# **Chapter 2. Alternatives**

## Introduction

This chapter describes the alternatives considered for the revision of the 1986 Shoshone National Forest Land and Resource Management Plan. This section also presents the alternatives in comparative form, defining the differences in each alternative, and providing a clear basis for choice among options by the decision maker and the public. The revision includes changing all or a portion of, the programmatic decisions that make up the revised Forest Plan. This chapter provides the following five discussions:

- Development of the alternatives;
- Elements common to all alternatives;
- Description of each alternative;
- Alternatives considered but eliminated from detailed study; and
- Comparison of the alternatives. This discussion summarizes the effects of the alternatives described in detail in chapter 3.

## **Development of Alternatives**

On September 24, 2010, a notice of intent (NOI) to revise the 1986 Forest Plan as amended and prepare an environmental impact statement (EIS) was published in the Federal Register (Vol. 75, No. 185:58348-58350). The NOI listed information that would be used to develop the proposed action.

In early January 2012, the proposed Draft Forest Plan was made available to the public for informal review on the Shoshone National Forest website. We analyzed and considered the public's written comments during the development of the draft revised forest plan and alternatives analyzed in this document.

As discussed in chapter 1, this revision of the forest plan is based on "need for change." Topics specifically identified as a need for change, are the focus for change. We identified a list of key issues, or revision topics (December 2005), based on the need for change. These topics drove alternative development. Some additional items are addressed in the revision because they are required by planning regulations (i.e., 36 CFR 219.14 through 219.26 (1982)).

Alternative A, the "no-action alternative," reflects current management practices under the existing forest plan, as amended and implemented, and provides the basis for comparing alternatives to current management and levels of output. While all alternatives provide a wide range of multiple uses, goods, and services, some give slightly greater emphasis to selected resources based on the theme of the alternative and response to revision topics.

We based alternatives to the no-action alternative on the need for change identified in implementation and monitoring of the current forest plan, the *Comprehensive Evaluation Report* (2009). Much of this information was carried over into the *Analysis of the Management Situation* (*AMS*) released January 2012, working group meetings with Cooperating Agencies (2009–2012), informational and comment meetings (2009–2012), public issues raised during scoping, from the review of the AMS, comments received on the NOI published in 2010, and public comments on the proposed draft revised Forest Plan released in January 2012. Alternatives represent a range of possible management options from which to choose. Each alternative emphasizes specific land and

resource uses and de-emphasizes other uses in response to the revision topics. This is done by changing management area allocations, resulting in trade-offs among the alternatives.

A forest plan provides broad direction but does not authorize specific actions. Authorization of specific actions is made through site-specific project analyses. As a result, the final environmental impact statement (FEIS) provides an estimate of effects that may or may not occur. One of the primary reasons for this uncertainty is future budget levels. Outputs and effects estimated in the FEIS are assumed to be achievable under current and anticipated future budget levels. Because activities, outcomes, and effects are sensitive to budget levels, each alternative has been analyzed at a constrained budget, which reflects a 6-year average of funds allocated to the Shoshone for fiscal years 2006 through 2011. Funding by program was adjusted by alternative to meet the theme of the alternative. Should Congress emphasize specific programs by appropriation, a redistribution of priorities would follow, regardless of the alternative implemented.

We developed a range of alternatives to the proposed action (proposed revised Forest Plan) to meet the purpose of and need for change and address one or more of the revision topics. These alternatives are considered for detailed study. Not all possible alternatives were carried into detailed study as the list of options would have been prohibitively large. Instead, the responsible official identified those alternatives that met the criteria and created a reasonable range of outputs, direction, costs, management requirements, and effects from which to choose.

## Important Points about All Alternatives

All alternatives represent, to varying degrees, the philosophies of multiple-use and ecological and economic sustainability. The alternatives provide basic protection of forest resources and comply fully with environmental laws. All the alternatives would:

- Meet law, regulation, and policy;<sup>5</sup>
- Meet the purpose and need for change and address one or more revision topics;
- Incorporate ecosystem management objectives and strategies, and contribute toward ecological, social, and economic sustainability;
- Provide integrated restoration direction as included in the Forest-wide goals, desired conditions, objectives, standards and guidelines;
- Retain all existing permitted activities and facilities; and
- Provide sustainable and predictable levels of products and services.

#### The Preferred Alternative

The responsible official, the regional forester for the Rocky Mountain Region, identified alternative G as the preferred alternative for this FEIS. **This does not represent a decision, but rather an indication of the agency's preference at this stage of analysis.** A final decision will be documented in the record of decision (ROD) and may contain refinement to the preferred alternative or selection of a different alternative.

<sup>&</sup>lt;sup>5</sup> With the exception of the 2001 Roadless Rule. Under alternatives A, E, and F, some inventoried roadless areas are assigned management areas that allow timber harvest and road construction. All permits will be reviewed for compliance with the new Plan. Any permit found to be out of compliance will be brought into compliance as soon as practicable using a variety of tools, including modifications or amendments to the permit.

See the revised Forest Plan for detailed descriptions of the management area direction. All action alternatives draw from the same set of management area descriptions, the differences being the acres allocated to each management area.

#### Elements Common to all Alternatives

All alternatives in this document adhere to multiple use and sustained yield of goods and services (36 CFR 219.1(a), (b)). In addition, they share objectives and standards for managing forest resources and complying with applicable laws and policies. They also contain the same direction to contribute to the diversity of native and desired non-native plant and animal communities and contribute toward the recovery of threatened and endangered species. Forest-wide direction identified in the revised Forest Plan would apply to all action alternatives. The difference between alternatives is primarily the difference in allocation of acres by management area to meet the purpose of and need for change, and address one or more of the revision topics.

We developed each alternative with the intent of complying with all applicable laws and regulation, as well as national policy and direction including, but not limited to, the Healthy Forests Initiative, National Fire Plan, and National Energy Policy.

The following would not change among alternatives:

- Revised Forest Plan Goals, Desired Conditions, and Standards and Guidelines –
   Management area and Forest-wide direction for goals, desired condition, standards, and guidelines remains constant for all action alternatives.
- Developed Recreation Sites Existing developed recreation sites are retained in all alternatives. Alternatives do not make decisions to remove or to create developed recreation sites. Allocation of primary recreation areas remains constant for all action alternatives.
- Administrative Sites Existing administrative sites remain constant in all alternatives.
- Utility Rights-of-Way and Communication Sites Direction for and location of designated utility rights-of-way and communication sites remain constant for all alternatives.
- Wild and Scenic Rivers Direction for and allocation of, eligible wild and scenic rivers remain constant for all action alternatives. Management would provide protection of 16 eligible wild and scenic river segments.
- Designated Wilderness The five congressionally designated wilderness areas remain constant for all alternatives. These existing areas are: Absaroka-Beartooth Wilderness, Fitzpatrick Wilderness, North Absaroka Wilderness, Popo Agie Wilderness, and Washakie Wilderness.

Prescriptions are grouped in categories with similar management characteristics (see table 9). Categories range from little human-caused alteration (Category 1) to substantial human-caused alteration (Category 8). Each alternative allocates land to management area prescriptions at various levels. For a more complete discussion of the categories and management area prescriptions, see chapter 2 of the revised Forest Plan.

Table 9. Management area prescription categories

Category	Included management areas	
Category 1	Wilderness and non-motorized back country	
Category 2	Research and minimal use areas	
Category 3	Natural processes predominate	
Category 4	Recreation use	
Category 5	Forested and grassland ecosystems with a variety of uses	
Category 8	Developed areas	

For consistency with other forests in the Rocky Mountain Region and surrounding regions, all action alternatives include new management area prescriptions. Table 10 includes a brief description of the management areas and a cross-reference to the 1986 Forest Plan as amended management area prescriptions. Not all of these prescriptions are used in all alternatives.

Table 10. Revised Forest Plan management area (MA) descriptions for all action alternatives

MA	Category	Category description	1986 MA
1.1	Wilderness	Wilderness areas are established by an act of Congress that creates the areas and provides direction for management. The primary management mandate in the 1964 Wilderness Act is to preserve wilderness character and to perpetuate the areas' natural conditions "while allowing for the use and enjoyment of wilderness in such a manner that does not leave the area unimpaired for future use and enjoyment as wilderness."	Mixture of 8A, 8B, 8C
1.1A	Glacier Addition to the Fitzpatrick Wilderness	This area was established in the Wyoming Wilderness Act of 1984, which specifically addresses bighorn sheep and recognizes them as an integral part and resource highlight of this wilderness area. The Act states, "Occasional motorized access for administrative purposes and related activities as determined by the Secretary for habitat management, trapping, transporting, and proper management of the area's bighorn sheep population may be allowed."	
1.2	Areas recommended for wilderness	Areas which the Forest Service would recommend to Congress for inclusion in the National Wilderness System are managed to protect wilderness characteristics until Congressional action is taken. Non-conforming activities may be limited or restricted. A wilderness recommendation is a preliminary administrative recommendation that will receive further review and possible modification by the Chief of the Forest Service, the Secretary of Agriculture, and the President of the United States. The Congress has reserved the authority to make final decisions on wilderness designation.	new
1.2A	Recommended High Lakes Wilderness	Wilderness study areas are established by an act of Congress that creates the areas and provides direction for their management. The 14,700-acre High Lakes Wilderness Study Area was designated in the Wyoming Wilderness Act of 1984.	new
1.2B	Recommended Dunoir	Management of the Dunoir Special Management Unit is described in section 5 (a) of the Act of October 9, 1972 Public Law 92-476), designating the Washakie Wilderness.	new
1.3	Back country non- motorized	Back country, non-motorized recreation areas are managed to provide recreation opportunities in a natural-appearing landscape	ЗА

Table 10. Revised Forest Plan management area (MA) descriptions for all action alternatives

MA	Category	Category description	1986 MA
1.5A	Clarks Fork of the Yellowstone River	In 1990, the Clarks Fork Wild and Scenic River Designation Act designated a 20.5-mile segment of the Clarks Fork of the Yellowstone River to be included in the National Wild and Scenic Rivers System. The legislation designated the river corridor (0.25 mile on each side of the river's ordinary high water mark) as a wild river. Wild rivers are those rivers or sections of rivers that are free of impoundments, protect the outstandingly remarkable values and water quality of the rivers, and have essentially primitive	10D
		shorelines.	
1.6A	High Lakes Wilderness Study Area	Wilderness study areas are established by an act of Congress that creates the areas and provides direction for their management. The High Lakes Wilderness Study Area was designated in the Wyoming Wilderness Act of 1984.	10E
1.6B	Dunoir Special Management Unit	Management of the Dunoir Special Management Unit is described in section 5 (a) of the Act of October 9, 1972 (Public Law 92-476), designating the Washakie Wilderness.	10F
2.2A	Line Creek Plateau Research Natural Area	The Line Creek Plateau Research Natural Area was established in 2000 to protect an example of Rocky Mountain alpine tundra vegetation types and associated features (USDA Forest Service 2000).  Research natural areas provide an opportunity for research, study, observation, monitoring, and those educational activities that maintain the natural conditions for which the research	10A
		natural area was established.	
2.3	Proposed research natural areas	This draft plan makes a recommendation to the Forest Service Rocky Mountain Region Research Natural Areas Committee to establish research natural areas for designation. Proposed research natural areas are managed in unmodified conditions for future research, study, observations, monitoring, and educational activities.	
3.1A	Swamp Lake Botanical Area	Botanical areas are a category of Forest Service special interest areas, which are managed to protect or enhance their special interest values. These areas can be designated to protect and manage threatened, endangered, and sensitive plants and animals and other elements of biological diversity for their ecological significance, scenic values, or public popularity. Where appropriate, management emphasis may include developing and interpreting areas of unusual characteristics for public education and recreation. Currently, there is one designated special interest area on the Shoshone, the Swamp Lake Botanical Area.	
3.1B	Proposed Little Popo Agie MoraineGeological Area	Geological areas are a category of Forest Service special interest areas, which are managed to protect or enhance their special interest values.	new
3.1C	Proposed Sawtooth Peatbeds Geological Area	Geological areas are a category of Forest Service special interest areas, which are managed to protect or enhance their special interest values.	new
3.3A	Back country motorized	Back country motorized recreation areas are managed to provide recreation opportunities on trails in a natural-appearing landscape.	2A

Table 10. Revised Forest Plan management area (MA) descriptions for all action alternatives

MA	Category	Category description	1986 MA
3.3B	Back country winter motorized	Back country recreation areas are managed to provide recreation opportunities in a natural-appearing landscape. Summer use is non-motorized. Over-the-snow vehicles are allowed during the snow season.	new
3.3C	Back country summer motorized	Back country recreation areas are managed to provide back country recreation opportunities in a natural-appearing landscape. Motorized use is allowed in summer. Motorized use, including snowmobiles, is not allowed in winter.	new
3.5 (A, B, C, D)	Back country recreation and forest restoration (year-round motorized, winter motorized, summer motorized, year- round non- motorized)	Back country recreation and forest restoration areas are managed to provide recreation opportunities on trails in a natural-appearing landscape while emphasizing the use of vegetation management activities to enhance vegetation diversity and speed vegetation recovery from wildfire and insect epidemics.	new
3.6A	Continental Divide National Scenic Trail	The Continental Divide National Scenic Trail (CDNST) is managed to provide recreation opportunities in a natural-appearing landscape consistent with the 2009 Continental Divide National Scenic Trail Comprehensive Plan (USDA Forest Service 2009).	
3.6B	Nez Perce National Historic Trail	The Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT) is managed to be consistent with the 1990 Comprehensive Management Plan for the NPNHT to protect historic resources.	
4.2	Scenic byways, scenic areas, vistas and travel corridors		
4.3	Back country access corridor	These areas contain scenic roads that provide primary access to back country areas in management area categories 1 and 3. These areas are managed to protect or preserve the scenic values and recreation uses of the corridors.	
4.5A	Proposed Kirwin Historical Area	Historical areas are a category of Forest Service special interest areas, which are managed to protect or enhance their special interest values.	10H
5.1	Managed forests and rangelands	General forest and intermingled rangeland areas are managed to produce forest products, forage, and wildlife habitat, while providing for visual quality and recreational opportunities and a variety of other goods and services. Vegetation is managed to achieve and maintain the desired vegetation condition for livestock, wildlife, recreation, and wood fiber production.	7E
5.2	Public water supply	Watersheds used for public water supply are managed for high quality water, along with other multiple uses.	
5.4	Managed big game crucial winter range	General forest and intermingled rangeland areas are managed to provide habitat for big game on winter range and spring birthing areas, while also providing forest products, recreational opportunities, and a variety of other goods and services. Vegetation is managed to achieve and maintain the desired vegetation condition of big game ranges while also providing for livestock, other wildlife, recreation, and wood fiber production.	Mixture of 4B, 5A and 5B

Table 10. Revised Forest Plan management area (MA) descriptions for all action alternatives

MA	Category	Category description	1986 MA
8.1	Developed recreation areas	These are recreation areas with at least some investment, site modification, and Forest Service improvements either for the protection of the natural site and/or comfort of the users. They provide an array of recreational opportunities and experiences.	1A
8.2	Ski-based resorts	This area contains a developed recreation site that provides an array of recreational opportunities and experiences in a forested environment. The management area includes the area operating under a special use authorization for Sleeping Giant Ski Area.	
8.6	Administrative sites	Administrative sites are areas where Forest Service-owned and leased facilities are present and used to facilitate management of the Shoshone. The management area boundary for Forest Service-owned facilities located on National Forest System lands, such as the Wapiti Ranger Station, includes the area within 150 feet of any improvement. The boundary for Forest Service-owned or leased facilities located in a municipality, such as the ranger district offices and the supervisor's office, includes the lot on which the office is located.	new
	(falls under other MA where these exist)	Emphasis on management of riparian areas and adjacent ecosystems within approximately 100 feet from perennial streams and shores of lakes and other still waterbodies.  Management of water impoundment sites.	9A and 9E

Standards and guidelines vary among management areas in the previous tables; however, for the most part, standards and guidelines for the specific management area are the same for the action alternatives considered in detail and analyzed in chapter 3. The revised Forest Plan contains the complete direction proposed for use. Reiterating that direction here would be redundant; citing the location of that direction by reference is consistent with NEPA regulation, 40 CFR 1500.

All alternatives represent, to varying degrees, the philosophies of multiple use and ecosystem management. The alternatives provide basic protection for the forest resources. 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.
- Use new management area prescription numbers to be consistent with other national forests in Region 2 (in all alternatives except for the no -action alternative).

On January 12, 2001, the Forest Service issued the final Roadless Area Conservation Rule (2001 Roadless Rule) and the record of decision on the rule. The 2001 Roadless Rule took effect March 12, 2001. A lawsuit was filed and on July 14, 2003 the United States District Court for the District of Wyoming issued a permanent national injunction of the 2001 Roadless Rule. On October 21, 2011, the United States Court of Appeals for the Tenth Circuit reversed the Wyoming District Court decision and remanded the case back to the Wyoming District Court to vacate the permanent injunction. On March 1, 2012, the permanent injunction on the Roadless Area Conservation Rule (2001) was vacated. Alternatives A, E, and F designate management areas in inventoried roadless areas that would not meet the 2001 Roadless Rule direction.

We estimated actual outcomes and practical results 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 budgets were 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 Forest Plan applies to all alternatives, except for alternative A (the no -action alternative), which has the direction from the 1986 Forest Plan as amended.

# Description of Alternatives Considered in Detail

The Forest Service developed seven alternatives, including no-action and proposed action alternatives, in response to issues raised by the public. In the case of no action, ongoing programs would continue under current direction without changes.

Alternatives differ from each other in the way they respond to revision topics. They address changes to each component of the 1986 Forest Plan as amended: standards and guidelines, management area allocations, monitoring and evaluation, allowable sale quantity, surface occupancy for oil and gas leasing, wilderness recommendations, special interest areas, and potential research natural areas.

#### Alternative A

#### No Action

The no-action alternative reflects current Forest-wide direction. It meets the NEPA requirement (36CFR 219.12(f)(7) that a no-action alternative be considered.

"No action" means that current management allocations, activities, and management direction found in the 1986 Forest Plan as amended would continue. The no-action alternative estimates approximately the current level of outputs and types of Forest Service management activities. The 15 amendments to the 1986 Forest 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 1986 Forest Plan goals and objectives, standards and guidelines, and management area prescriptions, as amended.

This alternative serves as a baseline for comparison with the six "action" alternatives. After reviewing the *Comprehensive Evaluation Report* (2009) and *Analysis of the Management Situation* (2012) documents, 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 1986 Forest Plan as amended and are not the direction the Shoshone National Forest desires to continue for the next 10- to 15-year planning period.
- There is no distinction between standards and guidelines in the 1986 Forest Plan as amended.
- Changed circumstances from insect epidemics, larger wildfires, and climate change are not addressed in the 1986 Forest Plan goals.

Figure 3 displays the management area allocations by category. (See map 1.)

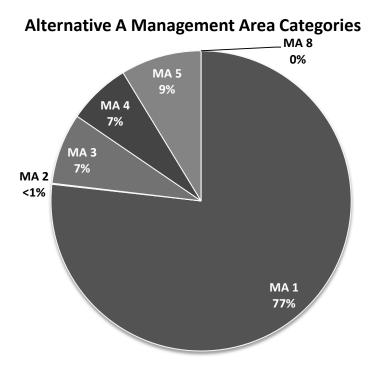


Figure 3. Alternative A management area categories (with current categories)

Relationship to Revision Topics and Need for Change

#### Recreation uses and opportunities

The recreation uses and opportunities topic deals primarily with the mix of motorized and non-motorized uses in the winter and summer. Table 11 shows the percentage of the Forest by recreation opportunity spectrum, which reflects the motorized and non-motorized recreation opportunities.

Table 11. Alternative A percentage of the Shoshone by recreation opportunity spectrum (ROS)

ROS class	Percentage of the Forest
Rural	0.06
Roaded natural	9
Semi-primitive motorized	12
Semi-primitive non-motorized	23
Primitive	56

#### Special areas and designations

The Shoshone National Forest contains approximately 1.4 million acres of designated wilderness, which accounts for about 55 percent of the Forest. This alternative maintains the five existing designated wilderness areas.

- Absaroka-Beartooth Wilderness 943,600 acres in Montana and Wyoming (23,750 acres on the Shoshone)
- Fitzpatrick Wilderness 198,500 acres
- North Absaroka Wilderness 350,500 acres
- Popo Agie Wilderness 101,900 acres
- Washakie Wilderness 704,300 acres

The Shoshone National Forest contains one designated wild and scenic river, the Clarks Fork of the Yellowstone Wild River. This alternative would maintain this wild river.

Existing special designations would be maintained, including the following:

- High Lakes Wilderness Study Area 15,200 acres
- Dunoir Special Management Unit 28,900 acres
- Line Creek Plateau Research Natural Area 1.280 acres
- Swamp Lake Botanical Area 580 acres

#### **Vegetation management**

Vegetation is managed to provide wildlife habitat, timber products, and areas of reduced fuels. Timber management activities are evident on the lands suitable for timber production (86,300 acres suited) which comprise about 7 percent of the forested area. Annual timber sold averages would be 17,000 hundred cubic feet.

In management area categories 4, 5, and 8, the hazardous fuels rating would be reduced on 30,000 to 40,000 acres.

Treatments to reduce invasive plant species would occur on approximately 2,000 acres.

#### Wildlife habitat management

Alternative A protects federally listed species and Forest Service sensitive species. This alternative proposes to restore approximately 750 acres of whitebark pine; treatments are tied to suitable and generally accessible acres.

This alternative includes 18 management indicator species, timing stipulations applied to some big game crucial winter range, and the temporary closure for domestic goats would expire.

#### Oil and gas development

Oil and gas leasing is allowed on approximately 1 million acres. Approximately 798,000 acres are suitable for surface development. Ninety-one percent of the acres with high potential for oil and gas occurrence are suitable for surface development.

#### Commercial livestock grazing

A total of 375,400 acres are generally suitable for grazing. Term-permitted commercial livestock grazing would continue near the current level of 55,900 animal unit months plus or minus 10 percent in response to resource conditions and uses.

#### **Inventoried Roadless Areas**

Inventoried roadless areas identified for the 2001 Roadless Rule were included in areas allocated to Management Areas 5.1 and 5.4. These management areas allow road construction and timber harvest, which is not consistent with the 2001 Roadless Rule.

#### Alternative B

This alternative was the proposed action. Based on early public scoping comments, it includes elements that emphasize active vegetation management to achieve biological and habitat diversity and continues to provide a mix of motorized and non-motorized recreation opportunities while protecting wildlife habitat. Figure 4 displays the management area allocations by category. (See map 2.)

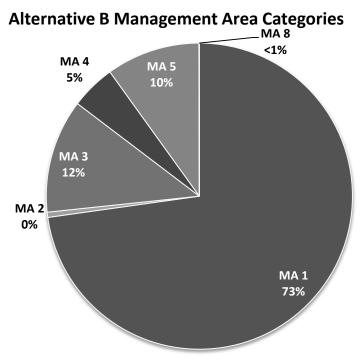


Figure 4. Alternative B management area categories

This alternative responds to the issues raised during revision and continues management that is working, and adjusts management direction, to the extent possible, to be responsive to the issues the public raised.

Alternative B balances management of vegetation types outside designated wilderness areas, including the use of timber harvest and fire, to meet desired conditions.

Alternative B Relationship to Revision Topics and Need for Change

#### Recreation uses and opportunities

This alternative would maintain existing miles of open roads and motorized trails. Areas with existing winter motorized use, such as Togwotee Pass (referring to Two Ocean Mountain area), are retained. New summer motorized trails allowed in some inventoried roadless areas with some areas of existing winter motorized use are retained. Table 12 shows the percentage of the Forest by recreation opportunity spectrum which reflects the motorized and non-motorized recreation opportunities.

Table 12. Alternative B percentage of the Shoshone by recreation opportunity spectrum (ROS) classes

ROS class	Percentage of the Forest
Rural	0.05
Roaded natural	7
Semi-primitive motorized	17
Semi-primitive non-motorized	21
Primitive	56

#### Special areas and designations

This alternative retains the five existing designated wilderness areas. No new wilderness recommendations are proposed.

Existing special designations are maintained and three new special interest areas are proposed—Sawtooth Peatbed Geological Area, Little Popo Agie Moraine Geological Area, and Kirwin Historical Area.

Six new research natural areas would be proposed—Beartooth Butte, Lake Creek, Grizzly Creek, Sheep Mesa, Arrow Mountain, and Roaring Fork.

In addition to the designated Clarks Fork of the Yellowstone Wild River, the eligibility for 16 eligible wild and scenic river segments would be maintained.

#### **Vegetation management**

Vegetation would be managed to provide wildlife habitat, timber products, forage for grazing, and areas of reduced fuels. This alternative addresses insect and disease epidemics and fuels issues.

Timber management activities are evident on lands suitable for timber production (127,000 acres suited) which comprise about 10 percent of the forested area. Annual timber sold averages would be 16,600 hundred cubic feet.

In management area categories 4, 5, and 8, the hazardous fuels rating would be reduced on 30,000 to 40,000 acres.

Treatments to reduce invasive plant species would occur on approximately 2,000 acres.

#### Wildlife habitat management

Updates the list of federally protected species and Forest Service sensitive species.

Adds five species of local concern and includes four management indicator species. Timing stipulations would be applied to most big game crucial winter range. Some areas of crucial winter range have stipulations waived where current recreation winter use patterns do not impact winter range (map 72). Domestic goats would not be allowed in core native bighorn sheep range.

This alternative proposes increasing aspen cover type on 2,500 acres using mechanical treatments and restoring approximately 750 acres of whitebark pine. These treatments are tied to suitable and generally accessible acres.

#### Oil and gas development

Acres available for leasing are the same as Alternative A. For surface development suitability alternative B is similar to alternative A, except all back country non-motorized areas and land in the grizzly bear primary conservation area are not suitable for surface development. Approximately 403,000 acres are suitable for surface development. Seventy-one percent of the acres with high potential for oil and gas occurrence are suitable for surface development.

#### Commercial livestock grazing

A total of 375,400 acres are generally suitable for grazing. Term permitted commercial livestock grazing would continue at a level of 55,900 animal unit months plus or minus 10 percent in response to resource conditions and uses.

#### **Inventoried Roadless Areas and 2001 Rule**

This alternative is consistent with the 2001 Roadless Rule. Timber harvest in inventoried roadless areas is consistent with the rule. Vegetation within inventoried roadless area allocated to Management Area 3.5 will be actively managed to the extent allowed by the 2001 Roadless Rule.

#### Alternative C

Alternative C emphasizes wilderness values and protection of back country while moving toward desired conditions. There is an increased emphasis on natural disturbance processes. Alternative C could have more opportunities for back country non-motorized recreation and more acres of management area category 1 (MA 1- 2.1 million acres) than any other alternative (see figure 5) (see map 3). This alternative was developed in response to public comment that the undeveloped land on the Shoshone should remain undeveloped to provide non-motorized opportunities, natural processes, minimal recreational facilities, and undeveloped recreational settings.

Alternative C would retain the eligibility for 16 eligible wild and scenic river segments and recommends the most amount of land allocated for wilderness, with no motorized use in remaining inventoried roadless areas.

# MA 4 4% MA 5 9% MA 2 <1% MA 1 86%

### **Alternative C Management Area Categories**

Figure 5. Alternative C management area categories

Relationship to Revision Topics and Need for Change

#### Recreation uses and opportunities

This alternative emphasizes back country non-motorized opportunities with the most acres of back country allocated for non-motorized use. Table 13 shows the percentage of the Forest by recreation opportunity spectrum which reflects the motorized and non-motorized recreation opportunities. Miles of open roads would decrease. Roads and motorized trails in inventoried roadless areas would be closed. No new summer motorized use would be authorized in inventoried roadless areas. No winter motorized use would be authorized in recommended wilderness and inventoried roadless areas. The Twin Peaks area on Togwotee Pass would be closed to over-the-snow motorized recreation.

Table 13. Alternative C percentage of the Shoshone by recreation opportunity spectrum (ROS) classes

ROS class	Percentage of the Forest
Rural	0.05
Roaded natural	5
Semi-primitive motorized	8
Semi-primitive non-motorized	5
Primitive	82

#### Special areas and designations

In addition to maintaining the five existing designated wilderness areas, this alternative would recommend adding the following wilderness evaluation areas for wilderness designation, for a total addition of 628,800 acres.

Pat O'Hara South Fork Dunoir

Sulphur Creek Carter Mountain West Dunoir

Clarks Fork Franc's Peak Middle Fork

Sunlight Wood River Warm Spring Creek

Trout Creek Castle Rock Deep Lake

Wapiti Valley North Telephone Draw High Lakes

Rattlesnake East Dunoir High Lakes additional

Wapiti Valley South South Dunoir

Existing special designations would be maintained and three new special interest areas would be proposed—Sawtooth Peatbed Geological Area, Little Popo Agie Moraine Geological Area, and Kirwin Historical Area. This alternative proposes eight new research natural areas—Beartooth Butte, Lake Creek, Pat O'Hara, Bald Ridge, Grizzly Creek, Sheep Mesa, Arrow Mountain, and Roaring Fork.

In addition to the designated Clarks Fork of the Yellowstone Wild River, the eligibility for 16 eligible wild and scenic river segments would be maintained

#### Vegetation management

Vegetation would be managed to provide wildlife habitat, timber products, forage for grazing, and areas of reduced fuels. This alternative addresses insect and disease epidemics and fuels issues.

Timber management activities are evident on lands suitable for timber production (122,100 acres suited) which comprise about 9 percent of the forested area. Annual timber sold averages would be 14,900 hundred cubic feet. Lands available for timber harvest would be much less than alternative B (new wilderness areas and inventoried roadless areas would be removed from suitable harvest timber base).

In management area categories 4, 5, and 8, the hazardous fuels rating would be reduced on 30,000 to 40,000 acres.

Treatments to reduce invasive plant species would occur on approximately 1,500 acres.

#### Wildlife habitat management

Alternative C would update the list of federally protected species and Forest Service sensitive species.

This alternative would add five species of local concern and would include four management indicator species. Timing stipulations would be applied to all big game winter range. Domestic goats would not be allowed on the Shoshone.

This alternative proposes to increase aspen cover type on 2,000 acres using mechanical treatments and restore approximately 500 acres of whitebark pine. These treatments are tied to suitable and generally accessible acres. Proposed acres of treatments would be less than other action alternatives due to wilderness recommendations.

#### Oil and gas development

Acres available for leasing are the same as alternative A. Big game crucial winter range, inventoried roadless, recommended wilderness, and management area 5.4, grizzly bear primary conservation area is not suitable for oil and gas surface development Approximately 106,000 acres are suitable for surface development. Thirty-two percent of the acres with high potential for oil and gas occurrence are suitable for surface development.

#### Commercial livestock grazing

A total of 216,800 acres are generally suitable for grazing. Commercial livestock grazing would be eliminated on elk and bighorn sheep crucial winter ranges that occurs on active allotments. Term permitted commercial livestock grazing would be allowed at a level of 31,400 animal unit months plus or minus 10 percent in response to resource conditions and uses.

#### **Inventoried roadless areas and 2001 Roadless Rule**

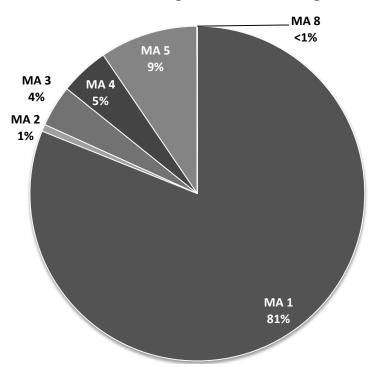
No timber harvest and no road construction would be proposed in designated inventoried roadless areas. This alternative is consistent with the 2001 Roadless Rule.

#### Alternative D

Alternative D was developed to be responsive to public and conservation group comments regarding specific areas of the Forest remaining undeveloped to provide non-motorized opportunities, natural processes, minimal recreational facilities, and undeveloped recreational settings.

This alternative would recommend 194,500 acres for wilderness, 8 new research natural areas, and 3 special interest areas.

Figure 6 displays the management area allocations by category. (See map 4.)



#### **Alternative D Management Area Categories**

Figure 6. Alternative D management area categories

Relationship to Revision Topics and Need for Change

#### Recreation uses and opportunities

This alternative emphasizes back country non-motorized opportunities on more acres than alternative B, and less than alternative C. Table 14 shows the percentage of the Forest by recreation opportunity spectrum, which reflects the motorized and non-motorized recreation opportunities.

Twin Peaks area of Togwotee Pass would be closed to over-the-snow motorized recreation. There would be no reduction in miles of open roads. No new summer motorized recreation in inventoried roadless would be allowed.

Some winter motorized opportunities would exist in inventoried roadless areas. Most areas around the Beartooth Plateau and Brooks Lake Lodge would remain open for snowmobiles.

Table 14. Alternative D percentage of the Shoshone by recreation opportunity spectrum (ROS) classes

ROS class	Percentage of the Forest
Rural	0.05
Roaded natural	6
Semi-primitive motorized	9
Semi-primitive non-motorized	21
Primitive	64

#### Special areas and designations

In addition to maintaining the five existing designated wilderness areas, this alternative would recommend adding the following wilderness evaluation areas for wilderness designation, for a total addition of 194,500 acres.

Trout Creek East Dunoir Franc's Peak South Dunoir

Wood River Dunoir

West Dunoir

Existing special designations would be maintained and three new special interest areas would be proposed—Sawtooth Peatbed Geological Area, Little Popo Agie Moraine Geological Area, and Kirwin Historical Area. This alternative would propose eight new research natural areas—Beartooth Butte, Lake Creek, Pat O'Hara, Bald Ridge, Grizzly Creek, Sheep Mesa, Arrow Mountain, and Roaring Fork.

In addition to the designated Clarks Fork of the Yellowstone Wild River, the eligibility for 16 eligible wild and scenic river segments would be maintained.

#### Vegetation management

Vegetation would be managed to provide wildlife habitat, timber products, forage for grazing, and areas of reduced fuels. This alternative addresses insect and disease epidemics and fuels issues.

Timber management activities are evident on lands suitable for suited timber production (124,400 acres suited) which comprise about 10 percent of the forested area. Annual timber sold averages would be 15,900 hundred cubic feet. Lands available for timber harvest would be less than alternative B (recommended wilderness areas and inventoried roadless areas would be removed from suitable timber harvest base).

In management area categories 4, 5 and 8, the hazardous fuels rating would be reduced on 30,000 to 40,000 acres.

Treatments to reduce invasive plant species would occur on approximately 2,000 acres.

#### Wildlife habitat management

Alternative D would update the list of federally protected species and Forest Service sensitive species.

This alternative would add five species of local concern and include four management indicator species. Timing stipulations would be applied to all big game crucial winter range. Domestic goats would not be authorized in core bighorn sheep range (same as alternative B).

This alternative proposes increasing aspen cover type on 2,500 acres using mechanical treatments and restoring approximately 750 acres of whitebark pine. These treatments are tied to suitable and generally accessible acres.

#### Oil and gas development

Acres available for leasing are the same as alternative A. Inventoried roadless, grizzly bear primary conservation area, and recommended wilderness areas are not suitable for surface development

Approximately 225,400 acres are suitable for surface development. Forty-seven percent of the acres with high potential for oil and gas occurrence are suitable for surface development.

#### Commercial livestock grazing

A total of 375,400 acres are generally suitable for grazing based on management area allocation. Term permitted commercial livestock grazing would continue at a level of 55,900 animal unit months plus or minus 10 percent in response to resource conditions and uses.

#### Inventoried roadless areas and 2001 Roadless Rule

No timber harvest and no road construction would be authorized in designated inventoried roadless areas. This alternative is consistent with the 2001 Roadless Rule.

#### Alternative E

Alternative E was developed to be responsive to comments regarding specific uses of the Forest to support local communities and provide access for motorized recreation. This alternative emphasizes commodity production and motorized use and addresses issues shared by some of the public, local industry, and motorized user groups.

Figure 7 displays the management area allocations by category. (See map 5.)

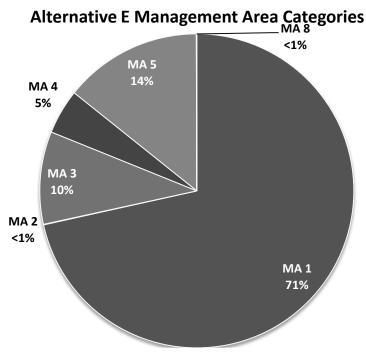


Figure 7. Alternative E management area categories

Relationship to Revision Topics and Need for Change

#### Recreation uses and opportunities

This alternative provides a mix of motorized and non-motorized use, with a higher proportion of motorized to non-motorized acres than alternative B. Table 15 shows the percentage of the Shoshone by recreation opportunity spectrum, which reflects the motorized and non-motorized recreation

opportunities. Alternative E would propose no reduction in miles of open roads with more area open to summer motorized recreation than alternative B.

The Twin Peaks area of Togwotee Pass would remain open to over-the-snow motorized recreation. Area open to winter motorized recreation is greater than alternative B.

Table 15. Alternative E percentage of the Shoshone by recreation opportunity spectrum (ROS) classes

ROS class	Percentage of the Forest
Rural	0.05
Roaded natural	7
Semi-primitive motorized	20
Semi-primitive non-motorized	17
Primitive	56

#### Special areas and designations

No new wilderness would be recommended. Existing special designations would be maintained, and one new special interest area (Kirwin Historical Area), and three new research natural areas—Sheep Mesa, Lake Creek, and Arrow Mountain—would be proposed.

In addition to the designated Clarks Fork of the Yellowstone Wild River, the eligibility for 16 eligible wild and scenic river segments would be maintained.

#### **Vegetation management**

Vegetation would be managed to provide wildlife habitat, timber products, forage for grazing, and areas of reduced fuels, and would address insect and disease epidemics and fuels issues.

Timber management activities are evident on lands suitable for timber production (179,700 acres suited) which comprise about 14 percent of the forested area. Annual timber sold averages would be 22,100 hundred cubic feet. Managed timber land is similar to alternative B with some additional lands suitable for timber production designated in back country areas.

In management area categories 4, 5, and 8, the hazardous fuels rating would be reduced on 35,000 to 45,000 acres.

Treatments to reduce invasive plant species would occur on approximately 2,000 acres.

#### Wildlife habitat management

Alternative E would update the list of federally protected species and Forest Service sensitive species.

This alternative would add five species of local concern and include four management indicator species.

Alternative E is the same as alternative B, except there would be no timing stipulations in MA 5.4. Instead of excluding operations, winter timing stipulations would limit the amount of winter range in a watershed that can be impacted at any one time. Domestic goats would be allowed Forest-wide.

This alternative would propose increasing aspen cover type on 2,500 acres using mechanical treatments and restoring approximately 750 acres of whitebark pine. These treatments are tied to suitable and generally accessible acres.

#### Oil and gas development

Acres available for leasing are the same as alternative A. Alternative E is similar to alternative B, but there would be more acres of inventoried roadless suitable for surface development, approximately 477,500 total. Seventy-four percent of the acres with high potential for oil and gas occurrence are suitable for surface development.

#### Commercial livestock grazing

Under alternative E, utilization restrictions on livestock in big game crucial winter range would be removed. A total of 375,400 acres are generally suitable for grazing. Term permitted commercial livestock grazing would continue at a level of 58,300 animal unit months plus or minus 10 percent in response to resource conditions and uses.

#### Inventoried roadless areas and 2001 Roadless Rule

This alternative would allocate inventoried roadless areas to management areas 5.1 and 5.4, which would allow timber harvest and road construction that is not consistent with the 2001 Roadless Rule.

#### Alternative F

Alternative F was developed to respond to comments regarding specific uses of the Shoshone to support local communities and provide increased access for motorized recreation and use. This alternative emphasizes commodity production and motorized use while addressing issues shared by some of the public, local industry, and motorized user groups

This alternative demonstrates the highest level of management area category 5 (528,000 acres) that emphasize commodity production and motorized use within parameters, such as designated wilderness, the grizzly bear primary conservation area, etc.

Figure 8 shows the management area allocations by category (see map 6).

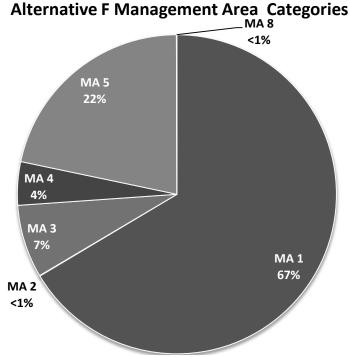


Figure 8. Alternative F management area categories

Relationship to Revision Topics and Need for Change

#### Recreation uses and opportunities

This alternative emphasizes back country motorized opportunities, with no reduction in miles of open roads. This alternative would result in the fewest acres of back country non-motorized areas. The Twin Peaks area of Togwotee Pass would be open to over-the-snow motorized recreation.

This alternative would include the most acres open to summer motorized recreation, and eight new wheeled motorized trail loop opportunities. This alternative would incorporate the most proposed motorized areas in response to public comment (table 16).

Table 16. Alternative F percentage of the Shoshone by recreation opportunity spectrum (ROS) classes

ROS class	Percentage of the Forest
Rural	0.05
Roaded natural	6
Semi-primitive motorized	27
Semi-primitive non-motorized	10
Primitive	56

#### Special areas and designations

No new wilderness areas would be recommended. Existing special designations would be maintained. This alternative would not propose any new special interest area or new research natural areas.

In addition to the designated Clarks Fork of the Yellowstone Wild River, the eligibility for 16 eligible wild and scenic river segments would be maintained.

#### Vegetation management

Vegetation would be managed to provide wildlife habitat, timber products, forage for grazing, and areas of reduced fuels. This alternative would treat the most area for insect and disease epidemics and fuels issues.

Timber management activities are evident on lands suitable for timber production (251,200 acres suited) which comprise about 20 percent of the forested area. Annual timber sold averages would be 30,500 hundred cubic feet. Managed timber land would include most of Wind River and Washakie Ranger Districts and any larger blocks of potentially suitable ground on the Clarks Fork, Greybull, and Wapiti Ranger Districts

In management area categories 4, 5, and 8, the hazardous fuels rating would be reduced on 45,000 to 55,000 acres.

Treatments to reduce invasive plant species would occur on approximately 3,000 acres.

#### Wildlife habitat management

This alternative would update the list of federally protected species and Forest Service sensitive species. Lynx and grizzly bear direction on secure habitat and motorized activity is not applied.

Alternative F would add five species of local concern and include four management indicator species. No timing stipulations would apply on big game winter range, and, domestic goats would be allowed Forest-wide.

This alternative proposes increasing aspen cover type on 2,500 acres using mechanical treatments and restoring approximately 1,250 acres of whitebark pine. These treatments are tied to suitable and generally accessible acres.

#### Oil and gas development

Acres available for leasing are the same as alternative A. This alternative has 708,000 acres suitable for surface occupancy for oil and gas development. This alternative has a large number of inventoried roadless acres that are suitable for surface development. Eighty-seven percent of the acres with high potential for oil and gas occurrence are suitable for surface development.

#### Commercial livestock grazing

Under alternative F, allowable forage utilization restrictions on big game crucial winter range would be removed and any suitable and capable areas outside designated wilderness and outside existing allotments would be available for livestock grazing (doesn't include domestic sheep). A total of 415,400 acres are generally suitable for grazing. Term permitted commercial livestock grazing would increase to a level of 61,500 animal unit months plus or minus 10 percent in response to resource conditions and uses.

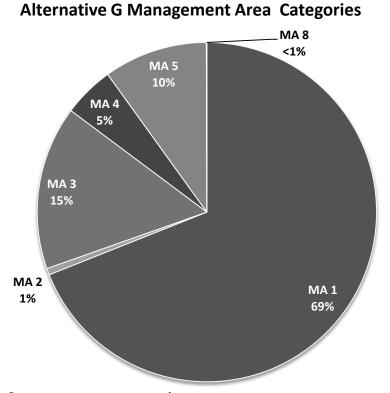
#### Inventoried roadless areas and 2001 Roadless Rule

Inventoried roadless areas identified for the 2001 Roadless Rule were included in areas allocated to management area 5.1, which allows timber harvest and road construction that is not consistent with the 2001 Roadless Rule.

#### Alternative G – The Preferred Alternative

This alternative describes the forest plan that responds to the identified purpose and need. This alternative is a modified version of alternative B and was developed in response to public comment received on the DEIS. The alternative provides a diversity of forest uses and emphasizes active management of suitable timber lands, protects wildlife habitat, maintains a diversity of recreation opportunities, and maintains the dominant back country character of the Forest.

Figure 9 displays the management area allocations by category. (See map 79.)



#### Figure 9. Alternative G management area categories

Alternative G Relationship to Revision Topics and Need for Change

#### Recreation uses and opportunities

This alternative would maintain existing miles of open roads and motorized trails. Existing snowmobile trails are maintained including those that pass through crucial winter range. Existing area closures associated with cross-country skiing are maintained. Areas open to winter motorized in the no-action alternative are closed in this alternative to protect crucial winter range. Areas open to summer motorized routes in the no-action alternative are closed to protect wildlife habitat. In comparison to the no-action alternative, some areas are opened to summer motorized use to provide opportunity for future motorized trail development. Table 17 shows the percentage of the Forest by recreation opportunity spectrum which reflects the motorized and non-motorized recreation opportunities.

Table 17. Alternative G percentage of the Shoshone by recreation opportunity spectrum (ROS) classes

ROS class	Percentage of the Forest
Rural	0.05
Roaded natural	7
Semi-primitive motorized	16
Semi-primitive non-motorized	21
Primitive	56

#### Special areas and designations

This alternative retains the five existing designated wilderness areas. No new wilderness recommendations are proposed.

Existing special designations would be maintained and three new special interest areas are proposed—Sawtooth Peatbed Geological Area, Little Popo Agie Moraine Geological Area, and Kirwin Historical Area.

This alternative would propose eight new research natural areas—Beartooth Butte, Lake Creek, Pat O'Hara, Bald Ridge, Grizzly Creek, Sheep Mesa, Arrow Mountain, and Roaring Fork.

In addition to the designated Clarks Fork of the Yellowstone Wild River, the eligibility for 16 eligible wild and scenic river segments would be maintained.

#### Vegetation management

Vegetation would be managed to provide wildlife habitat, timber products, forage for grazing, and areas of reduced fuels. This alternative addresses insect and disease epidemics and fuels issues.

Timber management activities are evident on lands suitable for timber production (127,000 acres suited) which comprise about 10 percent of the forested area. Annual timber sold averages would be 16,600 hundred cubic feet. Managed timber land is the same as alternative B.

In management area categories 4, 5, and 8, the hazardous fuels rating would be reduced on 30,000 to 40,000 acres.

Treatments to reduce invasive plant species would occur on approximately 2,000 acres.

#### Wildlife habitat management

Updates list of federally protected species and Forest Service sensitive species.

Adds five species of local concern and includes four management indicator species. Timing stipulations would be applied to most big game crucial winter range. Some areas of crucial winter range have stipulations waived where current recreation winter use patterns do not impact winter range (map 73). Domestic goats would not be allowed in core native bighorn sheep range.

This alternative proposes increasing aspen cover type on 3,500 acres using mechanical treatments and restoring approximately 1,400 acres of whitebark pine. These treatments are tied to suitable and generally accessible acres.

#### Oil and gas development

Acres available for leasing are the same as alternative A. Suitability of lands for surface development associated with oil and gas is focused on lands with a high potential for oil and gas development, including areas with existing leases. Key wildlife habitat such as the grizzly bear primary conservation area and some crucial big game winter range is not suitable for surface development. Additional National Forest System lands where adjacent owners (primarily BLM and State Land) preclude surface occupancy are also not suitable for surface development. Approximately 129,100 acres are suitable for surface development. Thirty-eight percent of the acres with high potential for oil and gas occurrence are suitable for surface development.

#### Commercial livestock grazing

A total of 375,400 acres are generally suitable for grazing. Term permitted commercial livestock grazing would continue at a level of 55,900 animal unit months plus or minus 10 percent in response to resource conditions and uses.

#### Inventoried roadless areas and 2001 Roadless Rule

Inventoried roadless areas identified for the 2001 Roadless Rule were included in areas allocated to Management Areas 3.5A, 3.5B, 3.5C, and 3.5D. Vegetation within inventoried roadless area allocated to Management Areas 3.5A, 3.5B, 3.5C, and 3.5D will be actively managed to the extent allowed by the 2001 Roadless Rule. This alternative is consistent with the 2001 Roadless Rule.

## Alternatives Considered but Eliminated from Detailed Study

We considered several alternatives that were eliminated from detailed study during the planning process. An infinite number of alternatives could be considered in revising the Shoshone Forest Plan. The interdisciplinary team used all past management experience, laws and regulations guiding National Forest System management, and public input in designing the alternatives considered in detail. Many of the thoughts and ideas suggested by people that were not analyzed in detail were used to develop the alternatives that were considered in detail. Following is a discussion of these alternatives and the reasons for their elimination.

#### Alternative with Predetermined Timber Harvest Outputs

One public comment was presented that requested a predetermined level of timber harvest (1 million board feet total). This alternative was considered but not analyzed in detail because ecosystem management precepts that have guided national forest management philosophy for at least the past decade begin with the capabilities of the land to provide for multiple resource benefits, with output levels determined at the end by an objective driven process. That is, the Forest interdisciplinary team developed alternatives in response to past forest monitoring and implementation, coupled with people's input as to desired conditions. Direction and maps were developed taking into account past management, resource capabilities, and people's input. The maps of alternatives A through G were developed to meet a range of potential desired conditions, "constrained" to be within the likely range of management decision space. The final outcome of such an alternative development process is the outputs, as opposed to the suggestions in the comment, which start with an outcome, and maps a forest to achieve that result.

A harvest level of 1 million board feet total was not considered to be optimal for a balanced multipleuse approach that considered other resource uses.

#### Reduce or Eliminate Livestock Grazing Alternative/Higher Grazing Fees Alternative

An alternative was proposed to reduce commercial livestock animal unit months (AUMs) to predetermined levels or area (e.g., a maximum of 10 percent of the land). An alternative was considered that reduced existing levels of livestock grazing because of concerns about riparian impacts. This was not considered in detail, as there is not sufficient data at the Forest-wide scale to determine what the appropriate level of grazing should be, and any reductions would be considered arbitrary at the plan level. Stocking decisions are made at the project, allotment scale.

Alternatives with predetermined permitted AUM levels were considered but not analyzed in detail because the specific number of permitted AUMs on the Shoshone is determined in a project-level grazing management decision leading to the development of an individual allotment management plan. The specific number of permitted AUMs is not a forest plan-level decision.

Ecosystem management precepts that have guided national forest management philosophy for at least the past decade begin with the capabilities of the land to provide for multiple resource benefits, with output levels determined at the end by an objective-driven process. Livestock AUMs are an outcome of implementation of the objectives, standards and guidelines of the forest plan, and site-specific planning, along with the intensity and success of permit management. They are an implementation outcome, not a target. In addition, a number of factors influencing the number of AUMs are beyond the control of the Forest Service, including livestock markets, weather conditions, and the ability and desire of permittees to manage for higher levels of use.

Concerning grazing fees, people proposed that the permittee pay livestock grazing administration and monitoring costs. In addition, some people suggested that grazing fees be increased. Both of these suggestions are outside the scope of plan revision, as Congress sets grazing fees. Congress established the formula used for calculating the grazing fee for western public lands in the 1978 Public Rangelands Improvement Act, which was continued under an Executive Order issued in 1986.

#### Exclude Human Presence and Disturbance in Crucial Big Game Winter Range

A suggestion was received to be more proactive in managing dispersed use impacts by prohibiting all human presence in important big game winter range areas.

The Forest provides for multiple use management per the Multiple-Use Sustained-Yield Act of 1960. Eliminating all human presence in critical big game winter range would not be feasible, due in part to the location of highways, private parcels and access roads. Winter motorized use is proposed for different management under the various alternatives as follows:

Alternative A allows winter motorized use on less than one-third of big game crucial winter range. Under alternative B, winter motorized use is allowed on just over 5 percent of big game crucial winter range. Under alternative G, winter motorized use is allowed on just under 10 percent of big game crucial winter range. Under alternative E, winter motorized use is allowed on just over 10 percent of big game crucial winter range. Under alternative F, winter motorized use is allowed on 40 percent of big game crucial winter range.

Alternative D prohibits winter motorized use on all big game crucial winter range.

Alternative C prohibits winter motorized use on all big game winter range, including big game crucial winter range. In addition, alternative C eliminates livestock grazing within big game crucial winter ranges. Alternative C addresses this suggestion to the extent practical. A separate alternative to address this suggestion was eliminated from detailed analysis.

#### Add Special Interest Areas Alternative

A suggestion was received to add special interest areas such as: National Natural Landmark area.

One proponent proposal was to add a Deep Lake Slide Geological Area as a National Natural Landmark or special interest area. Landslides similar to the Deep Lake Slide are well represented and interpreted in the Greater Yellowstone Area. Two of the better known areas include the Quake Lake Earthquake interpretive center on the Gallatin National Forest, and the Gros Ventre Slide Geological Area on the Bridger-Teton National Forest. Evaluating the Deep Lake Slide Geological Area was considered, but eliminated from detailed analysis because of its location in a management area that allows adequate protection to maintain its unique characteristics.

# Undesignate Wilderness Areas, Research Natural Areas, and Special Interest Areas Alternative

Suggestions were made to undesignate wilderness areas, research natural areas, and special interest areas and open these areas up for active vegetative management.

Only Congress has the authority to make wilderness designation decisions. This alternative was considered, but eliminated from detailed analysis as the Forest Service does not have the authority to undesignate wilderness areas.

Research natural areas and special interest areas are designated to maintain their unique characteristics as per Forest Service Manual 4063.

# Designate the Shoshone Portion of the Continental Divide National Scenic Trail Non-motorized

Some comments asked for a motorized closure on sections of the Continental Divide National Scenic Trail (CDNST). The existing plans allow motorized uses in winter, summer, or yearlong, depending on travel plan direction in that section. While a complete non-motorized route is the national goal, existing motorized segments will require site-specific analysis before any changes are made. Direction for the trail has been established nationally in the CDNST Comprehensive Management Plan and is reflected in the revised Forest Plan. Changes to the CDNST are considered site-specific projects and will be addressed in project planning.

#### **Pro-recreation Alternative**

Suggestions were made to considered a specific pro-recreation alternative to provide equal program delivery by converting roads to off-road use trails and allocating at least 50 percent of the trails to motorized use and include the following protections: (1) that roadless areas are free from new road building, (2) that projects and management decisions occur that simultaneously protect wildlife habitat, waterways, and the back country character of the forest, and (3) that a ban is placed on oil and gas development and other forms of large-scale industrialization and commercialization.

Conversion of trails from non-motorized to motorized use is a site-specific travel management decision that is not addressed at the forest plan level. What is addressed at the forest plan level is the management area allocations which allow motorized use versus those that do not allow motorized use. The alternatives being analyzed cover a wide range of motorized versus non-motorized options of which one, alternative F, provides for the highest level of motorized use possible within parameters, such as designated wilderness, the grizzly bear primary conservation area, etc.

(1) Alternatives B, C, D and G comply with the Roadless Rule and address the concern of no new road construction in designated roadless areas.; (2) Individual project proposals are outside the scope of the revised Forest Plan analysis. Individual site specific projects will be driven by their identified purpose and need, and site specific environmental analyses of the affected management area direction.; (3) Banning oil and gas development would be similar to identifying all areas to be withdrawn from mineral and oil and gas entry, which is not consistent with existing law and policy, such as the General Mining Law of 1872, which allows exploration, development, and production of minerals from mining claims on public lands.

This alternative was considered but eliminated from detailed analysis since portions are addressed in existing alternatives considered in detail and other portions are outside the scope of the revised Forest Plan analysis, or not consistent with existing laws and policy.

#### Changes to Travel Management

Comments to consider changes to travel management were suggested including no expansion of 4-wheeler trails, no new roads, and leave all roads and trails open for use.

No expansion of 4-wheeler trails was considered but eliminated from detailed analysis because it is covered in alternative C, which would reduce the miles of existing motorized trails by closing approximately 11 miles of motorized trails within areas recommended for wilderness in the alternative.

An alternative was considered that would not include potential for new roads. We anticipate a minimum amount of new roads, from 2 to 4 miles, to be constructed to access areas for management under any alternative. This item was considered but eliminated from detailed analysis because very few new roads (less than 4 miles) are anticipated over the 2.4 million-acre Forest.

An alternative was suggested to leave all roads and trails open for use. This alternative was not considered in detail as a separate alternative because alternatives B, D, E, and F all identify no reduction of open roads and trails. Developing a separate alternative was not considered in detail.

#### Recommend All Eligible Rivers for Designation

A suggestion was submitted to recommend all eligible rivers for designation as wild and scenic rivers. The interdisciplinary team made the eligibility determinations, which are included in the Plan as per Forest Service Handbook 1909.12,82.1. Forest Service Handbook 1909.12,8 allows the Forest Service to make wild and scenic river suitability determinations, and if suitable, a recommendation after plan revision when there is an identified need, which is what we have elected to do. Therefore, although an alternative to recommend eligible rivers for designation was considered, it was eliminated from detailed analysis because the Forest Service has elected to make to make wild and scenic river suitability determinations, and if suitable, a recommendation after plan revision.

#### No Oil and Gas Surface Occupancy Forest-wide

At least one commenter suggested the Shoshone consider no surface occupancy Forest-wide. This would be similar to identifying all areas to be withdrawn from mineral and oil and gas entry, which is not consistent with existing law and policy, such as the General Mining Law of 1872, which allows exploration, development, and production of minerals from mining claims on public lands. Therefore, the alternative was considered but not analyzed in detail.

#### Manage Priority Watersheds Using Buffers

We received a suggestion regarding priority watershed management using riparian buffers and setbacks to protect Yellowstone cutthroat trout and other fish, amphibians, and wildlife habitat.

The primary factors that contributed to the significant reductions in Yellowstone cutthroat trout populations range-wide were from past introductions of nonnative fish that compete and/or hybridize with native Yellowstone cutthroat trout and alter habitat. Riparian and stream habitat on the Shoshone is generally in good to excellent overall condition. Currently, half of the Shoshone National Forest is in designated wilderness areas. Most of the remaining conservation populations of Yellowstone cutthroat trout are located in wilderness.

In 2010, about 89 percent of the riparian acres that intercept perennial streams were in proper functioning condition, about 9 percent were functioning at risk, and less than 1 percent was non-functioning (USDA Forest Service 2010b). Adaptive management techniques will be implemented to improve the remaining riparian conditions over the planning period.

One of the primary land management strategies is to use management techniques that simulate natural processes, which includes disturbance. Periodic disturbance is an integral part of the natural process on the landscape that is required for long-term sustainability of aquatic ecosystems (Kreutzweiser et al. 2012). These land management activities result in acceptable short-term disturbances with proper implementation, administration, and compliance of forest plan standards, guidelines, Region 2 Watershed Conservation Practices Handbook (WCPH) and Forest Service National Best Management Practice Directives (collectively referred to as: Forest Service Regional and National BMP Directives), and other Federal and State land management direction. These short-term disturbances result in long-term benefits to the riparian ecosystem and the biota that use them, including Yellowstone cutthroat trout.

Creating riparian buffer protection zones and setbacks for all management activities delays succession, reduces vegetative diversity and nutrient productivity, and increases the chances for large-scale fires substantially outside the natural range of variability (Van de Water and North 2012). Researchers felt that the current "hands-off" management approach for riparian habitat management under the Northwest Forest Plan will continue on an altered trajectory of ecological processes and have undesirable long-term consequences (Messier et al. 2012).

Other "setbacks" proposed in the revised Forest Plan, such as dispersed camping near streams and lakes, oil and gas, or other development activities, are based on various land management directions and field observations, and incorporate the unique geologies and stream and lake habitat types found on the Forest. Riparian pasture fencing and other riparian grazing strategies are used under the adaptive management concept. Buffers and setbacks, when used, generally are not a "one size fits all" situation on the Shoshone.

This alternative was considered but eliminated from detailed analysis because most buffers and setbacks do not simulate natural processes. Additionally, the buffers and setbacks proposed by the commenters generally do not fit the unique geologies and habitat types found on the Shoshone.

# Varying Objectives between Alternatives or Additional Objectives to some Alternatives

We received a suggestion to include re-commissioning objectives of 10 miles of trails and 6 miles of roads annually to address the scoping and revision topics of recreation uses and opportunities, special areas, vegetation management, and socioeconomics.

An alternative that included restoring closed roads was considered, but eliminated from detailed analysis. Individual road closures, obliterations, decommissioning, and re-commissioning are accomplished through project-level analysis.

#### Allow Pack Goat Use on the Forest with Best Management Practices

A suggestion was received to consider using best management practices to allow pack goat use on the Forest. Pack goat movements may be controllable; however, there is a risk of free-ranging bighorn sheep coming into contact with pack goats. This alternative carries a risk of introducing *Pasteurella* spp. through interaction of free-ranging bighorn sheep with pack goats.

Although the risk of disease transmission is low to very low, even one disease transmission event could be catastrophic to a core native bighorn sheep herd (USDA Forest Service 2013). Due to the potential for disease transmission, this alternative was dismissed from detailed analysis.

# Recommend all Inventoried Roadless Areas and/or Recommend all Wilderness Evaluation Areas as Recommended Wilderness

We received suggestions to recommend all Inventoried Roadless Areas and or all areas evaluated for wilderness for Wilderness Recommendations. In this analysis, inventoried roadless areas are not the base used to evaluate and determine what areas should be recommended for wilderness. The wilderness evaluation areas are used for that purpose (appendix C). This approach was used because the 1986 Forest Plan as amended allowed activities to occur in inventoried roadless areas that changed their roadless characteristics and made some areas no longer suitable for wilderness designation. Approximately 4,000,000 acres of the 12,000,000-acre the Greater Yellowstone Area are designated wilderness. There are 1,364,000 acres of designated wilderness on the Shoshone, representing 55 percent of the total Forest acres. The wilderness evaluation noted the need for additional wilderness on the Shoshone is low. Since some of the Inventoried Roadless Areas are not suitable for wilderness and the need for additional wilderness on the Shoshone is low, this alternative was not considered in detail.

#### Reduce Timber Production to Wood that is Dead

We received a suggestion to reduce timber production to wood that is dead. Under any alternative timber management would continue to emphasize removal of dead wood due to the widespread ongoing insect epidemic and mortality. Limiting all timber production to wood that is dead for the entire planning period would not be responsive to other vegetative management goals including aspen and whitebark pine restoration within lands suitable for timber production. Therefore an alternative to limit timber production to removal of dead wood only was not carried through detailed analysis.

# Comparison of Alternatives

This section provides a summary of the land allocations and effects of implementing each alternative. Table 18 provides a comparison of management area allocations by alternative. Alternative A, the no-action alternative is included even though it does not use the same management areas as those in the revised Forest Plan. Alternative A management areas were cross walked to the revised Forest Plan management areas for comparison purposes (see table 10).

Management area acres only provide partial information on what activities can occur on what lands. Suitability for activities is based upon management area allocation, Forest-wide standards and guidelines, and other underlying direction for any particular acre. The effects analysis in chapter 3 is a better source of information for determining the effects of the alternative on any particular activity

Table 19 summarizes effects by alternative. Information in this table focuses on activities and effects related to the revision topics. Activities and effects displayed for the different alternatives are only projections for the purposes of comparing alternatives. On-the-ground activities and effects associated with implementing forest plan direction would not occur until project-level NEPA analysis is completed.

Table 18. Comparison of management area allocations (in acres)

MA	MA Description	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
1.1	Wilderness	1,358,592	1,358,592	1,358,592	1,358,592	1,358,592	1,358,592	1,358,592
1.1A	Glacier Addition	6,563	6,563	6,563	6,563	6,563	6,563	6,563
1.2	Recommended Wilderness			584,734	165,587			
1.2A	Recommended High Lakes Wilderness			15,224				
1.2B	Recommended Dunoir Wilderness			28,879	28,879			
1.3	Backcountry Non-Motorized	455,554	358,127	106,890	395,123	327,549	203,587	265,777
1.5A	Clarks Fork of Yellowstone Wild River	6,924	6,924	3,350	6,924	6,924	6,924	6,924
1.6A	High Lakes Wilderness Study Area	15,224	15,224		15,224	15,224	15,224	15,224
1.6B	Dunoir Special Management Unit	28,879	28,879			28,879	28,879	28,179
2.2A	Line Creek Research Natural Area	1,278	1,278	186	1,278	1,278	1,278	1,278
2.3	Proposed Research Natural Area	1,386	12,127	4,298	15,201			13,831
3.1A	Swamp Lake Botanical Area	581	581	581	581	581	581	581
3.1B	Proposed Little Popo Agie Moraine Geological Area		1,714	1,714	1,714			1,714
3.1C	Proposed Sawtooth Peatbeds Geological Area		648		648			407
3.3A	Back Country Motorized	185,936	64,243	4,948	8,333	90,500	175,296	80,098
3.3B	Back Country Winter Motorized		86,413	3,157	75,068	43,485		185,879
3.3C	Back Country Summer Motorized		72,735	4,936	11,500	98,030	4,563	46,596
3.5	Back Country Recreation and Restoration		66,427					
3.5A	Back Country Restoration Motorized							29,213
3.5B	Back Country Restoration Winter Motorized							8,025
3.5C	Back Country Restoration Summer Motorized							13,311
3.5D	Back Country Restoration Non-motorized							14,573
4.2	Travel Corridor	164,447	100,883	82,588	100,883	103,422	103,901	99,729
4.3	Back Country Access Corridor		13,982	5,120	13,947	8,775	3,349	14,051
4.5A	Proposed Kirwin Historical Area	481	481	481	481	481		4,603
5.1	Managed Forests and Rangelands	157,215	173,190	72,298	168,423	253,799	528,146	173,190

Table 18. Comparison of management area allocations (in acres)

MA	MA Description		Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
5.2	Public Water Supply		12,868	6,841	7,953	12,868		12,868
5.4	Managed Big Game Crucial Winter Range	54,972	55,005	145,505	53,983	79,935		54,978
8.2	Ski-based Resort		1,145	1,145	1,145	1,145	1,145	1,145

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Recreation							
Effect of alternative on over-snow motorized recreation	Continues to allow use on lands where it currently occurs including within Dunoir SMU (1.6B)	Lands available for use are reduced. Use is prohibited in Dunoir SMU. Use prohibited in some crucial winter range and some back country areas.	Lands available for use are reduced. Use prohibited in all inventoried roadless areas and all big game winter range. Existing snowmobile trails reduced.	Lands available for use are reduced. Use prohibited in all inventoried roadless areas and all big game crucial winter range.	Lands available for use are reduced. Use is prohibited in Dunoir SMU. Use prohibited in some back country areas.	Lands available for use are reduced. Use is prohibited in Dunoir SMU. Most capable areas are open to use	Lands available for use are reduced. Use is prohibited in DunoirSMU. Use prohibited in some crucial winter range and some back country areas.
Lands where allocation allows over the snow motorized recreation (acres) (% of Forest acres)	887,600 (36%)	480,200 (20%)	103,000 (4%)	323,800 (13%)	526,400 (22%)	825,200 (34%)	592,400 (24%)
Snowmobile trails (miles)	276	276	163	276	276	367	276

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Effect of alternative on summer motorized recreation	Continues to allow use on lands where it is currently occurring.	Total lands available are the same. More land available outside grizzly primary conservation area	Lands available for use are reduced. Use prohibited in inventoried roadless areas and recommended wilderness. Existing roads and motorized trails reduced.	Lands available for use are reduced. Use prohibited in inventoried roadless areas and recommended wilderness.	Lands available for use are increased.	Lands available for use are increased. Most capable areas are open to use.	Total lands available are slightly reduced. More land available outside grizzly primary conservation area
Lands where allocation allows motorized summer recreation (% of Forest acres)	570,000 (23%)	570,200 (23%)	321,800 (13%)	350,000 (14%)	655,900 (27%)	823,300 (34%)	529,000 (22%)
Total miles motorized trails	32	54	21	39	62	92	54
Total miles open roads	909	909	802	909	909	910	909
Effect of alternative on mechanized use (bicycles)	Use is allowed outside wilderness. Use is allowed in Dunoir SMU.	Use is allowed outside wilderness. Use is prohibited in Dunoir SMU.	Use is allowed outside wilderness. Use is prohibited in Dunoir SMU and High Lakes WSA.	Use is allowed outside wilderness. Use is prohibited in Dunoir SMU.	Use is allowed outside wilderness. Use is prohibited in Dunoir SMU.	Use is allowed outside wilderness. Use is prohibited in Dunoir SMU.	Use is allowed outside wilderness. Use is restricted to a single trail in Dunoir SMU.

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G					
Lands where allocation allows mechanized use (bicycle use) (% of Forest acres)	1,072,900 (44%)	1,044,000 (43%)	1,028,800 (42%)	1,044,000 (43%)	1,044,000 (43%)	1,044,000 (43%)	1,044,000 (43%)					
Special Areas an	Special Areas and Designations											
Effect of alternative on special area designations	Existing wilderness (56% of forest), one existing RNA, one existing SIA	No new wilderness, six RNAs proposed, three SIAs proposed	Recommends new wilderness (+26% of forest), eight proposed RNAs, three proposed SIAs	Recommends new wilderness (+8% of forest), eight proposed RNAs, three proposed SIAs	No new wilderness, three RNAs proposed – all within wilderness, one SIA proposed	No new special areas	No new wilderness, eight RNAs proposed – boundaries adjusted to exclude existing motorized use, three SIAs proposed – Sawtooth Peatbed boundary adjusted to exclude existing motorized use, Kirwin expanded to include additional features					
Acres recommended wilderness	0	0	628,800	194,500	0	0	0					
Number of proposed new research natural areas (acres)	0	6 (63,200)	8 (70,600)	8 (70,600)	3 (35,600)	0	8 (68,600)					

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Number of proposed new special interest areas (acres)	0	3 (2,840)	3 (2,840)	3 (2,840)	1 (480)	0	3 (6,720)
Effect of alternatives on wild and scenic rivers	One designated wild river	Eligibility maintained on 16 eligible river segments	Eligibility maintained on 16 eligible river segments	Eligibility maintained on 16 eligible river segments			
Vegetation Mana	gement						
Management area acres with frequent vegetation management (MAs 3.5-, 4.2, 4.3, 4.5A, 5.1, 5.2, 5.4)	377,100	422,800	312,800	345,700	459,300	635,400	424,500
Acres of hazardous fuels reduction management activity (next 10 years)	36,100	35,800	35,000	35,600	37,400	41,200	35,800
Acres of wildfire (next 10 years)	185,200	182,900	184,100	183,700	175,000	161,400	182,800

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Effect on timber harvest	No change in timber production acres and focus of harvest activities	Timber production acres increased as result of updated mapping. Focus on acres outside inventoried roadless. Some restoration harvests in inventoried roadless. Increased volume per acre of restoration harvests reduces total harvest acres slightly	Timber production acres increased as result of updated mapping. Focus on acres outside inventoried roadless. No harvest in inventoried roadless.	Timber production acres increased as result of updated mapping. Focus on acres outside inventoried roadless. No harvest in inventoried roadless.	Timber production acres increased as result of updated mapping. Allows harvest in inventoried roadless areas.	Timber production acres increased as result of updated mapping. Allows highest level of harvest in inventoried roadless areas.	Timber production acres increased as result of updated mapping. Focus on acres outside inventoried roadless. Some restoration harvests in inventoried roadless. Increased volume per acre of restoration harvests reduces total harvest acres
Landssuitable for timber production	86,300	127,000	122,100	124,400	179,700	251,200	127,000
Total sale program quantity (Ccf) (annual estimate, constrained by budget)	17,000	16,600	14,900	15,900	22,100	30,500	16,600
Allowable sale quantity (ASQ) (Mcf) (decadal estimate)	19,800	22,800	21,900	22,400	32,800	46,600	22,800

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Invasive plant treatments (annual acres)	2,000	2,000	1,500	2,000	2,000	3,000	2,000
Wildlife Habitat I	Management						
Effects on grizzly bear and its habitat	Secure habitat maintained and livestock managed consistent with conservation strategy, no increase in grazing allotments	Secure habitat maintained and livestock managed consistent with conservation strategy, no increase in grazing allotments	Secure habitat increased and livestock conflicts decreases with reduction in livestock allotments	Secure habitat increased and livestock managed consistent with conservation strategy, no increase in grazing allotments	Secure habitat maintained and livestock managed consistent with conservation strategy, no increase in grazing allotments, conflicts likely increase with increased livestock grazing	Secure habitat decrease and livestock conflicts increase. Management not consistent with conservation strategy	Secure habitat maintained and livestock managed consistent with conservation strategy, no increase in grazing allotments
Management of permitted domestic sheep and goat and recreation pack goat use on big horn sheep habitat	Temporary Closure for pack goats in Core Native BHS Habitat on Clarks Fork, Wapiti, Greybull and Wind River RD will expire. No Permitted domestic sheep grazing in Core Native BHS Habitat.	No domestic goats (including pack goats) in Core Native BHS Habitat Livestock Allotments closed to Domestic sheep grazing in Core Native BHS Habitat.	No domestic goats (including pack goats) on entire SNF. LivestockAllotments closed to Domestic sheep grazing in Core Native BHS Habitat.	No domestic goats (including pack goats) in Core Native BHS Habitat. Livestock Allotments closed to Domestic sheep grazing in Core Native BHS Habitat.	Domestic goats (including pack goats) allowed on entire SNF. Livestock Allotments closed to Domestic sheep grazing in Core Native BHS Habitat.	Domestic goats (including pack goats) allowed on entire SNF. Livestock Allotments closed to Domestic sheep grazing in Core Native BHS Habitat.	No domestic goats (including pack goats) in Core Native BHS Habitat Livestock Allotments closed to Domestic sheep grazing in Core Native BHS Habitat.

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Winter motorized use on big game winter range	Allowed on less than one third of crucial winter range	Allowed on just over 5% of crucial winter range	Prohibited on all winter range including crucial winter range.	Prohibited on all crucial winter range	Allowed on 10% of crucial winter range	Allowed on 40% of crucial winter range. No winter range timing restrictions.	Allowed on just under 10% of crucial winter range
Oil and Gas Dev	elopment						
Effect on suitability for oil and gas surface development	Covered by existing leasing decision. Development not tied to management area direction. Most of forest suitable for development.	Reduced availability. Non-motorized management areas are not suitable for development.	Much reduced availability. Non-motorized management areas are not suitable for development. Recommended wilderness unavailable.	Much reduced availability. Non-motorized management areas are not suitable for development. Recommended wilderness unavailable.	Reduced availability. Non-motorized management areas are not suitable for development.	Slightly reduced availability. Small number of non-motorized management areas are not suitable for development.	Much reduced availability. Focus on portion of forest with high potential for oil and gas occurrence, maintaining consistency with direction on adjacent BLM ownership, and not allowing development on key crucial winter range areas.
Percentage of acres with high potential for oil and gas occurrence (255,000 acres) generally available with surface development	91%	71%	32%	47%	74%	87%	38%

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Commercial live	stock grazing						
Effects on permitted livestock grazing	Existing stocking and allotments maintained.	No change from existing stocking and allotments	Reduced stocking and allotments. No grazing on crucial winter range	No change from existing stocking and allotments	Stocking increased, no constraints saving forage for big game crucial winter range. No change in existing allotments.	Stocking increased, no constraints saving forage for big game crucial winter range. Additional acreage and allotment added.	No change from existing stocking and allotments
Acres suitable for commercial livestock grazing	375,400	375,400	216,800	375,400	375,400	415,400	375,400
AUMs permitted	55,900	55,900	31,400	55,900	58,300	61,500	55,900
Inventoried Road	dless Areas						
Consistency with Roadless Rule	No	Yes	Yes	Yes	No	No	Yes
Acres of management areas allocated to inventoried roadless areas where desired conditions are not consistent with roadless rule	87,300	0	0	0	107,400	257,100	0

Table 19. Comparison of alternatives by revision topics

	Alt. A	Alt. B	Alt. C	Alt. D	Alt. E	Alt. F	Alt. G
Economics*							
Effect on labor income in local counties associated with forest management	Existing labor income of \$38 million	Very slight decrease in labor income	An almost eight percent decrease in labor income	Slight decrease in labor income	An almost six percent increase in labor income	An eleven percent increase in labor income	Very slight decrease in labor income
Livestock grazing (avg. annual labor income thousands of dollars)	\$5,794	\$5,794	\$3,246	\$5,794	\$6,953	\$7,280	\$5,794
Timber harvest (avg. annual labor income thousands of dollars)	\$2,487	\$2,422	\$2,178	\$2,324	\$3,239	\$4,463	\$2,422

<sup>\*</sup>Recreation and tourism outputs are constant for all alternatives. Levels may increase over current levels based on expected population growth, but there is no available study or information from the recreation section to indicate that such growth will create different levels of demand for the different levels of opportunities offered by the different themes of the alternatives, so it is assumed use will remain constant. Types of use may change, with one activity substituting for another, but overall use numbers are assumed to be similar.