposure.	Considerable change in plant cover is evident. Modification of current use and intensity, and reconstruction and modification of improvements to prevent damage and control use may be needed.

APPENDIX E

FORMULATION OF ANALYSIS AREAS

APPENDIX E

Formulation of Analysis Areas

An Analysis Area is composed of one or more capability units and is a non-contiguous unit delineated for analysis purposes. Taken together, analysis areas represent the entire Forest and no area is part of more than one analysis area in any phase of the analysis.

The following stratification was used for the formulation of Analysis Areas.

The prescriptions in Chapter II of the EIS and Chapter IV of the Forest Plan were applied to the analysis areas with the FORPLAN linear program model. Combination of analysis areas resulted in management areas based on the particular management prescription applied.

Appendix D of the EIS displays assignments of prescriptions to analysis areas by alternative, Chapter IV of the Plan displays the resulting applications to the proposed action.

Level I (Landtype Aggregations)

- | | | |
|----|--------|---------------------|
| 1. | GREFAT | Basins |
| 2. | GRESEP | Badland canyon |
| 3. | CANYON | 35% slope |
| 4. | PLATOW | Plateau |
| 5. | SOUFAC | South facing slopes |
| 6. | ALPINE | Alpine |
| 7. | BOLLIE | Bollie |

Level II Accessibility Zones

- | | | |
|----|---------|---------------|
| 1. | NRAROA | Roaded NRA |
| 2. | UNRNRA | Unroaded NRA |
| 3. | ROADED | Roaded |
| 4. | UNROAD | Unroaded |
| 5. | SPECIAL | Special areas |

Level III Wildlife Designation

1. Special wildlife
2. Other

Working Group

- | | | |
|----|---------|--|
| 1. | Not Com | Non-commercial timber land |
| 2. | C-DIF | Commercial Douglas Fir |
| 3. | LPESAF | Lodgepole Pine/Englemann Spruce/Sub Alpine Fir |
| 4. | C-HARD | Commercial Hardwoods |
| 5. | C-PPN | Commercial Ponderosa Pine |

Land Class

- | | | |
|----|--------------|-------------------------------|
| 1. | Shrub/Browse | |
| 2. | Water | |
| 3. | Bar Veg | Barren-rock outcrop |
| 4. | NC-PJ | Non-commercial Pinyon Juniper |
| 5. | Com Tim | Commercial timber |
| 6. | Meadow | |
| 7. | NC-SOF | Non-commercial softwood |
| 8. | NC-HRD | Non-commercial hardwood |

Condition Class

- | | | |
|----|---------|--------------------|
| 1. | Nontim | Non-timber |
| 2. | Stagna | Stagnated |
| 3. | Nostok | Nonstocked |
| 4. | Sedsap | Seedlings/Saplings |
| 5. | Poles | |
| 6. | Mature | |
| 7. | Par cut | Partial cut |

Level I is an aggregation of landtypes based on elevation, slope, and inherent land characteristics for the purpose of analysis. Basins and Badlands Canyons (Numbers 1 and 2) apply to the Wyoming portion of the Flaming Gorge NRA, and the South Unit (Tavaputs Plateau). These two units are further separated by Level II (Numbers 1, 2, 3, and 4) Roaded NRA, Unroaded NRA, Roaded and Unroaded. Badlands Canyons are those lands with a greater than 35 percent slope. Canyons (Number 3) are those lands on the remainder of the Forest with a greater than 35 percent slope. Plateau (Number 4) are those lands generally at 9,000 feet to 10,400 feet elevation that are under 35 percent slopes. South facing slopes (Number 5) are those lands below 9,000 feet elevation that generally consist of PJ and shrub browse types. Slopes are variable. Alpine lands are those above the plateau and below the Bollies; slopes average less than 35%. This aggregation contains the majority of riparian habitat on the Forest. The Bollies form the crest of the Uinta Mountains. They are the highest elevation lands and contain no commercial timber. The timber, range, wildlife and water yield capabilities vary by these aggregations.

Calculation of Analysis Area Acreage

Calculating the acreage of the analysis areas was done through the Regional Office. The analysis area stratification was applied to 7 1/2 minute ortho-photo quad maps using the above level identifiers.

Column A = Analysis Area Number
 Column B = Stratification Layer
 Column C = Acres

A	B	C	A	B	C	A	B	C
1	111111	33514	35	232456	5438	65	332256	10578
2	111141	4893	40	242111	15177	65	332352	241
303	112111	22762	41	242141	13697	67	332353	409
6	131111	1120	42	242171	7356	68	332354	352
7	132141	8398	302	242131	2559	69	332355	7759
8	132111	31872	43	242255	1426	70	332356	24926
9	132171	2744	44	242256	7618	71	332456	8780
10	132255	632	45	242456	2599	72	332556	5857
11	132256	2372	46	311111	4530	73	341111	237
12	132356	1310	47	311141	6881	74	341141	738
13	132456	4647	48	311171	257	76	342111	5825
15	142141	3441	305	312111	1966	77	342141	1158
16	142111	9086	306	312141	1534	78	342171	7619
17	142171	864	307	312171	2976	79	342181	2976
18	142456	1232	49	312131	2913	80	342121	5406
19	211111	5890	50	312256	522	81	342131	4235
20	211141	5376	51	312556	450	82	342256	11387
304	212111	9627	53	321141	1410	83	342352	722
21	212121	42965	55	331111	2295	309	342354	1538
22	212131	5771	56	331141	862	84	342355	12019
25	231141	762	57	331256	401	85	342356	51560
28	232111	19565	58	331356	267	86	342456	7424
29	232141	27785	59	332111	16355	87	342556	4231
30	232171	14747	308	332141	1871	88	352111	2078

A	B	C	A	B	C	A	B	C
301	232131	6309	61	332171	5726	89	352171	564
32	232255	1691	62	332161	3381	90	352355	372
33	232256	7240	63	332131	1159	91	352356	559
34	232356	2318	64	332121	2908	101	411111	5355
102	411141	2098	135	432557	3302	169	532557	3976
312	411556	807	136	441111	939	170	541111	3304
310	412111	4978	137	441141	1403	171	541141	2147
311	412141	311	140	442111	1963	315	542141	694
105	412355	304	141	442161	2353	173	542111	2648
106	412356	808	142	442171	566	174	542256	1767
107	412456	370	144	442256	2956	175	542456	3015
108	412556	9143	145	442352	2594	317	542556	1315
109	412557	2911	146	442354	685	177	632131	409
110	421111	381	147	442355	10341	178	632161	2345
111	421141	387	148	442356	42400	179	632171	523
313	422111	504	149	442456	4940	181	632353	627
112	431111	4961	150	442556	3710	182	632354	3386
113	431141	914	152	511111	818	183	632355	5348
120	432111	29100	153	511141	5620	184	632356	25048
121	432161	10601	154	521141	1018	185	632357	1065
122	432171	4128	155	531111	7393	186	632456	1727
124	432131	489	156	531141	1725	189	642131	2626
318	432254	294	157	531171	439	190	642161	39826
125	432256	6124	158	532161	554	191	642171	17658
319	432257	1328	162	532111	18933	193	642355	4591
126	432352	24455	314	532141	1558	194	642356	154570

A	B	C	A	B	C	A	B	C
127	432353	4151	163	532181	1119	195	642456	732
128	432354	11028	164	532256	581	203	732131	2536
129	432355	29331	165	532355	1970	204	732171	2107
130	432356	71451	166	532356	4856	205	742161	3652
131	432357	5470	167	532456	11379	206	742131	74002
132	432456	14068	316	532554	523	207	742171	11589
134	432556	5503	168	532556	3187	208	743161	59589

TOTAL FOREST 1,372,203

ERROR .99%

TOTAL 171 ANALYSIS AREAS

1

2

3

4

5

6

**END
OF
PHYSICAL
FILE**