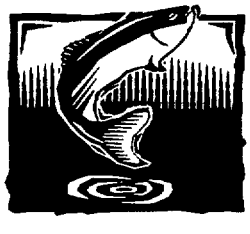
UNITED STATES DEPARTMENT
OF AGRICULTURE

FOREST SERVICE

ROCKY MOUNTAIN REGION



1997 REVISION of the LAND and RESOURCE MANAGEMENT PLAN

RECORD OF DECISION

Arapaho and Roosevelt National Forests and Pawnee National Grassland

RECORD OF DECISION

FINAL ENVIRONMENTAL IMPACT STATEMENT
AND
REVISED LAND AND RESOURCE MANAGEMENT PLAN

ARAPAHO AND ROOSEVELT NATIONAL FORESTS
AND PAWNEE NATIONAL GRASSLAND
NOVEMBER 1997

Located within
Boulder, Clear Creek, Grand, Gilpin,
Jefferson, Larimer, Park, and Weld Counties, Colorado

Responsible Agency:	USDA, Forest Service Arapaho and Roosevelt National Forests and Pawnee National Grassland
Responsible Official:	Tom L. Thompson Acting Regional Forester
Recommending Official:	Peter L. Clark Forest Supervisor

This document presents the decision regarding the selection of a Revised Land and Resource Management Plan for the Arapaho and Roosevelt National Forests and Pawnee National Grassland. It summarizes the reasons for choosing the Selected Alternative as the basis for the Forest Plan which will be followed for the next 10 to 15 years. Estimates of the long-term environmental and economic consequences contained in the Final Environmental Impact Statement were considered in this decision.

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RECORD OF DECISION

ARAPAHO AND ROOSEVELT NATIONAL FORESTS AND PAWNEE NATIONAL GRASSLAND NOVEMBER 1997

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MY DECISION

I selected Alternative B from the Final Environmental Impact Statement (FEIS) for the Arapaho and Roosevelt National Forests and Pawnee National Grassland (ARNF-PNG). By selecting Alternative B, I am also approving the Revised Land and Resource Management Plan (Forest Plan) that describes in detail the goals, objectives, standards, guidelines, management area direction, suitable lands and recommendations for Wildernesses and Wild and Scenic Rivers for Alternative B.

I selected Alternative B because the strategic guidance it establishes best matches the direction I believe needs to be taken on the ARNF-PNG. The revision topics represent the significant issues examined in this forest plan revision. Revision topics are:

1. Maintenance of Biological Diversity
2. National Forest and Residential Intermix
3. Oil and Gas Leasing
4. Recreation
5. Roadless Areas and Wilderness
6. Timber Suitability and Allowable Sale Quantity
7. Travel Management
8. Instream Flows and Water Yield

Each alternative evaluated in the FEIS addresses these revision topics in a different way. From these revision topics, I developed four priorities to help me make this important decision. These priorities are:

- **Ensuring the long-term health of the land and restoring ecosystems.** This priority encompasses all the revision topics. How each alternative addresses the revision topics affects the ability to meet this priority. Without healthy ecosystems, we cannot sustain the values currently offered by these Forests and Grassland.
- **Providing a mix of high-quality recreation opportunities within the capability of the land.** The Forests and Grassland is one of the largest public land areas available to the growing northern Colorado front range population and people have many different ideas and expectations when they visit. The revision topics of recreation, travel management, roadless areas, and intermix describe these differences and the importance of this priority.
- **Providing sufficient quantities of clean water to the extent possible for domestic, industrial and agricultural use within the capabilities of the land and maintaining aquatic and riparian habitat.** We have a major role to play in providing water to the growing population in Colorado and other states. It is also critical that riparian and aquatic habitats are maintained to ensure long-term health of the land. The revision topic of instream flows and water yield resulted from the many concerns related to this priority.
- **Promoting goals and objectives that contribute to the economic and social vitality of local communities, providing opportunities for partnerships, and improving service to the American public.** We need to be a good neighbor to those people who use or live near the Forests and Grassland. The Arapaho and Roosevelt and Pawnee play an important role in the economy of many rural communities by providing the land base that local businesses use, attractions and scenic backdrops that draw visitors to the area, products, and primary and secondary sources of employment.

Implementing Alternative B will result in the best balance of meeting these four important priorities. I did not pick an alternative that maximized or minimized any one of these priorities because it is important to strike a balance between them. However, the most important part of my decision was ensuring that the long-term health of forests and rangelands is maintained or restored so they are available for future generations to enjoy.

Many people suggested other ideas or recommended other alternatives during the comment period. Alternative B was modified to reflect the comments we received. I know from reviewing the comments that selecting Alternative B is not likely to fully satisfy any group or individual. However, I do feel that Alternative B sets a reasonable course that provides some satisfaction to most groups or individuals. It also allows flexibility and provides future opportunities for people to participate in decision-making and implementation of this Plan.

A key measure of successful plan implementation is the ability to update and amend strategic direction as new information becomes available or circumstances change. The ARNF-PNG Forest Plan I am approving describes a process that provides for constantly monitoring and evaluating Plan direction and making changes as they are needed. While I am approving Alternative B as it is presently written, I know that it will be updated as circumstances warrant. This "real-time" planning process is an important part of my decision because it provides flexibility and adaptability within a constantly changing environment.

IMPORTANCE OF THE NATIONAL FORESTS AND GRASSLAND

The Arapaho and Roosevelt National Forests and Pawnee National Grassland are located in northern Colorado and include management of almost 1.5 million acres of federal land. People who live, work, study and play in the area know that the Arapaho and Roosevelt National Forests and Pawnee National Grassland offers many special opportunities and benefits. The Forests and Grassland provide a scenic backdrop and a large public land area for the growing population in metropolitan Denver and all the front range cities from Fort Collins to Colorado Springs. Over three million people reside in this area and enjoy the Forests and Grassland as a source of recreation activities from hiking and backpacking to driving for pleasure on a variety of trails and roads. Winter recreation is also popular as people alpine and cross-country ski, go snowshoeing or snowmobiling or view the changing scenery. Millions of visitors also come to the area from other states and other countries in all four seasons to enjoy the views and recreate. All these people provide additional employment and revenues for communities and residents alike. The Forests and Grassland play a critical role in providing the opportunity for people to enjoy the outdoors and connect with the land. This opportunity is not readily available elsewhere.

The Continental Divide of the Rocky Mountains forms the "backbone" of the Forests. The mountain peaks, alpine tundra, towering canyon walls, rolling foothills and open stretches of high prairie create breath-taking vistas for visitors. Over 500 species of wildlife make their home here. Elk, deer, bighorn sheep, moose, marten, flammulated owls, boreal toads, beavers and many other mammals, birds, amphibians and reptiles are found in the mountains. The many streams, rivers and lakes are populated by fish species such as, rainbow, brook, cutthroat, greenback, lake and brown trout, and kokanee salmon. The Pawnee National Grassland is primarily Great Plains shortgrass prairie and is backed by a panorama of beige and coral rock ledges. The Pawnee Buttes are a well-known landmark on the Grassland. The prairie is home to a variety of wildlife including, pronghorn, coyote, prairie dogs, lark bunting, short-horned lizard, and plains killifish. The Pawnee is a internationally renowned birding area with over 200 different species.

The intermixed land ownership pattern of the Forests and Grassland and private land influences many activities. There are approximately 300,000 acres of small private parcels intermixed with federal lands requiring intensive interactions to meet the needs of private owners and to conserve public interest on federal lands. Many issues regarding land status, rights-of-way, wildland fire suppression, managing fuels, recreational use and maintaining or restoring sensitive ecosystems overlap in these areas. Fuels have built up over the years in many of these areas because of past aggressive fire suppression efforts and increasingly less vegetation management. The potential for damaging wildfires is a major concern because of the resultant damage to homes, soils, watersheds and water quality. Addressing these issues, providing good service and caring for the land is a complicated job on the ARNF-PNG.

The Forests and Grassland serve as a base for numerous reservoirs and the starting point for a water delivery system that provides water for the growing front range population and agricultural and industrial uses. Providing sufficient quantities of clean water within the capabilities of the land is a mission of the Forest Service which is critically important here. Diverse habitats are provided to maintain population viability of native and introduced plant, fish, and animal species such as, Colorado cutthroat trout, Colorado greenback cutthroat trout, lynx, wolverine, and others. The ARNF-PNG also play an important role in providing economic returns to counties, employment, fire protection and a favorable environment for local community development.

On a global and national scale, the Forests and Grassland have many important features including:

- Rank among the top National Forests for year-round recreation use.
- Offer some of the most popular downhill skiing in the country.
- Include the Arapaho National Recreation Area and Colorado's first nationally designated wild and scenic river, the Cache la Poudre.
- Feature over 300 miles of National Scenic Byways, including the Mount Evans highway, the highest paved road in North America, the Cache la Poudre Highway and the Peak to Peak Highway.
- Provide the setting for part of the Continental Divide National Scenic Trail and several National Recreation Trails.
- Include nationally designated historic sites: Homestead Meadows, Arrowhead Lodge, Denver Northwestern & Pacific Railway Historic District, the Boulder & Western Railway Historic District, and the West Stoneham Archeological District.
- Encompass eight nationally designated wilderness areas, in 318,000 acres of National Forest System land.
- Surround Rocky Mountain National Park, one of the "crown jewels" of the National Park system.

- Contain a majority of the watersheds for one of the most sophisticated water development systems in the world.

The Arapaho and Roosevelt National Forests and Pawnee National Grassland are important nationally and regionally because of these characteristics and how people relate to this beautiful, accessible, and diverse mountain and prairie land. The decisions I am making in this plan must take into account the unique attributes and special features of the area and ensure they can be protected, maintained or restored. My decisions must also recognize the people who use and enjoy or make a living from this land and they should be allowed to continue their activities unless conflicts with other uses or ecological sustainability are indicated. Finally, I want to ensure that the ecosystems are maintained or restored to a healthy, vital condition because everything is affected if the health and productivity of the land deteriorates.

PUBLIC INVOLVEMENT

Getting Started

The plan revision process started in 1990 with a series of forums and a newsletter asking people to identify aspects of current management direction that might need changing; and to identify and describe any new land or resource issues that should be addressed in the revised Plan. A formal Notice of Intent (NOI) to revise the Forest Plan was published in the Federal Register in July 1990. In this NOI, the public was asked to comment on the scope of the analysis associated with the Revision. Also during 1990, the Forests and Grassland held nine open houses; contacted local government officials, state officials, and federal officials; and spoke to a variety of special interest groups to provide people with information about the Plan revision effort or to request assistance with the revision scoping effort. In October, 1990, the Forests established a scientific working group comprised of ten scientists representing a cross section of academic disciplines. This group also helped to identify issues and concerns the Forests should address during the revision.

The Forests received 600 responses during the initial scoping and comment period. Responses came from nearly 500 individuals, 30 organizations, 30 businesses, 21 government officials, and 11 internal meetings. Comments from the rural areas centered on economic and social concerns with the majority of respondents being employees of timber-dependent industries. Comments from the front range varied but the main emphasis was on environmental and ecological issues. Comments from organizations related to specific areas of concern and covered a broad range. Over 3,400 comments were gathered. A scoping document, Identification of Purpose and Need, was prepared in March 1991 that summarized all aspects of the scoping and identification process.

Identifying Revision Topics

The Identification of Purpose and Need document identified the areas of the Plan which needed changing and described how the revision topics were chosen. The areas needing change were divided between major and minor items based on the amount of change needed and the effect those changes might have on Forests programs. Major topics are the focus of the Forest Plan Revision. These topics generally would be significant changes to the Plan and involve choices in management direction where there is no public consensus on the best course of action. Major topics also formed the basis for plan alternatives. A number of items were identified that do not meet the above criteria for revision topics. These minor topics could have been handled through many simple changes to the Plan but were most efficiently addressed during Forest Plan Revision.

There were modifications to the list of topics presented in the Identification of Purpose and Need. Following is the final list of revision topics.

- **Biological Diversity** (biodiversity) including old growth, fire management, fisheries management, riparian area management, threatened and endangered species management, and wildlife-related items;
- **National Forest and Residential Intermix** areas;
- **Oil and Gas Leasing;**
- **Recreation**-related topics, including recreation settings, scenic resources and Wild and Scenic Rivers;
- **Roadless Areas;**
- **Timber Management**, including suitable lands, Allowable Sale Quantity (ASQ), silvicultural practices, firewood opportunities, and below-cost sales;
- **Travel Management** including public access and road standards; and
- **Water Yield Management and Instream Flows.**

Contact with tribal representatives was established in August 1991 to assure that concerns from the tribes interested in this area were represented. The tribes have been contacted periodically since then to inform them of our progress and obtain any further comments or concerns about the activities or results of the revision process.

Preparing the Analysis of the Management Situation

Based on the information and comments received up to this date, the Interdisciplinary (ID) team reviewed current situations on the Forests and Grassland to evaluate ways to improve the 1984 Forest Plan. This analysis shaped the theme of the alternatives and possible changes to the Forest Plan including goals, standards, and guidelines. Comments on this document were used to further refine alternatives and prepare a Draft Revised Forest Plan.

Reviewing Preliminary Alternatives

During March and April of 1994, eight open houses were held in and around the Forests and Grassland giving people an opportunity to comment on alternative ways of managing the Forests and Grassland. Over 350 people attended and commented on the alternatives, the roadless area inventory, and wild and scenic rivers inventory. Feedback from the open houses included 170 personal letters, 100 comment sheets, and two petitions with over 400 signatures on each.

During the summer and early fall of 1994, the Forest Service invited interested individuals to join any of six day trips to discuss Forest Plan Revision topics. These trips provided the opportunity for the public to talk with one another and Forest Service employees about revision topics while viewing the resources in question. Over 100 people took part in the trips and conversations addressed timber cutting, National Forest and residential intermix, recreation, biodiversity, water facilities, and endangered species.

District teams reviewed the open house and other comments and used them to finalize the management area allocations of each alternative during the summer and fall of 1994. Two groups also prepared alternatives which were adopted by the Forests and Grassland and added into the Revision process as Alternatives H and I. The alternatives were finalized in early 1995 and the work of analyzing the environmental consequences began. The Draft Plan and EIS were completed in late 1995.

Commenting on the Draft Revised Forest Plan and Environmental Impact Statement

The Draft Revised Forest Plan and Environmental Impact Statement were mailed to the public in December 1995 and January 1996. The Federal Register Notice of Availability was published in March 1996 and the Comment Period closed in June 1996 allowing nearly six months for people to review and comment on the documents.

During that six month period, Forests and Grassland staff members conducted open houses, gave briefings, met with interested groups, and participated in other activities to inform people about the Draft Plan and EIS. Seven different open houses were held at various locations around the Forests and Grassland. Forests Leadership Team members visited county commissioners, State and Federal agency representatives, Federal Congressional Aides, and others to conduct briefings about the planning documents. The Forest Supervisor participated in a televised discussion about the Forest Plan in January 1996. These activities provided an opportunity for people to ask questions, get information about the organization and content of the planning documents, and discuss issues with Forests and Grassland staff members.

As a result of the public comment process, the Forests and Grassland received approximately 1,500 letters with approximately 5,000 comments. The comment analysis process started in June 1996.

Responding to Comments

Forests and Grassland ID teams completed several major tasks to respond to comments. The suggestions to modify Alternative B were many. Management area allocations, travel management strategy, and land suitability were three areas that received a lot of varied comments on a variety of topics. People's requests were sometimes general. For example, there were many comments requesting additional wilderness or no more wilderness without identifying what particular areas should be changed. Other requests asked that specific areas be changed. For example, many people requested that the James Peak area be designated as wilderness while others specifically requested that it be allocated to a management area that would continue current uses and allow motorized use.

District ID teams were asked to review general comments about roadless areas, wilderness, research natural areas, land suitability, travel management, and others and update the alternatives allocations. They also reviewed specific comments pertaining to the lands they administer. As a result of these efforts, the travel management strategy, the alternative management area allocations, suitable lands, and other maps were updated and clarified.

The Draft Forest Plan also generated many comments, both general and specific. People generally commented that additional clarity was needed and that activities should be planned based on realistic budgets. Many specific comments were also received, particularly about standards and guidelines. The specific comments were reviewed individually and when the changes fit with the overall intent or helped to improve the clarity they were made. In other cases, changes that did not improve the clarity or did not provide the desired flexibility were not made. A major effort was undertaken to improve the clarity of Forestwide Direction by identifying priorities and specifically identifying objectives tied to three potential budget levels. This is a major area of improvement over the Draft Revised Plan. The monitoring and evaluation chapter was also updated.

The analysis in the EIS was also reviewed and updated in many areas to respond to comments and questions. Each topic was updated based on the updated goals and objectives. Additionally, many topics were extensively updated to address comments we received. For example, the biological diversity topic was updated to address comments on old growth, wildlife, vegetation, and others. Some other topics that were extensively reworked include:

- aquatic and riparian resources to address comments on water yield and other water issues;
- timber, fire and biological diversity to address comments on forest health, timber suitability, and other vegetation management issues;
- inventoried roadless areas to address comments on biological diversity, wilderness recommendations, and updated road and trail information;
- travel management to address comments about the controversy over road and trail use; and, travel related issues; and
- management indicator species, monitoring and grazing suitability to address comments about meeting legal requirement of the National Forest Management Act.

Finally, specific responses to comments were completed. After reviewing and analyzing the comments we received and completing the work described above, the responses were finalized. The responses describe the processes, information, or rationale we used to address the comment. Sometimes the responses will direct the reader to other parts of the documentation where the comment was addressed more fully.

ALTERNATIVES

The following discusses the six alternatives that were studied in detail. Four additional alternatives, including a second "no action" alternative, were initially considered but then dropped from detailed analysis.

ALTERNATIVE A (NO ACTION)

Background

The "No Action" alternative provides a baseline for estimating the effects of other alternatives. Forest Service direction for implementing the *National Environmental Policy Act (NEPA)* states that a no-action alternative should be considered in detail in each environmental analysis (*FSH 1909.15*). "No action" means that the management allocations, activities, and management direction found in the 1984 *Forest Plan* (as amended) would continue. All alternatives, including Alternative A, have some modifications to existing direction, updating to new technology, new definitions, and new standards and guidelines. Alternative A is the updated "no action" alternative and differs from the second no action alternative which would have maintained current timber harvest levels but was eliminated from further study. (Refer to the section titled Alternatives Considered and Eliminated from Further Study.) The 1984 *Forest Plan* allowed an annual timber sale rate of 30 million board feet. Using new data and information the ID Team determined that this level was not biologically sustainable. To make Alternative A capable of implementation and fully achievable, the ID Team

reduced timber harvest levels to a sustainable level consistent with the other components of the alternative.

Theme

Alternative A represents a continuation of current management of the Forests' and Grassland's resource production potential for human use. The multiple-use nature of this alternative is one of its key features. This alternative emphasizes human use, including motorized and nonmotorized forms of recreation, timber, and oil and gas production.

Since biological diversity became an issue after the 1984 *Forest Plan* was completed, that *Plan* focused on the "parts" rather than on the "whole" of the ecosystem. While those "parts," consisting of diversity standards for the Forests and Grassland were the focus of that time, they have now been expanded to include additional "parts" that recognize diversity standards for the Forests at landscape, community, and species levels. Expanding to the different levels helps both users and managers to see and understand the complete ecosystem picture. Forestwide goals, standards, and guidelines have been updated to accomplish this.

Alternative A does not allocate any land to National Forest/Residential Intermix because there was no management prescription in the 1984 *Forest Plan.*

Desired Condition

Alternative A is an expression of past management philosophy which focused mainly on the components of biodiversity that are economically important. The natural succession of ecosystems is encouraged to proceed in all designated wilderness and other protected areas. Outside these areas, all vegetation types are managed to provide diversity, to yield resource benefits, and to replace natural processes where fire and insect and disease outbreaks have been eliminated or controlled through human activity. Vegetation treatments, which include any human activity that modifies the condition of the vegetation, are scheduled to accomplish the greatest number of recreation, wildlife, range, water, and timber goals as well as to improve the vigor of all vegetation types. Ecosystems, whether roaded or not, are used to meet as many resource demands (including oil and gas leasing) as possible within the multiple-use constraints. There will be no loss of species due to management activities on National Forest System land; however, elements of the ecosystem may be impacted to the limits of the standards and guidelines.

This alternative provides for existing levels of recreation use and mixes of recreation activities. A limited number of substandard facilities (campgrounds and picnic units, trails and trailheads) are reconstructed. Where recreation occurs outside of developed recreation sites (campgrounds, picnic areas, and downhill ski areas), a limited number of

new support facilities such as trails and trailhead parking are developed to address critical shortages for dispersed recreation. Management of the intermix will continue to be challenging because each management area has its own objectives which vary in emphasis from motorized to nonmotorized travel, timber production in some areas, wildlife winter range in others, and so forth.

ALTERNATIVE B

Background

This alternative was developed to address the concern that the 1984 *Forest Plan* focused too strongly on Forests and Grassland uses and required more emphasis on maintaining ecosystems. The most significant difference between this alternative and the 1984 *Plan* is a reduction in the amount of area allocated to forest products. Allocations for intermix, scenic areas, Research Natural Areas, and wilderness recommendations leave less area in Alternative B to be managed for forest products.

Theme

Many people believe that the best way to manage the ARNF-PNG is through an even distribution of multiple resource uses—all managed within the capabilities of the Forests and Grassland ecosystems. Therefore, no elements of the ecosystem, including human use, receive a distinctly greater emphasis than any others.

Desired Condition

Alternative B moves the Forests and Grassland toward a diverse ecosystem, but does so while balancing other resource objectives, including a sustained supply of products. Wherever feasible, ecosystems are maintained through a combination of natural ecological processes. Large blocks of the forest remain undeveloped and unroaded, providing areas where most ecosystem components function naturally. These blocks are surrounded by areas of heavy public concentration and resource uses such as timber harvesting, oil and gas leasing, and motorized recreation. Management activities substitute where natural components are missing. There will be no loss of species due to management activities on National Forest System land.

This alternative provides for both current and most estimated future levels of recreation use. It maintains the current mix of recreation opportunities, and, through interpretive activities, makes users more aware of recreation user ethics and resource values. Most substandard facilities (campground and picnic units, trails and trailheads) are reconstructed. Management of the intermix allows for both multiple use and long-term biological diversity.

ALTERNATIVE C

Background

This alternative was developed in response to concerns for the economic stability of communities in and around the Forests and Grassland. Program focus is similar to the 1984 *Forest Plan* but allocates more area to forest products and permits a higher allowable sale quantity for timber harvesting.

Theme

Some people feel that the best way to ensure economic stability is by increasing levels of timber harvest and perpetuating other programs that provide monetary returns at the local and national level. This alternative emphasizes the highest levels of timber production while still adhering to the principles of ecosystem management.

Desired Condition

Alternative C attempts to maximize commodity production (transportable resources with commercial value). It achieves the highest level of sustained timber harvest legally possible and is the least restrictive for oil and gas leasing. Management activities that improve the economic environment also maintain ecosystems naturally or artificially. A sustainable flow of economically viable products and services is provided within the biological capability of the resources. There will be no loss of species due to management activities on National Forest System land; however, some elements of the ecosystem may be impacted to the limits of the standards and guidelines.

This alternative provides for current levels and combinations of recreation activities but with less emphasis on dispersed recreation. Reconstruction of facilities emphasizes additional off-highway vehicle miles, trailhead parking, and campground units to meet projected increases in use. Management of the intermix allows for multiple use with an emphasis on fuels reduction.

ALTERNATIVE E

Background

This alternative was developed to address the recreation concerns of the urbanized Front range. The most significant difference between this alternative and the 1984 *Forest Plan* is an increase in the number of areas allocated to motorized backcountry recreation and dispersed recreation.

Theme

Many people feel that recreation is becoming increasingly important along the front range. Recognizing that the Forests and Grassland will continue to be popular for a wide variety of uses, this alternative provides facilities for the activities with the most use (camping, auto travel, and skiing); traditional use (hiking, hunting, and fishing); and rapidly growing new uses (mountain biking and off-highway vehicles).

Desired Condition

The emphasis in this alternative is on providing recreational opportunities to people along the front range. A relatively high level of acceptable change to resilient ecosystems is allowed. Ecosystems are maintained through a combination of management activities to provide for human uses and natural ecological processes where feasible. Some sensitive ecosystems outside wilderness areas are developed to provide opportunities such as water recreation. Wilderness offers the majority of opportunities for nonmotorized recreation. Only low demands are made on ecosystems to produce marketable commodities such as timber, grazing, and oil and gas. There will be no loss of species due to management activities on National Forest System land; however, some elements of the ecosystem may be impacted to the limits of the standards and guidelines.

Recreation management emphasizes multi-season, multi-use programs. This alternative provides for both current and estimated future levels of recreation use. It maintains the current mix of recreation opportunities and through extensive interpretive and marketing activities makes users more aware of both recreation opportunities and resource values. All substandard facilities (such as campground and picnic units, trails and trailheads) are reconstructed. The majority of the intermix area is managed for dispersed recreation and backcountry motorized activities.

ALTERNATIVE H

Background

This alternative was originally proposed by a number of people with varied interests. It was coordinated by the Colorado Environmental Coalition and then developed by the Forest Service in response to public concern that native ecosystems are best restored and maintained through landscape ecology and conservation biology practices.

Theme

This alternative emphasizes recovery of native ecosystems as its means of maintaining biodiversity. Natural processes are the dominating forces; human uses are allowed when and where they are compatible. A system of core reserves and corridors maintains and

restores representative native habitats. Multiple use occurs outside these areas and serves primarily to provide buffer zones and supplemental habitat.

Desired Condition

Alternative H emphasizes preserving large tracts of land in a series of core reserve allocations and recommended wilderness areas. Connecting corridors are provided for wildlife dispersal between various core reserve areas. Ecosystems are maintained by allowing natural ecological processes to proceed primarily through natural means. The only artificial changes allowed are those that improve the ecosystem.

This alternative limits recreation use and minimizes recreation development. Only substandard trails are reconstructed. Wildlife disturbance is reduced by an overall net loss of travelways, including off-highway vehicle miles, on the Forests and Grassland. Interpretive programs emphasize minimum-impact behavior.

The availability of ecosystems to produce marketable commodities such as timber, grazing, and oil and gas is low.

This alternative maximizes use of the intermix prescription in areas with existing high human occupation. In areas of intermixed ownership, priorities for acquiring inholdings are areas containing sensitive habitats and areas that supplement the system of cores and corridors. Acquisition can be through purchase, donation, or exchange.

ALTERNATIVE I

Background

This alternative was proposed by the Ecosystem Council for Multiple Use and was developed by the Forest Service to respond to the concerns that employment and improved living conditions of rural areas should come first and that local officials should have more authority to make land-use decisions within their jurisdictions. Program focus is similar to the 1984 *Forest Plan*, but it allocates more area to motorized backcountry recreation. Alternative I emphasizes resource production, motorized backcountry recreation, developed recreation complexes, intermix, and scenic areas.

Theme

This alternative emphasizes human use, including commodity production, over all other elements of the ecosystem. It emphasizes higher levels of timber production, less restrictive oil and gas leasing, and motorized recreation activities, while incorporating the principles of ecosystem management. Recognizing that the Forests and Grassland will

continue to be popular for a wide variety of uses, this alternative maintains activities that support recreation and tourism-related industries.

Desired Condition
Alternative I emphasizes a sustainable flow of products, services, and ecosystem values which are socially acceptable, economically viable, and within the biological capability of the resource. A high level of demand is placed on ecosystems to produce marketable commodities, such as timber, oil and gas, and motorized recreation. There will be no loss of species due to management activities on National Forest System land; however, some elements of the ecosystem may be impacted to the limits of the standards and guidelines.

This alternative provides for current levels of recreation use, but with less emphasis on dispersed recreation. Reconstruction of facilities emphasizes additional off-highway vehicle miles, trailhead parking, and campground units to meet projected increases in use. Management of the intermix allows for multiple use with an emphasis on reducing wildfire threat in forested areas.

ALTERNATIVES CONSIDERED AND ELIMINATED FROM DETAILED STUDY

Four alternatives were considered and eliminated from detailed study during the planning process because (1) they duplicated other alternatives; (2) they were found to be unrealistic; (3) the public brought convincing arguments not to consider them in detail; and/or (4) another alternative better addressed a revision topic.

1. EXISTING (1984) *FOREST PLAN*

National Forest Management Act regulations (36 CFR 219.12(f)(7)) state, "At least one alternative shall reflect the current level of goods and services provided by the unit and the most likely amounts of goods and services expected to be provided in the future if current management direction continues." Under NEPA procedures, this alternative is called the "no action" alternative. The ID Team tried to produce a no-action alternative that matched both the *management direction* and the *estimated levels of goods and services* in the 1984 *Forest Plan*. However, it was not possible, mostly because the 1984 Allowable [Timber] Sale Quantity (ASQ) could not be met with the amount of suitable and available land in the 1984 *Plan*. The 1993 *"Analysis of the Management Situation"* documents some of the reasons.

Two no-action alternatives were considered since a single alternative could not both reflect current management direction and match the levels of goods and services in the 1984 *Plan*. Alternative A (described already) was developed to match the management direction of the 1984 *Plan* using current terminology and descriptions of management areas. The second no-action alternative, to match the 1984 goods and services levels, was

not considered in detail because other alternatives demonstrated or other analyses were available to understand the consequences of achieving the goods and services such as timber, recreation, water yield or others.

For example, a large amount of analysis was conducted to determine what was needed to meet the 1984 ASQ. Two alternatives, A and C, are very close to the 1984 *Plan* in terms of land allocation for suitable and available timberland but are not close in ASQ estimates. The 1984 Forest Plan, Alternatives A and C have Suitable and Available Lands of 351,739; 365,301; and 334,357 acres. The ASQ for the 1984 Forest Plan, Alternative A and C are 29.9, 16.8, and 18.4 million board feet per year. The difference in harvest volume is due mostly to updated timber growth and yield information in the models used to estimate harvest levels (See *FEIS* Appendix B, "The Forest Planning Model-Development of Yield Coefficients"). Because Alternative C emphasizes producing the highest amount of commodities possible, it provides a way to evaluate and compare environmental and other consequences of commodity production among all the alternatives. Other timber harvest analysis work showed that approximately 700,000 acres would need to be classified as suitable and available to obtain a harvest volume of 30.6 million board feet per year. (*FEIS* Appendix B, cited above, also describes the timber modeling process.)

Because similar information is available for other goods and services such as recreation and water yield, it did not seem necessary to fully develop a second no-action alternative to match 1984 output levels for each of them. The current range of alternatives plus other analysis work provide the necessary information to assess the impacts of meeting the 1984 *Forest Plan* output levels.

2. ALTERNATIVE D

This alternative emphasized maintaining biological diversity over all other elements of the ecosystem with little interference from humans; it was similar to Alternative H but it had fewer undeveloped areas. According to public comments, Alternative H better addressed the retention of ecosystems in their natural state.

3. ALTERNATIVE F

This alternative sought to maintain natural or only slightly modified ecosystems by limiting uses and activities to those having low impact or by restricting activities to ecosystems with high tolerance and flexibility. This alternative was similar to Alternative B in allocation of management prescriptions but used the residential intermix prescription less often. Alternative B better addresses the intermix issue.

4. ALTERNATIVE G

This alternative specified minimum management at minimum budget levels. Because the ID Team analyzed the effect budget has on each alternative, it was not necessary to analyze a minimum budget alternative in detail.

REASONS FOR THE DECISION

This Record of Decision explains the rationale and basis for my decision to select Alternative B for implementation and to approve the Arapaho and Roosevelt National Forests and Pawnee National Grassland Revised Land and Resource Management Plan. The Revised Plan is a refinement of Alternative B that was identified in the Draft EIS published in January 1996. I am selecting the revised Alternative B because it takes the Forests and Grassland in the direction I feel they need to go by achieving the four priorities I described earlier which were developed from the revision topics.

I arrived at these priorities by examining the issues, concerns, and opportunities identified through the initial planning process, as well as from the public comments received on the DEIS and Proposed Revised Forest Plan.

The Revised Plan (Revised Alternative B) is a logical outgrowth of the alternative development and public involvement parts of the Forest Plan Revision process. Alternative B as it appears in the Final EIS and Plan is a modification of Alternative B presented and analyzed in the Draft EIS and Plan. I want to stress two important points.

1. *The Revised Alternative B is within the range of alternatives interested Forests and Grassland users would anticipate the Forest Service to consider, and;*
2. *Most of the modifications to the Revised Alternative B described in the Final EIS are due to the comments received on the Draft EIS and Plan during the comment period from January to June 1996.*

A Land and Resource Management Plan (Forest Plan) is required under the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended by the National Forest Management Act of 1976 (NFMA). The purpose of the Forest Plan is to provide for multiple use and the sustained yield of goods and services from National Forest System lands in an environmentally sound manner. NFMA implementing regulations at 36 CFR Part 219.10(g) require that a forest plan be revised on a 10-year cycle, or at least every 15 years. As provided in 36 CFR 219.10 (g), this decision will remain in effect until the Plan is revised again. In the FEIS, a 50-year planning period is used so that long-term effects of alternative choices can be understood. Short-term opportunities, problems, conflicts or needs may arise in managing the Forests that were not anticipated in the Revised Plan. When this occurs, the Plan can be adjusted through changes in implementation, amending, or revising.

As a management strategy, the Revised Plan (and FEIS) is programmatic. The emphasis of Plan Direction is not on site-specific decisions. The Plan provides direction and guidance for future site-specific project decisions. To implement the Revised Forest Plan, the Forest Supervisor, District Rangers, and the Regional Forester will issue separate project decisions. For example, implementing the travel management direction in the Revised Forest Plan requires that each area of the Forests and Grassland be evaluated and have project decisions before any actions can be taken.[1]

COMPONENTS OF THE DECISION

This Record of Decision (ROD) explains the rationale and basis for my decision to select the Revised Plan (Revised Alternative B) for implementation. Factors I considered were derived from the issues, concerns and opportunities identified through the initial scoping, and comments on the Draft EIS and Plan.

There are six fundamental decisions made in all Forest Plans. These are:

1. *Establishment of Forestwide Multiple-Use Goals and Objectives,* (36 CFR 219.11(b));
2. *Establishment of Forestwide Management Requirements (Standards and Guidelines),* (36 CFR 219.13 to 219.27);
3. *Establishment of Management Area Direction including Geographic Area direction tailored to specific, unique areas of land,* (36 CFR 219.11(c));
4. *Designation of Suitable Timberland and Establishment of Allowable Sale Quantity (ASQ). Designation of Lands Suitable for Grazing and Browsing. Identification of Lands Suitable and Available for Oil and Gas Leasing. Provision for a Broad Spectrum of Forest and Outdoor Recreation Opportunities.* (36 CFR 219.14, 219.15, 219.16, 219.20, and 219.21);
5. *Establishment of Monitoring and Evaluation requirements,* (36 CFR 219.11(d));
6. *Nonwilderness Allocations or Wilderness Recommendations,* (36 CFR 219.17), *and Wild and Scenic Rivers or Other Special Use Designations as Appropriate.*

[1]Office of General Counsel, "Overview of Forest Planning and Project Level Decision Making," USDA Forest Service; NEPA, NFMA, and Appeals Homepage, www.fed.us/forum/nepa/decisionm/index.html, October 17, 1997 incorporated by reference.

I have selected Alternative B based on a combination of goals and objectives, standards and guidelines, management area direction, the way the alternative addresses the revision topics and meets the four priorities I developed from the revision topics.

Establishment of Forestwide Multiple-Use Goals and Objectives

I am establishing the Forestwide Multiple Use Goals and Objectives listed in Chapter 1 of the Revised Plan in accordance with the planning regulations at 36 CFR 219.11(b). All Forest goals and objectives are tiered to the Regional Goals identified in *The Rocky Mountain Regional Guide, as amended May 1992; technical correction, June 1996.*

Forestwide goals and objectives apply to all alternatives; however, each alternative achieves them in different ways and to different degrees, depending on its emphasis. The components of biological diversity emphasized, the levels of goods and services produced, and the mix of recreational opportunities offered vary by alternative. Alternative B was selected because of the way it achieves these goals and objectives. A full comparison is contained in Chapters 2 and 3 of the FEIS.

Our focus for the future will be on meeting the goals and desired conditions listed in Chapter One of the Revised Plan. We will take credit for what is produced and we will accept responsibility for the condition of the land when projects are complete. Ecosystem management is a way of doing business, an attitude toward the land and the people we serve.

Establishment of Forestwide Management Requirements

I am establishing the Forestwide Standards and Guidelines listed in Chapter 1 of the Revised Plan. These are required by the resource integration requirements of 36 CFR 219.13 through 219.27. I have tried to simplify this section by separating the decisions I am authorized to make from the requirements and direction already decided in law and regulations. The Revised Plan only contains the decisions I can make. All the other laws and rules still apply and I direct you to Appendices A through D in the Forest Plan for a summary listing.

I have selected management requirements that are useful and understandable in protecting the land and maintaining the functioning of Forests and Grassland ecosystems for the range of uses anticipated. These Standards and Guidelines also provide, to those implementing the projects, the latitude to accomplish objectives.

Establishment of Management Area Direction

I am establishing 26 management area (MA) prescriptions with 59 geographic areas to implement the Forest Plan. Management area direction consists of the prescriptions (Chapter Two of the Plan) and the Geographic Areas (Chapter 3 of the Plan). The

management area direction will guide future management activities within each specific management area as required by 36 CFR 219.11(c).

The mix of management area direction applied to specific locations is a major factor in my decision to select the Revised Plan for several reasons. The amount and location of management area direction provides the mechanism for balancing national resource needs with local community needs in the growing Front range urban setting. Management area direction is also integral to my ability to address the variety of needs reflected in the revision topics. Finally, the location of these prescriptions were carefully evaluated between Draft and Final by local Ranger Districts to try to improve Alternative B based on the comments received on the Draft EIS and Plan.

One particularly important, and controversial, allocation decision I am making is to designate Research Natural Areas (RNA). I am establishing a total of twelve areas totaling 51,627 acres, approximately 3.5 percent of the Forests and Grassland, to be RNA's. Although the topic of RNA's is controversial, there were few comments about the specific recommended areas in the Draft Plan and EIS. The areas selected have ecosystems characteristic of other ecosystems on the Forests or Grassland but are relatively uninfluenced by humans or contain unique or sensitive communities. These areas will provide a long-term benchmark for adaptive management and be available for research and education.

Designation of Suitable Timberland and Establishment of ASQ. Designation of Lands Suitable for Grazing and Browsing. Identification of Lands Suitable and Available for Oil and Gas Leasing. Provision for a Broad Spectrum of Forest and Outdoor Recreation Opportunities

I am designating 188,906 acres of lands suitable for timber production; 103,039 acres of lands available for oil and gas leasing; and 255,157 acres of lands suitable for grazing and browsing. Tables displaying these suitable lands are in the FEIS and planning records. These tables meet the requirements of 36 CFR 219.14, 219.16, 219.20 and 219.21. Suitable lands are depicted on maps either included in the map packet, within the documents or in the planning records.

I chose Alternative B because it offers a good balance. It has a moderate level of lands suitable for timber production and of timber harvest levels compared to other alternatives. It provides for forest health through a variety of vegetation management practices. It balances the needs of people, the importance of biological diversity, and the ability of the Forests to produce a sustainable level of harvest. On the Arapaho and Roosevelt National Forests, we want to continue to produce timber in a way that augments natural ecosystem processes and functions.

With the designation of lands suitable for timber production, I am establishing an allowable sale quantity (ASQ) for the next ten-year period of 66 million board feet. ASQ is determined in cubic feet but was converted to board feet since that is a more common measure. The ASQ is a maximum level of timber that may be sold over ten years taking into account other multiple-use values and compliance with standards and guidelines which provide environmental protection. ASQ is not an absolute yield that must be achieved.

Approximately 53 percent of the available oil and gas leasing acres in Alternative B would allow occupancy under the leasing stipulations with my decision. The remaining 47 percent would be available with no surface occupancy. Alternative B has 62,653 acres of lands suitable for grazing and browsing on the Arapaho and Roosevelt and 192,504 acres on the Pawnee. Alternative B provides for a broad spectrum of outdoor recreation opportunities. Wilderness and backcountry prescriptions emphasize the more primitive end of the spectrum while developed campgrounds and scenic byways and ski areas emphasize the less primitive aspects of recreation.

Establishment of Monitoring and Evaluation Requirements

I am establishing requirements for monitoring and evaluating the implementation and effectiveness of the Revised Plan and the validity of the assumptions used in its preparation. This direction is contained in Chapter 4 of the Forest Plan to meet the requirements of 36 CFR 219.11(d). The direction contained in Chapter 4 has changed from the 1984 Plan and focuses on legal requirements and strategic monitoring needs to maintain the direction in the Revised Plan. Monitoring and its adaptive management principles are a cornerstone of ecosystem management. They allow us to be responsive to changing circumstances and changes in the available science and technology. The result is a dynamic, rather than a static, Forest Plan. The public will be invited to participate in monitoring. I believe there are opportunities for partnerships or other relationships to accomplish this monitoring work where interested groups and individuals have the qualifications to assist in this effort.

Nonwilderness Allocations or Wilderness Recommendations and Wild and Scenic Rivers or Other Special Use Designations.

I am recommending to Congress that 8,810 acres be added to the wilderness system. No new separate wilderness areas are being recommended; the additions are primarily to improve boundary management of existing wilderness areas. I know that many people will be disappointed with this decision because they hoped additional areas would be recommended, particularly the James Peak and West White Pine areas. However, I wanted to keep future management options open based on the need for wilderness, the amount of existing wilderness areas, and the amount of area in backcountry prescriptions.

I have one final point regarding the inventory of the roadless areas; we have updated our roadless inventory in this Forest Plan Revision. This information is included in Chapter 3 and in Appendix C of the FEIS. The updated inventory replaces the RARE II inventory. This inventory will be used for all related Forest Plan implementation activities until it is updated again.

I am recommending to Congress that the North Fork Cache la Poudre be included in the National Wild and Scenic River System. I realize that this reduces the opportunity for major water-resource development projects and places additional restrictions over the 30 miles of corridor. However, the eastern boundary of the corridor was ended at the National Forest boundary rather than Dale Creek to provide for possible future enlargement of Halligan Reservoir. The eligibility and suitability studies for this river show that this river is one of the last remaining free-flowing sections along the front range with a scenic gorge and waterfalls and threatened and endangered species habitat. Recommending this fork for designation connects well with the existing designations on the other forks of Cache la Poudre. My recommendation will protect these features until Congress is able to review and act on it.

FACTORS CONSIDERED IN THIS DECISION

In making the aforementioned six individual decisions, I kept in mind a number of factors. The first factor in making these decisions is to meet the applicable laws, policies, and manual and handbook direction that govern the development of a Forest Plan and the management of National Forest Lands. I also kept in mind the eight revision topics and the four priorities derived from them. These four priorities were selected because they are areas that need emphasis on the Forests and Grassland and they contain the key elements of the revision topics.

Ensuring the long-term health of the land and restoring ecosystems Although each element is important, this is the most critical because of the importance of maintaining or sustaining the land. If these ecosystems are allowed to deteriorate, we all lose some ability to enjoy or use the Forests and Grassland. I also believe that it is less expensive to maintain ecosystems in a sustainable condition rather than to let them deteriorate and face the high cost of restoring them later. "An ounce of prevention is worth a pound of cure." I wanted to select an alternative that ensures that the long-term health of the land is maintained and that aggressively deals with some of the existing problems. I specifically looked at how each alternative addressed the following concerns to identify the alternatives that did the best job of addressing this element:

- How well coarse and fine filter elements of the ecosystem were addressed.

- How well the forest health issue was addressed particularly with regard to the increasing fuel loadings and vegetation conditions in areas of intermingled National Forest and private lands and other parts of pine ecosystems.

Providing a mix of high-quality recreation opportunities within the capability of the land. I used this element because of the location of the Arapaho and Roosevelt and Pawnee, its recreation resources and its potential to provide recreation opportunities. The Forests and Grassland are located within a short drive of over three million people who look to this area for their outdoor recreation experiences. The Forests' varied terrain, scenic beauty and various recreation facilities are a major draw to front range and out-of-state visitors. The Pawnee also draws many people because of its birding and palenteological resources and features such as the Pawnee Buttes. The importance of recreation as a national priority is also increasing. For example, the General Accounting Office has found that 74 percent of the Forest Service's contribution to the Gross National Product comes from recreation. I paid particular attention to how well the alternatives:

- Meet the demand for recreation in developed and dispersed settings.
- Provide an integrated travel system that considers various modes of motorized and non-motorized use consistent with resource capacity.

Providing sufficient quantities of clean water to the extent possible for domestic, industrial and agricultural use within the capabilities of the land and maintaining riparian and aquatic habitat. This criteria is important because the Forests and Grassland have a major role to play in providing water for domestic, industrial and agricultural users. Front range cities are currently expanding, creating a need for an increasing supply of water. In addition, water originating on the Forests, traveling through the Colorado River and North and South Platte River systems, is used by people in many other states. An adequate quantity and quality of water is also important to maintain riparian and aquatic habitats on the Forests and Grassland and farther downstream. Several threatened and endangered species including greenback cutthroat trout and Colorado cutthroat trout need adequate instream flows to ensure their viability. The rivers, streams, reservoirs and lakes on the Forests are also major recreation attractions. The Cache la Poudre River, Grand Lake, Shadow Mountain Lake, Red Feather Lakes and other water features all have major recreation facilities associated with them. I compared the alternatives by looking at the following items:

- Quantity of water produced.
- Quality of water and condition of watersheds

Promoting goals and objectives that contribute to the economic and social vitality of local communities, providing opportunities for partnerships, and improving service to the American public. This element reflects my desire to provide American citizens with high-quality service. I also want the activities undertaken on the Forests and

Grassland to lead to sustainable communities. We need to provide opportunities for people to derive benefits from the Forests and Grassland while sustaining the long-term health of the land. We will attempt to shorten the time it takes to approve land uses and special uses and reduce the current backlog of permits.

As an agency, we want to work with people and communities on developing natural resource-based opportunities, enterprises, or partnerships that contribute to the economic and social vitality of communities. These efforts should lead to long-term sustainable solutions that strengthen communities through economic diversification. I am specifically looking for opportunities to create more private investment in Federal land such as public-private ventures, recreation fee demonstrations and increasing outfitter-guides and concessionaires. The Arapaho and Roosevelt and Pawnee play an important role in the economy of many rural communities by providing the land base that local businesses use, attractions and scenic backdrops that draw visitors to the area, products, and primary and secondary sources of employment.

When reviewing this element, I specifically looked for:

- A balanced approach to management that provides a variety of opportunities for economic development and complements current community development trends.
- A balance of resource use and infrastructure development that could facilitate private investment in Federal land.
- The level of service provided in authorizing land use and special use permits.

Summary of the Rationale for the Decision

Selecting an alternative requires looking at many factors and to avoid focusing on only a few. The following section summarizes the activities, outputs and results of implementing the alternatives considered in the Final Environmental Impact Statement. Additional information is provided in later sections that describe the details of each of the decision factors.

Alternative B does not do the best job for each individual factor but when I considered all of them together I selected Alternative B because it does the best to maximize net public benefits overall. I evaluated Alternative B in the following way.

- It has one of the better balances of land uses through the allocation of management areas that provide adequate areas for active management and areas that operate relatively free from human influence. For example, Alternative B has approximately 30 percent in lands where ecological processes are more dominant, 40 percent where there is a mixture of ecological processes and active management, and about 30 percent in areas where active management is more prevalent. Some of the other alternatives had more than 50 percent in one category.

- It increases early successional forest habitat by 132 percent. It is also second in meeting fuels treatment needs at approximately 90 percent behind Alternatives A and C. Both of these indicate the ability of Alternative B to begin creating vegetation conditions that will help avoid catastrophic events like wildfires or insect and disease outbreaks. I believe this is an extremely critical job along the front range and although some may view Alternative B as a slow start, it is a beginning that can be expanded as additional knowledge and experience is gained.
- It has the highest percentage of effective habitat, along with Alternative H. For Alternative B, the emphasis on travel management and retaining some areas for less active management creates this result. Providing a higher level of effective habitat indicates my desire to ensure the viability of a variety of wildlife species while still providing for human use.
- It has the second highest amount of activities for improving watershed conditions and restoring riparian areas.
- It has approximately 3.5 percent of the total acreage allocated to Research Natural Areas which will provide the benchmark against which other more heavily used and actively managed ecosystems can be measured for health. While Alternative H provides nearly six percent, the other alternatives allocate less than one tenth of a percent.
- Although it is in the group of alternatives with the lowest percentages in meeting recreation facility needs at the experienced budget level, it has the highest percentage if additional recreation funds become available.
- It has the most aggressive approach for addressing travel management issues, particularly the travelways that have developed over time where no management decisions have been made on how to manage them (called "ways"). I expect the plan to provide the direction needed to resolve the issue of ways so the public and managers know which roads and trails are part of the transportation system and which are not. Alternative B is expected to address a little over eighty percent of the ways in the first decade, nearly double the amount of any other alternative.
- Most of the alternatives, except H, result in a mix of high quality motorized and nonmotorized recreation opportunities. I want to ensure that there are high quality opportunities available for all major types of uses including: foot and horse, off-highway vehicles, four-wheel drive vehicles, and passenger vehicles.
- There is little difference between Alternative B and the other alternatives in creating additional water yield due to the large amount of natural flow from the Forests and Grassland. Some people believe that a high level of vegetation management will create a major increase in water yield. Estimates by our ID team indicate that

additional water yield is possible but the percentage increase is very small and ranges from a low of 0.09 percent to a high of 0.19 percent. Alternative B is expected to result in an increase of 0.12 percent. The environmental tradeoffs of maximizing water yield using vegetation management are too high. The character of the Forests would change dramatically for a very small potential increase in water yield.

- Alternative B is the same as all the other alternatives in having management requirements necessary to protect water quality. All alternatives are required to meet the requirements of the Watershed Conservation Practices (WCP) Handbook and other standards and guidelines contained in the Revised Plan. I chose not to designate public water supplies as special management areas for two reasons. First, even without these designations, use of WCPs will provide the full degree of protection for public water. Second, since almost every watershed on the Forests contributes a portion of its water to domestic water supplies, the Forest Service must work with the State to address domestic water supply needs.
- All alternatives would be implemented to meet the policies for promoting community economic vitality and sustainability, providing opportunities for partnership and improving service because these are national and regional policies operating above the scope of the Revised Forest Plan.
- Other alternatives provide higher levels of employment and income than Alternative B. However, this is accomplished by including areas for downhill skiing that I believe are better suited for other purposes. Considering this, I find that Alternative B does an acceptable job of providing income and employment given the other benefits it provides.
- It has the highest amount of special use permits administered to standard of any of the other alternatives. Special use permits and administering land use and ownership transactions is becoming increasingly important to the people who use the Forests and Grassland. Alternative B emphasis in this area is an important way to meet the needs of our customers.
- Alternative B has an allowable sale quantity (ASQ) of 66 million board feet for the next 10 year period which is approximately a third of the highest alternative. Many people may criticize this low level but I believe it is an appropriate amount given the other priorities and my sense of what most people would like from the Forests and Grassland in this urban proximate setting.

To summarize, I believe that Alternative B is one of the strongest alternatives in addressing long-term health of the land and restoring ecosystems. It has the same standards and guidelines to provide ecosystem protection as all other alternatives plus has an aggressive approach to deal with forest health, watershed conditions, habitat effectiveness and Research Natural Areas. Alternative B is not one of the stronger

alternatives in meeting the needs for recreation facilities overall. However, it places more emphasis on addressing travel management than any other alternative which I believe is an acceptable trade-off given the controversy and the need to address this problem. Finally, it has an emphasis on land use and ownership transactions that is needed given the land ownership pattern and proximity of so many people. The other alternatives do not have this emphasis.

DISCUSSION OF DECISION FACTORS AND CHANGES BETWEEN DRAFT AND FINAL

This next section discusses some of the details I considered when reviewing information about revision topics and decision factors. It summarizes some of the key information from the Revised Forest Plan, FEIS, and Appendices that I thought helped to better explain my decision to select Alternative B. Please refer to these other documents for further information or additional details. The section is organized by the four priorities described earlier

Long-Term Health of the Land

This section is divided into two parts. The first part provides a review of how well coarse and fine filter elements are addressed. It specifically looks at how the topics of management area direction, old growth and early successional forests, habitat fragmentation, watershed conditions, threatened, endangered, and sensitive species, riparian areas, noxious weeds, and Research Natural Areas contribute to maintaining the coarse and fine filter elements by alternative. The second part of this section discusses the forest health issue and how it is addressed by the alternatives.

Coarse and Fine Filter Elements

Background

Restoring ecosystems and ensuring long-term health of the land requires balancing the social and economic needs of people with the need to remain within sustainable limits or boundaries of the biological and physical components of ecosystems. Many methods to evaluate ecosystem condition are available or are being developed. To make this decision, I have reviewed both broad scale (or coarse filter) and fine scale (or fine filter) biological and physical elements of the ecosystem.

At a broad scale, I want the Forests and Grassland to be in a condition that minimizes the risk of catastrophic changes from events such as large-scale, intense wildfires, large insect and disease outbreaks, or catastrophic floods. Forests and Grassland ecosystems must also provide desirable settings for human use and enjoyment and supply the natural resource products to meet the social and economic needs of the growing front range population. Also, conditions must provide for the broad scale habitat needs of wildlife and plant species. To accomplish these goals at a broad scale, some lands will need and

can support active and intensive management. Other lands are more appropriately managed by allowing ecological processes to operate more freely from human influence and require less active management. I looked at many factors to determine which alternative would do the best overall job of meeting these broad scale goals. First, I examined whether the mix of land uses from the management area allocations would contribute to these goals. I reviewed the overall composition and structure of the Forests and Grassland, particularly the changes in early successional and old growth forests. The issue of habitat fragmentation, the need for corridors and role of roadless areas were all analyzed. The condition of watersheds is important not only for ecosystem sustainability but also for providing clean water to the front range.

My concern at a fine scale is to ensure that the important smaller scale elements of an ecosystem are also maintained. In particular, habitat for threatened, endangered and sensitive species needs to be protected, restored, or enhanced. The identified management indicator species (MIS) include many of the threatened, endangered and sensitive species. Monitoring requirements for MIS and their habitat were established to assure that population viability is maintained. Riparian areas need to be maintained, protected or restored. Non-native species are a concern, particularly noxious weeds.

There is a great deal of uncertainty associated with ensuring the long-term health of the land and restoring ecosystems. Ecosystems and their functions are extremely complex. There is a great deal to learn about accomplishing this important goal and science is always incomplete. However, some actions need to be taken even if the effects may not be fully understood. This means it is important to have an adaptive management strategy that relies heavily on monitoring and evaluation and adjusting actions as more information becomes available. A key component of an adaptive management process is to have some undisturbed areas that have a composition, structure and function resulting from natural processes. These areas allow us to evaluate the condition of more actively managed or more heavily used ecosystems to determine whether undesirable effects are taking place. Research Natural Areas (MA 2.2) serve this purpose and are very important in an adaptive management strategy.

Public Comment

Public comments were very divided. Most people agreed that it is important to maintain healthy and sustainable ecosystems and to ensure the long-term health of the land. The disagreement between people was what is needed to accomplish these goals. People's comments need to be considered in the context of the current condition of the Forests and Grassland. Almost 300,000 acres (approximately 20 percent of the Forests and Grassland) are in wilderness areas, many of them in high-elevation ecosystems. Another 330,000 acres (approximately 22 percent) are in inventoried roadless areas. There are approximately 590,000 acres out of a total 987,000 forested acres that are considered

either mature or overmature increasing the potential for large-scale insect and disease infestations or wildfires. Many of these areas are classified as late-successional forests and are habitat for certain species particularly when they are in large blocks that can serve as interior forests. The Forests and Grassland also have approximately 4,100 miles of roads and trails located within the boundary (some are managed and maintained by others). These can affect wildlife habitat particularly when they are used by people.

One group of commentors suggested that more active management is needed than what Alternative B contained in the Draft. This management is needed to decrease the amount of mature and overmature forests and to reduce the potential for insect and disease outbreaks or large fires. The current amount of wilderness areas and inventoried roadless areas is more than what is needed and is increasing the risk of major forest health problems (see next section). They feel ecosystems are resilient and that management activities like timber harvesting, livestock grazing, mineral development, and oil and gas leasing can either enhance ecosystem conditions or do not harm the long-term sustainability. These natural resource products are important for maintaining the social and economic vitality of local communities, particularly the ones dependent on these products.

A second group of commentors felt that Alternative B had too much active management. They suggested that the Forests and Grassland be managed using "conservation biology" concepts where large areas of land are maintained relatively undisturbed by humans and are connected by corridors that facilitated wildlife movement. They wrote that more areas needed wilderness or other protection so that natural processes were the primary management tool for shaping ecosystem conditions. Limited areas might be actively managed to restore conditions that would allow natural ecological processes to operate without fear of catastrophic events. They believed that the amount of roads was too high and many should be closed or obliterated to maintain or improve wildlife habitat conditions and avoid fragmentation.

Research Natural Areas (MA 2.2) were another area of disagreement. Some questioned the need for these areas and were concerned that the (perpetual or) long-term nature of RNA's would unduly limit recreation, timber management, or other uses. Others felt that additional areas were needed to ensure that sufficient areas are available to monitor ecosystem conditions on the Forests and Grassland.

There was also disagreement over the management direction in the Draft Plan. Some commentors felt that the management direction was not specific or restrictive enough to protect or maintain ecosystems. They suggested that some of the management direction be made more restrictive and additional direction be added. Other commentors felt the

direction was too limiting and should be changed to allow Forest Service managers more flexibility.

Alternatives Considered

Management Area Direction: To accomplish the goals of ensuring long-term health of the land and restoring ecosystems, management flexibility is needed. One key area where this flexibility is needed is with management area prescriptions and where they are allocated. Management area prescriptions set the management direction and establish allowable activities for specific land areas much like a zoning ordinance establishes allowable activities in a city or a county. We have grouped our individual management area prescriptions into categories to make it easier to evaluate the overall mix of land uses.

Categories 1 and 2 allow ecological processes to operate relatively freely from the influence of humans. Category 1 is mostly wilderness areas and backcountry non-motorized recreation areas. Category 2 contains Research Natural Areas. Category 3 balances allowing ecological processes to operate with active management with an emphasis on wildlife habitat and backcountry motorized recreation. Category 4 is managed to provide recreational use, predominantly dispersed recreation. Categories 5 and 6 are more actively managed to provide for a variety of ecological and human needs. Category 5 areas are primarily forested ecosystems. Category 6 lands are primarily grassland or other nonforested ecosystems. Category 7 areas typically have large amounts of intermingled private and public landownership. Land uses are tempered by other landowners' uses and objectives. Category 8 lands are actively managed to provide for uses like downhill skiing, utility corridors and developed recreation complexes.

Alternatives C and I have a relatively low percentage of acres (approximately 24 percent and 20 percent, respectively) in Categories 1 and 2. They have large percentages (approximately 48 percent for both alternatives) in Categories 5 and 6 relative to the other alternatives. Alternative H has the largest percentages in Categories 1, 2, and 3 (nearly 75 percent of the total acreage) and very low percentages in Categories 5 and 6 (approximately 10 percent). Alternatives A, B, and E are between these two groups of alternatives. Alternative A has very few acres in Category 2 (MA 2.2 Research Natural Area) and no acres in Category 7 which contains MA 7.1 Intermix. Alternative E has the highest percentage of acres in Category 4 which are areas managed primarily for recreation and the second lowest percentage in Categories 5 and 6 that allow more active management of forested, grassland and non-forested ecosystems. Overall, Alternative B has the best balance of allocations allowing a mixture of more active and less active management, responding to the needs of intermixed landownership patterns, and the need for Research Natural Areas.

Old Growth and Early Successional Forests. Wildlife species utilize a variety of different plant communities and community structures for feeding, reproduction and cover. This section focuses on early successional forests and old growth because of public interest and the importance of these habitats for many terrestrial wildlife species. Old growth is currently about 12 percent (108,900 acres) of major forest types. Two thirds of this acreage is spruce-fir, one third is lodgepole pine and only one percent is Douglas-fir and ponderosa pine. The current amount of Douglas-fir and ponderosa pine old growth is extremely low. The biological diversity section of Chapter 3 of the FEIS has additional details about old growth and early successional species.

Alternatives A, C, E, and I will have the largest increase and are estimated to result in approximately 8,500 acres of Douglas-fir and ponderosa pine old growth after five decades. Alternatives B and H are expected to have 7,700 acres after five decades. Alternatives C and I have the lowest amounts of lodgepole pine and spruce-fir old growth with slightly less than a 100,000 acres. Alternative E would result in the most acres with just over 130,000 acres after five decades. The remaining alternatives are between these two groups.

Early successional forests tend to have more grasses, forbs and shrubs because they are more open to sunlight. They provide good feeding and other kinds of habitat for many wildlife species. Early successional forest are currently somewhat limited on the ARNF so increases would be beneficial for many species. All alternatives increase the amount of early successional stages. After the first decade, Alternative A would have the largest increase in early successional, approximately 210 percent. Alternatives B, C, H, and I all result in increases in a range from 120 to 135 percent. Alternative E only results in a 40 percent increase.

Habitat Fragmentation. Habitat fragmentation was evaluated by analyzing forested and open corridors, habitat effectiveness and interior forests. Forested corridors are important to many forest dwelling species such as marten, pine and Abert's squirrels, lynx and southern red-backed vole by providing connected travel routes. Open corridors are important to species like the bighorn sheep that require open corridors for them to travel. Habitat effectiveness is a measure of how much land is relatively uninfluenced by human travel on roads and trails. Numerous species are disturbed by human activities at least during certain times of the year and as a result will not utilize available habitat. Interior forests are areas of contiguous areas of relatively dense and large trees. This type of habitat is important to species like marten, black bear, western flycatcher, brown creeper, three-toed woodpecker, boreal owl and others. Additional details are in the FEIS Chapter 3: Biological Diversity section.

There are no major differences between the alternatives when forested and open corridors were estimated. Forested corridors currently make up about 60 percent of the ARNF and would be reduced only one to two percent under any alternative. Open corridors are currently about 21 percent of the ARNF. Alternatives would either result in the same amount or a slight increase of one to two percent.

Habitat effectiveness is influenced by the management of the number and location of open roads and trails. Alternatives B and H provide the highest amounts (72 and 71 percent of the area is effective habitat respectively) and Alternatives A, C, E and I (approximately 69 percent of the area) provide the least on the Forests. On the Grassland, Alternative H would result in the highest habitat effectiveness (67 percent) and the remaining alternatives range from 60 to 62 percent. Overall, Alternative H would have the largest area uninfluenced by travel on roads and trails. Alternative B has the next largest area followed by the rest of the alternatives.

Alternative B, E and H are estimated to best provide interior forests considering the amount and location of timber harvest, prescribed burning and other activities. Alternatives A, C and I would provide lesser amounts. Within these two groups, the alternatives are not ranked in any order, since the overall effects, at a programmatic level, to wildlife that tend to dwell and migrate in these areas would vary locally by placement, size and shape of treatment areas making it difficult to estimate exact amounts and effects.

Improving Watershed Conditions. The condition of 147 watersheds was rated as being functional, at-risk or non-functional based on a variety of criteria. Key criteria were road development, flow disruptions and activities like timber harvesting, recreation, mining and others. The results of this analysis were:

Functional watersheds - 41 watersheds or 28 percent
At-risk watersheds - 87 watersheds or 60 percent
Non-functional watersheds - 19 watersheds or 12 percent

The Aquatic and Riparian section in Chapter 3 of the FEIS contains additional information on the current condition of watersheds.

The Watershed Conservation Practices Handbook and the standards and guidelines apply to all alternatives and will limit further problems on the Forests and Grasslands. However, it is also important to take actions to improve these conditions by rehabilitating streambanks and stream conditions and obliterating travelways no longer needed. FEIS Supplemental Tables list the amount of accomplishment expected by alternative for each of these activities.

Streambank rehabilitation activities are scheduled for all alternatives. Alternatives H and B would result in 50 and 40 miles respectively. The other alternatives would result in 30 miles of rehabilitation. Alternatives A and B have the highest amount of stream rehabilitation, 120 acres in the first decade. The remaining alternatives would result in 90 to 100 acres in the first decade. Alternative H has the highest amount of travelways obliterated in the first decade, 2,330 miles. Alternatives A and B have the second highest amounts, approximately 500 miles. The remaining alternatives result in 380 miles obliterated. Other than the high number of miles of travelways obliterated in Alternative H, the alternatives are fairly similar.

Threatened, Endangered, Sensitive and Management Indicator Species. Issues concerning biological diversity are often focused on fine scale habitats, species and communities since these elements are typically limited in abundance and may be susceptible to change. Management of fine scale species, habitats, communities and other resources or uses that may cause effects should be deliberate to assure that fine scales will continue to exist and function. Therefore it is necessary to focus on site-specific details during forest plan implementation to ensure the viability of all species and communities to the degree possible. The goals, objectives, standards and guidelines in the Revised Forest Plan apply to all alternatives so it is estimated that each alternative will maintain the viability of species and existence of habitats and communities. The FEIS has appendices that contain the Biological Evaluation and Biological Assessment with more information about threatened, endangered, and sensitive species and an appendix describing management indicator species and their habitat.

Riparian. Riparian areas combine a unique blend of physical and biological processes and are a critical interface between terrestrial and aquatic ecosystems. They provide habitat for a variety of aquatic and terrestrial plants and animals. They are also a favorite recreation site for anglers, campers, rafters and other recreationists. There are an estimated 87,000 acres of riparian areas on the ARNF-PNG. A subjective assessment of riparian condition was completed during the watershed condition assessment which estimated that 30 watersheds had degraded riparian conditions.

Watershed conservation practices and Forest Plan standards and guidelines prescribe extensive measures to protect riparian resources. If all applicable measures are implemented, and if they are effective, adverse effects from any of the alternatives should be minimized. However, similar to watershed conditions, some actions need to be taken to improve riparian conditions in addition to the activities listed under improving watershed conditions which will also contribute to improving riparian conditions. Alternative H would restore 30 acres in the first decade, followed by Alternatives A and B that would restore 20 acres. The remaining alternatives restore 10 acres.

Noxious Weeds. Native plant and animal species are desired over non-natives because non-natives can often disrupt or dominate ecosystems. Many noxious weeds are causing problems for native plant and animal species and livestock. A preliminary estimate of 3,900 acres of noxious weeds has been made but additional survey work is needed to verify this. The Revised Forest Plan has requirements that each alternative has to meet to control the risk and spread of noxious weeds. Alternative H treats 13,500 acres in the first decade, Alternatives B, C, E, and I treat 3,500 to 3,600 acres, and Alternative A treats 1,800 acres.

Adaptive Management and the Need for Research Natural Areas. Adaptive management and effective monitoring and evaluation will be a key component to restoring ecosystems and ensuring the long-term health of the land as discussed previously. Research Natural Areas (MA 2.2) are an important part of adaptive management because they provide a good benchmark to measure the health of more actively managed or heavily used ecosystems. Each alternative has a different amount of Research Natural Areas allocated. Some Research Natural Areas are allocated to occur within other management areas, usually wilderness areas or wild river areas. The remainder of the Research Natural Areas are allocated as a single management area like other management areas. Alternative H has approximately 87,000 acres total, followed by Alternative B which has approximately 52,000 acres. The remaining alternatives have less than a 1,000 acres allocated.

Changes from the 1984 Plan

The 1984 Plan focused much more on desired outputs and activities than on ecosystem conditions and long-term health so the addition of the direction on the factors described above into the Revised Plan is the most major change. Specific objectives are added to improve ecosystem conditions and the long-term health that were not present in the 1984 Plan. Only one Research Natural Area (154 acres) is included in the 1984 plan where the Revised Plan has twelve areas totaling almost 52,000 acres.

Changes between Draft and Final

Several changes were made between Draft and Final to improve the Revised Plan and better incorporate the ideas received in the comments. Specific objectives to restore or improve ecosystem conditions were developed because people commented that they were unsure what we were planning. All of the management area allocations were reviewed and some were changed to improve the ability to ensure the long-term health of the land and restore ecosystems. Research Natural Areas, in particular, were reviewed to ensure that appropriate areas and amounts were available to serve as benchmarks. Analyses for insect and disease susceptibility, habitat effectiveness, watershed conditions, aquatic and riparian resources and others were updated and reviewed.

Forest Health

Background

Maintaining forest health is important across the Arapaho and Roosevelt but is most critical along the front range and Interstate 70 Corridor in Larimer, Boulder, Clear Creek, Gilpin and Jefferson Counties. This part of the Forests has one of the most intermingled and complex landownership patterns in the National Forest System. There are approximately 300,000 acres of small private parcels intermixed with federal lands and many have or are developing residences or other structures. This part of the Forests is also some of the most heavily used and most frequently seen by visitors. Important features such as the Peak-to-Peak Scenic Byway; the Cache la Poudre and Big Thompson River Corridors; the towns of Estes Park, Ward, Nederland, Blackhawk, Evergreen, and Central City; and many campgrounds, trails, and other recreation facilities are in this area. Maintaining the character and appearance of these areas while assuring a reasonable level of public safety from wildfires is very important.

Much of this area of the forest is composed of ponderosa pine, Douglas-fir and lodgepole pine forests that were usually shaped by wildfires. However, fire suppression efforts over the past 80-100 years have changed this pattern. Because most of these fires have been extinguished, fuels are accumulating which can lead to more severe fires that are more damaging to the environment and more difficult to control. Douglas-fir trees are invading ponderosa pine forests creating the potential for fires to go from the ground and up into the tree crowns. This increases the potential for a much more damaging fire than is typically experienced in the ponderosa pine forests. For example, the erosion and sedimentation from a wildfire burning in heavy fuels conditions can increase dramatically over a wildfire burning in more natural fuels conditions. These heavy fuels conditions also place residences and communities at greater risk of being burned if nothing is done.

The condition of the forest within this important area of the forest requires some action. Timber harvesting, mechanically treating fuels or prescribed fire are tools to help improve the condition of the forest and reduce the amount of fuel. However, this area of the Forest has not had much vegetation management or fuels management work because of the concerns for maintaining the appearance and use of the area, the difficulty in roading and harvesting the rugged terrain, the low value of the forest products, and little public support.

Public Comment

People look at the forest health issue and the need to manage wildland fires and fuels profiles in different ways. Some people argue that ecological processes such as wildfire, insects, and diseases should be the primary means of affecting forest conditions and that through time nature will eventually take care of most major problems. Their strategy is

to primarily use tools like prescribed fire or light intensity timber harvesting without roads to treat fuels. Other people feel that forest health can and should be managed primarily by using tools like timber harvesting.

Some commentors on the draft said that the Forests and Grassland were not moving quickly enough to address this problem. They felt that more acres should be added to the suitable timber land base to increase the flexibility to use timber harvest as in Alternatives A, C, and I. They were also concerned that the level of prescribed fire was unrealistic considering the potential air quality effects and the short time period available to burn.

Others felt that Alternative B had too many acres in the suitable timber land base and that prescribed burning, wildfires, or other natural disturbances are acceptable ways to manage these types of areas. Alternative H would apply this type of approach. Although they recognized that some type of tree cutting might be necessary to help restore these ecosystems, they felt it could be accomplished by leaving the material on the site and burning it with the rest of the area.

Alternatives Considered

The alternatives considered in the FEIS reflect the range of comments and approach treating fuels and managing forest health differently. Fuels treatment needs were calculated for each alternative and measures approximately how many acres need to be treated annually for each alternative to maintain fuels profiles within a natural range of variation. Fuels treatment needs were calculated based on the amount of suitable and available land for timber, estimated fire interval, and estimated acres of wildfire (see FEIS Chapter 3; Fire Section). For example, Alternatives A and C have the highest amount of suitable and available acres and the lowest fuel treatment needs. This assumes that suitable and available timberlands will be harvested and the fuels profiles on these lands will meet objectives due to the timber harvesting and associated activities.

Alternatives A and C result in all of the fuel treatment needs being met with a nearly even mixture of timber harvest and prescribed burning (approximately 2,500 to 3,200 acres each). Alternative B falls short of the annual treatment need by about 800 acres using approximately 1,200 acres of timber harvesting and 7,000 acres of prescribed burning. Alternatives H and I fall short of the annual treatment need by approximately 2,000 acres and 3,800 acres respectively. Alternative H uses 5,600 acres of prescribed burning but only 150 acres of timber harvesting. Alternative I uses approximately 1,500 acres of timber harvesting and 2,500 acres of prescribed burning. The reason for the difference between alternatives is due to the programs emphasized in each one. Alternatives A and C emphasize timber harvest, so many acres are treated using timber harvest. Alternative I has a large amount of timber harvesting but also emphasizes motorized recreation and

several other programs with not as much emphasis on fuels. Alternative H has little emphasis on a timber harvest program but a fairly high emphasis on fuels treatments related to restoring ecosystem conditions. Alternative B has a moderate level of emphasis on a timber harvesting program plus a high level of emphasis on fuels treatments like prescribed fire and mechanical fuels treatments.

The alternatives that come closest to meeting the treatment needs also come closest to addressing the concerns associated with lowering the risk to residences and communities and the potential erosion and sedimentation problems caused by a wildfire burning in heavy fuels. I am making tradeoffs between taking action now and accepting damages later. Taking actions now means there will be effects to air quality, the appearance of the landscape, recreation use and the overall setting of the area. However, these effects are better managed and controlled by doing something now rather than doing nothing and allowing wildfires, insects and disease or other random events to dictate the conditions and resulting environmental effects. I believe that these actions can be implemented and stay within air and water quality standards and guidelines, maintain the long-term scenic quality of the area and provide additional protection to communities and residences. If we are unable to do so, we will have to reevaluate the problem, develop other options and amend the plan to reflect the new direction.

Changes from 1984 Plan

The 1984 plan did not strongly emphasize fuels treatments except in relation to timber harvest. Much of the information on fire regimes, fuels profiles, residential intermix, and fire strategy used in the 1997 FEIS and plan has developed since the 1984 plan was finalized. The 1997 plan does a much better job of fitting the vegetation management program on the Forests and Grassland into the larger context of ecosystem and forest health. The 1997 plan also better recognizes the synergy between fuels management, habitat improvement, forest structure and composition, and insects and diseases.

Changes between Draft and Final

The major changes between draft and final were reviewing and clarifying the fire strategy and increasing the emphasis on the fuel treatments program. After reviewing the comments, the Forests and Grassland staff realized that not enough emphasis was placed on addressing forest health and fire issues. Therefore, the Fire section of the FEIS was substantially updated and plan direction was added to clarify our intentions. Based on the areas of intermingled ownership and need for fuel treatments, lands suitable and available for timber were also reevaluated and updated.

High-Quality Recreation Opportunities

Two specific elements related to providing high quality recreation opportunities are discussed in this section. The first part of this section describes the demand for recreation in developed and dispersed settings. The second part discusses providing an integrated travel management system.

Demand for Recreation

Background

The Forests and Grassland rank near the top of all National Forests in the amount of recreation use due to location and the features described in earlier sections. Demand for most types of recreation is increasing as the population increases while the amount of National Forest acres available for recreation use is fairly constant. This section discusses two major types of recreation: dispersed and developed. Developed recreation includes all those recreational activities that take place on a developed recreation site. These are usually small, distinctly defined areas where facilities are provided for concentrated public use, such as campgrounds, picnic areas and visitor information centers. Dispersed recreation is the other use that occurs outside these developed sites. Visitors enjoy activities like backpacking, hiking, camping, fishing, hunting, four-wheeling or just enjoying the scenery. The way roads and trails are managed also plays a large role in determining how well recreation demand is met and that topic is covered in the next section.

Developed recreation use is expected to increase approximately 30 percent through the year 2005. Facilities are filled to capacity on most weekends from Memorial Day to Labor Day. Facilities within areas of national significance such as the Arapaho National Recreation Area are also often filled on weekdays during the same period. Many facilities are currently in substandard condition due to heavy use and cutbacks in staffing and maintenance. Concessionaires are staffing more recreational facilities on the Forest and Grassland due to the budget trends. Campsite and picnic units need to be constructed or reconstructed to meet demand and ensure that the condition of the facilities will meet standards

Dispersed recreation use is expected to increase approximately 40 percent through the year 2005. Although large areas still exist that can support additional dispersed use, they are not often fully utilized because people are attracted to desirable features and tend to follow existing use patterns. Conflicts between users often develop as many people try to use the same area for different purposes. Another limit on dispersed recreation is access to areas. Access is influenced by a number of factors such as the number of open roads and trails, trailhead parking, dispersed campsites, and availability of information. Road and trail management is covered in the next section. To meet dispersed recreation needs,

dispersed camping sites and additional parking spaces for trailheads need to be constructed or existing ones reconstructed.

Public Comment

Public comment was highly variable. Some commentors felt that current recreation use levels are high enough or are already too high. Many felt that current levels of use were creating unacceptable levels of environmental damage. They often suggested that recreation use be controlled more and offered a number of suggestions. One suggestion was to require permits to limit the amount of use. Another comment was to use facilities to allow more concentrated use in popular areas and reduce the extent of damage. Other suggestions included: restricting party sizes particularly in wilderness, prohibiting camping or other concentrated use in sensitive areas, prohibiting ski area expansion or new ski areas and expanding current sites to concentrate use in already impacted areas but not develop new ones.

Other people wanted additional opportunities and less limitations. This group also provided many suggestions including: adding additional facilities, reducing or eliminating party size restrictions, expanding or adding ski areas and allowing more types of recreation use in restricted areas. Comments were also received about funding and the condition of facilities. People suggested that user fees be used to maintain or upgrade facilities.

Alternatives Considered

Each alternative varies in meeting the amount of need for facilities due to the emphasis of the alternative and the amount of money allocated to the recreation program at each budget level. Alternatives A, B and E focus on reconstructing existing developed facilities. In addition, Alternative A constructs new dispersed camping and parking sites and reconstructs some existing parking sites. Alternatives C and I focus on constructing new developed campsites and parking spaces. They have a limited amount of reconstruction work funded. Alternative I focuses on constructing dispersed camping sites and parking at trailheads. Generally, Alternative A does the best job of meeting needs at the experienced budget level by focusing on several aspects of recreation program needs followed by Alternatives E and B.

All alternatives include the existing ski areas of Winter Park-Mary Jane, Loveland Pass and Eldora but allocate slightly different acres depending on the theme of the alternative. All alternatives, except H, include acreage for Berthoud Pass and Saint Mary's Glacier. Alternative A retains the areas identified in the 1984 plan even though interest may have diminished or the areas are no longer viable. This includes the Bowen Gulch-Mineral Point, Twin Sisters and Comanche Peak areas. The other alternatives did not include

these areas. Alternatives C, E and I allocate the Squaw Pass area as a potential ski area. The other three alternatives do not.

Changes from 1984 Plan

There is little change in the overall recreation direction in the Forest Plan. The 1984 plan also recognized the unique role of the Forests and Grassland and had appropriate direction. The direction is updated from 1984 but the basic direction has changed little. The major difference between the 1984 plan and the Revised Forest Plan is that the Revised Plan has set some specific objectives for constructing and reconstructing facilities where the 1984 plan only set objectives for providing recreation visitor days.

Another difference is that several areas allocated for downhill skiing were allocated to other management areas in the Revised Plan. These include Bowen Gulch - Mineral Point, Devil's Thumb, Rock Creek, Twin Sisters, and Comanche Peaks. The Bowen Gulch-Mineral Point area was removed because that area was added to the Never Summer Wilderness Area in the 1993 Colorado Wilderness Bill. The Devil's Thumb area was not retained because most of the area was part of a land exchange and the remaining area is not large enough or situated in a way to provide a viable ski area. Rock Creek, Twin Sisters and Comanche Peaks have never had any interest and were not viable so they were not included in the Revised Plan. The remaining areas (Eldora, Loveland Pass, Winter Park-Mary Jane, Berthoud Pass, and Saint Mary's Glacier) were included in both the 1984 and the Revised Plan however their size and shape have changed slightly.

Changes between Draft and Final

A number of changes were made between draft and final. One of the biggest changes was to change the management area allocation in the Berthoud Pass and Saint Mary's Glacier areas to MA 8.22 - Ski-Based Resorts. The maximum party size was raised from 12 to 25 in MA 1.1 Wilderness to provide more flexibility for parties and outfitter-guides. More specific objectives were added for dispersed, developed and wilderness campsites. Standards and guidelines and comments were reviewed to determine whether they should be limited or expanded. Few changes were made because the balance between allowing use and protecting resources seemed about right. Although some people suggested that direction on user fees and funding be added. User fees and creative ways to fund Forests and Grassland programs are important but the direction already exists in national and regional policy so it was not added to the Plan.

Provide an Integrated Travel System

Background for the Decision

Travel management has been an issue on the Forests and Grassland since the 1984 plan was approved. Unfortunately the 1984 plan did not contain the strategic direction needed

to make decisions so travel management has been controversial and contentious. The Forests and Grassland transportation system consists of many types of roads and trails including highways, gravel roads, primitive roads, and a variety of trails. These roads and trails provide a variety of opportunities and experiences.

Forest development roads and trails are the parts of the transportation system that the Forest Service is currently maintaining (approximately 3,270 miles). The other travelways are roads and trails that developed over time but no decision has been made on what to do with them (approximately 690 miles). Some of these roads and trails may have existed prior to the National Forests being established, some have existing rights that belong to other people, some will help in managing the National Forest, and others are causing environmental damage or creating other resource problems. Ranger districts on the Forests and Grassland will evaluate these roads during plan implementation and decide which ones to retain and which ones to obliterate based on the strategies contained in this plan. In some areas, this job will be extremely complex due to the complicated land ownership patterns and the degree of interest and concern. However, the holistic balance the Plan provides will help focus and facilitate this process.

Changing the transportation system changes the opportunities for the variety of people using these roads and trails for traveling or recreation. One challenge facing the Forests and Grassland is determining which roads and trails to retain or close or obliterate while still maintaining high quality opportunities. Another is creating some additional, but key, enhancements while protecting, to the extent possible, adjacent resource values..

Public Comment

Many letters were received concerning the travel management strategies in the draft Plan. Many commentors agreed that the draft Plan and associated maps were not clear enough for them to determine what the Forests and Grassland planned to do. Beyond that, there was little agreement on how travel should be managed. All groups are strongly committed to their concerns so the issue is highly polarized. Some commentors felt that many good opportunities for using areas and traveling on roads and trails with motorized vehicles were being lost without good reasons. They would like the current opportunities, particularly the high quality ones, to be maintained and were concerned that the draft Plan direction might result in those opportunities being lost.

Others felt that most areas already have too many roads or motorized trails. These people feel the roads and trails are impacting wildlife habitat, disturbing other ecological factors, allowing erosion and sedimentation, and limiting opportunities for primitive nonmotorized recreation. These people were particularly concerned about the ways and how many would be added to the system and the resultant effects.

Alternatives Considered

The alternatives must be evaluated in two ways; how the alternative's strategy changes the travel system and travel opportunities and how quickly the travel strategy is implemented. A more detailed description of the current situation and the details of this analyses are contained in the FEIS Chapter 3: Travel Management section.

One indication of how quickly the travel strategy is implemented is the rate at which the nonsystem routes are addressed. Nonsystem routes can be "adopted" into the Forests and Grassland system of roads or trails or they can be obliterated. Alternative B has the most aggressive approach in dealing with the nonsystem routes with only 111 miles remaining to be treated at the end of the first decade. Of the approximately 580 miles treated in Alternative B, 38 percent are adopted into the current system and 62 percent are obliterated. The remaining alternatives have from approximately 400 to 450 miles of nonsystem routes left to treat at the end of the first decade. Alternatives A, C, E and I would adopt approximately 40 to 45 percent into the existing system and 55 to 60 percent would be obliterated. Alternative H adopts only 5 percent and obliterates 95 percent.

In the period from 1997 to 2006, Alternative B has the largest increase in miles of Forest Development Roads and Forest Development Trails, approximately 200 miles, due to its emphasis on travel management. Alternatives A, C, and I have small to moderate increases, from approximately 85 to 105 miles. Alternative E increases roads and trails approximately 10 miles. Alternative H decreases the overall system by approximately 200 miles.

Changing the road and trail network changes the travel opportunities. All alternatives are relatively similar in providing opportunities for Low-Clearance Vehicles (like passenger cars), High Clearance Two-Wheel Drive vehicles, and Motorized Vehicles allowed off Travelways. The key differences between alternatives are the opportunities provided for Four-Wheel Drives, OHV's, and Nonmotorized uses. Alternative H provides the lowest amount of miles for OHV's (731 miles) and Four-Wheel Drives (574 miles) and the highest amount of nonmotorized uses (1,450 miles) of any alternative. Alternative A provides the most opportunities for Four-Wheel Drives (978 miles) and Alternative I has the highest amount of OHV opportunities (1,138 miles). For these categories, Alternative B has 853 miles of Four-Wheel Drive roads (second highest), 1,105 miles of OHV travelways (second highest) and 1,301 miles of Nonmotorized Travelways (fifth highest). The remainder of the alternatives are between these alternatives and are relatively close in the amount of opportunities they provide.

Changes from 1984 Plan

The 1984 Plan and EIS had only a general analysis of travel management and provided little direction on travel management. Ranger Districts were forced to develop their own

travel management goals, which were often controversial and difficult to implement and enforce. This led to confrontation with both motorized and nonmotorized interests because no one had an overall picture of what they had to gain or lose.

The Revised Plan contains broad travel management strategies for each mode of travel for management areas within a geographic area. These strategies were reviewed forestwide to assess the potential impacts and to assure that a quality and balanced approach to travel is being taken.

Changes between Draft and Final

The comments indicated that additional clarity was needed on travel management so the major effort between draft and final was to improve the clarity of the direction. The first step was to ensure that the comments had been interpreted correctly so a meeting was held with a number of the key stakeholders associated with this issue. Forests and Grassland staff members described a process for reviewing and improving the travel management direction and asked whether this process would help address the concerns. The stakeholders felt that following the process would help to improve the direction but may not resolve the amount of controversy in making travel management decisions.

Although, the direction in the final Plan and EIS appear very different from the draft, it is actually quite similar. The main changes are in the detail of the direction; the final Plan describes the desired direction for each mode of travel where the draft just provided direction on whether motorized use could occur or not. There were also changes to the format of the information. The two maps that provided travel management direction in the draft, Motorized Recreation and Road Development, were replaced by a summer travel management and a winter travel management map to improve the clarity of our decisions.

Clean Water

Background

Providing sufficient quantities and quality of water within the capability of the land is a major responsibility of the ARNF-PNG. Almost every acre of the Forests is part of a watershed that contributes a portion of its water to some domestic or industrial water supply. Virtually every major stream on the Forests has diversions for water that were established nearly 100 years ago for agriculture use. As communities and cities grow, water originally diverted for agriculture is being converted to domestic water supplies. Water is also needed to maintain aquatic and riparian habitat conditions and ensure ecosystem sustainability (see Improving Watershed Conditions discussed earlier). Some threatened, endangered and sensitive species also rely on water from the Forests and Grassland for habitat.

Annual water yield from the Forests is approximately 2 million-acre feet. The amount and timing of water contributing to streamflows from watersheds on the Forests depends on the amount of precipitation and the amount used by forest vegetation. Because trees use water, changes in density and size of trees affect the water available for streamflows, both positively and negatively. Water developments and diversions also affect the timing and amount of water for streamflows.

Water quality has the potential to be affected by resource uses and activities encouraged and permitted on the Forests and Grasslands. Mitigation measures (practices) maintain water quality at levels which, with normal treatment, will meet domestic and municipal water supply needs

Public Comment

Comments on the plan indicate the vital role water plays in the development, economy and environment of the front range. A broad spectrum of individuals and organizations commented about water during development of the Plan. Commentors included City water departments, irrigation supply companies, anglers, recreationists, multiple use coalitions, environmental groups and water attorneys. Some commentors wanted water yield to be maximized to offset depletions, provide water for growing populations and for minimizing impacts to threatened, endangered and sensitive species. Some commentors were concerned about water rights and how plan direction for water yield and instream flows might impact these rights. The quality of water was also a concern because so many cities and towns derive their water from the Forests and Grassland watersheds. They wanted specific allocations for municipal and domestic watersheds. Some other commentors wanted more stringent management direction for instream flows and aquatic habitat.

Alternatives Considered

All alternatives apply the Watershed Conservation Practices and additional plan standards and guidelines. If these are applied, there should be little difference between alternatives in maintaining and protecting water quality. However, those alternatives with higher activity and use levels pose greater inherent risks because the risk increases that conservation practices may not be properly implemented or may not be entirely effective.

Removal of trees and other vegetation can increase the amount of water available for streamflow due to reductions in plant evapotranspiration. The two major activities that influence water yield are timber harvest and fire. Although the alternatives have major differences in the amount of timber harvest and fire, there is little change in the overall water yield for the Forests and Grassland. Alternative C would increase water yield the most of any alternative, approximately 3,870 acre feet per year an increase of 0.19 percent. Alternative E had the least amount of increase, 1,851 acre feet per year an

increase of 0.09 percent. Alternative B had an increase of 2,391 acre feet per year (0.12 percent). Water yield was also calculated for a benchmark alternative that maximized timber harvest and had approximately twice the number of suitable timber lands as Alternatives A and C. The water yield for this benchmark was 6,690 acre feet at the end of five decades, an increase of 0.33%. Another important note about increasing water yield is that these increases are not sustainable through time unless the harvested or regenerated areas are perpetually kept in that condition.

Changes from 1984 Plan

The major change from the 1984 Plan was that the 9B Water Yield Management Area was not used for any alternative. During the development of the 1984 Plan, it was believed that only some silvicultural practices would increase water yield, specifically small patch clearcuts or clearcuts that were relatively narrow with respect to the prevailing winds. More recent research indicates that increased water yield can take place almost anywhere the overall density of vegetation is reduced in response to activities like timber harvest and prescribed fire. Therefore, water yield is more a function of vegetation conditions on a broader scale than the amount of area allocated to a water yield prescription. The approach of specifically identifying the 9B Management Areas to emphasize water yield was not continued because it is more important to emphasize managing vegetation through a regular vegetation management program applied Forestwide than to use special management prescriptions.

Management requirements to protect aquatic habitats, water quality and water quantity were recently developed and adopted into the Regional Watershed Conservation Practices Handbook. Standards from the handbook were added to the Revised Forest Plan. The importance of Aquatic and Riparian habitat and the role they play in long-term health of the land have been identified and incorporated into the Revised Plan.

Changes between Draft and Final

The major change between Draft and Final was that the Region 2 Watershed Conservation Practices Handbook was finalized and approved for use. Additional emphasis was added in areas of the Plan recognizing the role the Forests and Grassland need to play in providing water to the public. The water yield analysis was also updated between draft and final.

Local Communities, Partnerships, and Service

Background

The Forests and Grassland have historically supported local communities by providing a variety of products and services and by serving as a base or scenic backdrop. The social and economic character along the front range has constantly evolved as the needs and

desires of people have changed. The desire to use and the demand for products and services from the Forests and Grassland have also changed. These desires and demands are still changing and will continue to change. The Federal government is getting smaller creating the need for more private investment and public involvement in Forest Service operations. More partnerships, recreation fee demonstrations, concessionaires, outfitters and guides, public-private ventures and other similar mechanisms are needed to provide the quality goods and services the American public would like from their lands.

Public Comment

A variety of comments were received on this topic. Many people recognized funding declines and were concerned how facilities, roads and trails would be maintained. There were also concerns for how other resource management and law enforcement would be accomplished. Commentors felt that the values of local communities needed protecting. Several commentaries wanted more involvement in activities that affected their interests. Several people suggested that more partnerships, volunteers or cooperative agreements were needed to resolve issues and complete needed work.

Alternatives Considered

The alternatives all have management direction to:

- work with the public, local and state governments and other Federal agencies;
- emphasize partnerships and other cooperative relationships; and
- improve services to the American public.

This management direction comes from national agency policy and the Forest Service directives system in addition to what is included in the Revised Forest Plan. The alternatives are different in what goods and services they provide. Many of these were discussed in earlier sections like Recreation, Travel Management and Water.

The Supplemental Tables in the FEIS and Revised Plan list the mix of products and services expected under each alternative. Chapter 3: Social and Economic Elements describes the anticipated effects on social and economic way of life. The alternatives potentially affect people depending on their view of what they want from the National Forests and Grassland. Generally, individuals, groups or communities that view or use the Forests or Grassland from a commodity perspective will prefer alternatives like Alternatives A, C, and I because they tend to favor providing commodities. These three alternatives, and Alternative E generally favor higher levels of motorized recreation more than the other alternatives. Individuals, groups, or communities that view the Forests or Grassland from an amenity standpoint will tend to prefer Alternative H, E and B because of their emphases on recreation, wildlife, and scenery.

Recreation-related activities are the single most important factor driving employment and income for ARNF-PNG activities and uses. These activities provide approximately 95

percent of the employment and income generated by each of the alternatives. Recreation employment is most heavily influenced by the amount of area allocated to ski areas. Alternatives A, C, and I have the largest amount of area allocated to ski areas and support the highest level of employment of the alternatives. The next highest factor providing employment and income is Forests and Grassland expenditures providing about 3 percent for each alternative. Employment and income from timber-related activities range from a high of 1.2 percent for Alternatives A and C to a low of less than 0.1 percent for Alternative H.

Total employment and income are highest in Alternatives C, I, and E due to the amount of area allocated to ski areas. Alternatives C, A and I provide the most employment and income from timber-management activities but these contribute little to the total amount. They do support those counties with heavy reliance on timber businesses. Alternative B has the second lowest amount of employment and income because it has one of the lowest amounts of areas allocated to ski areas. Alternative B retains Winter Park-Mary Jane, Loveland Pass, Saint Mary's Glacier, Berthoud Pass and Eldora. Alternative B does not include areas like Comanche Peak, Twin Sisters, and Devil's Thumb that were included in the 1984 Plan. I believe the potential ski areas that were not included in Alternative B are better suited for purposes other than downhill skiing due to their locations and site characteristics and their low potential for viable operations.

Alternative B has a much higher emphasis placed on special use permit administration and clearing up the backlog of special use permits than any other alternative. I believe this is an important benefit to the people in this area. The intermingled land ownership pattern, the desire to use the Forests and Grassland, and the desire by others to provide services to the public on National Forest System land all act together to create increasing demands for special use permits. The emphasis by Alternative B is appropriate given the urban setting and demand for this type of service. This emphasis is also important because when permits are issued and administered to standard additional resource protection is provided.

Changes from the 1984 Plan

The direction from the 1984 plan was not changed very much. It called for supporting local communities. There was more emphasis on outputs like timber volume and grazing but it also recognized the important role of recreation to the social and economic vitality of communities. The Revised Plan does emphasize the importance of partnerships and collaboration more than the 1984 plan.

Changes between Draft and Final

The major change between Draft and Final is that more specific direction was added for land uses and ownership. Specific objectives were developed and added to further

identify what was to be accomplished to meet the goals. The introduction to Chapter 1 of the Forest Plan was also changed to highlight and describe the importance placed on working cooperatively with the others interested in Forests and Grassland management. The IMPLAN model that estimates changes in employment and income was reevaluated and updated to reflect new information.

Other Factors

This section presents additional information on some other issues related to revision topics that have been a major part of the revision analysis. It discusses the issues of roadless areas, research natural areas, timber land suitability and ASQ and a Supplemental DEIS.

Roadless and Wilderness Areas

To accomplish the goals of ensuring long-term health of the land and restoring ecosystems, management flexibility is needed across the Forests and Grassland. I know that some lands will need and can support active and intensive management. Other lands are more appropriately managed by allowing ecological processes to operate more freely from human influence and require less active management. Inventoried roadless areas have an important role to play in providing this mix because they are the lands that are currently least affected by human use. To determine how these roadless areas would be managed in the future, careful analyses of public concerns, resource characteristics, current uses, and land capability were conducted. My goal was to ensure that the management area allocations for roadless areas and any resulting wilderness recommendations made in this Revised Plan will provide for sustainable ecosystems and allow people to use and enjoy the Forests and Grassland in a reasonable and varied way.

Comments about inventoried roadless areas and wilderness areas were divided and this issue continues to be controversial between Draft and Final. The James Peak area on the Boulder District was an area that many suggested be recommended for wilderness. Some people wanted all roadless areas recommended for wilderness. Others felt there is already too much wilderness and that there should be no further wilderness recommendations. These people wanted to keep options open for uses prohibited in wilderness. Many people also commented that they preferred that James Peak remain non-wilderness. Concerns were also raised about how the roadless area inventory was conducted and that the use of "outside sights and sounds" as a criteria affected the capability of an area to be Wilderness.

Several changes took place between Draft and Final. The use of "outside sights and sounds" was removed as a reason for an area to be considered "capable" of being wilderness. All roadless areas that were considered "not capable" in the Draft due to

presence of "outside sights and sounds" went through the capability analysis part of the process again. The roadless area inventory was updated with new information mostly from additional road and trail inventory work. The inventory for the Draft Revised Plan had approximately 336,100 acres. The inventory for the Final has approximately 330,200 acres a decrease of nearly 5,900 acres.

Finally, the management area allocation for each roadless area in the inventory was reviewed one last time based on the comments received and management concerns. The purpose of the review was to ensure that the areas would be managed in a way that best fits the resource characteristics and best contributes to the overall priorities for the Forests and Grassland. Two major changes resulted from this review. The West White Pine area and areas adjacent to the Comanche Peak Wilderness on the Estes-Poudre district were changed from MA 1.2 Recommended for Wilderness to MA 3.5 Forested Flora and Fauna and other management areas. This changed the amount of area in MA 1.2: Recommended for Wilderness from 28,306 acres to 8,551 acres in Alternative B. There were some other minor changes. The James Peak area was kept as MA 3.1 Special Interest Area.

I felt it was important to make these changes to address the need to maintain or improve wildlife habitat and address fire and fuels concerns. The characteristics and resource capabilities of these areas lend themselves better to a more active management approach than a less active role. I realize many people would have preferred these areas remain recommended for wilderness but there is little consensus on this issue and I feel the changes are in the best long-term interest of meeting the resource needs for these areas.

Research Natural Areas

Adaptive management and effective monitoring and evaluation will be a key component to restoring ecosystems and ensuring the long-term health of the land. Research Natural Areas (MA 2.2) are an important part of adaptive management. After the comment period on the Draft EIS for this Forest Plan Revision closed, we received input from several individuals and organizations raising issues under the Federal Advisory Committee Act (FACA). We carefully considered these issues and prepared a document about the Research Natural Areas proposed in the Draft EIS for the Revision of the Land and Resource Management Plan for the Arapaho and Roosevelt National Forests and Pawnee National Grassland which analyzes the issues. This document is in the planning record. At my request, staff from the Regional Office and Arapaho and Roosevelt National Forests and Pawnee National Grassland have undertaken a thorough review of the issue, including the planning record, the document described above, and input received from the public. Based on this review and discussion with staff, I am satisfied that there was no violation of FACA. In addition, the designation of Research Natural Areas (RNA's) has produced no injury, because the Forest Service critically reviewed

information relating to the proposed RNA proposals, including review by the Interdisciplinary Team preparing the Forest Plan Revision and associated EIS, made documents available to the public under the Freedom of Information Act, held public meetings, and made the administrative appeal process and judicial review available to the public to evaluate my decision here. The Forest Service has gone to great lengths to balance its need for an RNA System against any possible loss in other uses of public lands, and I find that we have selected an excellent number of high quality RNAs that have a negligible impact on commodity or recreational use of these lands. I also note that, despite the length of the Forest Plan Revision process, this issue was not raised until after the comment period. One of the primary purposes of a public involvement process is to inform the agency in a timely matter of substantive and procedural problems so that they can be corrected at an early date.

Timber Land Suitability and ASQ

Timber management and harvesting is an important tool for managing biological diversity and ecosystems, forest insect and disease populations, tree growth and yields, recreation settings, wildlife habitat, and wildfire hazard mitigation. Timber harvesting provides forest products, which help support local wood processing industries and associated communities. It helps meet the demands of the local public for products such as lumber, fuelwood, transplants, Christmas trees and post and poles.

I am establishing an allowable sale quantity (ASQ) for the next ten-year period of 66.68 million board feet. I am designating a total of 579,905 acres as not suitable for timber production. This is in accordance with 36 CFR 219.14(d). By designating this total, I am making an acre-by-acre determination. The map, which is included with the Plan, is part of my decision and should be considered as a land allocation. I have referred to 503,356 acres as tentatively suitable but not available. These acres are shown on the timber suitability map. These acres are "not appropriate" for timber production under 36 CFR 219.14(c)(1)[2]. In addition, another 16,682 acres will be withdrawn due to management area allocations such as areas recommended for wilderness or areas recommended for inclusion in the Wild and Scenic River system if Congress approves those recommendations.

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[2] While the regulations distinguish between lands that are not "appropriate" for timber production and those which are not physically suited for timber production, it then goes on to "lump" these distinct categories of lands together as "not suited for timber production" in 36 CFR 219.14(d). Use of the term tentatively suitable but not available merely carries through to the Plan the regulatory distinction between lands that are not "suited" and those that are not "appropriate" for timber production. Technically, these lands are "not suited" under 36 CFR 219.14(d) and they are in addition to the 579,905 acres so designated. These acres are not included in the ASQ calculation.

I am allowing commercial timber harvest on these "not suitable" acres for other multiple-use objectives consistent with the standards and guidelines. However, this volume will not be credited toward the ASQ. It may be tracked as part of the Total Sale Program Quantity (TSPQ) but it is not part of my ASQ decision. The remaining 188,906 acres are suitable and available for timber production. All volume within utilization standards from these acres is chargeable to the ASQ.

Public comment is extremely divided. Some segments of the public prefer that the ARNF have a very small commercial sale program with a corresponding amount of suitable and available land for timber. They commented that timber sales and associated roads create unacceptable environmental effects including loss of sensitive and other important habitat, increased levels of erosion and sedimentation, possible disruption of wildlife and plant species, and a detrimental effect to the overall biological diversity. This group feels that natural disturbance processes or prescribed fire should be preferred methods to manage the vegetation composition and structure. Timber harvest would only be used in those cases where the current conditions needed mechanical treatment to lower the risk of major environmental damage if a severe fire took place in the area.

Other segments of the public argue that the ARNF should provide the highest sustainable level possible to support local industries and economies. They feel that timber harvesting is an important tool for managing vegetation and helping to solve some of the wildland fire and fuels concerns discussed in an earlier section. They would like to see an aggressive timber program that has reliable and consistent outputs. There were many concerns that Alternative B (the preferred alternative in the Draft and Final EIS) and most of the other alternatives had harvest levels too low to make an impact on forest health. Some commentors also indicated that timber harvest levels should be as high as possible to increase the amount of water produced on the ARNF.

A wide range of alternatives was considered for suitable lands and the resulting ASQ to help evaluate potential options given the wide range of opinions on this issue. As described earlier, the ARNF has approximately 700,000 tentatively suitable acres. Each alternative has a different amount of land that is "not appropriate" for timber production due to the objectives of the alternatives and the allocations of the management areas. Alternatives A and C have the largest amount of suitable and available (365,301 acres and 334,357 acres respectively) and the highest ASQ levels (184 and 168 million board feet for the ten year planning period). They are followed by Alternatives I, B, E, and H. Alternative H had the lowest amount of suitable and available acres at 21,353 and an ASQ of 9 million board feet for the decade.

Several changes took place between draft and final. All the districts on the ARNF rigorously reviewed all the tentatively suitable but not available lands to determine

whether additional acres should be added to suitable and available lands. They also looked at some of the areas of concern that were currently suitable and available to determine whether these lands should be changed to tentatively suitable but not available. Alternative B in the Draft Plan had suitable and available lands of approximately 130,000 acres with an ASQ of 61 million board feet. Alternative B in the final has almost 190,000 acres and an ASQ of 66 million board feet. District rangers and their staff recommended these changes to provide additional flexibility to manage vegetation in areas of the Forests where timber harvesting had historically occurred or where timber harvest might be used to improve wildlife habitat or treat areas with fuels concerns.

Supplemental Draft Environmental Impact Statement

This document makes references to changes made between Draft and Final documents and it may seem that many were made. Some commentors have suggested that a Supplemental DEIS is necessary to provide an additional opportunity to comment on these changes. After reviewing the comments and considering the magnitude of the changes, I do not think that a Supplemental Draft EIS is warranted for the following reasons. The changes made to the Revised Plan and FEIS were within the range of comments presented to the Forests and Grassland and were made primarily to address the concerns raised by the commentors. Also, all changes stayed within the scope of the alternatives presented in the DEIS. I also believe that the overall magnitude of change between the Draft and Final is typical of changes made in other similar NEPA analyses and does not warrant the additional cost or time for preparing a Supplemental DEIS.

FINDINGS REQUIRED BY OTHER LAWS

As the Acting Regional Forester (deciding officer), I have considered the multitude of statutes governing management of the Arapaho and Roosevelt National Forests and Pawnee National Grassland, and I believe that this decision represents the best possible approach to reconciling the current statutory duties of the Forest Service.

- The Revised Forest Plan is in compliance with the Clean Water Act because of the conclusions presented in Chapter 3, Aquatic and Riparian Resources section of the FEIS.
- The Revised Forest Plan is in compliance with the National Historic Preservation Act because of the conclusions presented in Chapter 3, Heritage Resources section of the FEIS.
- The Revised Forest Plan is in compliance with the Endangered Species Act because of the conclusions presented in Chapter 3, Biological Elements section and Appendix I of the FEIS. The US. Fish and Wildlife Service has concurred that endangered, threatened, and proposed species may be affected, but are not likely to be adversely affected, by the Revised Forest Plan.

- The Revised Forest Plan is in compliance with the Clean Air Standards because of the conclusions presented in Chapter 3, Air section of the FEIS.

ENVIRONMENTALLY PREFERRED ALTERNATIVE

National Environmental Policy Act (NEPA) regulations require agencies to specify the alternative or alternatives which were considered to be environmentally preferable [40CFR 1505.2(b)]. Forest Service policy further defines environmentally preferable as an alternative that best meets the goals of Section 101 of NEPA. Traditionally, this has identified the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources.

Some might consider Alternatives A, C, or I the environmentally preferred alternative because these alternatives manage the most acres minimizing risks of insect and disease outbreaks or intense wildfires. I believe these alternatives cause too much disturbance to the landscape and its character due to the higher amounts of timber harvesting, road construction, and other uses. Others might suggest that Alternative E with one of the lowest amount of timber harvest and prescribed burning should be the environmentally preferred alternative. However, this alternative does not aggressively deal with the forest health issue and in the long run is more likely to result in intense wildfires or large insect and disease outbreaks creating unacceptable environmental effects. It also emphasizes developed and motorized forms of recreation. I believe the Forests and Grassland ecosystems can provide a wider range of beneficial uses and more variety of individual choice with a more balanced emphasis. Finally, some might propose that Alternative H should be considered the environmentally preferred alternative because it also has few acres of timber harvest plus large areas of the Forests and Grassland where nonmotorized recreation and ecological processes predominate. However, I do not believe this alternative addresses forest health concerns adequately, does not provide for the widest range of beneficial uses, or maintain an environment which supports diversity and variety of individual choice given the overall capability and resiliency of Forest and Grassland ecosystems.

Therefore, I am identifying Alternative B as the environmentally preferred alternative because it best meets Section 101 of NEPA due to the reasons described in the previous paragraph and those described under each of the six goals listed below.

1. *Fulfill the responsibilities of each generation as trustees of the environment for succeeding generations.*

Alternative B ensures the health of the land by balancing active management with the utilization of natural ecological processes. Alternative B includes standards and guidelines which preserve the health of basic resources such as soil, air, and water. Future wilderness options are preserved by allocating over 100,000 acres to backcountry prescriptions. Alternative B was evaluated for its long term impacts rather than just short-term consequences.

2. *Assure for Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.*

Alternative B provides many opportunities for quality visitor experiences. Standards and guidelines are in place to ensure clean water, clean air, and visually pleasing surroundings.

3. *Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.*

Alternative B provides a wide range of beneficial uses, such as timber production, livestock use, downhill skiing, dispersed and developed recreation, clean air and water, and oil and gas development. Standards and guidelines ensure these uses do not result in undesirable or unintended consequences.

4. *Preserve important historic, cultural, and natural aspects of our natural heritage and maintain, wherever possible, an environment which supports diversity and variety of individual choice.*

The mix of management area allocations in Alternative B preserves the historic and natural aspects of the Forests and Grassland and provides a variety of individual choices, Standards and guidelines ensure compliance with the Natural Historic Preservation Act, as well as access for the disabled.

5. *Achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities.*

Alternative B, as described in the FEIS and preceding parts of this ROD, achieves a balance between resource use and protection. Resource uses are sustainable and contribute to a high standard of living and a wide sharing of life's amenities.

6. *Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.*

The standards and guidelines in Alternative B provide quality resource management. Timber harvest areas will be reforested promptly. Forest health will be enhanced. Sustainable resource production will contribute to the vitality of local communities.

IMPLEMENTATION

Implementation of the ROD will occur 30 calendar days after the legal notice of this decision is published in the Federal Register.

Many ongoing projects were approved under the 1984 Forest Plan. In general, these projects will not require new or additional NEPA analysis due merely to enactment of the Revised Plan. In other words, the Revised Plan is not retroactive. These ongoing projects were considered part of the environmental baseline for purposes of the Revision FEIS. We are committed to complying with NEPA, NFMA and other environmental laws which apply in the case of forest plans and projects. The enactment of the revised plan does not constitute significant new information or changed circumstances under NEPA with respect to projects approved under the 1984 Plan.

Under NFMA, "permits, contracts, and other instruments for the use and occupancy" of National Forest System lands are required to be "consistent" with the current Land and Resource Management Plan. However, this requirement is not absolute. In the plan revision context, NFMA specifically qualifies the requirement in three ways: 1) these documents must be revised only "when necessary," 2) these documents must be revised "as soon as practicable," and 3) any revisions are "subject to valid existing rights." This language allows the decision maker a great deal of latitude.

Exercising my discretion under NFMA, I have determined that it is not "necessary" to apply the Revised Plan's standards and guidelines retroactively, and I find that NFMA does not require revision of these pre-existing occupancy and use authorizations. The law generally does not favor retroactive application of new rules. However, I have also determined that I have the discretion, on a case-by-case basis, to modify pre-existing authorizations if they are not consistent with new established standards, including the standards and guidelines in the Revised Plan.

"Use and occupancy" agreements which the Forest Supervisor may choose to modify include timber harvesting and livestock grazing.

Most timber sale decisions are implemented through a three-year contract. While a timber sale contract is a valid existing right, the terms of the contract allow modification. Therefore, modification of a timber contract under its terms would not violate the "valid

existing right" provision. Having clarified this point, I have nevertheless decided not to modify any existing timber contracts. As I stated earlier, we assumed that these contracts would be executed according to their terms. Finally, existing timber contracts will generally have been completed within three years. I find it reasonable to allow pre-existing standards to remain in effect for that period of time. Having said this, I leave it to the Forest Supervisor to determine whether to modify decision authorizing timber sales not currently under contract.

Other use and occupancy agreements are for a substantially longer term than timber contracts. For example, grazing permits are generally issued for a ten-year term. My discretionary decision is to require grazing permits to comply with the Revised Plan's standards and guidelines. The case law is clear that grazing permits are privileges rather than rights, and they are subject to modification by their terms and under the grazing regulations. The Forests and Grassland are presently under a separate statutory mandate (Recission Act, Public Law 104-19, Section 504; July 27, 1995) to schedule and complete NEPA analysis for all grazing allotments. The Forests and Grassland have scheduled the required analyses, and I find that applying the Revised Plan's standards and guidelines through this process will meet the "as soon as practicable" provision.

Other classes of "use and occupancy" agreements will be reviewed to determine whether or when the Forest Supervisor should exercise his discretion to bring them into compliance with the Revised Plan.

The Forest Supervisor will accomplish many management activities to implement the Revised Plan. Unlike the programmatic decisions listed above, these activities are site-specific and require analysis and disclosure of effects under NEPA. These site -specific analyses will be done during implementation of the Revised Plan.

Forest Plans are permissive in that they allow, but do not mandate, the occurrence of certain activities. Site-specific analysis of proposed activities will determine what can be accomplished. The outputs specified in the Revised Plan are estimates and projections based on available information, inventory data, and assumptions.

All activities, many of which are interdependent, may be affected by annual budgets. However, the goals, objectives, standards and guidelines, management area prescriptions, and monitoring requirements described in the Revised Plan may not change unless the Plan is amended.

The Plan will be amended or revised to adjust to changing circumstances. For example, the management goals, guidelines and standards stated for the Pawnee National Grassland in the Revised Forest Plan may, in the near future, be in need of updating or amendment

in order to come in line with later assessments or analyses such as the "Northern Great Plains Management Plans Revisions." These adjustments or refinements would most likely be in the areas of threatened and endangered species management, grassland grazing systems and utilization standards or grassland ecosystems management. The Williams Fork area, currently covered by the Routt National Forest Plan, will be added to the Arapaho and Roosevelt National Forests and Pawnee National Grassland Forest Plan to reflect changes in administration. The amendment process gives us the flexibility to adapt the decisions made today to the realities of tomorrow. We will provide opportunities for you to be involved in future changes to the Revised Plan.

APPEAL OPPORTUNITIES

This decision is subject to administrative review pursuant to 36 CFR 217. A written appeal of this decision must be filed in duplicate within 90 days of the date of the published legal notice. Appeals must be filed with:

Chief, USDA Forest Service
14th and Independence, S.W.
201 14th Street, Washington, DC 20250

Any notice of appeal must be fully consistent with 36 CFR 217.9 and include at a minimum:

- A statement that the document is a Notice of Appeal filed pursuant to 36 CFR part 217.
- The name, address, and telephone number of the appellant.
- Identification of the document in which the decision is contained, by title and subject, date of the decision, and name and title of the Deciding Office.
- Identification of the specific portion of the decision to which objection is made.
- The reasons for objection, including issues of fact, law, regulation, or policy and, if applicable, specifically how the decision violates law, regulation, or policy.
- Identification of the specific change(s) in the decision that the appellant seeks.

Requests to stay approval of the Revised Forest Plan will not be granted (36 CFR 217.10(a)).

Decisions on site-specific projects are not made in this Revised Forest Plan. Final decisions on proposed projects will be made after site-specific analysis and documentation in compliance with NEPA and are subject to appeal at that time.

For questions concerning the Appeal process, contact:

USDA Forest Service
Attn.: Ecosystem Management Staff (Steve Segovia)
P.O. Box 96090
Washington, DC 20090-6090
(202) 205-1066

For questions concerning the Forest Plan, contact:
Peter L. Clark
Forest Supervisor
Arapaho and Roosevelt National Forests and Pawnee National Grassland
240 West Prospect Road
Fort Collins, Colorado 80525
(970) 498-1100

Reviewers are encouraged to contact the Forest Supervisor before submitting appeals to determine if misunderstandings or concerns can be clarified or resolved.

CONCLUSION

I am pleased to announce this decision and bring this phase of the Forest Plan revision to completion. The challenge that remains before us is to work together; individuals, the Forest Service, the recreationists, the business owners, the environmentalists, the timber industry and all the others who have an interest in Forest management. Together, we need to overcome the challenges, to realize the opportunities, and achieve the direction in this Plan. We are committed to the philosophy of adaptive management as we implement to keep this Plan useful. We will carefully monitor our activities, the condition of the land as projects are completed, the products produced, and the effectiveness of the resource protection measures included in the Plan.

This Plan is our commitment to the future to ensure healthy Forests and Grassland for the next generation.

11/19/97

TOM L. THOMPSON
Acting Regional Forester

Date