FINAL ENVIRONMENTAL IMPACT STATEMENT
AND
LAND AND RESOURCE MANAGEMENT PLAN REVISION

RECORD OF DECISION

Thunder Basin National Grassland

July 31, 2002

Lead Agency:	U.S. Department of Agriculture Forest Service Rocky Mountain Region
Responsible Official:	Rick D. Cables Regional Forester Rocky Mountain Region
Recommending Official:	Mary Peterson Forest Supervisor Medicine Bow-Routt National Forests and Thunder Basin National Grassland

Located within Campbell, Converse, Weston, Crook,
and Niobrara Counties, Wyoming

This document presents the decision regarding the selection of a Revised Land and Resource Management Plan for the Thunder Basin National Grassland. It summarizes the reasons for choosing the Selected Alternative as the basis for the Revised Grassland Plan, which will be followed for the next 10 to 15 years. The long-term environmental consequences contained in the Final Environmental Impact Statement are considered in this decision.

Explanation of Acreages and Data Sources

The information in the tables, figures and maps in the following document was generated from a variety of sources, including several different Geographical Information System (GIS) software platforms, tabular databases, and data from a variety of models used in planning analysis. The acreage figures from the various sources do not match exactly in all cases. However, when added, acres of the National Forest System lands (regardless of the source) are within acceptable margins of error.

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SUMMARY OF THE DECISION

My Decision

I have selected Alternative 3 Final as described in the Final Environmental Impact Statement (FEIS) for the Northern Great Plains Plans Revisions, but with minor modifications as described in the attached addendum and errata. By selecting Alternative 3 Final as modified, I am approving the Revised Land and Resource Management Plan (Revised Plan) for the Thunder Basin National Grassland (TBNG) that describes in detail the goals and objectives, standards and guidelines, management area direction, monitoring, and recommendations for special area allocations.

My decision provides programmatic direction for sustaining healthy grassland conditions. Goals and objectives are based on the 2000 Forest Service Government Performance Results Act (GPRA) Strategic Plan. Standards and guidelines ensure that resources are managed in a sustainable manner.

I am not recommending any Wilderness or Wild and Scenic River designations to Congress.

The mix of Management Area prescriptions in Alternative 3 Final provides for continued coal, oil, and gas development; livestock grazing; threatened, endangered, and sensitive species conservation and recovery; game and non-game species habitats; grassland, riparian, and woody draw health; back-country nonmotorized and dispersed recreation opportunities; and special interest areas and Research Natural Areas on the TBNG.

All of the grassland is currently available for oil and gas leasing with certain lease stipulations as specified in the 1994 Record of Decision for Oil and Gas Leasing. I am making a decision to continue *availability* of lands east of the Wyodak coal outcrop (coal outcrop line) for leasing, but I am modifying the terms under which those lands are available (lease stipulations). Immediately after this decision, the Forest Supervisor will make a new leasing decision for specific lands [36 CFR 2218.102(e)] and *authorize* the Bureau of Land Management (BLM) to offer the lands east of the coal outcrop for lease.

The area west of the coal outcrop line has coalbed methane development potential. I am deferring new leasing decisions on the area west of the coal outcrop line (58,460 acres), currently available and authorized for leasing under the 1994 Record of Decision for Oil and Gas Leasing on the TBNG. The Forest Service is a cooperating agency with the Bureau of Land Management in the Planning Amendment for the Powder River Basin Oil and Gas Project (PRB-EIS) in which the cumulative effects of coalbed methane development are being analyzed. The Forest Service will make new leasing decisions for the area west of the coal outcrop line after completion of the Final EIS for that project. The Draft PRB-EIS was available for public comment in January 2002. A final EIS is expected in 2003.

Livestock grazing will continue to be an important activity on the TBNG. I have determined that 532,100 acres are suitable for livestock grazing. I am allocating 118,090 acres to MA 6.1 Rangeland and Broad Resource Emphasis, 160,870 acres to MA 5.12 General Forest and Rangeland with Range Vegetation Emphasis, and 83,430 acres to MA 3.65 Rangelands with Diverse and Natural-Appearing Landscapes.

Grassland-wide direction provides for species viability and protection of special areas and habitats. In addition, I am allocating 53,830 acres to MA 3.63 Black-footed Ferret Reintroduction Habitat and 33,890 acres to MA 3.68 Big Game Range. Prairie dogs are managed for habitats key to other wildlife species. The standards and guidelines and geographic and management area direction provide for maintaining or increasing habitats for raptors, sage grouse, sharp-tailed grouse, and prairie dogs as well as other game and non-game species.

I am allocating 6,550 acres to MA 1.31 Backcountry Recreation Nonmotorized and 25,780 acres to 4.32 Dispersed Recreation; High Use. With this decision, motorized travel is restricted to existing roads on the TBNG. Unauthorized off-road motorized use is prohibited.

I am allocating 26,780 acres in MA 2.1 for six special interest areas. By selecting Alternative 3 Final, I am also allocating 1,210 acres to two Research Natural Areas: Rock Creek and Wildlife Draw.

I established the following five decision criteria to help me select the preferred alternative for this plan revision:

1. Ensuring the long-term health of the grassland.
2. Implementing a balanced variety of natural resource programs featuring a sustainable output of multiple uses.
3. Continuing the emphasis on development of high-quality, nationally significant mineral values while protecting the environment.
4. Maintaining and enhancing the viability of native plant and animal species and contributing to the recovery of threatened and endangered species.
5. Contributing to the economic diversity of neighboring communities by implementing a variety of natural resource programs that provide a sustainable output of multiple uses**.**

These criteria emerged from the revision topics with which we began the planning process on the TBNG. The revision topics represent the significant issues examined in this grassland management plan revision. Each alternative evaluated in the FEIS addresses these revision topics in a different way. Revision topics are listed below:

1. Community and lifestyle relationships.
2. Livestock grazing.
3. Oil and gas leasing.
4. Plant and animal damage control.
5. Grassland and forest health.
6. Recreation and travel management.
7. Special area designations.

I selected Alternative 3 Final because the strategic guidance it establishes best matches the direction I believe needs to be taken on the TBNG.

RATIONALE FOR MY DECISION

I can best describe my rationale for this decision by telling you how I think Alternative 3 Final addresses the decision criteria.

Ensuring the long-term health of the grassland: This criterion encompasses all of the revision topics, particularly grassland and forest health and plant and animal damage control. It includes protection of soil, air, and water resources. It also includes maintaining the diversity and productivity of the grassland vegetation, including the forested component. It includes maintaining the sustainability of ecosystem characteristics and the quality of watershed functions and conditions. Control and management of noxious weeds and non-native invasive plants are also part of this priority. Without healthy ecosystems, we cannot sustain the values currently offered by these public lands.

This criterion is my highest priority. I looked at the standards and guidelines in the Revised Plan, the mix of management area prescriptions, and the environmental consequences disclosed in the FEIS to see how each alternative responded to issues such as grassland health, biological diversity, wildlife habitat effectiveness, habitat fragmentation, threatened, endangered, and sensitive species populations, species at risk, control of noxious weeds and invasive species, establishment of Research Natural Areas (RNAs), and riparian and watershed health. I conclude that ensuring long-term health of the land requires a balance between active management of ecosystems through livestock grazing and prescribed burning, and a more passive approach where natural processes influence ecosystems and their functions. I believe that Alternative 3 Final provides that balance. In comparison, Alternative 1, the current situation, emphasizes livestock grazing (514,470 acres of MA 6.1) and small amounts of wildlife habitat (33,750 acres of MA 3.63 and 4,270 acres of MA 3.68); Alternative 2 emphasizes commodity production; Alternative 4 accentuates restoration of impaired ecosystems and places more emphasis on naturally functioning processes; and Alternative 5 places an emphasis on non-commodity (particularly recreational) uses. Additionally, Alternatives 1 and 2 had a "likely to adversely affect" determination for black-footed ferret. Also, plant and animal habitats would be managed to meet viable populations in Alternatives 1 and 2 but at a higher risk level than Alternatives 3 Draft, 3 Final, 4, and 5.

Implementing a balanced variety of natural resource programs featuring a sustainable output of multiple uses: This criterion encompasses revision topics 2, 3, and 6. These revision topics represent some of the diverse uses that people expect from this national grassland. These uses include grazing, mineral development, wildlife habitats, special uses, water, and a variety of recreational settings and opportunities. Some of these uses are compatible with each other; others are not. I choose to focus on the concept of "balance" among the various uses. By "sustainable," I mean providing outputs of renewable resources and high quality experiences, in perpetuity, without impairing the productivity of the land.

The TBNG offers many scenic landscapes, historic and cultural properties, geologically and paleontologically significant areas, primitive areas that provide opportunities for solitude, and special plant and wildlife habitats. Protecting these special areas will ensure their use and enjoyment by current as well as future generations. Management area designations and direction for backcountry nonmotorized areas, special interest areas (SIAs), and research natural areas (RNAs) will protect the characteristics and resources that make these areas "special."

The demand for recreational opportunities on public lands in the prairie ecosystem is increasing dramatically. The TBNG provides a myriad of dispersed recreation opportunities such as hunting, fishing, bicycling, hiking, driving for pleasure, solitude, photography, bird watching, camping, wildlife viewing, personal renewal, and rock hounding. While the TBNG has potential for accommodating a wide variety of developed recreation opportunities, few currently exist. People are seeking additional recreation and education opportunities on our public lands and asking for more developed facilities at specific sites, improved roads for recreational traffic, and more site and area information and signing. Hunters and people who enjoy photography desire a diversity of habitats to ensure sufficient vegetative cover for the species they want to hunt or photograph. People are also seeking a diversity of recreation experiences in motorized and nonmotorized settings.

It is important to me that my decision implements a balanced variety of natural resource programs featuring a sustainable output of multiple uses.

The TBNG is known for its relatively undeveloped character and its ability to produce goods and services needed by society. Alternative 3 Final manages 5% of the TBNG in special interest areas (SIAs) and an additional 1.5% in prescriptions such as backcountry recreation, and RNAs. Alternative 3 Final identifies 532,100 acres as being suitable for livestock grazing and 473,940 acres as available for oil and gas leasing. It allocates 1,230 acres as RNAs and makes them available for oil and gas leasing with no surface occupancy, provides production of approximately 200 million tons of coal annually, and provides opportunities for a wide range of recreational pursuits. Thus, the TBNG will continue to provide the goods and services needed and desired by our society.

In comparison to other alternatives, Alternative 3 Final provides a good balance of acres in the broad Management Area Prescription Categories 1, 2, 3, 4, 5, 6, and 8 (the grassland does not have any Category 7, urban interface). While it provides the fourth most acres in Category 1, it provides the most acres of SIAs and RNAs of all alternatives, the second highest acreage of Category 3, the most acres in Category 4, and the second most acres in Category 5.

Continuing the emphasis on development of high-quality nationally significant mineral values while protecting the environment: This criterion encompasses revision topics 1 and 3. The TBNG is well known for the values and opportunities it offers in mineral development. The coal deposits in this area have some of the lowest sulfur content in the nation, which is important for ensuring minimum impacts to air quality. Therefore, Wyoming industry is also the leading coal industry in the nation and one of the largest worldwide. Oil and gas resources are important nationally for their contribution to a secure and reliable domestic source of energy. Regionally, mineral operations account for a significant portion of regional and county economies. Continuing to provide for the exploration and development of mineral resources in an environmentally sensitive way ensures the sustainability of local communities. My decision identifies conservation measures that will be implemented to sustain the land and our natural resources while developing our nation's mineral resources.

The TBNG has a nationally significant coal and oil and gas industry. I am allocating 9% of the Thunder Basin National Grassland to Management Area 8.4 Mineral Production and Development, primarily for coal production. With this decision, I continue to make 473,940 acres available for oil and gas leasing. Numerous property owners and public land and

resource agencies at federal, state, and local levels have a very interdependent relationship focused on efficient and effective mineral development and natural resource stewardship. Alternative 3 Final recognizes the significance of this and continues the commitment of the Forest Service toward successful use of these national resources as well as outstanding reclamation, grassland management and environmental protection. All alternatives, except Alternative 1, allocate approximately the same amount of land to MA 8.4 (coal production). Revised Plan standards and guidelines and oil and gas stipulations in Alternative 3 Final provide needed environmental protections to ensure sustainable mineral production and are designed to ensure protection of threatened, endangered, sensitive species, and other species at risk and the grassland's outstanding fossil resources. Other alternatives do not provide the same degree of protection for these species and their habitats.

Maintaining and enhancing the viability of native plant and animal species and contributing to the recovery of threatened and endangered species. This criterion encompasses revision topics 2, 4, 5, and 7. Biological diversity is defined as the full variety of life in an area, including the ecosystems, plant and animal communities, species and genes, and the processes through which individual organisms interact with one another and with their environments. People are asking that national grasslands, including the Thunder Basin National Grassland, play an increasing role in conserving biodiversity on the Great Plains. Maintaining biological diversity and providing for the viability of species requires management direction for the protection, restoration, and as needed, improvement of habitats for threatened, endangered, sensitive, and management indicator species, as well as providing habitats for other game and non-game species. It includes looking at plant and animal damage control practices to ensure they have the desired effect in maintaining and enhancing the viability of desired native plant and animal species. It is imperative to me that my decision addresses long-term viability.

Numerous species have their distributions centered or nearly centered on the Great Plains. This includes the black-tailed prairie dog, swift fox, black-footed ferret, white-tailed jackrabbit, prairie vole, thirteen-lined ground squirrel, mountain plover (breeding range), long-billed curlew, McCown's longspur and chestnut-collared longspur. Several of these species are at risk, and as previously indicated, there are numerous other species at risk that occur on the national grassland. Some are already protected under the Endangered Species Act, and additional species may be protected in the future. Conservation measures for these species and others have been incorporated into the Revised Plan.

The U.S. Fish and Wildlife Service (USFWS) concurred with the determinations made by Forest Service biologists and botanists that land and resource management prescribed in Alternative 3 Final is not likely to adversely affect any threatened and endangered plant or animal species and is not likely to jeopardize the continued existence or adversely modify proposed critical habitat on any species proposed for listing under the Endangered Species Act. Also, plant and animal habitats would be managed to meet viable populations in Alternatives 1 and 2, but at a higher risk level than Alternatives 3 Draft, 3 Final, 4 and 5.

There is currently a shortage of quality sites to help meet the recovery objectives outlined in the National Recovery Plan for the endangered black-footed ferret. Under Alternative 3 Final, a 53,830-acre ferret reintroduction habitat area is allocated (MA 3.63) along the Cheyenne River. This is the highest amount of acres of all alternatives considered. The 1985 plan identified 33,750 acres as potential ferret reintroduction habitat but did not allocate any acres

to this management area. The Wyoming Game and Fish Department and U.S. Fish and Wildlife Service will be key agencies in determining when and if black-footed ferrets are eventually released into this area. Alternatives 1 and 2 had a "likely to adversely affect" determination for black-footed ferret.

The U.S. Fish and Wildlife Service has determined that listing black-tailed prairie dogs as a threatened species is "warranted, but precluded." Revised Plan direction in Chapters 1 and 2 provide for expansion of existing prairie dog habitat and restrictions on poisoning and other activities that prevent the expansion of prairie dog complexes. Furthermore, land exchanges in intermingled landownership areas will be pursued where prairie dog habitat expansion is desired and where we want to reduce conflicts with private landowners. Although plague recently reduced prairie dog populations across 3,300 acres of colonies, about 15,000 acres of active prairie dog colonies still occur on the TBNG.

On the TBNG, there are twenty-six plant and animal species currently classified as sensitive by Region 2 of the Forest Service. Forest Service biologists and botanists evaluated the effects of land and resource management direction prescribed in Alternative 3 Final on these sensitive plant and animal species. They determined implementation of this alternative may adversely impact individuals but is not likely to result in a loss of viability on the planning area, nor cause a trend to federal listing or a loss of species viability. In fact, these public lands can and do play a beneficial role in conserving these species and their habitats. For example, because of their close association with prairie dogs and prairie dog colonies, burrowing owl populations will likely expand as prairie dog populations and colonies expand under Alternative 3 Final.

We recognize the progress that has already been made on the national grasslands, with the assistance and partnership of many cooperators and permittees, to conserve biodiversity; but we also recognize the increasing role these lands play in meeting local, regional, and national conservation goals and objectives. I choose Alternative 3 Final because the overall intent of the management direction is to enhance the vegetative composition and structure of grasslands, and to maintain diverse habitats using a wide array of vegetation management tools, such as grazing, prescribed fire, and rest from grazing. Vegetation and habitat management direction within the Revised Plan is intended to provide ecological conditions that contribute to the continued viability of all species, including threatened, endangered, and sensitive species. The Biological Assessment and Biological Evaluation recommended conservation measures for many of the species at risk on the TBNG. These conservation measures were brought forward in Revised Plan objectives, standards, and guidelines in Chapters 1, 2, and 3. Chapter 4 addresses monitoring needed to ensure the implementation and effectiveness of Revised Plan direction regarding these species. We will also assume that threatened and endangered species are present in potential and suitable habitat.

Contributing to the economic diversity of neighboring communities by implementing a variety of natural resource programs that provide a sustainable output of multiple uses: This criterion encompasses revision topics 1, 2, 3, and 6. To have sustainable communities, we must ensure a sustainable flow of resources and services.

People value these public lands for many different reasons. Many depend upon them for their livelihood; many value the recreational opportunities, scenery, and solitude they provide. Some specific uses that people expect from these public lands include livestock grazing,

mineral development, wilderness, wildlife habitats, special uses, water, and a variety of recreational opportunities. I choose to focus on the concept of balance among the various uses. Being a good neighbor to local communities means being mindful of these values in making this decision and when implementing this plan.

Being a good neighbor also means cooperating with other landowners in controlling noxious weeds and other pests and providing for animal damage control. I recognize the interdependent relationship on the TBNG between numerous landowners and managers of the grassland. Included in this interdependency are other land and/or resource management agencies at the federal, state, and local levels and interested citizens who want to collaborate with the Forest Service to achieve effective and efficient resource utilization along with innovative land and resource stewardship. In the implementation of this decision, the Forest Service will want to have close cooperation and form partnerships with adjacent landowners, permittees, industry representatives, counties, state agencies, conservation organizations, and other grassland users to ensure we are working together to achieve desired biological and social conditions.

Alternative 3 Final identifies 532,100 acres suitable for livestock grazing; allocates 47,990 acres for mineral production and development; identifies 473,940 acres as available for oil and gas leasing, and provides opportunities for a wide range of recreational pursuits. Thus, the TBNG will continue to provide the goods and services needed by our society, from which local businesses can continue to prosper.

I considered the effects of the alternatives to the local communities and counties. While Alternatives 1 and 2 provided the highest number of direct and indirect jobs and income from livestock grazing, Alternative 3 Final projects a 2% increase over actual current use within the planning period. Alternative 4 resulted in a 10% reduction from current livestock use. All of the alternatives, except Alternative 4, provided for 0% change in direct and indirect jobs and income from oil and gas activities. I selected Alternative 3 Final because it provides outputs of renewable resources and high quality experiences without impairing productivity of the land. Because this alternative focuses on sustaining the health and productivity of grasslands and forests, including the viability of populations of plant and animal species, it ensures that we will continue to provide sustainable outputs and sustainable multiple uses.

Additional Reasons for the Selection of Alternative 3 Final

This plan revision revolved around the recognition that management of prairie ecosystems to produce goods and services requires awareness and consideration of the interrelationships among humans, animals, soil, water, air, and other environmental factors within the ecosystems. The alternatives were developed and analyzed based on the interaction between the revision topics and the information in the FEIS. I chose Alternative 3 Final because it ensures that the TBNG maintains its contribution to the ecology of the prairie ecosystem of the Northern Great Plains and honors the interdependencies among the grassland, other agencies, local governments, interested publics, and local, regional, and national economies. The goals, objectives, standards, and guidelines contained in the selected alternative reflect a balance between safeguarding the integrity of ecological processes and providing for multiple uses and benefits.

Alternative 3 Final best addresses the revision topics and my five decision criteria. It is responsive to both the needs and desires of those who live in or near this grassland and the wishes of those who live elsewhere. Alternatives 3 Draft, 3 Final, 4 and 5 comply with law, regulation, and policy (Alternatives 1 and 2 had a "likely to adversely affect" determination for black-footed ferret). I did not select an alternative that maximized or minimized any particular element because I think it is important to strike a relative balance between these priorities. However, the most important factor of my decision was ensuring the long-term health of the land for the enjoyment of current and future generations.

Alternative 3 Final also protects the health of the grassland, the scenic quality, fish and wildlife habitat, and the recreational opportunities that make the TBNG an attractive place to live, work, and visit.

I selected Alternative 3 Final in part because of the manner in which it will achieve the grassland goals and objectives. Alternative 3 Final strikes a realistic balance between protecting and maintaining ecosystem integrity through natural processes and offering uses, goods, and services through active management. This is something the TBNG has long been known for. One of my priorities in making this decision is to continue this balance. Grassland goals and objectives are listed in Chapter 1 through 3 of the Revised Plan in accordance with the planning regulations at 36 CFR 219.11(b).

Many comments were received throughout the planning process and during the comment period. Alternative 3 Final, as modified in this decision, reflects these comments and other less formal interactions with the public and other government and tribal representatives and is a logical outgrowth of our analysis and public involvement efforts. I know that selecting Alternative 3 Final is not likely to completely satisfy every group or individual. However, I feel that Alternative 3 Final sets a reasonable course that gives most people satisfaction and provides future opportunities to participate in plan implementation.

As provided in 36 CFR 219.10(g), this decision will remain in effect until the plan is amended or revised.

This Revised Plan and FEIS are programmatic and represent a management strategy for the TBNG. It provides overall systematic guidance and establishes management direction to govern future actions. The flexibility and adaptability of this plan to changing conditions is an important factor in my decision. We will amend this plan as circumstances warrant.

Economic analysis was also performed on each alternative. This analysis showed that Alternative 3 Final does not have the highest Present Net Value (PNV). However, I am confident that Alternative 3 Final ranks highest in terms of net public benefits. As explained in the FEIS, net public benefits are more than just PNV. Many outputs and effects (biological diversity, visual amenities, watershed health, etc.) are difficult to quantify. These other factors must be considered in selecting the alternative with the highest net public benefits. Alternative 3 Final does the best job of balancing the tradeoffs for competing uses, differing values, costs, and outputs, resulting in the highest net public benefit.

The application of science is a factor in my decision. There are many facets to consider here. One is the use of biological science as it applies to the management of national grasslands. Another is the application of social science, since people are an integral part of ecosystems. Science does not always provide clear answers to complex resource management issues, but it

does give insight into the effects of management decisions and actions. These scientific findings are displayed in the FEIS. In integrating the biological and social sciences, I considered the following:

- The role of the TBNG in the greater ecological province and sections.
- The role of fire, insects, and disease in ecosystem dynamics.
- Access to the grassland and to the facilities available to the public.
- The plans, goals, and policies of other government agencies (local, state, and national) and American Indian tribes.
- The role the TBNG plays in local, regional, and national economies.
- Application of the scientific literature in the analysis of the effects of the alternatives.
- The interdependent relationship between Forest Service grassland managers and other agencies and landowners.

The scientific community played a large role in facilitating an accurate and appropriate interpretation of data and research information. Our planning team and specialists consulted with scientists in the research branch of the Forest Service, with U.S. Fish and Wildlife Service, the Bureau of Land Management, the University of Wyoming and other universities, the Environmental Protection Agency, the U.S.G.S. Biological Resources Division and Water Resources Division, Wyoming Game and Fish, and others. There were numerous cooperative assessments conducted by several federal agencies in the Northern Great Plains to be sure that the information we used for this plan was the most up-to-date information available and that it was properly interpreted.

CHANGES BETWEEN DRAFT EIS AND FINAL EIS

Alternative 3 Final, as described in the FEIS, is a modification of the Alternative 3 described in the DEIS. The differences between Alternative FEIS 3 and Alternative 3 in the DEIS resulted in changes to the environmental consequences disclosed in the DEIS. This modified alternative (Alternative 3 Final) is within the range of alternatives described and analyzed and is a slight modification of Alternative 3 Draft, based on public comments and additional analysis conducted between draft and final EISs. Most of the modifications stem from the input we received on the DEIS during the comment period. We received nearly 110,000 comments about the Northern Great Plains Plans DEIS from 26,000 commentors. Over 1,000 of the commentors were specifically commenting on the TBNG.

Travel Management

I am making a decision to prohibit unauthorized cross-country motorized use on the TBNG. Authorized uses to cooperators and permittees will still occur for purposes such as grazing permit administration, fencing, salting, approved mineral exploration and development, fire control, wildlife surveys, and emergency needs. Motorized use is allowed to continue on existing travel routes until site-specific analysis with public involvement has been accomplished for the purpose of designating the permanent transportation facilities. This decision in no way designates or accepts user-created existing travel routes on a permanent basis. As site-specific road and trail analyses are conducted and decisions are made, some of

the existing user-created routes may be designated and some of the other routes, both user-created (unclassified) and classified, may be decommissioned and the areas restored. The process to site-specifically designate motorized routes could not be completed within the timeframe of this planning process because of the lack of complete road inventories and the need for extensive public involvement. Future site-specific travel management analysis will take place within the next five years to designate which roads, trails, and areas will be available for motorized use.

Roadless Area Conservation Rule

Currently enjoined from implementation, the Special Areas: Roadless Area Conservation Final Rule, 66 FR 3244 (Roadless Rule), was signed by former Secretary of the U. S. Department of Agriculture Dan Glickman on January 12, 2001. The Roadless Rule, codified at 36 CFR 294 Subpart B (2001), would have prohibited new road construction and timber harvest in inventoried roadless areas subject to exceptions. Specific exemptions would have allowed for roads in conjunction with the continuation, extension, or renewal of a mineral lease [36 CFR 294.12(b)(7)] and for roads pursuant to reserved or outstanding rights [36 CFR 294.12(b)(3)]. Exceptions also would have allowed for roads needed to protect public health and safety (law enforcement, fire suppression etc.), needed to conduct a CERLA action, needed to prevent irreparable resource damage, needed for road safety, and determined to be in the public interest. In addition, the rule specifically would not have affected a state's or private landowner's right of access to their land [36 CFR 294.12(b)(3) and 294.14 (a) and preamble at 66 FR 3251, 3253, 3256, 3259].

Eight lawsuits involving seven states in six judicial districts of four federal circuits have been filed against the January 12, 2001 rule. On May 10, 2001, the Idaho District Court granted the preliminary injunction requested in *Kootenai Tribe of Idaho v. Veneman* and *State of Idaho v. U.S. Forest Service*, enjoining the Forest Service from implanting "all aspects of the Roadless Area Conservation Rule." The Idaho District Court's decision to grant a preliminary injunction has been appealed and is now pending before the Ninth Circuit Court of Appeals. On June 7, 2001, the Chief of the Forest Service issued a letter concerning interim protection of inventoried roadless areas stating, "the Forest Service is committed to protecting and managing roadless areas as an important component of the National Forest System. The best way to achieve this objective is to ensure that we protect and sustain roadless values until they can be appropriately considered through forest planning." As part of that letter, the Chief indicated he would be issuing interim direction regarding timber harvest and road construction in inventoried roadless areas until a forest [grassland] plan amendment or revision considers the long-term protection and management of unroaded portions of inventoried roadless areas. This interim direction was issued on December 20, 2001 (66 FR 65789).

The Northern Great Plains revision process began in 1997 prior to the adoption of the Roadless Rule, and the Northern Great Plains FEIS was issued in July 2001 after the May 2001 decision that enjoined the Roadless Rule. As a part of the Northern Great Plains EIS process, an inventory of areas essentially roadless in character was completed for each planning unit, including the TBNG. For each area, the FEIS contains a description of the affected environment along with a capability analysis, availability analysis, and an evidence of need for wilderness analysis (see FEIS 3-359 to 3-378 and FEIS Appendix C). In addition,

roadless areas were allocated to various management areas by alternatives. Roadless areas were considered for management areas that varied from Management Area 1.2 Recommended for Wilderness to Management Area 6.1 Rangeland with Broad Resource Emphasis (see FEIS 3-370). In so doing, this plan revision process fully met the intent and direction of the Chief to consider the protection and management of roadless areas appropriately through forest [grassland] planning.

Until final rule, regulations, and direction are promulgated for inventoried roadless areas management, the Forest Service will manage inventoried roadless areas in compliance with Interim Directives 1920-2001-1 and 7710-2001-3 and the direction in the Revised Plan.

There are six inventoried roadless areas on the TBNG: Downs, Red Hills, Cow Creek Buttes, Duck Creek, HA Divide, and Miller Hills (see map legend on the Alt. 3 Final map). These areas were identified as having special values for semi-primitive recreation opportunities and/or biological diversity. Currently, all of these areas are covered by oil and gas leases. Current leases allow for road development within these areas. I am allocating all of these areas to management area prescriptions that will allow future oil and gas leasing; however, two of these areas, Cow Creek Buttes and Downs, are allocated largely to management area prescriptions that require no surface occupancy on future leases unless production is established on existing leases. In all these roadless areas, I would like to retain semi-primitive recreation opportunities and/or biological diversity characteristics. Therefore, in those areas where future leases allow surface occupancy, the Forest Service will work with the energy industry to develop a minimal road system and will require rehabilitation of on-the-ground disturbances to achieve natural conditions.

Temporary departure from the current condition for the development of oil and gas under new leases is permissible subject to extraordinary mitigation and restoration measures. To insure protection and restoration of roadless characteristics, I have decided to apply the Controlled Surface Use (CSU) stipulation developed for areas with special values in the 1994 Oil and Gas ROD to all areas except Downs (the stipulation is attached to this decision).

A major portion (14,170 acres) of the Cow Creek Buttes roadless area is allocated as a Special Interest Area, MA 2.1, due to its primitive character, its remoteness, and its unique Northern Great Plains ecological and geographical character.

The Revised Plan allocates the roadless areas as follows:

Roadless Area	Management Area Allocation in FEIS Alternative 3 Final	New Oil and Gas Leasing Stipulations	Acres
Cow Creek Buttes	MA 2.1 MA 3.65	NSO CSU & TL	14,170 3,330
H A Divide	MA 5.12[1]	CSU & TL	5,060
Red Hills	MA 3.65	CSU & TL	6,840
Downs	MA 1.31	NSO	6,510
Duck Creek	MA 3.65	CSU & TL	12,330
Miller Hills	MA 3.65	CSU & TL	10,370
TOTAL			**58,620**

There is a high likelihood that all six inventoried roadless areas will experience some level of new road construction as all these areas are currently under oil and gas leases. Leaseholders have valid existing rights for access.

Transportation Rule and Policy

The Administration of the Forest Development Transportation System; Prohibitions; Use of Motor Vehicles Off Forest Service Roads, Final Rule, 66 FR 3206 (Transportation Rule), and Forest Service Transportation, Final Administrative Policy, 66 FR 3219, (Transportation Policy) were signed on January 12, 2001 by former Chief of the Forest Service Mike Dombeck. The Transportation Rule and Policy provides only guidance for transportation analysis—it did not dictate or adopt land management decisions.

The Transportation Rule, codified at 36 CFR 212.5 (2001), requires the Forest Service to determine a minimum road system—determining those roads that are needed (classified) and those unneeded (unclassified). Decisions on needed and unneeded roads will be accomplished through area/project planning with NEPA analysis and public participation. The TBNG Revised Plan does not make these decisions. These decisions will only be made through subsequent NEPA analysis. The TBNG Revised Plan provides as a Goal 4. a. #1 under Grassland-wide Direction "Within 5 years, identify travel opportunities and restrictions; including designating motorized travel-ways and areas, to meet land management objectives." See Revised Plan, Chapter 1, page 1-7.

The Transportation Policy, Forest Service Manual 7700 et seq., requires a roads analysis process to inform road management decisions. A roads analysis process (watershed or project area scale) must be prepared prior to most road management decisions to inform those decisions to construct or reconstruct roads throughout National Forest System lands beginning on January 12, 2002. The roads analysis process itself does not make decisions; any road management decisions are made through NEPA analysis and public participation. The interim direction for Transportation Systems (ID-7710-2001-3) provides direction for roads analysis

[1] Note: that the analysis was done with HA Divide as a 3.65 but the map shows it as 5.12.

and the interim direction for land and resource management planning (ID-1920-2001-1) describes Chief and Regional Forester responsibilities for road construction and reconstruction and timber harvest until forest (or grassland) plans are revised. The TBNG has not completed a grassland-scale roads analysis. Forest Service Manual (FSM) 1925.03 – Management of Inventoried Roadless Areas (Policy) states that until a forest- (grassland) scale roads analysis (FSM 7712.13b) is completed and incorporated into a forest (grassland) plan, inventoried roadless areas shall, as a rule, be managed to preserve their roadless characteristics. Therefore, until a grassland-scale roads analysis is completed and incorporated into the Revised Plan, inventoried roadless areas will be managed to preserve their roadless characteristics subject to valid existing mineral rights. Since the plan revision was substantially completed by January 12, 2002, I have extended the deadline for completing the Roads Analysis to June 2004.

The TBNG is conducting the road analysis, where required, as a routine part of project analysis. Guideline #4 in Grassland-wide Direction under Q. Infrastructure Use and Management is consistent with the Transportation Policy stating: "Perform site-specific Roads Analysis, including public involvement, prior to making any decisions on road construction, reconstruction, and decommissioning."

Oil and Gas Stipulations

Stipulations (provisions for oil and gas leases) for oil and gas development were changed between the draft and final EIS to respond to legal biological requirements associated with the Endangered Species Act and National Forest Management Act, and to respond to Forest Service Manual policy for sensitive species. New research has furthered knowledge about wildlife requirements, such as habitat needs for species survival (see the *Biological Assessment and Evaluation for Revised Land and Resource Management Plans*, December 2000). As a result, Timing Limitation (TL) stipulations for many wildlife species in the Revised Plans are different from those contained in the DEIS and previous oil and gas leasing analyses. More areas of no surface occupancy (NSO), areas with timing limitations (TL), and areas with controlled surface use (CSU) are included in this decision.

Some who commented on the DEIS expressed concern that some of the CSU stipulations effectively prohibited surface occupancy. We acknowledge that some CSU stipulations in the DEIS actually prohibited surface occupancy. In the Revised Plans, we changed those stipulations; some natural resources which were covered by CSU stipulations in the DEIS are covered by NSO stipulations in the FEIS.

Economic Effects Analysis for Oil and Gas Stipulations

Public concern was expressed about the validity of the oil and gas economic effects analysis done in the DEIS. Between the DEIS and FEIS, economic impacts were reanalyzed by Dr. David T. Taylor, University of Wyoming. This economic reanalysis did not result in any change in the economic impacts projected in the DEIS. There was no change from existing conditions. Direct and indirect jobs remained at 664, and direct and indirect income remained at $24.4 million.

There was considerable controversy over the income and employment analysis conducted in the DEIS. The income and employment analysis from public comments suggested we use gross business volume (gross value of sales) to track gross value of business transactions in a

study area. The economic impact analysis used in the DEIS and FEIS used an income approach, the approach used by economists at the national level to characterize the economic well being of the Nation. Income is used because it is a better measure of how local area residents will be affected economically. In the case of coal, oil, and gas, for example, a very large percentage of these commodities are shipped out of the area, and it is not clear what a change in gross sales really means to the local economy and it residents. Thus, the emphasis in regional economic analysis is to use income, not industry sales, to both describe the local economy and to evaluate the impacts of major projects or other events. Oil and gas production levels were projected in the Reasonably Foreseeable Development Scenario (RFDS) for the different alternatives. The TBNG RFDS projects a modest gain in the number of oil and gas wells, with 120 wells being reclaimed and 150 wells being brought into production. For this reason, no change is predicted in total jobs or income from current levels. Dr. Taylor assisted with an economic reanalysis of the EIS between draft and final and helped us confirm that the impacts projected in the EIS are reasonable for this programmatic level analysis.

Though we have more oil and gas stipulations for new leases on the TBNG, we are predicting a 0% economic change for the grassland within the planning period. Both the grazing analysis and the economic analysis were re-analyzed by University of Wyoming range and economics staff. They concur with the FEIS projections for the TBNG. The 0% economic change prediction is due to the fact that the analysis is for the 10-15 year life of the Revised Plan; 532,400 acres or 96.4%of the TBNG is under existing leases. In addition, 256,828 acres or 46.5% of existing leased lands are in Held By Production status, meaning that established production maintains those leases until the wells that hold the leases are plugged and abandoned and the leases are terminated. Increased mineral operations, especially oil and gas development are predicted for the grassland during the next 10-15 years (120 wells reclaimed with 150 wells brought into production). Coalbed methane production was covered in the Reasonably Foreseeable Development Scenario but was not covered in the economic analysis. Coal production is expected to stay steady.

Grazing Effects Analysis and Economic Effects

Grazing and economic effects analyses were the subject of public concern for the DEIS. Many of the comments centered on the projected increase (7%) for livestock grazing impacts and the economic effects in the DEIS.

The Existing Condition for the TBNG is estimated at 112,700 Animal Unit Months (AUMs).

The FEIS Alt. 3 estimated 115,430 AUMs. This correlates to a 2% increase from the existing condition in the direct and total livestock grazing jobs and income from National Forest System lands by economic impact area (Chapter 3, FEIS).

Estimated livestock grazing output values were determined from the desired vegetation structure condition for each alternative based on forage availability. The re-analysis for the FEIS was done in cooperation with Dr. Mike Smith, Range Science Department, University of Wyoming.

The economic analysis in the DEIS did not consider indirect impacts such as intermingled private lands. The FEIS did assess the effects associated with private and state lands within National Forest System land pastures that are influenced by Forest Service administered

grazing. Dr. David D. Taylor, University of Wyoming, developed livestock coefficients from county data along with the intermingled private lands multiplier to determine economic response. This information was used in the economic model to determine direct job and income outputs based on livestock grazing estimated output values for each alternative.

As a result of comments on the DEIS, more analysis was done in describing desired vegetative composition and structure for geographic areas on the TBNG to attain goals and objectives of the Revised Plan. These goals and objectives were designed to provide diverse habitat types that include a more complete complement of ecosystem components to maintain and enhance the viability of native plant and animal species.

Additional Management Direction and Additional Standards and Guidelines for Species at Risk

The Biological Assessment and Biological Evaluation provided recommended conservation measures for numerous species at risk. Many of the conservation measures were incorporated into the Revised Plan between the DEIS and FEIS. During consultation for compliance with the Endangered Species Act, input from the U.S. Fish and Wildlife Service also resulted in changes in management direction for the Revised Plan.

Management Indicator Species

The black-tailed prairie dog was added as a management indicator species in the 157,440-acre Broken Hills Geographic Area.

Black-tailed Prairie Dog Management Direction

The Forest Service's Washington Office issued guidance for prairie dog management on national grasslands and forests in July 2000. This memorandum called for additional limitations on the use of rodenticides to control prairie dogs, and as a result, prairie dog management direction under Alternative 3 Final was modified between the DEIS and FEIS.

Status of Swift Fox

In January 2001, the U.S. Fish and Wildlife Service dropped the candidate status of the swift fox for protection under the Endangered Species Act due to the implementation of the Swift Fox Conservation Plan. However, the species remains classified as a sensitive species by Region 2 of the Forest Service.

Cow Creek Buttes Management Area Allocation Changed from Recommended Wilderness to Special Interest Area

Cow Creek Buttes Area (14,170 acres) was recommended for wilderness in the preferred alternative of the DEIS. It was changed from MA 1.2 Recommended Wilderness to MA 2.1 Special Interest Area (SIA). The management direction for this SIA retains its roadless characteristics and maintains the primitive character of the landscape. See discussion under Management Area 2.1 Special Interest Area.

CHANGES BETWEEN FINAL EIS AND ROD

Prairie Dog Plague Supplemental Information Report

After the Final EIS was completed and prior to this decision, we became aware of a sylvatic plague outbreak in black-tailed prairie dog colonies in Management Area 3.63, Black-Footed Ferret Reintroduction Habitat. This triggered the need to prepare a Supplemental Information Report (SIR). I have reviewed that report and find that there is no need to correct, supplement, or revise the Northern Great Plains Final EIS or change direction in Management Area 3.63 in the TBNG Revised Plan due to the recent sylvatic plague event on the TBNG.

Plague and its effect on prairie dogs and other associated wildlife species was considered when the black-tailed prairie dog was selected as a management indicator species. The recent plague event does not present new information that would suggest selection of this management indicator species is inappropriate or no longer effective.

National Energy Policy

The National Energy Policy and its direction did not come down to federal agencies until after the release of the FEIS. In May 2001, the President's National Energy Policy Development Group issued recommendations for developing and implementing a comprehensive long-term strategy to promote dependable, affordable, and environmentally sound energy for the future. At the same time, the President issued Executive Order 13212, "Actions to Expedite Energy-Related Projects," in which agencies are ordered to "expedite their review of permits or take other actions as necessary to accelerate the completion of such projects, while maintaining safety, public health, and environmental protections." In August 2001, the Forest Service developed a plan to implement the Executive Order and Energy Policy Development Group recommendations that fall within the agency's jurisdiction and authority. At the time of this Record of Decision, the Forest Service Energy Implementation Plan schedule is being updated. Results of the Energy Policy Conservation Act (EPCA) study will not be available until November 2002. This study will include an inventory of oil and gas resources and an assessment of impediments to leasing and development of those resources. Determination of need to update forest and grassland plans will be made depending on the results of the EPCA study, so the earliest we might expect to get any indication of a need to review the revised plan or update it would be late 2002. Any changes to this Revised Plan would likely be through plan amendments that would require public involvement and documentation through the National Environmental Policy Act process.

Development of reliable domestic sources of energy is one of the areas of recommendations in which the TBNG has a clear role under the Administration's direction on energy policy.

Under the Forest Service Energy Implementation Plan, we have examined land status and lease stipulation impediments to federal oil and gas leasing. We have reviewed and modified them where opportunities exist (consistent with law, good environmental practices, and balanced use of other resources). We have reviewed public land withdrawals and lease stipulations with full public consultation, especially with the people in the region, to consider modifications where appropriate. With respect to development of coal, gas, and oil resources, we believe we have addressed the goals of the National Energy Policy Development Group

and the Forest Service Energy Implementation Plan to the extent appropriate in a land management plan.

The Forest Service has reviewed stipulations/regulations associated with oil and gas development projects and has concluded that minimum restrictions are being applied to allow development within the extent permitted by law, regulation, and policy.

National Fire Plan

National Fire Plan direction came to the Forest Service in 2001. The key points of the plan are:

1. Firefighting: Maintain a cost effective level of preparedness in firefighting and prevention.
2. Rehabilitation and Restoration: Rehabilitate fire damaged wildlands, and restore high-risk ecosystems.
3. Hazardous fuels reduction: Invest in projects to reduce fire risk with focused effort in wildland urban interface areas.
4. Community Assistance: Work with communities to reduce the risks of catastrophic fire.
5. Accountability: Establish and maintain a high level of accountability including oversight reviews, progress tracking, and performance monitoring.

The State of Wyoming posted their list of Communities at Risk in the *Federal Register* on August 17, 2001. The communities at risk on or near the Thunder Basin National Grassland are Bill/Dry Creek, Upton, East Upton, Osage, Soda Butte, and Newcastle. The Forest Service will be working with the Wyoming State Forester, the counties, other federal and state agencies, and other fire agencies to jointly develop fire management plans and fuels reduction plans to address protection of these communities at risk. Additionally, the Revised Plan at Chapter 1, page 1-22, G. Fire Suppression, Fuels Treatments, Prescribed Fire, Guideline 4. addresses reducing the threat of wildfire to public and private developments and reducing fuel loadings to acceptable levels, and Guideline 5 addresses participation in the "Firewise" community program.

COMPONENTS OF THE DECISION

There are six fundamental components of the decision made in the plan revision:

1. Establishment of grassland-wide multiple-use goals and objectives, 36 CRF 219.11(b).
2. Establishment of grassland-wide management requirements (standards and guidelines), 36 CRF 219.13 to 219.27.
3. Establishment of management area direction (Management Area Prescriptions and associated Standards and Guidelines for 10 management areas), 36 CFR 219.11(c).
4. Determination of lands suitable for grazing and browsing animals, 36 CFR 219.15, 219.20. Provision for a broad spectrum of outdoor recreation opportunities, 36 CFR 219.21. Identification of probable occurrence of various minerals and potential for future mineral development, 36 CFR 219.22. Identification of lands available for oil

and gas leasing and subject to constraints (lease stipulations), 36 CFR 228.102(c) and (d).

5. Establishment of requirements for monitoring and evaluating the implementation of the Revised Plan to meet the requirements of 36 CFR 219.11(d).
6. Documentation that we will/will not recommend any further additions to the wilderness preservation system or for wild and scenic river to meet the requirements of 36 CFR 219.17(a) and 219.18.

Alternative 3 Final was selected based on the manner in which it addresses the six decision components listed above. The following sections discuss these components of the decision in more detail.

Component 1.
Establishment of Grassland-wide Multiple-Use Goals and Objectives

The goals and objectives are listed and described in Chapter 1 of the Revised Plan. They are based on the four goals identified in the 2000 Forest Service Government Performance Results Act (GPRA) Strategic Plan.

I am selecting Alternative 3 Final in part because of the manner in which it will achieve the grassland goals and objectives. Alternative 3 Final strikes a realistic balance between protecting and maintaining ecosystem integrity through natural processes and offering uses, goods, and services through active management. This is something the TBNG has long been known for. One of my priorities in making this decision is to continue this balance. Grassland goals and objectives are listed in Chapter 1 through 3 of the Revised Plan in accordance with the planning regulations at 36 CFR 219.11(b).

The goals and objectives apply to all of the alternatives; however, each alternative achieves them in different ways and to different degrees, depending on its emphasis. Therefore, the components of biological diversity emphasized, the levels of goods and services produced, and the mix of recreational opportunities offered vary by alternative. I refer the reader to the comparison of alternatives in Chapter 2 of the FEIS.

The mix of management area allocations and standards and guidelines in Alternative 3 Final meets the plan goals of providing multiple use outputs, maintaining the habitats and processes necessary to perpetuate biological diversity, providing a wide variety of dispersed recreation opportunities, and contributing to economic vitality. Goals for biodiversity will be achieved at a rate faster than Alternatives 1, 2, and 5 but slower than Alternative 4.

Component 2.
Establishment of Grassland-wide Standards and Guidelines

I am selecting Alternative 3 Final based on the balance between areas that are actively managed and those that emphasize natural processes with minimal human-caused impacts. In other words, this alternative provides for great diversity in ecosystems, wildlife habitat protection, experiences and commodity uses. This balance is achieved through Alternative 3 Final's particular diverse combination of goals and objectives, standards and guidelines, and management area prescriptions. Grassland-wide standards and guidelines listed in Chapter 1 of the Revised Plan did not vary between alternatives.

In Chapter 2 of the Revised Plan, standards and guidelines vary by geographic area. These standards and guidelines are too general for management areas and too specific for the entire grassland. For the TBNG, six different geographic areas have been delineated as areas where the vegetative types, productivity, and physical character within the geographic areas are fairly similar.

In Chapter 3 of the Revised Plan, standards and guidelines vary by management area. For the Thunder Basin National Grassland Revised Plan, there are 10 different management areas where direction and specific standards and guidelines apply.

Our objective is to simplify the content of the Revised Plan. The content of the laws, policies, and manual and handbook direction are not reprinted in the Revised Plan. These rules still apply, and they supplement the Revised Plan direction. I direct you to Appendix K of the Revised Plan for a list of them.

The standards and guidelines provide management direction and ensure that resources are managed in a sustainable manner. They represent design criteria to ensure that projects implementing the Revised Plan move the TBNG toward the desired outcomes expressed in the goals and objectives. The standards and guidelines allow those who work for the Forest Service and with the public to design and administer projects that accomplish TBNG objectives.

Standards and guidelines allow for some local discretion given different site-specific conditions and circumstances, but they are definite expressions of management direction and do not allow much leeway without ample justification. I am confident that the package of standards and guidelines in Alternative 3 Final provides needed protection for resources while allowing managers to exercise their professional judgment when implementing activities.

During plan implementation, the standards and guidelines will be monitored to ensure that they are helping us meet the stated goals, objectives, and desired conditions.

Component 3.
Establishment of Management Area Direction (Management Area Prescriptions and Associated Standards and Guidelines) for 10 Management Areas

From a list of 24 management areas, I chose the following mix of the 10 management area prescriptions in Alternative 3 Final to implement the Revised Plan. This direction will guide future management activities within each specific management area and is required by 36 CFR 219.11 (c). Chapter 3 of the Revised Plan contains a complete description of the management area prescriptions.

Thunder Basin National Grassland Management Areas		Alternative 3 Final Acres
1.31	Backcountry Recreation Nonmotorized	6,550
2.1	Special Interest Areas	26,780
	(5920 of the total MA 2.1 acres are also allocated to MA 3.63)	
2.2	Research Natural Areas	1,210
3.63	Black-Footed Ferret Reintroduction Habitat	53,830
	(5920 of the total MA 3.63 acres are also allocated to MA 2.1)	
3.65	Rangelands with Diverse, Natural-appearing Landscapes	83,430
3.68	Big Game Range	33,890
4.32	Dispersed Recreation: High Use	25,780
5.12	General Forest and Rangelands: Range Vegetation Emphasis	160,870
6.1	Rangeland with Broad Resource Emphasis	118,090
8.4	Mineral Production and Development	47,990

The following are the management area prescriptions and themes for each.

1.31 Backcountry Recreation Nonmotorized – These areas are managed to provide recreation opportunities in a natural-appearing landscape.

2.1 Special Interest Areas (SIAs) – These areas are managed to protect or enhance and, where appropriate, develop and interpret for public education and recreation, areas with unusual characteristics.

2.2 Research Natural Areas (RNAs) – These areas form a network of ecological reserves designated for non-manipulative research, education and the maintenance of biodiversity. This prescription is applicable to both designated Research Natural Areas and areas proposed for Research Natural Area designation.

3.63 Black-Footed Ferret Reintroduction Habitat – Black-tailed prairie dog colony complexes are actively and intensively managed as reintroduction habitat for black-footed ferrets.

3.65 Rangelands with Diverse Natural-Appearing Landscapes – Management emphasizes maintaining or restoring a diversity of desired plants and animals and ecological processes and functions while providing for a mix of other rangeland values and uses, with limits on facilities to support livestock grazing.

3.68 Big Game Range – These areas are managed to emphasize deer, elk, and pronghorn habitat.

4.32 Dispersed Recreation: High Use –These areas are managed for recreational opportunities and scenic qualities and are usually adjacent to high-use, developed recreation sites and bodies of water.

5.12 General Forest and Rangelands: Range Vegetation Emphasis – These areas are managed for the sustainability of physical, biological and scenic values associated with woody vegetation and open grassland.

6.1 Rangeland with Broad Resource Emphasis – These areas are primarily rangeland ecosystems managed to meet a variety of ecological conditions and human needs. Ecological conditions will be maintained while emphasizing selected biological (grasses and other vegetation) structure and composition that consider the range of natural variability. These lands often display high levels of development, commodity uses and activities; density of facilities; and evidence of vegetative manipulation. Users expect to see other people and evidence of human activities. Facilities supporting the various resource uses are common. Motorized transportation is common on designated roads and two-tracks.

8.4 Mineral Production and Development – These areas are managed for solid mineral operations.

The following section briefly describes the key management area prescriptions in Alternative 3 Final. Each of these prescriptions provides for multiple uses.

Management Area 1.31 – Backcountry Nonmotorized Recreation

By using this prescription, I am ensuring diversity within this undeveloped, minimally impacted area. My decision is to allocate the Downs area (6,550 acres; 1% of the TBNG) to this prescription. ATV use will be permitted for administrative uses when needed in conjunction with grazing or other permits on a case-by-case basis. These will be monitored and restrictions applied as the need arises. Future oil and gas leases will have No Surface Occupancy stipulations. I chose this alternative to protect the roadless character of this area and to provide for a variety of nonmotorized recreation opportunities.

Management Area 2.1 – Special Interest Areas (SIAs)

These areas comprise a total of 26,780 acres (5%) and are managed to protect unique primitive and remote, paleontological, cultural, historical, botanical, geological, or ecological resources. There are six SIAs: Cellers, Cheyenne River Zoological, Alkali Divide, Buffalo Divide, Cow Creek Buttes, and Lance Geological. These SIAs represent the natural character of the area and important vestiges of past life and habitation. They also ensure our consideration and protection of the special and diverse places on the TBNG.

The Cow Creek Buttes area was recommended for wilderness in the DEIS. This was a very controversial proposal. We received many public comments on this issue. The comments both supported and opposed wilderness. Both sides submitted well-thought-out rationale to support their positions. Although no one factor or comment was overwhelming, I felt the state of Wyoming comments deserved close consideration. The state of Wyoming preferred that any wilderness proposals be initiated with state elected officials. In fact, any wilderness recommendation has a slim chance of receiving congressional "approval" without the support of the delegation. The compromise position I chose was to allocate the Cow Creek Buttes area to a historic and primitive SIA. This protects and maintains the qualities that would allow it to be considered for wilderness in the future. The total amount allocated to this management area is 5% of the land area of the TBNG, more than proposed in any other alternative.

General public off-road motorized travel will be restricted in these SIAs. Future withdrawal from mineral entry may be necessary to protect the values for which some of these areas were allocated. In Alkali Divide SIA, future oil and gas leasing will be allowed with appropriate CSU and TL stipulations. In Cellers, Cheyenne River, Buffalo Divide, and Cow Creek SIAs, future oil and gas leasing will be allowed; however, ground-disturbing oil and gas activities will be prohibited. This requires future leasing with a NSO stipulation.

Management Area 2.2 – Research Natural Areas (RNAs)

These are areas managed to protect or enhance natural ecosystems allocated for non-manipulative research, education, and maintenance of biological diversity. I am allocating 1,210 acres to two RNAs: Rock Creek and Wildlife Draw. These RNAs are an important factor in my decision. These areas represent a range of vegetation types and topographic Revised Plan features that have not been heavily influenced by humans. These RNAs, combined with other RNAs in the Region and Northern Great Plains, ensure that research and education opportunities will be available now and in the future across a wide range of ecosystems. The boundaries of these RNAs were established by the location of fences and the manageability of each area with its surrounding prescription category and/or different ownerships. The management prescription, including objectives, standards, and guidelines for management of these areas are described in Chapter 3 of the Revised Plan. The establishment record, along with the order to administratively effect this decision of these RNAs, will be done in the future. These areas will be currently available for leasing with no surface occupancy (NSO) on future leases. Once established as RNAs, these areas will be made unavailable for oil and gas leasing and withdrawn from other mineral entry.

Management Area 3.63 – Black-footed Ferret Reintroduction Habitat

This area is managed to maintain prairie dog complexes and compatible land uses are established and/or maintained for black-footed ferret reintroduction. Prairie dog populations are maintained or increased through vegetation management and/or relocation of prairie dogs to suitable habitat. Prairie dog shooting is prohibited in this area. Because of the low vegetative structure in these areas, they are often the key habitat for mountain plover and other species that require this structure. Conservation measures identified in Chapter 1 of the Revised Plan for the mountain plover apply to all management areas including MA 3.63. However, my decision allocates a little over 9% (53,830 acres) of the TBNG, which is less than proposed in Alternative 4 but more than proposed in Alternatives 1, 2, and 5. New oil and gas leases will include CSU and TL stipulations for black-footed ferret and other appropriate lease stipulations as listed in Revised Plan, Appendix D.

Management Area 3.65 – Rangelands with Diverse Natural-Appearing Landscape

These areas are managed to emphasize the restoration and maintenance of diversity of native plants and animals and ecological processes and functions, while providing a mix of other rangeland values and uses with limits of facilities to support livestock grazing. These areas have relatively few livestock grazing developments, such as fences and water tanks. The number of these structures and facilities to support livestock grazing is limited (no net gain). Natural-appearing landscapes predominate. However, oil and gas facilities may exist, and are, where possible, located and painted to be subordinate to the landscape. I have allocated a significant area for this prescription (83,430 acres; 15%), which is more acreage than

proposed in any other alternative. Oil and gas leasing will be allowed subject to appropriate limitations as defined in the Revised Plan, Appendix D.

Management Area 3.68 – Big Game Range

These areas are managed so that big game habitat and presence can effectively be achieved in and around the area. High levels of suitability and habitat effectiveness are maintained for big game. My decision prescribes more for this category (33,890 acres; 6%) than any other alternative. New oil and gas leases will include a timing limitation and other stipulation for activities conducted within this management area as listed in the Revised Plan, Appendix D.

Management Area 4.32 – Dispersed Recreation: High Use

These areas are managed for visitors to recreate in a relatively natural environment, while pursuing a variety of unstructured recreational activities, such as camping, picnicking, fishing, and ATV use. Motorized travel may be restricted during certain times of the year. Oil and gas leasing will be allowed subject to appropriate limitations as defined in the Revised Plan, Appendix D. Approximately 5% (25,780 acres) of the TBNG is prescribed for this category.

Management Area 5.12 – General Forest and Rangelands – Range Vegetation Emphasis

One of the key features of this prescription is that the grassland will be managed for resource production while ensuring high levels of effective wildlife habitat. Management emphasis is toward a balance of resource uses and opportunities. Oil and gas leasing will be allowed subject to appropriate limitations as defined in the Revised Plan Appendix D. My decision is to prescribe 160,870 acres or 29% to this category.

Management Area 6.1 – Rangeland with Broad Resource Emphasis

This area is managed for diversity of native plants and animals and ecological functions and processes while providing livestock forage and a mix of other rangeland values and uses. My decision prescribes 118,090 acres or 21% of the area to this category. That is the least of all among the 5 alternatives. This is not because a broad resource emphasis isn't important, but because inclusion of more acres of other management areas such as for big game, dispersed recreation, SIAs, areas with a diverse natural-appearing landscapes, were increased to achieve a diverse balance of management emphases. Oil and gas leasing will be allowed subject to appropriate limitations as defined in the Revised Plan Appendix D.

Management Area 8.4 – Mineral Production and Development

This area comprises approximately 9% (47,990 acres) of TBNG and is managed with an emphasis on efficiently and effectively conducting mineral operations of all types, primarily coal, coalbed methane, oil, and gas. Reclamation restores the area to a reasonable level of pre-mining condition. My decision is to prescribe this category on more acreage than Alternatives 1 and 4 would have but slightly fewer than what was suggested in Alternatives 2 and 5.

Component 4.
Determination of Lands Suitable for Grazing and Browsing. Identification of Lands Suitable and Capable of providing habitat for Management Indicator

Species. Identification of Lands Available for Oil and Gas Leasing. Provision for a Broad spectrum of Grassland Related Outdoor Recreation Opportunities.

An extremely important facet of this plan revision is livestock grazing. Livestock grazing will continue on the TBNG. We are emphasizing effective management of grazing allotments through the development of individual Allotment Management Plans. The grassland-wide and geographic area standards and guidelines in Alternative 3 Final will improve the unsatisfactory conditions on rangelands, maintain the quality of those in satisfactory condition, and protect the grassland's fragile riparian areas and wetlands. It will also provide for a diverse mosaic of grassland seral stages and structure levels to provide a diversity of habitats to meet our responsibility to provide habitats to ensure the viability of all species

Alternative 3 Final has 532,100 acres of suitable rangelands. This is no change from the 1985 Plan. These rangelands can meet the needs of livestock permittees. Grazing will continue to be a valued use of resources on the TBNG. The amount of suitable rangelands in Alternative 3 Final should accommodate livestock needs, while maintaining healthy herds of elk, antelope and deer and protecting other wildlife habitats, including grasslands, shrublands, riparian areas, and wetlands. Habitats for management indicator species, sage grouse and plains sharp-tailed grouse, and associated wildlife species will be enhanced through closer coordination with the livestock grazing and range management programs. The black-tailed prairie dog is also identified as a management indicator species, and populations of this species will be allowed to expand as a result of less use of rodenticides on the public rangelands. This will result in enhanced and expanded habitats for wildlife species commonly found on or near prairie dog colonies.

All of the grassland is currently available for oil and gas leasing with certain lease stipulations as specified in the 1994 Record of Decision for Oil and Gas Leasing. After carefully considering the administrative record of information, the applicable laws and regulations, the anticipated environmental impacts of the alternatives analyzed in the FEIS, and the public's comments, I have decided to implement Alternative 3 Final. Under this decision, lands east of the coal outcrop line will continue to be available for leasing. However, all of these lands (473,940 acres) will have supplemental lease stipulations in addition to standard lease terms as listed in Revised Plan, Appendix D.

This decision differs from the 1994 oil and gas leasing decision in which 155,530 acres **over the entire grassland** were made available with supplemental lease stipulations. Supplemental stipulations include No Surface Occupancy (NSO), Controlled Surface Occupancy (CSU), and Timing Limitations (TL).

Immediately after this decision, the Forest Supervisor will make a new leasing decision for specific lands [36 CFR 228.102(e)] and authorize the Bureau of Land Management (BLM) to offer the lands east of the coal outcrop for lease.

The Forest Service is a cooperating agency with the BLM in the Planning Amendment for the Powder River Basin Oil and Gas Project (PRB-EIS) in which the cumulative effects of coalbed methane development are being analyzed. That analysis will supplement analysis documented in Chapter 3 of the FEIS for this decision. Based on analysis for the Revised Plan and analysis to be provided in the PRB-EIS, the Forest Service will make new (modified) leasing decisions for the area west of the coal outcrop line. I am deferring new leasing decisions on the area west of the coal outcrop line (58,460 acres), currently available

and authorized for leasing under the 1994 Record of Decision for Oil and Gas Leasing on the TBNG. These lands have high potential for development of coalbed methane. The majority of these lands currently are leased and under active development of the resource after completion of the FEIS for the Powder River Basin Oil and Gas Project. The Draft PRB-EIS was available for public comment in January 2002. A FEIS is expected in 2003.

With management responsibility and authority for the federal mineral estate, the BLM also plays a role in managing oil and gas resources underlying NFS lands. The BLM is a cooperating agency in this analysis in accordance with the 1991 Interagency Agreement for Oil and Gas Leasing between the Forest Service and BLM. The oil and gas analysis addresses all federal minerals including those under non-federal surface (split estate) lands within the boundaries of the NFS units to which the analysis applies. Based on the oil and gas analysis for this decision, the BLM will make decisions for leasing federal mineral estate under Forest Service administered surface and under non-federal surface (split estate lands) within Forest Service units, as appropriate (43 CFR 3101.7).

My decision is also to allocate land for two Research Natural Areas, Rock Creek (590 acres), and Wildlife Draw (640 acres). These RNAs will be available for oil and gas leasing with no surface occupancy (NSO). When a decision is made to establish them, an analysis will be completed to determine if the areas should be withdrawn from mineral entry or made unavailable for future leasing.

Alternative 3 Final provides for a fairly broad spectrum of outdoor recreation opportunities. Backcountry prescriptions emphasize the more primitive end of the spectrum, while developed roads and trails and water improvements emphasize the less primitive aspects of recreation. Alternative 3 Final features a broad mix of resource prescriptions including backcountry nonmotorized recreation, SIAs, dispersed recreation high use, and rangelands with broad resource emphasis. A broad range of travel management opportunities exists from nonmotorized areas to ATV trails.

Component 5.
Establishment of Requirements for Monitoring and Evaluating the Implementation of the Revised Plan to Meet the Requirements of 36 CRF 219.11(d).

A key feature of all alternatives is the monitoring plan (Chapter 4, Revised Plan). Monitoring and adaptive management principles are cornerstones of ecosystem management. They allow us to be responsive to changing circumstances and changes in science and technology. TBNG monitoring questions have been developed to help ensure that, by implementing this Revised Plan, we are meeting the goals and objectives. An annual Monitoring Plan of Operations will be prepared each year, identifying how the monitoring questions will be addressed. Results of monitoring will be documented in a Monitoring and Evaluation Report. The frequency of reporting is outlined in the Revised Plan Chapter 4. Key components of the Monitoring and Evaluation Report will be the Evaluation and the Action Plan. This will evaluate whether we are moving toward the grassland goals and objectives and desired conditions. This will also validate whether we are meeting expected outcomes. Based on the results, amendments to the Plan could be made to reflect necessary changes.

The 1985 monitoring plan was detailed, specific, and lacked flexibility. It focused on quantifying outputs rather than using qualitative assessment to determine how well the implementation of the Grassland Plan was helping us achieve desired goals and objectives. In the development of the Revised Plan, the monitoring focus shifted from specific activities to broad programmatic requirements. These broad requirements satisfy the regulatory provisions and are responsive to the plan goals and objectives. Because the requirements are flexible and adaptable, they allow new knowledge and techniques to be easily incorporated into the monitoring plan.

Monitoring plans do not vary between alternatives. The Monitoring and Evaluation Chapter in the Revised Plan identifies the legally required monitoring activities; the action, effect, or resource to be measured; the monitoring schedule; and the level of precision or reliability. Also listed are additional monitoring activities to be conducted based on funding and availability of personnel.

Component 6.
Recommendations Regarding Additions to the Wilderness Preservation System and Wild and Scenic Rivers.

Of the six roadless areas we evaluated, three areas have high potential for wilderness designation. They are: Red Hills (6,840 acres), Duck Creek (12,330 acres), and Cow Creek Buttes (14,170 acres). I am not recommending any of these areas in Wyoming for wilderness.

I am not recommending that Congress designate any wild and scenic rivers on the Thunder Basin National Grassland.

KEY FEATURES OF THE THUNDER BASIN NATIONAL GRASSLAND

The TBNG is located in northeast Wyoming and includes over 553,000 acres of public land intermingled with other ownerships dispersed among plateaus and rolling foothills. It is located in portions of Campbell, Converse, Weston, Crook, and Niobrara counties.

The Grassland provides habitat for many wildlife and fish species. Included are relatively common species, such as deer, elk, and antelope and less common species, such as mountain plover and sage grouse. Prairie dogs are fairly common on this grassland but very uncommon on the federal public land systems of National Forests, Parks, Refuges and BLM public domain in their historic range.

The TBNG is rather unique in that it can be characterized as remote and undeveloped while also providing a high level of multiple-use values for people.

The Grassland is part of the headwaters of the Missouri River Basin. This river provides high-quality water for a variety of uses, including industrial, agricultural operations, domestic needs on down stream communities, and ecological uses including habitat needs for a wide variety of plants and animals.

The Grassland provides forage for large numbers of deer and antelope, along with approximately 22,000 cattle and 19,000 sheep each year. Coal, gas, and oil from the Grassland are processed into a wide variety of products to meet the demands of people across the nation. In fact, the coal industry of northern Wyoming is the largest producer of coal in the

nation and the third largest in the world. This coal is very low in sulfur, making it in great demand for reducing impacts to air quality where coal is used for electric power generation.

The Grassland offers a wide variety of recreation opportunities, with an emphasis on dispersed recreation. There are currently no wilderness acres on the TBNG or on any of the NGP units. The TBNG offers a variety of remote and backcountry experiences unique to the Northern Great Plains. There are approximately 59,000 acres inventoried as roadless (approximately 11% of the Grassland). There are no designated trails available to hikers, horseback riders, and mountain bikers, but most of the 1,585 miles of classified roads are available and can be used for all kinds of recreational travel including motorized use.

The TBNG is important nationally, regionally, and locally because of these features. The decisions I am making in this plan perpetuate the special features of the Grassland and recognize the people who enjoy or make a living from this land. Because all of the key features mentioned above are dependent upon the health and productivity of the land, my decision also ensures that ecosystems are maintained in or restored to a healthy, vital condition.

THE PLANNING PROCESS AND PUBLIC INVOLVEMENT

This plan was developed through a coordinated process involving the resource and social economic assessments of 10 National Grassland/National Forest units distributed across the Northern Great Plains (NGP) and located in North Dakota, South Dakota, Nebraska, and Wyoming.

A planning team (called the NGP Planning Team) conducted and coordinated the assessment and planning process through a combination of approaches and techniques involving collaboration and consultation with other agencies, consultation with American Indian tribes, dialogue with the scientific community, dialogue with consultants, and by ad hoc teams composed of employees from the Forest Service and other agencies.

The NGP Planning Team, along with the ten grassland or forest managers, conducted an extensive public involvement process throughout the development of the Revised Plan. Initially, the planning team identified issues and concerns after reviewing existing environmental documents, reading letters from the public, and talking with other Forest personnel. These issues were presented to the public and discussed during a series of open houses in 1996. These meetings helped refine the issues, identify potential solutions to issues, and develop a preliminary range of themes for the alternatives.

The issues addressed in the revision process are identified by the revision topics listed on page 2. Revision topics are generally thought of as subjects that require change based on resource conditions, technical knowledge, or public perception of resource management. The revision topics constitute the identification of significant issues, as required by law. The revision topics are fully described in Chapter 1 of the FEIS.

A Notice of Intent to Prepare an Environmental Impact Statement was published in the Federal Register in February of 1997. The public was kept informed throughout the plan revision process through a series of newsletters and news releases and less formal means.

The revision topics and preliminary alternatives were presented at a series of public meetings from February through April of 1996. Discussions were lively, opinions diverse, and the level of interest in the plan revision high. Another series of meetings was held following publication of the Draft Environmental Impact Statement (DEIS) in August of 1999. These meetings were held to clarify information presented in the DEIS and answer questions. Additional meetings were held with local governments and interest groups (environmental, motorized and nonmotorized recreationists, grazing associations, the timber industry, and others throughout the plan revision process.

The NGP Planning Team consulted with other federal agencies (the Bureau of Land Management, Fish and Wildlife Service, National Park Service, and Natural Resources Conservation Service); various state agencies, including the Department of Agriculture, Lands and Farm Loan Department, Wyoming Game and Fish Commission, Department of Environmental Quality of Wyoming; American Indian tribes, and county governments.

Publication of the DEIS and proposed Revised Plan in July 1999 was followed by a 90-day public comment period which was scheduled to end in October 1999. The comment period was extended three times until February 3, 2000. Comments were received from 26,000 commentors on the DEIS and draft Revised Plan for all NGP national grassland units were received. Approximately 1,000 comments, specific to the TBNG were received. The Forest Supervisor and Forest Planner read each of those comments, and the planning team developed responses to them (see FEIS, Appendix A). A six-month public comment period was then initiated on the FEIS. Comments were received from approximately 48,000 commentors during this six-month period. Responses to new comments are addressed as an attachment to this ROD. I am well informed about the content of those comments and the changes made between the draft and final documents as a result of these comments. See Appendix A of the FEIS for more information on public involvement activities.

Between Draft and Final EIS, a Wyoming Intergovernmental Working Group formed headed by the Wyoming Office of Federal Land Policy. This group met five times from July 21, 2000 through October 11, 2001 to discuss EIS analyses and plan standards and guidelines. The group discussed numerous issues during these discussions.

In May 2001, sylvatic plague was confirmed in colonies in the Cheyenne River area of the TBNG. Coordination was initiated with the U.S. Fish and Wildlife Service; the Center for Disease Control in Fort Collins, Colorado; State of Wyoming Veterinarian Lab, Laramie, Wyoming; the Wyoming Department of Health; Wyoming Game and Fish Department; and the Wyoming State Prairie Dog Working Group.

On October 11, 2001, the Intergovernmental Working group met in Douglas, Wyoming, and the U.S. Forest Service presented information to the group on the sylvatic plague event on the TBNG and its plan to prepare a Supplemental Information Report (SIR) to address this new circumstance.

A SIR was prepared and signed by Forest Supervisor Mary Peterson in January of 2002. The SIR was made available and a 30-day public comment period was provided to the public; federal, state, and local agencies; elected officials; and organizations. The Supplemental Information Report was presented to me for consideration. I have reviewed the report and associated documentation and concur with its findings. I also reviewed public comments received on the SIR.

ALTERNATIVES CONSIDERED IN DETAIL

All Alternatives

- Include the concepts of multiple-use, sustained yield, biological diversity, and ecosystem management.
- Share a set of basic goals and standards and guidelines that ensure protection of grassland resources and compliance with applicable laws.
- Use a new numbering scheme for the management areas that is consistent with other forests and grassland units in the Rocky Mountain Region.
- Meet the management requirements of 36 CFR 219.27, as well as all other legal and regulatory requirements. More information about the alternatives can be found in Chapter 2 of the FEIS.

Additionally, management of the TBNG will meet the following objectives established in the 1992 Rocky Mountain Regional Guide (USDA Forest Service, 1992):

- Protecting the basic soil, air, and water resources.
- Providing multiple uses and sustainability in an environmentally acceptable manner.
- Providing a variety of life through management of ecosystems.
- Providing scenic quality and a range of recreation opportunities that respond to our customers and local communities.
- Emphasizing cooperation with individuals, organizations, and other agencies to coordinate planning and project implementation.
- Promoting rural development opportunities.
- In cooperation with other landowners, striving for improved land ownership and access patterns, to the mutual benefit of both public and private landowners.
- Improving the financial efficiency of all programs and projects.

These alternatives are described here in general terms, in relation to the revision topics. Only very major alternative elements are discussed, and the reader is encouraged to review both Chapters 2 and 3 of the FEIS for the full scope of the alternatives and their effects.

Each alternative is essentially a separate and distinct set of Management Area allocations and a distinct Management Plan. The alternatives in the DEIS were developed without preconceived notions of a preferred alternative. The preferred alternative (Alternative 3) in the DEIS has been changed in the Final EIS in response to public comments and consultation with other government agencies. While all alternatives provide a wide range of multiple uses, goods, and services, some alternatives give slightly more emphasis to particular uses in order to respond to public comment and to explore management options, opportunities, and trade-offs. The oil and gas figures in the following pertain to the acreages of NFS surface with federal minerals. The analysis presented in Chapter 3 of the FEIS represents federal minerals

regardless of surface. The characteristics of alternatives considered in detail, and modified based on public comment and interagency coordination on the DEIS, are described below.

Alternative 1 (No Action)

The "no action" alternative is required by regulation. Current Land and Resource Management Plan (Management Plan) direction and emphases would continue and there would be no changes to standards or guidelines.

Since current plans were developed, management area titles and the management area numbering systems have changed. Therefore, the original management area titles and numbers have been changed to make this alternative more easily comparable to other alternatives.

This multiple-use alternative does not recommend any wilderness, SIAs, or RNAs and does not provide for an area of nonmotorized backcountry recreation or a wide range of recreation opportunities. Plant and animal habitats would be managed to meet viable populations but at a higher risk level than Alternatives 3, 4, and 5. This alternative had the most acres of MA 6.1 Rangeland with Broad Resource Emphasis, the least acres of special management area allocations.

Alternative 1 responds to the revision topics as follows:

Community and Lifestyle Relationships: The emphasis is toward traditional commodity uses, primarily grazing. Very little recognition is given to other interests and uses.

Livestock Grazing: Rangeland and broad resource emphasis is on 514,470 acres. Total suitable acres are 532,100 acres.

Oil and Gas Leasing: There would be 532,400 acres available for leasing, with 7,520 acres no surface occupancy (NSO), 85,510 acres controlled surface use (CSU), no protection for paleontology resources, 65,270 acres with timing limitations (TL) and 376,870 acres with standard lease terms.

Plant and Animal Damage Control: Prairie dogs are controlled in some areas with rodenticide on less than 1,000 acres per year. However, in May 1999, the Acting Deputy Chief of the Forest Service issued a moratorium on the poisoning of prairie dogs with the exception of human health and safety or Threatened and Endangered Species Habitat protection. There is no change in noxious weed management; weeds are controlled on approximately 225 acres annually.

Rangeland and Forest Health: Insect and disease outbreaks and wildfires are limited. Black-footed ferret re-introduction is authorized on 33,750 acres. There would be fewer prairie dogs; sage grouse are reduced; and 22% riparian and woody draw areas would be regenerated. 4,270 acres of big game range would be allocated. Additionally, Alternative 1 had a "likely to adversely affect" determination for black-footed ferret. Plant and animal habitats would be managed to meet viable populations in Alternatives 1 but at a higher risk level than Alternatives 3 Draft, 3 Final, 4, and 5.

Recreation and Travel Management: No areas are allocated for recreation emphasis, and there are no restrictions on motorized travel.

Special Area Designations: There are none proposed.

Alternative 2

This alternative would emphasize production of commodities, such as livestock, minerals, oil, gas, and timber. Plant and animal habitats would be managed to meet viable populations but at a higher risk level than Alternatives 3, 4, and 5. Recreation opportunities and special area designations would be provided where they would not foreclose commodity production.

For the TBNG, this alternative had the most acres of MA 5.12 General Forest and Rangelands; Range Vegetation Emphasis and had 49,350 acres of MA 8.4 Mineral Production and Development. There would be 6,590 acres of MA 2.1 Special Interest Areas.

Alternative 2 responds to the revision topics as follows:

Community and Lifestyle Relationships: The emphasis is toward traditional commodity uses, primarily grazing, and mineral production. Very little recognition is given to other interests and uses; however, there are a few small areas allocated for special interests and recreation.

Livestock Grazing: There are 199,850 acres of MA 6.1 Rangeland and Broad Resource Emphasis and 253,550 acres of MA 5.12 General Forest and Rangeland with Range Vegetation Emphasis. Total suitable acres are 532,100 acres.

Oil and Gas Leasing: There would be 532,400 acres available for leasing, with 81,460 acres with no surface occupancy (NSO), 69,580 acres with controlled surface use (CSU), 381,360 acres with CSU for protection for paleontology resources, 147,040 acres with timing limitations (TL), and 0 acres using standard lease terms.

Plant and Animal Damage Control: Prairie dogs are controlled aggressively in several areas with poison on over 5,000 acres per year. Noxious weeds are reduced by 15%.

Rangeland and Forest Health: Insect and disease outbreaks and wildfires are limited. Alternative 2 allows for black-footed ferret reintroduction on 41,230 acres. There would be fewer prairie dogs and a decrease in sage grouse. Eighty percent of the riparian and woody draw areas would be regenerated. Additionally, Alternatives 2 had a "likely to adversely affect" determination for black-footed ferret. Plant and animal habitats would be managed to meet viable populations in Alternative 2 but at a higher risk level than Alternatives 3 Draft, 3 Final, 4, and 5.

Recreation and Travel Management: There are 1,930 acres of 4.32 Dispersed Recreation; High Use. No restrictions are made on motorized travel.

Special Area Designations: There are 6,590 acres allocated to MA 2.1 Special Interest Areas.

Alternative 3 (Draft)

This was Alternative 3a in the DEIS, and it is carried forward in its entirety from the DEIS to the FEIS. This alternative would modify the current management plan direction by adopting additional special area designations, such as RNAs and SIAs, and placing added emphasis over the current management plan on native plants and animals and recreation opportunities.

Plant and animal habitats would be managed to meet viable populations, and many standards and guidelines have been installed to ensure this.

For the TBNG, this alternative had the most acres of MA 2.1 Special Interest Areas and had 116,560 acres of MA 3.65 Rangelands with Diverse, Natural-Appearing Landscapes. It had 33,890 acres of MA 3.68 Big Game Range and 25,780 acres of MA 4.32 Dispersed Recreation, High Use.

Alternative 3 Final responds to the revision topics as follows:

Community and Lifestyle Relationships: Emphasis is toward traditional commodity uses, primarily grazing. However, increased recognition and protection is given to other interests and uses such as minerals, research, recreation, and special interests such as paleontological, historical, and ecological areas. The variety of recreation opportunities increased under this alternative.

Livestock Grazing: There are 118,130 of MA 6.1 Rangeland and Broad Resource Emphasis, 129,480 acres of MA 5.12 of General Forest and Rangeland with Range Vegetation Emphasis, and 116,560 acres of MA 3.65 Rangelands with Diverse and Natural-Appearing Landscapes. Total suitable rangeland is 532,100 acres.

Oil and Gas Leasing: There would be 532,400 acres available for leasing, with 102,720 acres no surface occupancy (NSO), 102,410 acres controlled surface use (CSU), no protection for paleontology resources on 327,270 acres, 168,410 acres with timing limitations (TL), and 0 acres using standard lease terms.

Plant and Animal Damage Control: Very few, if any, prairie dogs areas are controlled with poison. Prairie dogs are managed for habitats key to other wildlife species. Noxious weeds are reduced or contained.

Rangeland and Forest Health: Insect and disease outbreaks and wildfires are limited. This alternative allows for black-footed ferret reintroduction on 45,470 acres. This alternative maintains or increases sage grouse; increases prairie dogs; and regenerates 80% of the riparian and woody draw areas.

Recreation and Travel Management: There are 21,390 acres allocated to MAs 1.2 Recommended for Wilderness and 1.31 Backcountry Nonmotorized. Motorized travel is restricted to designated routes. A few miles of trails are added.

Special Area Designations: There is one recommended wilderness, 4 special interest areas and 2 Research Natural Areas proposed. The recommended wilderness is 14,850 acres. Special Interest Areas total 12,570 acres. Research Natural Areas total 1,210 acres.

Alternative 3 Final, as Modified – (Selected Alternative)

This alternative modifies the 1984 Management Plan direction by adopting additional special area designations, such as RNAs and SIAs, and placing added emphasis on native plants and animals, and recreation opportunities. Plant and animal habitats will be managed to meet viable populations, and many standards and guidelines have been included to ensure this. There is less risk of loss of viability with this alternative than with Alternative 3 Draft.

Changes in Alternative 3 Final from the DEIS include the following: changes in goals and objectives, standards and guidelines, monitoring requirements, proposed Management Area allocations, Geographic Area direction, oil and gas stipulations, and inclusion of "bison-friendly" grazing policies.

This alternative would facilitate bison grazing on the lands administered by the TBNG after evaluating the suitability of allotments for bison grazing. Permittees' requests to graze bison would be fully considered.

Alternative 3 Final responds to the revision topics as follows:

Community and Lifestyle Relationships: The emphasis is toward traditional commodity uses, primarily grazing. However, increased recognition and protection is given to other interests and uses such as minerals, research, recreation, and special interests such as paleontological, historical, and ecological areas.

Livestock Grazing: There are 118,090 acres of MA 6.1 Rangeland and Broad Resource Emphasis, 160,870 acres of MA 5.12 General Forest and Rangeland with Range Vegetation Emphasis, and 83,430 acres of MA 3.65 Rangelands with Diverse and Natural-Appearing Landscapes. Total suitable rangeland is 532,100 acres.

Oil and Gas Leasing: There would be 473,940 acres available for leasing east of the coal outcrop line, with 92,670 acres no surface occupancy (NSO), 102,040 acres controlled surface use (CSU), CSU protection for paleontology resources on 279,230 acres, 143,380 acres with timing limitations (TL), and 0 acres using standard lease terms

Plant and Animal Damage Control: Very few, if any, prairie dogs areas are controlled with poison. Prairie dogs are managed for habitats key to other wildlife species. Noxious weeds are reduced or contained.

Rangeland and Forest Health: Insect and disease outbreaks and wildfires are limited. Black-footed ferret reintroduction is allowed on 47,890 acres. This alternative maintains or increases sage grouse, increases prairie dogs, and regenerates 80% riparian and woody draw areas.

Recreation and Travel Management: There are 6,500 acres allocated to MA 1.31 Backcountry Recreation Nonmotorized and 25,780 acres allocated to 4.32 Dispersed Recreation; High Use. Motorized travel is restricted to designated routes. A few miles of trails are added.

Special Area Designations: There are six Special Interest Areas and two Research Natural Areas proposed. Special Interest Areas total 26,780 acres. Research Natural Areas total 1,230 acres.

Alternative 4

This alternative would feature natural processes and aggressive restoration of impaired native ecosystems. It would demonstrate the role that national grasslands and forests have in sustaining rare animal and plant communities within the Northern Great Plains. Plant and animal habitats would be managed to meet viable populations with the lowest risk level.

This alternative would allow for "bison-only" grazing on a minimum of 5% of the lands administered by the TBNG. In this alternative, bison will be treated as a type of livestock, not as free-roaming wildlife herds.

Permittees requests to graze bison would be fully considered as well as the opportunities to convert to "bison-only" grazing on vacant and newly acquired allotments determined to be desirable and suitable for bison grazing.

This alternative has the largest acreages of MA 1.2 Recommended for Wilderness (59,280 acres), MA 2.2 Research Natural Areas (3,520 acres), and MA 3.63 Black-footed Ferret Reintroduction Habitat (112,510 acres).

Alternative 4 responds to the revision topics as follows:

Community and Lifestyle Relationships: Emphasis toward traditional commodity uses such as grazing would still be prevalent but at a lower level. Recognition would be given to other interests and uses, particularly RNAs, wilderness areas, and black-footed ferret reintroduction.

Livestock Grazing: MA 6.1 Rangeland with Broad Resource Emphasis would occur on 212,840 acres, General Forest and Rangeland with Range Vegetation Interests, 89,630 acres, and Rangelands with Diverse Natural-appearing Landscapes, 17,920 acres. Total suitable rangeland is 531,060 acres.

Oil and Gas Leasing: There would be 532,400 acres available for leasing, with 139,160 acres of no surface occupancy (NSO), 98,430 acres of controlled surface use (CSU294,810 acres with CSU for protection for paleontology resources, 170,740 acres with timing limitations (TL) and 0 standard lease terms.

Plant and Animal Damage Control: No prairie dogs would be controlled with poison. Prairie dogs would be managed for habitats key to other wildlife species. Noxious weeds would be reduced by 15%.

Rangeland and Forest Health: Insect and disease outbreaks and wildfires are limited. Alternative 4 allows for black-footed ferret re-introduction on 129,060 acres. Sage grouse would be maintained or increased sage grouse, prairie dogs would be increased, and 80% of the riparian and woody draw areas would be regenerated. There would be an increase in mid/late successional and mid/late seral stages.

Recreation and Travel Management: There are 59,280 acres allocated to MA 1.2 Recommended for Wilderness and 4,200 allocated to 1.31 Backcountry Recreation Nonmotorized. Motorized travel is restricted to designated routes.

Special Area Designations: There are 6,590 acres of MA 2.1 Special Interest Areas and 59,280 of MA 1.2 Recommended for Wilderness along with 3,520 acres of 2.2 Research Natural Areas.

Alternative 5

This alternative would accentuate recreation opportunities and non-commodity services and also provide commodity outputs that complement or fit within recreation objectives. Plant and animal habitats would be managed to meet viable populations with a low risk level.

This alternative would provide the most acres of MA 1.31 Backcountry Recreation Nonmotorized, MA 4.22 Scenic Area, Vistas, or Travel Corridors and shares the most acreages of MA 8.4 Mineral Production and Development with Alternative 1. It provides for the least acreage of MA 3.63 Black-footed Ferret Reintroduction Habitat.

Alternative 5 responds to the revision topics as follows:

Community and Lifestyle Relationships: Emphasis toward traditional commodity uses such as grazing would still be prevalent.

livestock grazing: Rangeland and broad resource emphasis would exist on 424,690 acres. Total suitable rangeland is 532,100 acres.

Oil and Gas Leasing: There would be 532,400 acres available for leasing, with 112,350 acres with no surface occupancy (NSO), 95,100 acres with controlled surface use (CSU), CSU for protection of paleontology resources on 324,950 acres, 134,700 acres with timing limitations (TL), and 0 acres using standard lease terms.

Plant and Animal Damage Control: Very few prairie dog areas are controlled with poison, less than 5,000 acres per year. Noxious weeds are contained or reduced.

Rangeland and Forest Health: Insect and disease outbreaks and wildfires are limited. Black-footed Ferret Re-introduction is authorized on 27,850 acres. This alternative maintains or increases sage grouse habitat and maintains or reduces prairie dog population. Eighty percent of riparian and woody draw areas would be regenerated.

Recreation and Travel Management: There are 22,710 acres of MA 1.31 Backcountry Recreation Nonmotorized and 15,260 acres of MA 1.2 Recommended for Wilderness. Motorized travel is restricted to designated routes.

Special Area Designations: There are 6,590 acres allocated to MA 2.1 Special Interest Areas along with 6,030 acres allocated to MA 4.22 Scenic Area, Vistas or Travel Corridors and 15,260 acres of MA 1.2 Recommended for Wilderness.

SUMMARY COMPARISON OF ALTERNATIVES

Table 1 displays a comparison of alternatives by management areas.

Table 2 displays a comparison of alternatives by major revision topics.

For the following tables, acres are rounded to nearest 10. Acres in parentheses are concurrent management area acres, meaning they overlap other management area acres.

Comparison of Alternatives

Table 1. Management area acres by alternative for Thunder Basin National Grassland.

Management Area	Alt 1	Alt 2	DEIS Alt 3	FEIS Alt 3	Alt 4	Alt 5
Category 1						
1.2 Recommended for Wilderness	0	0	14,850	0	59,280	15,260
1.31 Backcountry Recreation Nonmotorized	0	0	6,540	6,550	4,200	22,710
Totals	**0**	**0**	**21,390**	**6,550**	**63,480**	**37,970**
Category 2						
2.1 Special Interest Areas	0	6,590	12,570	26,780	6,590	6,590
2.2 Research Natural Areas	0	0	1,210	1,210	3,520	0
Totals	**0**	**6,590**	**13,780**	**27,990**	**10,110**	**6,590**
Category 3						
3.63 Black-footed Ferret Reintroduction Habitat	33,750	41,230	45,470 (5,920)	47,890 (5,920)	112,510 (16,550)	27,850 (13,380)
3.65 Rangelands with Diverse, Natural-appearing Landscapes	0	0	116,560	83,430	17,920	0
3.68 Big Game Range	4,270	0	33,890	33,890	0	0
Totals	**38,020**	**41,230**	**195,930**	**165,210**	**130,430**	**27,850**
Category 4						
4.22 Scenic Area, Vistas or Travel Corridors	0	0	0	0	0	6,030
4.32 Dispersed Recreation: High Use	0	1,930	25,780	25,780	1,930	0
Totals	**0**	**1,930**	**25,780**	**25,780**	**1,930**	**6,030**
Category 5						
5.12 General Forest and Rangelands: Range Vegetation Emphasis	0	253,550	129,480	160,870	89,630	0
Totals	**0**	**253,550**	**129,480**	**160,870**	**89,630**	**0**
Category 6						
6.1 Rangeland with Broad Resource Emphasis	514,470	199,850	118,130	118,090	212,840	424,690
Totals	**514,470**	**199,850**	**118,130**	**118,090**	**212,840**	**424,690**

Management Area	Alt 1	Alt 2	DEIS Alt 3	FEIS Alt 3	Alt 4	Alt 5
Category 8						
8.4 Mineral Production and Development	0	49,350	47,990	47,990	44,060	49,350
Totals	**0**	**49,350**	**47,990**	**47,990**	**44,060**	**49,350**

Table 2. Comparison of Alternatives by Major Revision Topic for Thunder Basin National Grassland.

Revision Topic/Key Indicators	Existing Condition	Alt 1	Alt 2	DEIS Alt 3	FEIS Alt 3	Alt 4	Alt 5
Estimated AUMs of livestock grazing	112,700	127,530	126,940	120,700	115,430	101,340	117,840
Oil and Gas (NFS Surface managed by the Forest Service; mineral estate managed by BLM)							
Acres with existing leasing decisions	532,400	532,400	532,400	532,400	532,400	532,400	532,400
Acres not covered by this decision [2]	0	0	0	0	58,460	0	0
Acres available for leasing	532,400	532,400	532,400	532,400	473,940	532,400	532,400
Acres available with stipulations	155,530	155,530	532,400	532,400	473,940	532,400	532,400
Because areas may have more than one type of stipulation, the total acres of stipulation for each alternative may be larger than the acres available with stipulation.							
No Surface Occupancy (NSO)	7,520	7,520	81,460	102,720	92,670	139,160	112,350
Controlled Surface Use (CSU)	85,510	85,510	69,580	102,410	102,040	98,430	95,100
Paleontology CSU	0	0	381,360	327,270	279,230	294,810	324,950
Timing Limitations (TL)	65,270	65,270	147,040	168,410	143,380	170,740	134,700
Standard Lease Terms Only	376,870	376,870	0	0	0	0	0

[2] The areas included in this category are National Forest System lands west of the coal outcrop line. These lands are available for oil and gas leasing under the 1994 Oil and Gas Leasing On The Thunder Basin National Grassland Record of Decision. When the Powder River Basin Oil and Gas Project EIS is completed (estimated to be in 2003), new oil and gas leasing decision will be made for these 58,460 acres.

Revision Topic/Key Indicators	Existing Condition	Alt 1	Alt 2	DEIS Alt 3	FEIS Alt 3	Alt 4	Alt 5
Black-footed ferret reintroduction areas (numbers and acres)	1 33,750	1 33,750	1 41,230	1 51,400	1 53,820	1 129,060	1 41,230
Recommended for Wilderness (number and acres)	0 0	0 0	0 0	1 14,850	0 0	6 59,280	1 15,260
Special Interest Areas (number and acres)	0 0	0 0	3 6,590	4 12,570	6 26,780	3 6,590	3 6,590
Research Natural Areas (number and acres)	0 0	0 0	0 0	2 1,230	2 1,230	4 2,880	0 0

ALTERNATIVES CONSIDERED BUT ELIMINATED FROM DETAILED STUDY

Several alternatives were considered and eliminated from detailed study during the planning process. They are discussed more specifically in Chapter 2 of the FEIS, including the reasons why they were eliminated from detailed study. The following is a list of these alternatives.

Passive Management Alternative: This is an alternative that would restore biological communities and health through passive management.

Bison-Restoration/Free Roaming Bison Alternative: This was proposed by tribes, inter-tribal organizations, individual tribal members and others, to consider removing domestic livestock and to restoring free-roaming bison to the national grasslands.

Conservation Reserve Alternative: This alternative included principles of conservation biology, establishes core reserve areas on grassland and links core areas with biological corridors.

Designation of the Site-Specific Motorized Routes: This alternative would have included information to make these site-specific determinations within this revision decision.

No Grazing Alternative: This would have prohibited livestock grazing.

COMMENTS SUBMITTED BY THE PUBLIC

Issues, concerns, and comments on the Draft EIS and Draft Revised Plan received particular consideration in the decision-making process. The environmental consequences of Alternative 3 Final and the other alternatives have been studied thoroughly. Alternatives are described and compared in Chapter 2 of the FEIS. Environmental consequences are discussed in Chapter 3. Response to DEIS comments were provided in the FEIS and response to FEIS comments are provided in the attached addendum. The following are some of the major comments provided to the FEIS and Final Plan.

Air Quality

We received questions about the impacts of the TBNG revised plan direction for air quality on mineral development. Subsequent comments received during the extended comment period questioned whether application of the Federal Land Managers' Air Quality Related Values Workgroup Phase 1 Report ("FLAG") would have adverse impacts on economic development.

The TBNG Revised Plan (and errata) provides direction for air quality, requiring that all land management activities are to be conducted in such a manner as to comply with all applicable federal, interstate, state, and local standards, regulations, and requirements relating to the abatement of air pollution and that they meet the requirements of any Prevention of Significant Deterioration ("PSD") permits, State Implementation Plans (SIPs), Conformity Determinations, and applicable Smoke Management Plans.

Air quality standards analyzed in the FEIS and included in the plan (Appendix A) are set forth at 40 C.F.R. 52.21(c) and the Clean Air Act (as amended through December 1990), 42 U.S.C. § 7473(b). Analysis of impacts of specific projects that propose mineral development on air quality is outside the scope of the Northern Great Plains analysis but will be addressed at the project level.

As to application of the FLAG report, it must be pointed out that the FLAG report is neither a rule nor policy direction. It does however, provide a consistent guidance for the use of the Forest Service (and other federal land managers) so that it may fulfill its affirmative responsibility to provide comments and recommendations to the states, in order to protect air quality related values in Class I areas during PSD process for proposed major emitting facilities (42 U.S.C. 7470 *et seq.)*. The entire TBNG has been designated a Class II area and contains no management areas that would require Class I protections in the PSD process. Although the Forest Service may use the FLAG criteria to make Class II protection recommendations in the PSD permitting process, the state is under no legal obligation to accept these recommendations.

Air quality standards are set and monitored by the state of Wyoming. The final preferred alternative does not impose more stringent air quality standards than current management.

Prairie Dogs

We received many comments relating concerns over unwanted colonization by prairie dog populations of adjacent private lands along property boundaries. Some voiced a desire to have more options to manage for this unwanted colonization. This was analyzed in Alternatives 1, 2, and 5 of the EIS.

The TBNG Revised Plan direction at Chapter 1, Grassland-wide Direction, addresses the general direction for the management of black-tailed prairie dogs. In addition, Chapter 3, Management Area 3.63 provides management direction for prairie dog colonies in black-footed ferret reintroduction areas. The Revised Plan limits the use of rodenticide for managing prairie dogs. The Forest Service is utilizing grazing management systems and stocking levels to enhance prairie dogs expansion where desired and to discourage encroachment on adjacent private lands. In addition, the Forest Service has been cooperating with the Wyoming State Working Group in the development of a black-tailed prairie dog

conservation strategy for Wyoming. At the time of this decision, the Wyoming Game and Fish Commission has not approved a Statewide Prairie Dog Conservation Strategy for Wyoming. The State Working Group is developing strategies to address the concerns relative to plague, erosion, and management of prairie dogs on public and private lands.

The Forest Service's Washington Office issued guidance for prairie dog management on national grasslands and forests was in July 2000. This memorandum called for additional limitations on the use of rodenticides to control prairie dogs, and as a result, prairie dog management direction under Alternative 3 Final was modified between the DEIS and FEIS. Current plan direction calls for prohibiting the use of rodenticides except for the following situations: public health and safety risks and damage to private and public facilities, such as cemeteries and residences. It provides direction to consult with the U.S. Fish and Wildlife Service on statewide prairie dog conservation plans for additional guidance on poisoning unwanted prairie dog colonization on adjoining agricultural lands. If the statewide conservation plan is approved for Wyoming and allows for poisoning along private land buffers for some colonies or complexes, a future plan amendment may be needed to incorporate this direction.

Raptor Buffers

Raptor "buffers" for threatened, endangered, and sensitive species are intended to help prevent abandonment, reproductive failure, or nest destruction. Some commentors stated concern about the spatial buffer distances stated in the plan, questioned the spatial distances being set when there are examples of raptors on the TBNG that nest in clear view of human activity, and questioned the phrase "line of sight" when defining activity restriction periods.

There is a range of spatial buffers recommended in the scientific literature. Romin and Muck (1999) and Lerczak (1992) were used as the primary references for the spatial buffers set in the plan. It is true that some raptors nesting in areas of regular human activity have become habituated to human disturbance. However, there is no data to demonstrate how many pairs choose not to nest in areas of high human activity. The buffers are set to provide the least amount of disturbance to these birds during their critical nesting and roosting periods.

The proposed "buffer zones" for wildlife species listed in Plans, Chapter 1: Standards and Guidelines under Biological Resources: F. Fish, Wildlife and Rare Plants apply only to the National Forest System lands and federal mineral ownership. The plan clearly states in many areas that valid existing rights, including private property rights, will be maintained. Spatial and temporal buffers for several raptor species have been modified to reflect new and updated biological information.

Motorized Access for Administrative Purposes

Some people commented that they were worried that general grassland-wide and management area direction would preclude motorized use for such things as fire control, grazing permit administration, noxious weed control, wildlife surveys, mineral exploration and development, and emergency services such as law-enforcement, medical, search and rescue. Grassland-wide direction under Q.1., Revised Plan, page 1-30 states that access for these purposes will be allowed. Cooperators and permittees will be specifically authorized motorized access, including off-road access, for authorized activities in their agreements or permits.

IDENTIFICATION OF THE ENVIRONMENTALLY PREFERRED ALTERNATIVE

National Environmental Policy Act (NEPA) regulations require agencies to specify the alternative or alternatives which were considered to be environmentally preferable [40 CFR 1505.2(b)]. Forest Service policy (FSH 1909.15, Section 05) defines environmentally preferable as:

> "An alternative that best meets the goals of Section 101 of NEPA. … Ordinarily this is the alternative that causes the least damage to the biological and physical environment and best protects, preserves, and enhances historical, cultural, and natural resources."

The goals of Section 101 of NEPA are:

1. Fulfill the responsibilities of each generation as trustees of the environment for succeeding generations.
2. Assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
3. Attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences.
4. Preserve important historic, cultural, and natural aspects of our natural heritage and maintain, wherever possible, an environment, which supports diversity and variety of individual choice.
5. Achieve a balance between population and resource use, which will permit high standards of living and a wide sharing of life's amenities.
6. Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

Given these criteria, Alternative 3 Final has been identified as the environmentally preferred alternative. This ROD has discussed the decision process and the comparisons of the alternatives through a deliberative process. That process, described in the previous section, included the evaluation of net public benefit, attributes and advantages. Although Alternative 4 would allow the fewest ground-disturbing activities (the traditional measure of the environmentally preferred alternative), it does not meet the six criteria as well as Alternative 3 Final.

It is my assessment that Alternative 3 Final best meets the goals and the substantive requirements of Section 101 of NEPA. Alternative 3 Final will ensure the future health of the land by providing appropriate opportunities for active management to work in concert with natural ecological processes. The maintenance of forest health and the physical resources is attained while securing the viability of plant and animal species into the future.

Opportunities for quality visitor experiences are plentiful. Alternative 3 Final provides for a wide range of beneficial uses, such as livestock grazing, dispersed and developed recreation, and oil, gas and coal development. Standards and guidelines within the Revised Plan will prevent undesirable and/or unintended outcomes.

Alternative 3 Final management area allocations preserve historic and natural aspects of the Grassland and they provide for the expression of a variety of individual preferences. I believe that Alternative 3 Final also achieves a balance between sustainable resource use and ecological sustainability that will best satisfy a variety of public needs and uses. This alternative provides for high-quality, sustainable resource management. Enhancing grassland health while providing sustainable resource production and recreation opportunities will continue to contribute to the vitality of local communities.

FINDINGS REQUIRED BY OTHER LAWS

Chapter 3 of the FEIS concludes that the Revised Plan is in compliance with the following laws and executive orders:

- Clean Water Act.
- National Historic Preservation Act.
- Endangered Species Act as disclosed in the conclusions presented in Chapter 3 and Appendix B of the FEIS. In a January 12, 2001 letter, the U.S. Fish and Wildlife Service concurred with our determination that this decision is not likely to adversely affect any threatened and endangered plant or animal species and is not likely to jeopardize the continued existence or adversely modify proposed critical habitat of any species proposed for listing under the Endangered Species Act.
- Clean Air Act.
- Executive Order for Environmental Justice.
- Bankhead-Jones Farm Tenant Act of 1937 and 1963 Secretary of Agriculture Executive Order.
- National Forest Management Act of 1976, as amended.
- Mineral Leasing Act as amended.
- Federal Onshore Oil and Gas Leasing Reform Act.
- Mining and Minerals Policy Act.

IMPLEMENTATION

Implementation of this ROD will occur 7 calendar days after the legal notice of this decision is published in the Newspaper of Record, Denver Post (36 CFR 217).

Application to Oil and Gas Leases

Under 36 CFR 228.102(d), the regulations governing oil and gas leasing decisions state "Upon completion of the leasing analysis, the Regional Forester shall promptly notify the BLM as to the area or Grassland-wide leasing decisions that have been made: That is, identify lands which have been found administratively available for leasing." By implementing Alternative FEIS 3 Final, I have made the 473,940 acres of the TBNG east of the coal outcrop available for leasing with a variety of lease stipulations to protect surface resources (Revised

Plan, Appendix D). The new stipulations do not apply to existing leases. The 58,460 acres west of the coal outcrop continue to be available and authorized for leasing under the 1994 Oil and Gas Leasing Decision for Thunder Basin National Grassland.

Application to Contracts, Permits and Special Use Authorizations

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

In developing this Revised Plan, implementing pre-existing decisions and the associated effects of that implementation were considered part of the baseline against which the alternatives were evaluated. Because we considered these earlier decisions in our effects analysis, their implementation is not in conflict with the Revised Plan.

I have determined that it is not "necessary" to apply the Revised Plan's standards and guidelines retroactively, and I find that NFMA does not require revision of these pre-existing use and occupancy authorizations. However, I have also determined that I have the discretion, on a case-by-case basis, to modify pre-existing authorizations if they are not consistent with newly established standards, including the standards and guidelines in the Revised Plan. Use and occupancy agreements, which might require modification of pre-existing authorization, include those for timber harvesting, livestock grazing and farming.

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

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

The Forest Supervisor will accomplish many management activities to implement the Revised Plan. Unlike the programmatic decisions listed above, these activities are site-specific and require analysis and disclosure of effects under NEPA. These site-specific analyses will be done during implementation of the Revised Plan. This ROD does not make any site-specific decisions.

Site-specific analysis of proposed activities will determine what can be accomplished. The outcomes specified in the Revised Plan are estimates and projections based on available information, inventory data, and assumptions. More information on the difference between programmatic and site-specific projects can be found in the planning record (Overview of Forest Planning and Project Level Decision-making, Gippert, OGC, June 2002,

http://www.fs.fed.us/forum/nepa/decisionm/index.html) that is incorporated into this ROD by reference.

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

Monitoring and Evaluation

Through this planning process, the Forest Service has estimated the effects of implementing the Revised Plan. Analyses for grazing and oil and gas impacts were re-done between Draft and Final EIS, as well as economic impacts for both. I realize there are still concerns by some that the projected effects in the EIS underestimate what the real effects will be and that there is uncertainty about the effects of implementing the revised standards and guidelines. Implementation of this plan includes monitoring and evaluation. In an attempt to address this concern, I am directing the Forest Supervisor to work with the state of Wyoming to develop a Memorandum of Understanding to establish a scientific technical review committee composed of representatives from Wyoming Game and Fish Commission, University of Wyoming, USDA Forest Service, and Wyoming Department of Agriculture.

The purpose of this committee is to develop a monitoring implementation plan that will describe the methods of monitoring needed to determine how well we are implementing the direction in the Revised Plan, to determine how effective implementation of Revised Plan direction is in meeting desired conditions, and to help us validate assumptions and direction used in the Revised Plan. We will work with these agencies, as well as with permittees, conservation groups, and grassland users to do the annual monitoring. Upon review of the collected annual and multi-annual monitoring data, each member of the committee shall provide their independent, scientific review and conclusions in determining if the actual effects from the implementation of the standards and guidelines are similar to those projected in the FEIS. Following periods of two years and five years after the date of implementation of the Revised Plan, the committee will issue interim reports of their independent findings to the Forest Supervisor. This information will be used, along with other internal and external information, to properly modify the plan, if necessary, through amendment procedures as provided for by regulation.

The goal for this monitoring and evaluation during the first two-year to five-year period of implementation is to provide an adaptive management approach by acquiring appropriate data to make changes and/or evaluate the effectiveness of changes made to the Revised Plan. These steps will be taken in addition to the annual evaluation process.

POTENTIAL AMENDMENTS TO THE REVISED PLAN

The Revised Plan can be amended or revised to adjust to changing circumstances. The amendment process gives us the flexibility to adapt the decisions made today to the realities of tomorrow.

The following proposals and possibilities have been initiated and depending on the outcomes of their processes, have the potential for causing an amendment to some parts of this plan.

- **Powder River Basin EIS**
- **Listing or Proposed Listing of Additional Species under the Protection of the Endangered Species Act**

  The mountain plover is currently proposed as a threatened species.
- **Additional Plant and Animal Species Selected by the Regional Forester as Region 2 Sensitive Species**
- **State of Wyoming Black-tailed Prairie Dog Conservation Strategy**
- **Sage Grouse Conservation Strategy**
- **Dakota, Minnesota, and Eastern Railroad**

  On April 28, 1998, the Dakota, Minnesota, and Eastern Railroad Corporation (DM&E) submitted a special use application to the U.S. Forest Service for an easement to cross portions of the Thunder Basin National Grassland with a new rail line. This proposed action is part of a larger project. DM&E applied to the Department of Transportation's Surface Transportation Board (STB) to construct and operate approximately 280 miles of new railroad line in eastern Wyoming and western South Dakota. This larger project was analyzed in conjunction with a comprehensive upgrade and reconstruction of approximately 598 miles of DM&E's existing rail infrastructure in South Dakota and Minnesota. The STB was the lead agency for the analysis while the USDA Forest Service, USDI Bureau of Land Management, U.S. Army Corps of Engineers, USDI Bureau of Reclamation and U.S. Coast Guard were cooperating agencies. The purpose of the new construction and upgrade and reconstruction is to access the coal mines in Wyoming's Powder River Basin and transport up to 100 million tons of coal per year across portions of Wyoming, South Dakota, and Minnesota.

  On January 30, 2002, the Surface Transportation Board approved Alternative C, Modified Proposed Action of the Final EIS for the Dakota, Minnesota, and Eastern Railroad Powder River Basin Expansion Project. Cooperating agencies will soon make decisions within their agencies' authorities for issuing permits to implement the project. I will make a decision to issue a short-term special use construction permit and to issue a long-term operation and maintenance easement to DM&E Railroad. If that decision is consistent with the Revised Thunder Basin National Grassland Plan and associated Record of Decision, the project may proceed without amendment to the Revised Plan. If it is not consistent, we will prepare an amendment to the Revised Plan.
- **Roads Analysis – Minimum Road System**

  On January 12, 2001, the Forest service issued the final National Forest system Road Management Rule. This rule revises regulations concerning the management, use, and maintenance of the national forest or national grassland transportation system. FSM 7700-Transportation System directs each national forest, national grassland and experimental forest to determine the minimum road system that is safe and responsive to public needs and desires; is affordable, efficient, has minimal adverse effects on ecological processes and ecosystem health, diversity and productivity of the land; and is in balance with available funding for needed management actions. I

have extended the deadline for the completion of a grassland-scale roads analysis to June 30, 2004. This analysis may or may not result in the need to amend the Revised Plan.

If monitoring indicates that something in the plan is not working as anticipated, we may consider a specific amendment to adapt and improve the plan. These amendments may be "one time" or permanent amendments, depending on the circumstances. The Forest Service will involve interested people and organizations in all amendment processes.

APPEAL OPPORTUNITIES

This decision is subject to administrative review pursuant to 36 CFR 217. Any appeal of this decision must be fully consistent with 36 CFR 217.9, and be filed in duplicate with the Chief within 90 days of the published legal notice. Appeals should be sent to the following address:

USDA Forest Service
Attn: NFS-EMC Staff (Barbara Timberlake)
Stop Code 1104
1400 Independence Avenue, SW
Washington, D.C. 20250-1104

Any notice of appeal must include at a minimum:

- A statement identifying the document as a Notice of Appeal pursuant to 36 CFR Part 217.
- The name, address, and telephone number of the applicant.
- Identification of the document in which the decision is contained, by title and subject, date of the decision, and name and title of the Deciding Officer.
- Identification of the specific portion of the decision to which the appeal is being made.
- The reason(s) for appeal, including issues of fact, law, regulation, or policy.
- Identification of the specific change(s) in the decision that the appellant seeks.

For questions concerning the appeal process, contact:

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

For questions concerning the Revised Thunder Basin National Grassland Plan, contact:

Mary Peterson , Forest Supervisor
Medicine Bow-Routt National Forests
and Thunder Basin National Grassland
2468 Jackson Street
Laramie, Wyoming 82070
(307) 745-2300

CONCLUSION

I am pleased to announce this decision and bring this phase of the TBNG plan revision to completion. The challenge that remains before all of us is to work together. Together we can meet the challenges, realize the opportunities, and achieve the goals and objectives of this Revised Plan.

The Revised Plan is our strategic plan for ensuring the long-term health of the land. We will use adaptive management as we work to implement it. We will carefully monitor our activities, the condition of the land, the goods and services produced, and the effectiveness of the resource protection measures included in the Revised Plan to ensure a healthy grassland for the next generation.

SIGNATURE

/s/ Rick D. Cables

RICK D. CABLES
REGIONAL FORESTER

DATE: __July 31, 2002

ADDENDUM

CONTROLLED SURFACE USE STIPULATION

AREAS WITH SPECIAL VALUES

Red Hills, Cow Creek Buttes (MA 3.65 only), Duck Creek, HA Divide, and Miller Hills

Surface occupancy or use is subject to the following operating constraints:

These areas have been identified as having special values for semi-primitive motorized recreation opportunities and/or biological diversity. Within these areas, the Forest Service desires to retain the existing conditions. Temporary departure from the existing condition for the development of oil and gas is permissible subject to extraordinary mitigation and restoration measures.

1. To minimize the impacts of oil and gas activities on identified values of the area the following mitigation measures will be required:
    a. Noise from oil and gas production facilities will not exceed 70 decibels as measured by the A-weighted Sound level (dBA) system of measurement at a distance of over 90 meters from the oil and gas production facility producing the noise. This 70 decibels noise stipulation does not apply to activities other than oil and gas production. It does not apply to drilling, work over rigs or other activities that are temporary (less than 90 days) in nature. Methods to accomplish this may include but are not limited to the following:
        1) Mufflers on gas powered pumpjacks,
        2) Electric powered pumpjacks.
    b. Drilling fluids and cuttings will be confined in portable tanks and closed systems. Reserve pits or evaporation pits will not be allowed. Wastewater, drill fluids, and cuttings will be removed from the area to an approved disposal site.
    c. Because this area contains vegetation communities uncommon on the Thunder Basin National Grassland and the Forest Service chooses to maintain these communities, modification to siting of facilities up to 400 meters may be required. Vegetation types of concern include but are not limited to birdsfoot sagebrush (*Artemisia pedatifida*), little bluestem prairie (*Schyzachyrium scoparium*), big bluestem prairie (*Andropogon gerardii*), skunkbush sumac/bluebunch wheatgrass (*Rhus trilobata/Agropyron spicatum*), woody draws, and ponderosa pine woodland.

Descriptions and photographs of these vegetation types can be found in the Thunder Basin National Grassland Biological Diversity Technical Assessment (1992) and the Duck Creek Area Biological Diversity Technical Report (1993).

d. Exploration wells, vegetation and soil disturbance for well access roads and well pads will be minimized. The Surface Use Plan of Operations will include:

    1) A plan to minimize motorized traffic to and from the drill site.

    2) A plan to limit vegetation and soil disturbance due to road construction and use. Methods to accomplish this may include but are not limited to the following:

        a) Using existing roads to the maximum extent possible.

        b) Minimizing excavation for roads. The maximum road width that will be allowed is 14 feet.

        c) Limiting travel to periods of low soil moisture (less than 25% of field capacity). Typically, high soil moisture conditions occur in early spring to early summer.

    3) A plan to limit vegetation and soil disturbance on the drill site. Excavation to level the drill rig will be permitted. Excavation will be minimized. Methods to accomplish this may include but are not limited to the following:

        a) Use portable tanks rather than excavated pits.

        b) Use of temporary supports and timber cribs to level equipment (other than the drill rig) rather than excavation.

        c) Locating staging, storage, and crew camp areas outside of the special value area.

e. In the event of field development, additional surface disturbance will be permitted in accordance with the field development plan and full National Environmental Policy Act compliance that focuses on minimal long-term impact to the vegetation, soil, wildlife habitat and visual character of the area.

2. Reclamation will be designed to return the area to the condition, which existed prior to ground disturbance, including approximate original contour.

    a. Land contours will be reclaimed to the predisturbance condition as near as possible.

    b. Travel ways, drill pads and ruts may be required to be harrowed, to minimize the effects of soil compaction.

    c. A plan to revegetate will be submitted with the Surface Use Plan of Operations. The objective will be to stabilize soil erosion, to restore biological diversity to within the range of conditions at the time of disturbance and to minimize color and vegetation contrasts using native species. This may require:

1) More than one seed mixture. Native seed may be in short supply, difficult to obtain or expensive.
2) On some soils, a nurse crop of annual species may be required to prevent soil erosion until native species can be established.

On the lands described below:

<<<<For an individual lease parcel being authorized, the specific legal description applicable to that parcel will be listed here>>>>

This stipulation is to be applied to the Red Hills, Cow Creek Buttes, Duck Creek, HA Divide, and Miller Hills as identified in the project record map for the TBNG revised Revised Plan, Alternative FEIS 3.

For the purpose of:

Protecting areas existing special values (roadless).