

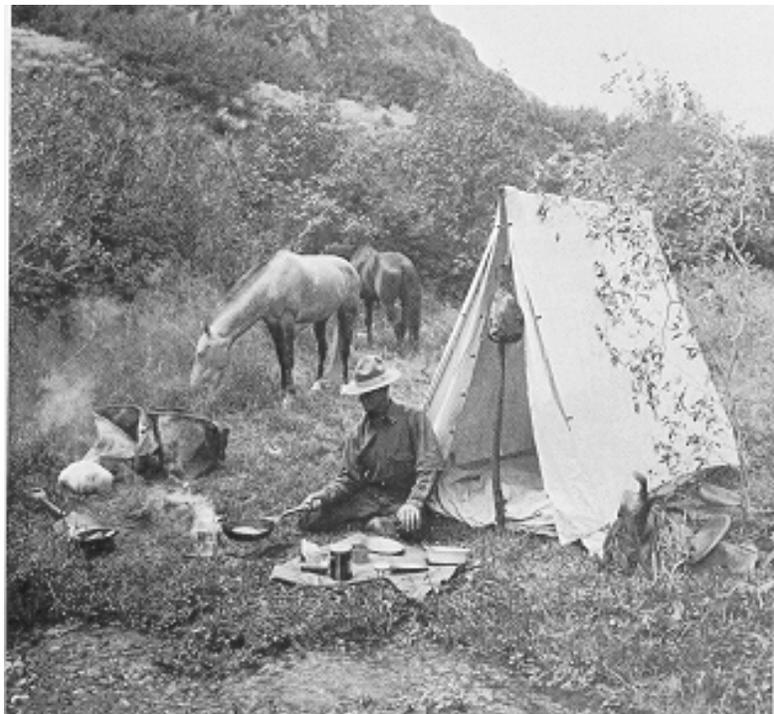


United States
Department of
Agriculture
Forest Service
Rocky Mountain
Region

BIGHORN NATIONAL FOREST

Executive Summary of the Draft Environmental Impact Statement

*To accompany the Draft Land
and Resource Management Plan*



May 2004

Note to readers The Forest Service believes that reviewers should be given notice of several court rulings related to public participation in the environmental review process. First, reviewers of the Draft EISs must structure their response to the proposal to make clear the reviewer's position and contentions [*Vermont Yankee Nuclear Power Corp. v. NRDC*, 435 US 519,53 (1978)]. In addition, environmental objections that could be raised at the Draft EIS stage, but are not raised until after completion of the FEIS may be waived or dismissed by the courts [*City of Angoon v. Hodel*, 803F.2d 1016, 1022 (9th Circuit 1986) and *Wisconsin Heritages, Inc. V. Harris*, 490. Supp. 1334, 1338 (E.D. Wis. 1980)].

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Abstract

This is the summary for the Draft Environmental Impact Statement (DEIS) which accompanies the Draft Revised Bighorn National Forest Land and Resource Management Plan (Draft Revised Plan). This summary presents the five alternatives developed for programmatic management of the 1.1 million acres administered by the Bighorn National Forest. The Forest Service has identified Alternative D as the Preferred Alternative, which will be used as the template to develop a final alternative. It is anticipated that aspects of the other alternatives, as identified during the public comment period, will be incorporated into Alternative D for the final, selected Forest Plan.

In addition to this summary, the following documents are available on request, are available at area public libraries, or on our website, www.fs.fed.us/r2/bighorn:

- ◆ Draft Revised Land and Resource Management Plan.
- ◆ Draft Environmental Impact Statement.
- ◆ Appendices that support the material presented in the DEIS.
- ◆ Maps that display Management Areas for each alternative in the DEIS.

Overview of Planning Process and History

Forest plans are prepared in accordance with the 1976 National Forest Management Act (NFMA), the 1969 National Environmental Policy Act (NEPA), and other laws and regulations. The Bighorn National Forest Land and Resource Management Plan (1985 Plan) was issued in September 1985. NFMA regulations state that a forest plan should ordinarily be revised on a 10-year cycle or at least every 15 years (36 CFR 219.10). The Bighorn revision process is using the 1982 NFMA planning regulations, 36 CFR 219.

The Bighorn National Forest has prepared this Draft Revised Plan and accompanying Draft Environmental Impact Statement (DEIS). The public has 90 days to comment on the Draft Revised Plan and DEIS after the Notice of Availability is published in the Federal Register. A Final Plan, Final Environmental Impact Statement, and Record of Decision will be issued after the comments are evaluated and necessary changes are made. The 1985 Plan remains in effect until the Record of Decision is signed.

It is anticipated, based on the complexity of Forest Planning and the precedence of other Draft Revised Plans in the Rocky Mountain Region, that changes to DEIS alternatives and Draft Plan direction will change prior to the issuance of a Final Plan and Final EIS. Input received during the Draft comment period will be used to correct errors in the draft documents, to amend or create new alternatives and direction, and to inform the decision maker in selecting the Final alternative.

Purpose of the Revised Plan

A forest plan provides guidance for all resource management activities on a National Forest.

- ◆ It establishes forestwide multiple-use goals and objectives (36 CFR 219.11(b)).
- ◆ It establishes forestwide standards and guidelines to fulfill the requirements of 16 USC 1604 applying to future activities and resource integration requirements in 36 CFR 219.13 through 219.27.
- ◆ It establishes management area direction (management area prescriptions) applying to future activities in a management area (resource integration and minimum specific management requirements) 36 CFR 219.11(c).
- ◆ It designates land as suited or not suited for timber production (16 USC 1604(k)) and other resource management activities such as rangelands, and recreation opportunities (36 CFR 219.14, 219.15, 219.20, and 219.21). In addition, it identifies lands available for oil and gas leasing and the associated leasing stipulations (36 CFR 228.102).
- ◆ It establishes monitoring and evaluation requirements (36 CFR 219.11(d)).
- ◆ It recommends the establishment of wilderness, wild and scenic rivers, and other special designations to Congress, as appropriate.

Forest plans estimate future management activities, but the actual amount of activities accomplished is determined by annual budgets and site-specific project decisions. The history of Forest Service budgeting during the 1985 Plan's implementation period has shown that budgets have not met the full Plan implementation level, so scheduled activities and actions were adjusted to match available funds and Congressional intent of appropriations acts. While budget changes do not require forest plan amendments, the implications of the changes may require the agency to evaluate the need for amendments.

Reader's Guide to the Revised Plan and DEIS

Documents related to the forest plan revision include the Draft Revised Plan and appendices, Draft Environmental Impact Statement (DEIS), DEIS appendices, and a map package. The Draft Revised Plan describes the overall management direction for the Forest. It includes the following chapters:

- ◆ Chapter 1 – Forest Wide Direction
- ◆ Chapter 2 - Management Area Prescriptions
- ◆ Chapter 3 - Geographic Areas
- ◆ Chapter 4 - Monitoring and Evaluation
- ◆ Appendices A-H contain detailed information which may be helpful in understanding or implementing the plan.

The Draft Environmental Impact Statement contains the analysis of effects for each of the alternatives considered in detail. It is the basis for the development of the Draft Revised Plan and includes the following sections:

- ◆ Chapter 1 - Purpose and Need
- ◆ Chapter 2 - The Alternatives
- ◆ Chapter 3 - Affected Environment and Environmental Consequences
- ◆ Chapter 4 – List of Preparers
- ◆ Chapter 5 - Agencies, Organizations, and Individuals receiving the Draft Revised Plan.
- ◆ Appendices A-I contain detailed information which may be helpful in understanding the DEIS.

Implementation of the Forest Plan

A forest plan provides the framework to guide the day-to-day land and resource management operations of a National Forest. The forest plan is a strategic, programmatic document; it does not make project level decisions. Those decisions are made after more detailed, site-specific analysis and further public comment. NFMA requires that resource plans and permits, contracts, and other instruments issued for the use and occupancy of National Forest System lands be consistent with the forest plan.

The following are some examples of project decisions that require more detailed environmental analysis:

- ◆ Timber harvesting and related activities, such as slash disposal and road construction.
- ◆ Range allotment management plans.
- ◆ Fish or wildlife habitat improvement projects.
- ◆ Watershed improvement projects.
- ◆ Developed recreation sites or trail construction

Resource inventories, actions plans, and schedules are not binding decisions and do not require additional environmental analysis at the project level.

Public involvement is a key part of implementing the forest plan. Monitoring and evaluation reports are available annually for public review.

Overview of the Bighorn National Forest

The Bighorn National Forest is located in the Big Horn Mountain Range in north central Wyoming (see following figure). The Forest contains 1,107,671 acres, which includes 7,502 acres of state and private land. The watersheds originating on the Forest drain into the Yellowstone River through the Big Horn, Tongue, and Powder Rivers. The Forest has a diverse mixture of land, water, plants, and animals. Elevations range from approximately 4,000 feet to 13,175 feet above sea level on Cloud Peak. The Big Horns are often characterized as a forested island situated between the High Plains (Powder River Basin) to the East, and the arid Big Horn Basin to the West. The north boundary of the Forest borders Montana and the Crow Indian Reservation. The Cloud Peak Wilderness (189,039 acres) is at the core of the mountain range.

Approximately 60% of the National Forest System acres are forested. Principle species include lodgepole pine, Engelmann spruce and subalpine fir. Ponderosa pine, limber pine, and Douglas-fir are found at the lower elevations. Non-forested lands include grassy meadows, shrub lands, alpine tundra, and rocky areas. The Forest supports important populations of elk, mule deer, moose, and black bear. Many of the over 2,000 miles of streams and lakes support excellent fisheries.

The Big Horns Mountains are midway between Yellowstone and Mount Rushmore National Parks. Three highways, classified as Scenic Byways, cross the mountains. The Forest offers year-round recreation opportunities and administers over 500 special use permits including communication sites, reservoirs, easements, power lines, outfitter guides, recreation residences, campground concession operations and lodges/resorts. We permit the grazing of approximately 28,000 cattle and 21,000 sheep. Through the end of 2001, after 16 years of implementation, the Forest has offered approximately 134 million board feet of timber and firewood. The mountains are an important water source for the surrounding agricultural lands and communities.

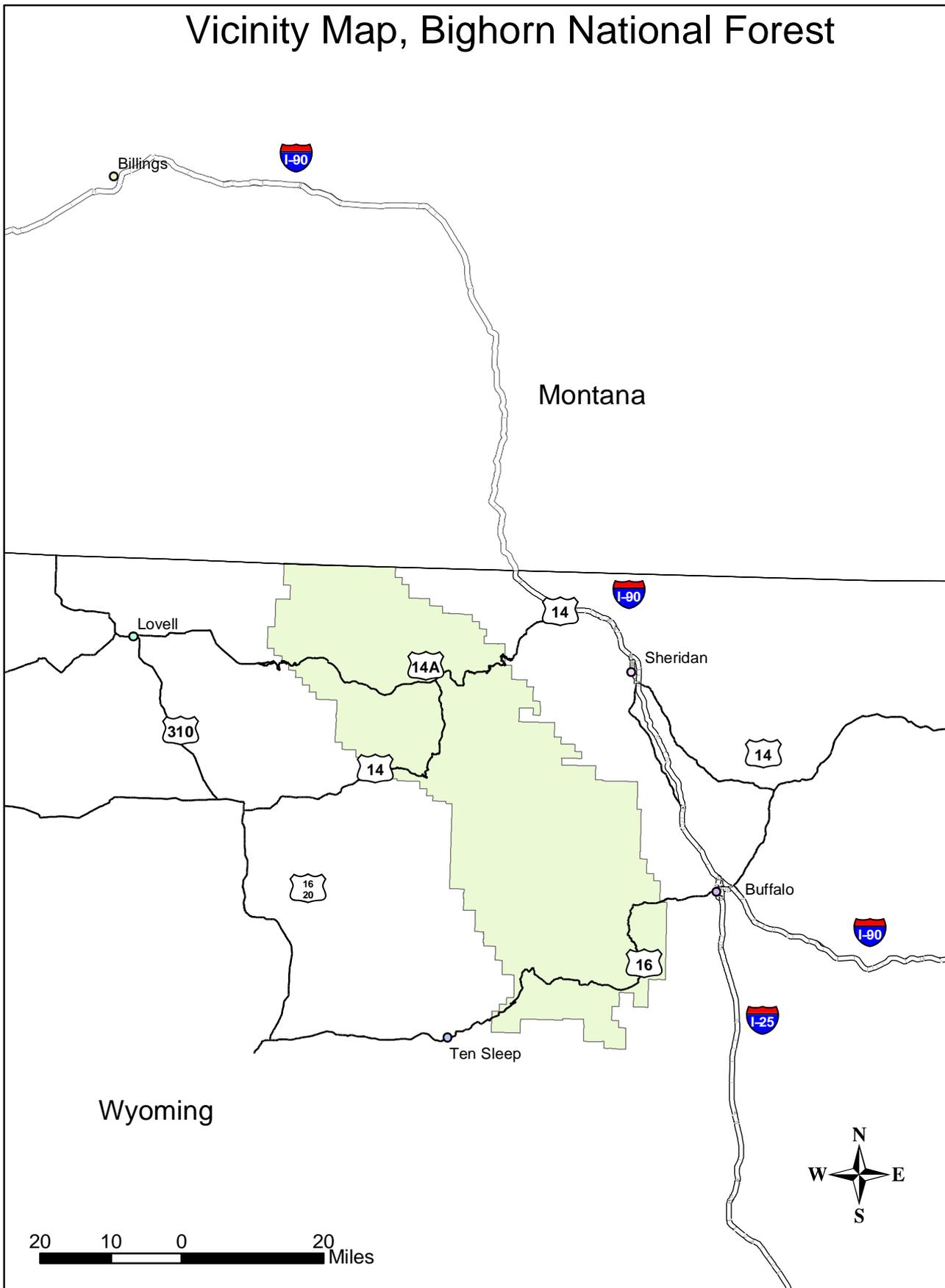
The Bighorn National Forest is subdivided into 3 Ranger Districts, with offices located in Sheridan, Buffalo, and Lovell, Wyoming. The Forest Supervisor’s Office is co-located with the Tongue District Office in Sheridan.

The Forest lies within 4 counties – Big Horn, Johnson, Sheridan, and Washakie (see the following table and figure). Major towns include Lovell, Greybull, Buffalo, Sheridan, and Worland. Populations range from a high in Sheridan Country of approximately 25,000 to about 7,000 in Johnson Country. Economies are generally rural. Employment is concentrated in several major sectors including service, retail trade, and government. Mining, agriculture, and manufacturing are other important sources of income.

Table 1. Acres of National Forest System lands by county within the Bighorn National Forest as of September 2000.

	County				
	Big Horn	Johnson	Sheridan	Washakie	Total
Acres	351,160	326,881	393,627	36,003	1,107,671

Figure 1. Vicinity map of the Bighorn National Forest



Forest Plan Revision Topics

As a result of numerous public involvement opportunities including meetings, open houses, and newsletters (described in Appendix A of the DEIS), the Forest Service identified five major revision topics. While there are many other issues considered in the DEIS effects analysis, these major topics were used to define the differences between alternatives.

Revision topics are subjects in which resource conditions, technical knowledge, or public perception of resource management has created a potential need for change. These changes are generally important enough to:

- ◆ Affect large areas.
- ◆ Change the mix of goods and services produced.
- ◆ Involve decisions in management direction where there is no public consensus on the best course of action.

The following five major revision topics were originally identified in the 1999 Notice of Intent, and further refined based upon public input during the initial scoping meetings held in 2000 and 2001.

- ◆ Biological and Habitat Diversity
- ◆ Timber Suitability and Management of Forested Lands
- ◆ Roadless/Wilderness
- ◆ Special Areas (e.g., Wild and Scenic Rivers, and Research Natural Areas)
- ◆ Recreation and Travel Management

Each revision topic has potential environmental, social, and economic considerations. Environmental effects relate to the fundamental integrity of the physical and biological aspects of the Bighorn National Forest ecosystems and the surrounding area. Social effects relate to the people who use the Forest or who are directly affected by forest management. Economic effects relate to the people and businesses that rely on the Forest for income or livelihood.

Biological and Habitat Diversity

The Bighorn National Forest provides a wide diversity of habitats for many species. The Forest is naturally fragmented with a majority of the landscape occurring in timber cover types interspersed with riparian, shrub, and grassland cover types, as well as non-vegetated resources including rock outcrops and cliffs. Species on the Forest include hundreds of vertebrate and invertebrate animals and higher plants. The Forest has identified several at-risk species categorized as threatened, endangered, sensitive, and species of local concern. In addition, species identified as Management Indicator

Species and demand species provide focus for analysis and monitoring purposes. The ecosystem processes and elements, including the variety of species and landscape features, provide Forest users and visitors with a full range of opportunities and values that include sport, commercial, and viewing activities.

Human activities such as logging, grazing livestock, building roads, and suppressing fires have altered some of the natural processes and disturbances that would have otherwise shaped the Forest and its resources.

Timber Suitability and Management of Forested Lands

There are two primary items considered under this topic:

- a. **How to manage the forests of the Bighorn National Forest?** Forests change over time, whether man intervenes or not. Insects, disease, fire, and wind all affect forest conditions. To some degree, forest managers have the opportunity to direct change through timber harvest or prescribed fire for a variety of objectives, including wildlife habitat improvement, fire and fuels treatments, or timber production.

The forests of the Bighorn National Forest are primarily lodgepole pine and spruce/fir (Engelmann spruce and subalpine fir), which are commonly referred to as the 'subalpine' forest. Lesser amounts of Douglas-fir, limber pine, and ponderosa pine occur. The subalpine forest is characterized by infrequent, large scale disturbance events. Because of high road costs, small diameter trees, and having less than 50% of the forested area within the tentatively suited timber base, large scale disturbances will continue to occur. Most of the opportunity for reducing fire risk, improving wildlife habitat and achieving other objectives will likely occur on the lands suited for timber harvest and in the wildland-urban interface.

- b. **Where specifically on the Bighorn National Forest should timber be harvested for the objective of providing raw material to the wood products industry?** This question is answered by the identification of suited lands, which varies considerably by alternative.

Recent purchasers of Bighorn National Forest timber resources are primarily Wyoming Sawmills, with a mill in Sheridan, WY; RY Timber, with a mill in Livingston, MT; Cody Lumber, with a mill in Cody, WY; and L&L Sawmill, with a mill in Buffalo, WY.

The 1985 Forest Plan originally set the Allowable Sale Quantity at 149 million board feet for the first decade. That output was approximately achieved for the first four years of plan implementation. However, the 1987 Forest Plan monitoring and evaluation report noted that the ASQ output was not consistent with the standards and guidelines in the 1985 Forest Plan. Over the life of the plan, the Bighorn has offered about 48% of the total programmed output anticipated by the 1985 Plan. The balance of timber supplies for local mills has

been provided by private and state lands. Lumber prices, energy costs, international imports, and alternative supply sources all influence the share of timber supplies provided by a single landownership. Consequently, the future demand for timber from the Bighorn National Forest cannot be characterized by a simple projection of historic trends. It can be stated with certainty, however, that current mill capacities far exceed the volume offered.

Recreation and Travel Management

The Bighorn National Forest is important as both a primary destination and an “overnight” stop for travelers heading to and from Yellowstone National Park and the Black Hills of South Dakota. Principal recreation activities include driving for pleasure, camping, hunting, fishing, hiking, horseback riding, and all-terrain vehicle (ATV) use. Many campgrounds are near capacity during the summer and finding remote locations for dispersed recreation (recreation occurring outside developed facilities) is becoming more difficult. Winter use (snowmobiling, snow play, Nordic skiing) is very popular.

There are 504 developed campsites found on 37 campgrounds on the Forest, with capacity for 264,360 persons over the course of an average season. In recent years, when averaged across the entire camping season, campground use levels average between 26-28% of season-long capacity, with markedly higher use levels occurring during the peak use times of July and August.

There are approximately 3,000 dispersed sites inventoried outside of the Cloud Peak Wilderness. Approximately half that number are also found within the Cloud Peak Wilderness.

There are 256 miles of nonmotorized trails outside the Cloud Peak Wilderness. Approximately 143 miles of trails are inside the Cloud Peak Wilderness. Pressure for backcountry recreation opportunities has leveled in recent years although as use increases, it is anticipated that the importance of primitive and semi-primitive recreational settings will continue to grow as destinations for hikers, horseback riders, and other primitive-sport recreationists.

There are approximately 432 miles of motorized summer trails, and almost 300 miles of snowmobile trails. Unlike most of the Forest, there currently are four areas where off-route motorized travel is still permissible, commonly referred to as “C areas” (for their designation on the Forest travel map), amounting to almost 124,000 acres, or approximately 11% of the Forest. Resource damage due to uncontrolled motorized travel in these “C areas,” when combined with the projected growth in motorized recreation, poses a major recreation management issue that was largely unanticipated in the 1985 Forest Plan.

Much of the Bighorn National Forest is roaded. Popular activities associated with, or dependent on, roaded access are hunting, driving for pleasure, OHV riding, viewing wildlife, and dispersed camping. For this reason, the 1,544 miles of classified National Forest System roads on the Forest are highly valued by many members of the public.

Decisions about closing motorized system routes will not be made during forest plan revision. Travel management planning will continue to be conducted at the project level and incorporate the NEPA process including public involvement to address new route construction, reconstruction, decommissioning, or closures. This is already occurring with regard to the existing “C areas” to ensure that adequate and appropriate motorized recreation opportunities are maintained during the next planning period.

Conflicts between winter motorized and winter nonmotorized recreationists are increasing, primarily based on a common desire to experience the same forested settings concurrently. The same areas sought after for a quiet winter recreation experience are also those which are both desirable to and accessible by snowmobilers.

Based on numerous sources of information, including the Social Assessment completed in support of this Forest Plan, anecdotal data, National Visitor Use Monitoring Data, and Bighorn National Forest Recreation Use Data (FRUD), recreation use levels for all activities together is expected to increase on the Bighorn by nearly 20% by 2025.

Roadless/Wilderness

Planning regulations (36 CFR 219.17) require the Forest Service to inventory, evaluate, and consider roadless areas for possible inclusion in the National Wilderness Preservation System.

The existing Cloud Peak wilderness totals 189,039 acres, approximately 17% of the Forest. The roadless area inventory on the Bighorn National Forest, dated 2003, identified 20 roadless areas on the Forest, totaling 377,471 acres (34% of the Forest). Eight areas were found to be capable and available for wilderness and were evaluated for proposed wilderness designation.

Part of the Forest Plan decision will be to determine objectives for existing roadless areas that are not recommended for wilderness. Depending on the alternative, the roadless areas may be allocated to Management Areas that will maintain their roadless characteristics or to Management Areas that could alter the roadless character.

Currently enjoined by the U.S. District Court of Wyoming, the Roadless Area Conservation Final Rule, 66 FR 3244 (RACR), was published on January 12, 2001. The RACR, codified at 36 CFR 294 Subpart B (2001), would have prohibited new road construction and timber harvest in inventoried roadless areas subject to exceptions. The inventoried roadless areas the RACR was based on are areas identified in a set of inventoried roadless area maps, contained in *Forest Service Roadless Area Conservation, Final Environmental Impact Statement, Volume 2*, dated November 2000. Until further legal decisions are rendered, the Forest Service will manage inventoried roadless areas in compliance with the direction in the Revised Forest Plan.

Special Areas

Wild and Scenic Rivers: In the 1985 Forest Plan, the Little Bighorn and Tongue Rivers were determined to be eligible as potential additions to the National Wild and Scenic Rivers System. In 1989 the Little Bighorn was recommended to Congress for official designation. As of this date, Congress has not acted on this recommendation. In the current Plan, both the Little Bighorn and Tongue Rivers remain as a wild and scenic management area, their unique qualities safeguarded by specific standards and guidelines. The Forest has five potential Wild and Scenic River candidates: the Little Bighorn River, Tongue River, South Rock Creek, Porcupine Creek, and Paintrock Creek. Each of the five rivers is incorporated in one or more plan revision alternatives.

Special Interest Areas are areas of local interest and are managed to protect or enhance their unusual characteristics. For this plan revision, a comprehensive analysis identified three potential special interest areas representing historical values, which are identified as Management Areas 2.1 and 3.1.

Research Natural Areas (RNAs) are selected to provide a spectrum of relatively undisturbed areas representing a wide range of natural variability within important natural ecosystems and environments. RNAs may serve reference, educational, or research purposes. There are currently two RNAs on the Forest: Bull Elk Park and Shell Canyon. Ecological inventories and evaluations were done on eleven potential RNAs. Of those, four were included in the Revised Plan alternatives.

Development of the Alternatives

In November 1999, a Notice of Intent (NOI) to revise the 1985 Bighorn National Forest Plan was published in the Federal Register. The NOI contained a description of the Forest Service Proposed Action based on five major revision topics. Written comments on the NOI were received from the public and analyzed in alternative development.

A series of public meetings were held between October 2000 and January 2001 to solicit public input on revision issues. Newsletters and information posted on the internet generated additional public input. Based on public comment, the initial revision issues were modified as they appear above and in Chapter 1 of the DEIS.

The Forest Service Revision Interdisciplinary (ID) team used the issues to develop a range of alternatives and to define the major differences between the alternatives. The ID team developed maps for three initial alternatives. Using an iterative process, the ID team discussed these alternatives with various groups and added additional alternatives based on these discussions. American Wildlands, Biodiversity Associates, Bighorn Forest Users Coalition, The Wilderness Society, Wyoming Outdoor Council, and the Wyoming Chapter of the Sierra Club presented the “Citizen’s Conservation Alternative” for consideration, and the ideas were incorporated into the alternatives by the ID team.

The alternative maps were then presented to the public for review at a series of meetings, in a newspaper insert, and on the Internet in January 2003. Based on public comment, the alternatives were modified again.

Six alternatives were presented to the Regional Forester and key Regional staff in February 2003. Based on the major revision topics addressed by each alternative, comparison of major differences between alternatives, responsiveness of the alternatives to the Forest Service mission and applicable laws and regulations, the Regional Forester approved a range of six alternatives to analyze in detail for the Draft Environmental Impact Statement (DEIS).

The DEIS summarizes the analysis and effects of 5 alternatives (A-E) and a No Action alternative. The sixth alternative approved by the Regional Forester, Alternative G, has since become an alternative considered but not analyzed in detail because of the July 2003 US District Court ruling that enjoined the Roadless Area Conservation Rule from implementation. A baseline alternative (the No Action Alternative) is used as a benchmark and is summarized in the DEIS. Analysis results for these alternatives are displayed for the applicable topics in Chapter 3 of the DEIS.

Important Points About All Alternatives

All alternatives represent, to varying degrees, the philosophies of multiple use and ecosystem management. The alternatives provide basic protection for the forest resources and comply fully with environmental laws. As directed by federal law, Forest Service policy, and regulations, all the alternatives will do the following:

- ◆ Maintain soil, air, water, and land resources.
- ◆ Provide for a variety of life through management of biologically diverse ecosystems, though they differ in how they emphasize native plant and animal management.
- ◆ Provide recreation opportunities and maintain scenic quality in response to the needs of National Forest users and local communities. Protect heritage resources in accordance with applicable laws and regulations, while also providing recreational and educational opportunities.
- ◆ Sustain multiple uses, products, and services in an environmentally acceptable manner. This includes timber harvest, livestock grazing, locatable and leasable mineral extraction, and recreation uses.
- ◆ Improve financial efficiency for most programs and projects by minimizing expenses, recognizing that not all programs and projects produce revenue.
- ◆ Emphasize cooperation with individuals, organizations, Indian tribes, and other agencies to coordinate the planning and implementation of projects.

- ◆ Promote rural development opportunities to enrich rural cultural life, to enhance the environment, to provide employment, and to improve rural living conditions.
- ◆ In all alternatives (except for the No Action Alternative), use new management area prescription numbers to be consistent with other National Forests in Region 2.

Actual outcomes and practical results were estimated for each alternative using current budget levels, which assumes that future funding levels will keep pace with inflation. Historically, the Forest Service has not received the funds necessary to fully implement its management plans. The budget was allocated between programs based on the theme of each alternative, the expected goods and services provided, and the necessary actions and expenditures required to deliver those goods and services.

Management direction contained in the Revised Plan applies to all alternatives, except for the No Action Alternative, which has the direction from the 1985 Forest Plan.

The Preferred Alternative

The responsible official, the Regional Forester for the Rocky Mountain Region, has identified Alternative D as the preferred alternative, which will be used as the template to develop a final alternative. It is anticipated that aspects of the other alternatives, as identified during the public comment period, will be incorporated into Alternative D for the final, selected, Forest Plan. This is not a decision but rather an indication of the agency's preference at this stage of analysis. According to the Council on Environmental Quality, the "agency's preferred alternative" is the alternative the agency believes would fulfill its statutory mission and responsibilities, giving consideration to economic, environmental, technical, and other factors. Public comments on the effects analysis, new information, and additional analysis of effects are likely to result in refinement of this alternative in the Final EIS or selection of a different alternative in the Record of Decision.

Description of the Alternatives

Alternatives differ from each other in the way they respond to revision topics. They address changes to each component of the 1985 Plan: standards and guidelines, management area allocations, monitoring and evaluation, allowable sale quantity, oil and gas leasing availability, wilderness recommendations, identification of eligible wild and scenic rivers, and potential research natural areas.

For consistency with other Forests in the Rocky Mountain Region and surrounding regions, all alternatives (except the No Action alternative) include the new management area prescriptions. The following table summarizes the management area prescription categories in the Draft Revised Plan. These categories are used in the pie charts below that summarize Alternatives A-E.

Table 2. Revised Plan Management area prescription categories.

Category	Included Management Areas
Category 1	Wilderness, Recommended Wilderness, Wild Rivers, Nonmotorized Recreation, Limited Winter/Summer Motorized
Category 2	Research Natural Areas, Special Interest Areas
Category 3	Backcountry Recreation, Scenic Rivers, Plant and Wildlife Habitat
Category 4	Scenery, Dispersed Recreation, Recreation Rivers
Category 5	General Forest and Rangelands, Forest Products, Deer and Elk Winter Range, Plant and Wildlife Habitat, Dispersed Recreation and Forest Products
Category 8	Ski areas

The No Action Alternative – 1985 Forest Plan as Currently Implemented

The No Action Alternative reflects current forestwide direction. It meets the NEPA requirement (36CFR 219.12(f)(7) that a No Action Alternative be considered.

‘No Action’ means current management allocations, activities, and management direction found in the 1985 Forest Plan would continue. The No Action alternative estimates approximately the current level of outputs and types of Forest Service management activities. The fifteen amendments to the 1985 Plan, changes in law, regulation, Forest Service policy, and other factors that affect current management are reflected in this alternative. The No Action Alternative retains the 1985 Forest Plan goals and objectives, standards and guidelines, and management area prescriptions, as amended.

This alternative serves as a baseline for comparison for the other five “action” alternatives. After reviewing the “What’s Broken with the 1985 Forest Plan” document for several years, it is apparent that the No Action Alternative is not desirable, for several reasons, including, but not limited to:

- ◆ Species and habitat management direction and monitoring protocols have only been slightly amended since the 1985 Forest Plan and are not the direction the Bighorn NF desires to continue for the next 10- to 15-year planning period.
- ◆ Travel management direction does not reflect the changing technology since the early 1980s and the associated increase in motorized recreation use.
- ◆ The current plan is not up-to-date on fire and fuels management direction.
- ◆ There is no distinction between standards and guidelines in the 1985 Forest Plan.

Because of these, and other reasons included in the project record, the Forest Supervisor determined that this was not an alternative that could guide the Bighorn National Forest for the next 10-15 year period.

Figure 2. Management area allocations for the No Action Alternative (the 1985 Forest Plan as currently being implemented).

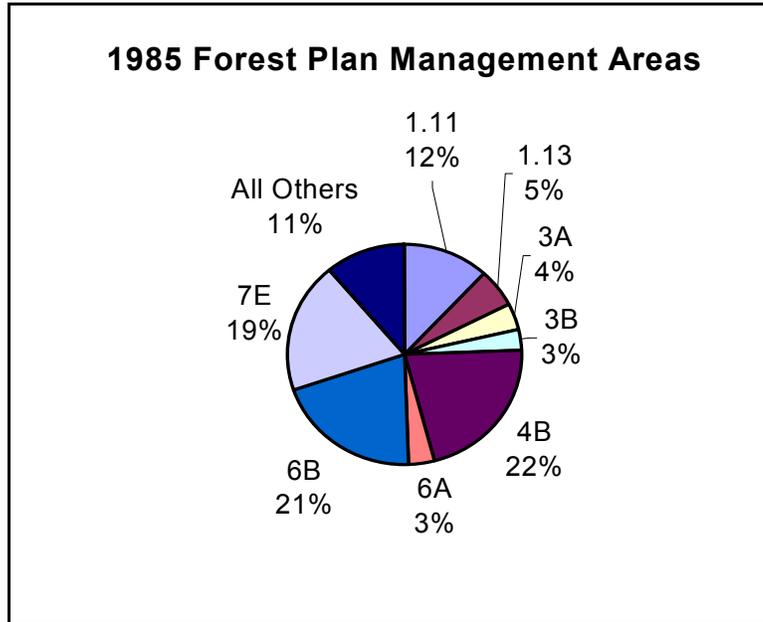


Table 3. Comparison of management areas in the 1985 plan and the Draft Revised Plan.

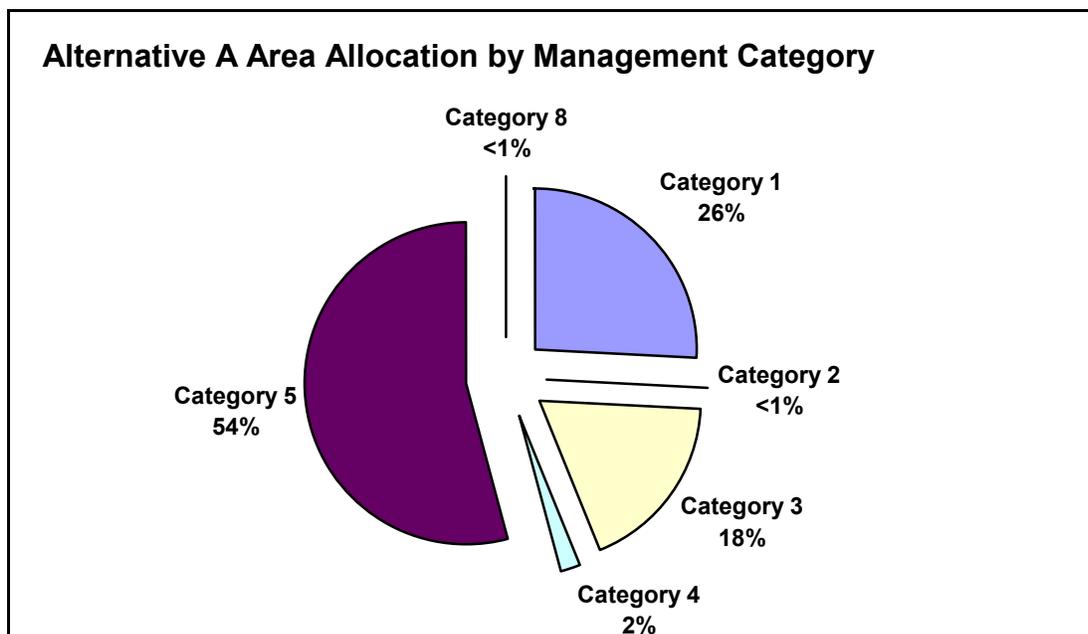
1985 Plan Management Area	Title	Revised Plan Management Area Category
1.11 and 1.13	Pristine and Semi Primitive Wilderness	Category 1
3A and 3B	Nonmotorized and Unroaded Recreation	Category 1
4B	Wildlife Habitat Management - Mgt. Indicator Species	Category 3 and 5
6A and 6B	Livestock Grazing	Category 5
7E	Wood Fiber Production	Category 5

Alternative A

In this alternative, the boundaries of 1985 Forest Plan management areas, as amended, remain the same. However, all other direction has been updated: the goals and objectives, the standards and guidelines, the management area direction, and the monitoring plan. This alternative compares the desirability of retaining the smaller management areas utilized in the 1985 Forest Plan with the larger management areas proposed under Alternatives B, C, D, and E.

Alternative A emphasizes active vegetation management, primarily through timber harvest and prescribed fire. Production of sawtimber, firewood, and other wood products and forage for livestock grazing is emphasized, as is managing to diversify wildlife habitat. A mix of recreation opportunities is provided, with a greater potential emphasis on motorized recreation compared to the majority of alternatives. The program focus is similar to the 1985 Forest Plan since the current management area emphases are retained.

Figure 3. Alternative A management area allocations by management area category.

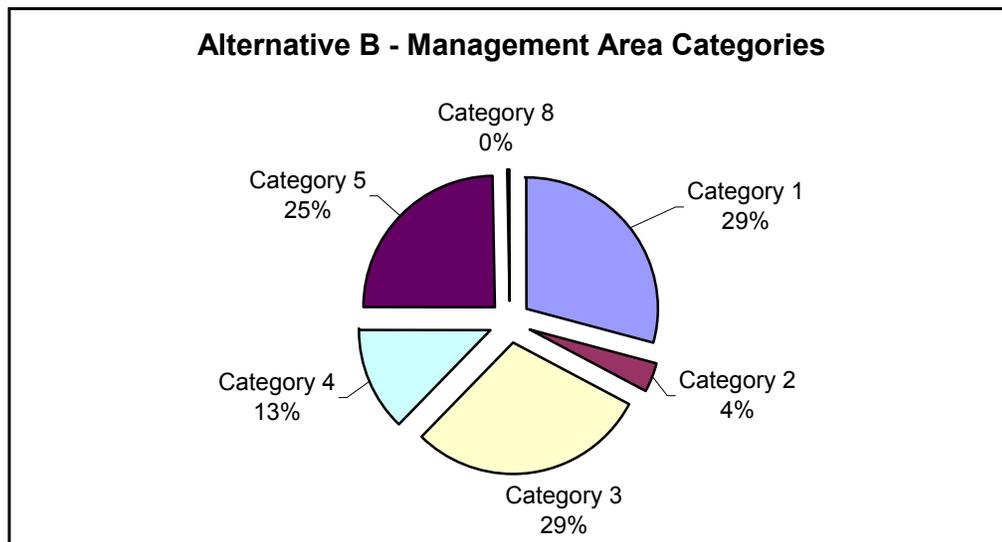


Alternative B

Alternative B was developed in response to public comment that the vegetation resources need active management to achieve biological and habitat diversity, while still providing a sustainable output of other forest uses. Relative to the other alternatives, this alternative places a higher priority on physical and biological resources than other uses.

Alternative B prioritizes management of vegetation types, including the use of timber harvest and fire, to improve wildlife habitat by allocating the most area to Management Area 3.5 compared to the other alternatives. Other areas of the Forest continue to be managed for wood products and livestock forage. This alternative explores the pros and cons of trying to improve plant and animal habitats with less road construction. Along with Alternative C, it recommends the greatest number of miles for Wild and Scenic River classification.

Figure 4. Alternative B management area allocations by management area category.



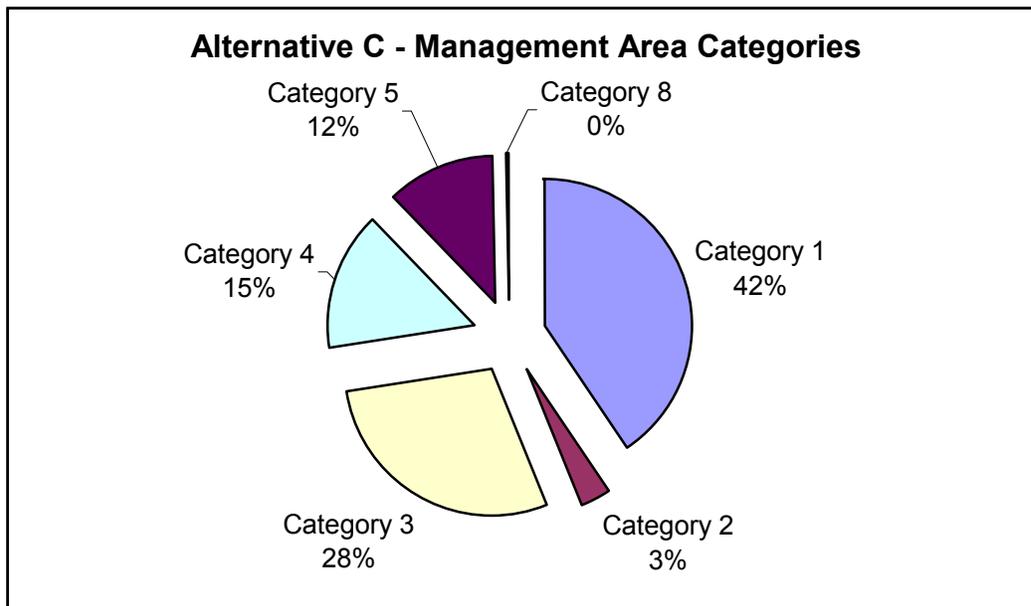
Alternative C

Alternative C was developed in response to public comment that the undeveloped land on the Forest should remain undeveloped to provide for nonmotorized opportunities, natural processes, and undeveloped recreational settings.

Alternative C emphasizes natural processes to sustain ecological systems, including fish and wildlife habitat. Lands identified for timber production are in a general forest management area (5.11), rather than in a timber production management area (5.13). The 5.11 areas are on land where timber harvest has occurred in the past, and the road system is in place.

Forested habitat successional changes will be dictated more by nature (fire, insects, and diseases) than in the other alternatives, which will result in large, contiguous blocks of either early or late successional stages. Unlike the rest of the alternatives, this alternative includes a Wilderness recommendation (MA 1.2) of 125,569 acres. It also (along with Alternative B) recommends the greatest number of miles of Wild and Scenic River classification.

Figure 5. Alternative C management area allocations by management area category.



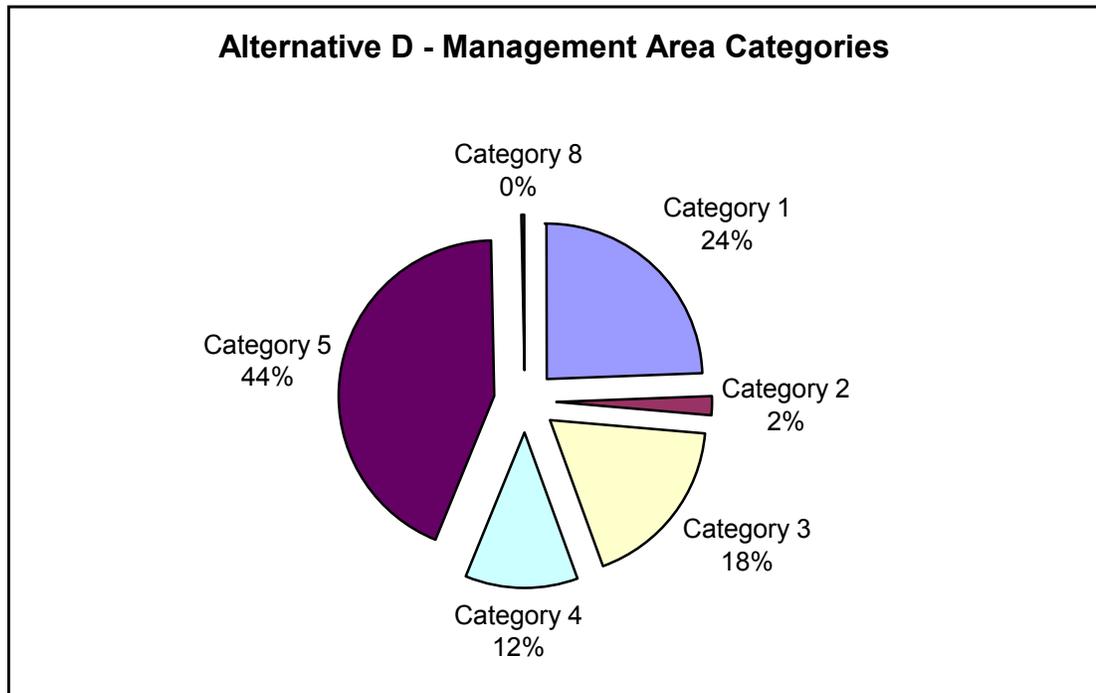
Alternative D

Alternative D was developed by reviewing past forest plan monitoring reports and adjusting management area boundaries and forest plan direction to reflect the changes in human uses, technologies, and scientific information that has occurred since the mid-1980s.

This alternative emphasizes active vegetation management, primarily through timber harvest and prescribed fire; providing sawtimber, firewood, and other wood products; livestock grazing; and diversifying wildlife habitat. This alternative occupies the “mid range” in terms of overall mix of motorized and nonmotorized recreation opportunities.

A mix of wildlife habitat will be provided. In managed forested areas, a more even distribution of structural stages will be provided through active management. In other areas, successional pattern and habitats will be dictated by natural events, including insects, disease and fire, and larger contiguous blocks of similar habitat conditions will occur.

Figure 6. Alternative D management area allocations by management area category.



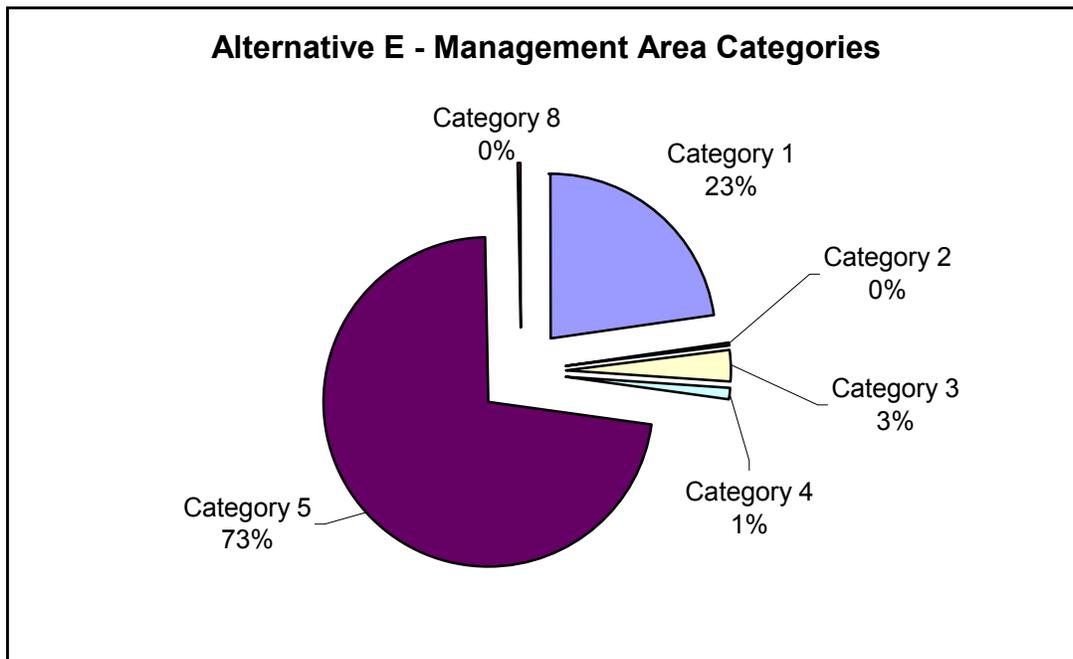
Alternative E

Alternative E was developed in response to public comment to assure a substantive timber output. Under this alternative, nearly all of the tentatively suited timber areas are made suited for timber production.

This alternative maximizes timber harvest opportunities. Forested vegetation desired conditions include minimal damage to commercial wood products from insects, disease, and fire. Wildlife habitat structural stages will occur in a relatively balanced distribution, with more early structural stages than in the other alternatives.

The potential for additional motorized recreation opportunities will be greatest in this alternative.

Figure 7. Alternative E management area allocations by management area category.



Alternatives Considered, but Eliminated from Detailed Study

Several alternatives were considered and eliminated from detailed study during the planning process. These alternatives and the reasons for their elimination are described in Chapter 2 of the DEIS. These alternatives are considered when defining the ‘range of alternatives’ described in the Council of Environmental Quality’s direction for implementation of the National Environmental Policy Act.

Comparison of Alternatives

The following tables in this section are designed to help the reader understand and compare the land allocations, the activities and outputs, and the environmental effects of the alternatives considered in detail. The tables focus on measurable differences among alternatives, summarizing more detailed information that is found in Chapter 3. Additional material and information on the alternatives and effects are in the project record, on file at the Forest Supervisor’s Office in Sheridan.

Table 4. Summary of key land allocations: management area prescriptions in acres.

Management Areas	Alt A	Alt B	Alt C	Alt D	Alt E	1985 Forest Plan Nearest Equivalent	No Action
1.11 Pristine Wilderness	130,799	130,803	130,798	130,798	130,808	Same – per Plan Amendment 14, 8/1/98	131,222
1.13 Wilderness, Semi-primitive	61,098	61,094	61,100	61,100	61,090	Same – per Plan Amendment 14, 8/1/98	60,676
1.2 Areas Recommended for Wilderness	0	0	125,569	0	0		0
1.31 Backcountry Recreation, Nonmotorized	0	34,273	235	24,711	7,702	3A Semi-primitive nonmotorized recreation. 3B Primitive Recreation	78,993
1.32 Backcountry Recreation, Nonmotorized Summer with Limited Winter Motorized	58,943	42,342	71,209	36,939	27,472	3A Semi-primitive nonmotorized recreation. 3B Primitive Recreation	
1.33 Backcountry Recreation with Limited Summer and Winter Motorized Use	20,053	32,546	36,901	6,099	15,224		
1.5 National River System-Wild Rivers	13,217	20,871	22,082	10,251	10,420	10D Wild and Scenic River Corridors	13,217
2.1 Special Interest Areas (outside Wilderness)	89	20,004	17,024	0	0		0
2.2 Research Natural Areas (outside Wilderness)	1,618	21,190	21,188	21,190	1,618	10A Research Natural Areas	1,618
3.1 Special Interest Area, Medicine Wheel	61	20,863	20,865	20,863	20,863	10C Special Area	150
3.24 Riparian and Aquatic Ecosystem Management	931	0	0	0	0	9A Riparian and Aquatic Ecosystem Management	931
3.31 Backcountry Recreation, Year-round Motorized	25,464	118,242	193,877	82,733	12,719	2A Semi-primitive Motorized Recreation	25,455
3.4 National River System - Scenic Rivers (outside Wilderness)	17,110	5,815	4,817	2,887	1,470	10D Wild and Scenic River Corridors	17,110

Management Areas		Alt A	Alt B	Alt C	Alt D	Alt E	1985 Forest Plan Nearest Equivalent	No Action
3.5	Plant and Wildlife Habitat Management	156,448	178,587	95,325	94,823	0	4B Wildlife Management Indicator Species (unsuited timber)	148,064
4.2	Scenery	19,147	95,418	93,294	102,083	6,007	2B Rural/Roaded Natural Recreation	19,147
4.3	Dispersed Recreation	0	36,234	63,888	25,558	4,794		0
4.4	Recreation Rivers	0	10,901	10,900	74	0	10D Wild and Scenic River Corridors	0
5.11	General Forest and Rangelands – Forest Veg. Emphasis	93,160	89,657	92,484	170,454	190,161	4B Wildlife Management Indicator Species (suited timber)	88,206
5.12	General Forest and Rangelands – Rangeland Veg. Emphasis	263,636	72,155	19,557	182,092	51,428	6A Livestock Grazing Improve Forage Composition 6B Livestock Grazing Maintain Forage Composition	263,298
5.13	Forest Products	210,213	83,228	0	100,930	198,977	7E Wood Fiber Production	210,217
5.13.1	Forest Products, RACR 4(b) exceptions	0	0	0	0	0		0
5.21	Increase Water Yield, Vegetative Management	3,991	0	0	0	0	9B Increase Water Yield, Vegetative Management	3,991
5.4	Plant and Wildlife Habitat	0	0	0	0	134,374		
5.41	Deer and Elk Winter Range	27,680	28,213	21,325	28,852	29,638	5A Non-forested Wildlife Winter Range 5B Forested Wildlife Winter Range	28,037
5.5	Dispersed Recreation and Forest Products	0	0	0	0	197,710		
8.21	Water Impoundment – Twin Lakes, Tie Hack	141	0	0	0	0	9E Water Impoundment – Twin Lakes, Tie Hack	

Management Areas	Alt A	Alt B	Alt C	Alt D	Alt E	1985 Forest Plan Nearest Equivalent	No Action
8.22 Ski-based Resorts: Existing/Potential	1,217	2,580	2,580	2,575	2,540	1B Winter Sports Sites	1,217
	0	0	0	0	0	1A Developed Recreation Sites	0
	0	0	0	0	0	4D Aspen Stand Management	13,368
	0	0	0	0	0	10C Preacher Rock Bog	0
Total	1,105,016	1,105,016	1,105,018	1,105,012	1,105,015		1,104,981

Table 5. Comparison of alternatives.

	No Action	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Timber Suitability and Management of Forested Lands						
Forested Acres	727,240	727,240	727,240	727,240	727,240	727,240
Tentatively Suitable – Acres	351,916	340,589	340,589	340,589	340,589	340,589
Suitable - Acres	262,062	271,895	124,521	62,093	184,606	305,535
Acres Scheduled for Harvest	--- ¹	231,290	111,677	54,222	159,224	238,972
Annual ASQ - MMBF	4.5	11.0	5.6	2.6	7.2	12.0
Annual Total Sale Program - MMBF	8.5	12.5	7.4	3.6	8.6	14.7
Harvested Acres, Suited Lands ²						
Lodgepole pine Clearcut		307	498	67	736	740
Lodgepole pine Shelterwood		1,561	0	406	0	74
Lodgepole pine Uneven-aged selection		0	230	6	0	1,293
Spruce/fir Shelterwood		780	354	130	264	794

¹ The No Action alternative was not included in the timber model computer simulations.

² All acre projections are annual, unless otherwise noted. No acres estimated for No Action.

	No Action	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Timber Suitability and Management of Forested Lands, cont.						
Spruce/fir Uneven-aged selection		0	0	0	0	127
Douglas Fir Shelterwood		197	49	4	56	273
Douglas Fir Uneven-aged selection		0	0	0	0	44
Total Acres		2,845	1,131	613	1,056	3,344
Acres Treated: Aspen		10	20	10	20	20
Acres Treated: Forested Mechanical treatment (other than ASQ harvest)		100	400	100	400	600
Acres Treated: Forested prescribed fire		500	1,100	250	1,050	250
Acres Treated: Non-Forested prescribed fire		2,000	3,000	1,500	2,500	2,500
Total acres treated (other than ASQ harvest)		2,610	4,520	1,860	3,970	3,370
Total prescribed burning - Acres		2,500	4,100	1,750	3,550	2,750
New Road Construction –miles/year		2.9	2.0	0.9	2.7	3.2
Road Decommission – miles/year	4.0	4.0	4.0	4.0	4.0	4.0
Roadless/Wilderness						
Roadless Acres – RACR ³	623,014	623,014	623,014	623,014	623,014	623,014
Roadless Acres – 2003 Inventory	377,471	377,471	377,471	377,471	377,471	377,471
Acres Remaining Roadless ⁴	34,000	76,300	142,256	254,240	94,024	53,891
Existing Wilderness	189,039	189,039	189,039	189,039	189,039	189,039
Proposed Wilderness	0	0	0	125,569	0	0

³ RACR = 2001 Roadless Area Conservation Rule

⁴ This is calculated by totaling the acres in management areas 1.2, 1.31, 1.32, 1.33, 1.5 and 2.2. These management areas generally retain roadless characteristics as defined by the Roadless Area Conservation Rule.

	No Action	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Special Areas						
Wild Rivers – miles	20.01	20.01	52.34	55.58	15.9	15.9
Scenic Rivers – miles	32.85	32.85	13.15	9.91	4.11	4.11
Recreational Rivers – miles	0	0	21.75	21.75	0	0
Research Natural Areas – number	2	2	6	6	6	2
Research Natural Areas – acres	1,618	1,618	21,190	21,190	21,190	1,618
MA 3.1 – Medicine Wheel – acres ⁵	110	110	20,863	20,863	20,863	20,863
MA 2.1 – Elephant’s Foot – acres	0	0	2,980	0	0	0
MA 2.1 – Buck Creek Veas – acres	0	0	17,024	17,024	0	0
Recreation and Travel Management						
ROS ⁶ - Primitive	181,232	154,769	178,190	190,827	173,219	148,674
ROS – Semi-Primitive Non Motorized	278,105	185,277	223,212	262,605	175,920	96,785
ROS – Semi-Primitive Motorized	372,549	172,972	331,361	385,763	180,471	61,953
ROS – Roaded Modified	106,532	454,766	203,017	89,022	394,429	631,486
ROS – Roaded Natural	140,393	127,327	139,813	147,774	148,337	159,850
ROS - Rural	32,544	9,906	29,422	29,025	32,641	6,269
% of NF open to Winter Motorized Travel - acres	72%	72%	68%	61%	69%	72%
Open to Summer Off-Road/Off-Trail Motorized Travel - acres	124,585	0	0	0	0	0

⁵ The existing Medicine Wheel National Historic Landmark is 110 acres. The acreage shown for the Medicine Wheel management area, 20,863 acres, is the GIS approximation for the Historic Preservation Plan area.

⁶ Recreation Opportunity Spectrum

	No Action	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E
Biological and Habitat Diversity						
Management Indicator Species - number	6	6	6	6	6	6
Natural Processes are Primary Forest Change Agent - % of Forested Lands ⁷	63%	63%	83%	91%	75%	58%
Other Topics						
Economics – Jobs (% change in 2010 compared to 2001)	+5.3%	+6.8%	+5.5%	+5.0%	+6.0%	+7.2%
Economics – Income (% change in 2010 compared to 2001)	+6.0%	+9.8%	+6.4%	+4.8%	+7.5%	+10.5%
Grazing – # of Active Allotments	86	86	86	86	86	86
Grazing – Permitted AUMs	118,000	118,000	118,000	118,000	118,000	118,000
% of NF open for Oil/Gas leasing	NA ⁸	83%	83%	83%	83%	83%
% of NF available for O/G leasing but no surface occupancy	NA	24%	34%	38%	20%	8%
% of NF available for O/G leasing, Standard Lease Terms	NA	52%	22%	10%	41%	58%

⁷ This percentage is the % of unsuited forested lands for each alternative. For alternative A, for example, there are 271,895 suited acres out of 727,240 total forested acres, or 37% of the forested area is suited, which is where active timber management is most likely to occur. Therefore, on 63% of the forested area, natural processes will be more likely to be the dominant disturbance agent.

⁸ The 1985 Forest Plan was never amended to make Oil and Gas Leasing decisions.