

**AVAILABLE LANDS  
OIL AND GAS LEASING  
WEST OF WYODAK COAL OUTCROP**

**RECORD OF DECISION**

**Western Portion of the Thunder Basin National Grassland**

**August, 2006**

Lead Agency: U.S. Department of Agriculture  
Forest Service  
Rocky Mountain Region  
Medicine Bow-Routt National Forests and  
Thunder Basin National Grassland

Responsible Official: Mary Peterson  
Forest Supervisor  
Medicine Bow-Routt National Forests and  
Thunder Basin National Grassland

Located in townships and ranges within Campbell and Converse Counties, Wyoming

This document presents the decision regarding the selection of lands “Administratively available” for leasing decision [36 CFR 228.102 (d)], for the portion of the Thunder Basin National Grassland west of the Wyodak coal outcrop line. It summarizes the reasons for choosing the Selected Alternative. The long-term environmental consequences contained in the Final Environmental Impact Statement and Proposed Plan Amendments for the Powder Basin Oil and Gas Project and the Final Environmental Impact Statement for the Northern Great Plains Management Plans Revisions May 2001 are considered in this decision.

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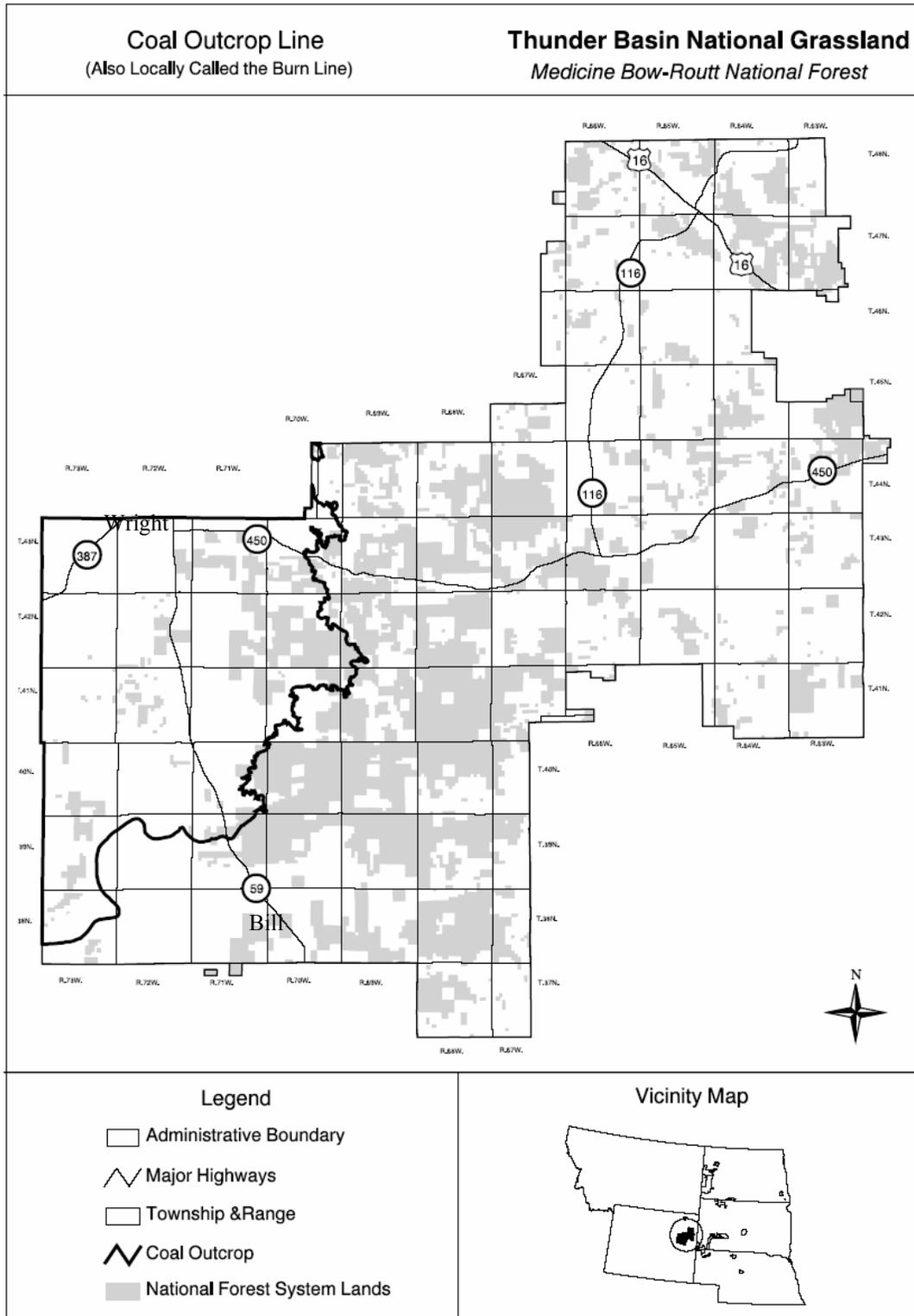
### **Explanation of Acreages and Data Sources**

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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# COAL OUTCROP LINE MAP



## SUMMARY OF THE DECISION

### My Decision

This Record of Decision (ROD) documents my decision to make all National Forest System (NFS) lands west of the Wyodak coal outcrop line (58,460 acres) administratively available for oil and gas leasing [36 CFR 228.102(d)] as stated in modified Alternative 3 Final of the Northern Great Plains Final Environmental Impact Statement for the Land and Resource Management Plan 2001 Revisions (NGP FEIS). This decision incorporates the lease terms and stipulations determined necessary to mitigate effects to surface resources. These measures are based on cumulative effects analyses documented in the Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project, January 2003 (PRB FEIS) and direct, indirect and cumulative effects analyses in the NGP FEIS.

My decision is to apply the stipulations contained in Appendix D of the the Revised Thunder Basin National Grassland Land and Resource Management Plan (Grassland Plan) to NFS lands west of the Wyodak coal outcrop line, the same as the July 2002 ROD applied those same stipulations to the NFS lands east of the coal outcrop line. The new stipulations do not apply to existing leases.

The lands west of the Wyodak Coal Outcrop were made available for oil and gas leasing in the *1994 Record of Decision for Oil and Gas Leasing on the Thunder Basin National Grassland*. This decision changes the availability decision for specific lands and the stipulations for these lands to better respond to environmental concerns.

**Table 1.** Available Thunder Basin National Grassland Acres by Type of Leasing Stipulation West of the Wyodak Coal Outcrop Line (from the July 2002 ROD)

Status	Acres <sup>1</sup>
No Surface Occupancy (NSO)	10,050
Controlled Surface Use (CSU)	370
Paleontological CSU	48,040
Timing Limitations (TL)	25,030
Standard Lease Terms only	0

## PURPOSE OF AND NEED FOR THE DECISION

The modified Alternative 3 Final of the Final Environmental Impact Statement and Land and Resource Management Plan Revision Record of Decision for the Thunder Basin National Grassland, July 31, 2002 (July 2002 ROD) identified lands available for leasing with specific

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<sup>1</sup> The sum of the number of acres with stipulation is greater than the number of acres available for leasing because many acres have more than one type of stipulation on them. For example: an acre with a CSU applied may also have a TL and a paleontological CSU.

stipulations consistent with standards and guidelines in the plan for those lands east of the Wyodak coal outcrop. The purpose of this decision is to make lands west of the Wyodak coal outcrop available for leasing in accordance with 36 CFR 228.102(d) and the Grassland Plan. The need for this decision is to provide energy resources to the American public in an environmentally sensitive manner.

## CONTEXT FOR MY DECISION

The National Forest Management Act, of 1976, requires that management Plans be reviewed and, in most cases, revised every 10-15 years. On July 31, 2002 Regional Forester Rick Cables issued the July 2002 ROD.

The Grassland Plan revision addressed oil and gas leasing as required under the implementing regulations of the Federal Onshore Oil and Gas Leasing Reform Act (Leasing Reform Act). These regulations at 36 CFR 228 Subpart E included procedures for making leasing decisions. The Forest Service decision that must occur prior to the Bureau of Land Management (BLM) offering National Forest System lands for lease is at 36 CFR 228.102 (d) *Area or Forest-Wide leasing decisions (lands administratively available for leasing)*, herein referred to as the availability decision. Following this decision, Regional Forester Rick Cables will authorize the BLM, by letter, to lease specific lands of those made administratively available for leasing under this decision. This is known as the “leasing decision for specific lands” [the 36 CFR 228.102 (e)].

Lands on the Thunder Basin National Grassland are under the jurisdiction of the Wyoming State Office of the BLM for oil and gas leasing. Based on the oil and gas analyses (NGP FEIS & PRB FEIS) for this decision, the Wyoming State Office of the BLM will make a separate decision for leasing federal mineral estate under Forest Service administered surface and under non-federal surface (split estate lands) within the Thunder Basin National Grassland.

In the July 2002 ROD a modified Alternative 3 Final was selected for implementation. At that time new Grassland Plan Standards and Guidelines were established, and 473,940 acres of NFS lands were made administratively available for leasing in accordance with 36 CFR 228.102 (d). The availability decision made in the July 2002 ROD determined what lands will require the use of stipulations (provisions for oil and gas leases) and established necessary stipulations to be consistent with the new Grassland Plan Standards and Guidelines. The stipulations are contained in the revised Grassland Plan Appendix D. In a letter dated October 29, 2004, Regional Forester, Rick Cables, notified the BLM that those lands that were made available as part of the July 2002 ROD are the specific lands authorized for leasing (36 CFR 228.102 (e)).

In the July 2002 ROD, Cables also decided, “The area west of the coal outcrop line has coal bed 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.” (July 2002 ROD, Page 5 and Component 4, page 24). The PRB FEIS was made available for public review in January 2003.

The PRB FEIS and Bureau of Land Management (BLM) Record of Decision were released in April, 2003. No new leases have been granted in this area since July 2002, pending this decision

**Table 2.** Thunder Basin National Grassland Acres Available for Leasing and Acres With Deferred New Leasing Decisions (from the July 2002 ROD)

Status	Acres
Forest Service managed mineral estate	532,400
Deferred leasing decisions (area west of the coal outcrop line)	58,460
Available for leasing	473,940

### Oil and Gas Stipulations

The Grassland Plan includes leasing stipulations designed to be consistent with the standards and guidelines of the plan (Appendix D). Stipulations for oil and gas development were changed between the Northern Great Plains 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). More areas of no surface occupancy (NSO), areas with timing limitations (TL), and areas with controlled surface use (CSU) are included in this decision.

In the PRB FEIS (Appendix P), stipulations for both the Grassland Plan and the 1985 LRMP were evaluated under each of the alternatives. The PRB FEIS analysis did not identify a need to modify or add any lease stipulations to the 2001 Grassland Plan in order to implement the level of coal bed methane development analyzed (PRB FEIS page P-36).

## RATIONALE FOR MY DECISION

I am making the lands administratively available for leasing decision [36 CFR 228.102(d)] in order to implement the Grassland Plan standards and guidelines, and the necessary and justified stipulations (Grassland Plan Appendix D) in the area west of the Wyodak coal outcrop line.

My decision to make all lands west of the coal outcrop available for leasing on the Thunder Basin National Grassland is based on a number of factors:

- 1. Design Criteria have been developed** – Appendix D of the Grassland Plan contains oil and gas leasing stipulations developed to reduce the environmental effects on surface resources and make oil and gas leasing consistent with the revised Grassland Plan Standards and Guidelines. The PRB FEIS, Appendix P, contains a review of the stipulations contained in the Grassland Plan, Appendix D. The review concludes there is no need to modify the Appendix D lease stipulations or to create any new stipulations for the level of coalbed methane development planned in the PRB FEIS (page P-36). These stipulations will be included as part of each new oil and gas lease as needed.

2. **Additional National Environmental Policy Act (NEPA) compliance is required** -- Prior to actual drilling or subsequent oil and gas operations, a Surface Use Plan of Operations (SUPO) will have to be approved covering those activities. As part of the review of the SUPO, the authorized officer shall comply with NEPA (36 CFR 228.107). Identified site-specific design criteria will be attached to the SUPO as conditions of approval. This ROD does not make decisions to permit the actual drilling or subsequent oil and gas operations.

3. **Implementation of the Regional Forester's decision of July 2002 on the Thunder Basin National Grassland Revised Plan** -- On July 31, 2002 Regional Forester Rick Cables issued the Record of Decision (ROD) for the Final Environmental Impact Statement and Land and Resource Management Plan Revision for the Thunder Basin National Grassland. The rationale for the July 2002 decision applies to this decision as follows:

**Implementing a balanced variety of natural resource programs featuring a sustainable output of multiple uses:** People expect diverse uses 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. Regional Forester Rick Cables chose to focus on the concept of "balance" among the various uses and chose to implement a balanced alternative that includes oil and gas leasing. My decision to make the lands west of the coal outcrop line administratively available for leasing continues the same balance of resource uses and activities as described in the July 2002 ROD.

**Continuing the emphasis on development of high-quality nationally significant mineral values while protecting the environment:** 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.

With this decision, I continue to make 58,460 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. My decision 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. Revised Grassland Plan standards and guidelines and oil and gas stipulations 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 scenic and fossil resources.

**Contributing to the economic diversity of neighboring communities by implementing a variety of natural resource programs that provide a sustainable output of multiple uses:** 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. My decision to make all lands on the TBNG west of the Wyodak coal outcrop line administratively available for leasing ensures that we will continue to provide sustainable outputs and sustainable multiple uses and contribute to the economic diversity of neighboring communities.

**4. A Supplemental Information Report (SIR) assessing the need for further analysis has been prepared.** The Forest Service identified new information since the completion of the NGP FEIS and PRB FEIS. Based on this new information, the Forest Service completed a SIR to review the new information and the analysis included in the NGP FEIS and the PRB FEIS and concluded that no further analysis is needed and that no additional oil and gas leasing stipulations are needed. Specific findings in the SIR are as follows:

**A. Bald Eagles:** Many raptor electrocutions related to overhead power lines have occurred in the Powder River Basin.

1. Are impacts from Coal Bed Methane development on Bald Eagles different than disclosed in Grassland Plan FEIS or PRB FEIS?
2. Is the “Effects” determination different?
3. Does the Forest Service need to re-consult with U.S. Fish and Wildlife Service (USFWS)?
4. Will the Forest Service need to do a supplemental analysis for oil and gas leasing?
5. Does the Forest Service need to change stipulations for oil and gas leasing?

In reviewing the information available, it is obvious that the impacts to bald eagles disclosed in the two Environmental Impact Statements are different. The NGP FEIS deferred its cumulative effects analysis on National Forest System lands west of the Wyodak coal outcrop line (figure 1) until the PRB FEIS disclosed the cumulative effects of coal bed methane development (ROD Component 4, page 24). The SIR is the culmination of that process. The NGP FEIS did not evaluate the impacts of oil and gas development in this area and the PRB FEIS supplements the analysis in the NGP FEIS.

The U.S. Forest Service is incorporating the PRB FEIS analysis to complete this process. This means that no new consultation will be needed to complete the current proposed leasing decision. Site-specific analyses and consultation will occur before any decisions to implement any project with effects to bald eagle. This site-specific consultation also will occur for other oil and gas leasing that may occur on the National Grassland outside of this analysis area.

In conversations with U.S. Fish and Wildlife Service biologists through the Level 1 Streamlining Process, no new has been shared indicating a need to change stipulations for oil and gas leasing within the Grassland Plan. (SIR page 5).

**B. The U.S. Forest Service, Region 2 Regional Sensitive Species List** has been modified since the analysis to add sage sparrow, short eared owl and several plants.

1. Is adequate management direction provided in Grassland Wide Direction?

2. Will current management direction adequately provide for viability of these species?
3. Are impacts associated with these new species adequately evaluated between the two FEIS analyses?

### **Plants**

It is highly unlikely that any of the new sensitive species that have been added to the list would occur in the area that the BA/BE covers because of lack of habitat for any of these species. Due to this fact, new surveys are not needed for the broad scale oil and gas leasing BA/BE. However, with the possibility that habitat could exist on a small scale within this area all six species will still be analyzed for presence/absence on a project level. Since the addition of these species, no new Grassland Wide direction has been identified to manage for these species and their viability. With the lack of occurrences of these species within the analysis area, no additional analysis beyond the two FEIS documents are needed.

### **Short-eared Owl**

The Grassland Plan provides direction that does apply to the short-eared owl. Since this species was added to the Region 2 Sensitive Species List, no additional mitigation measures have been identified to improve the management or maintain the viability of the short-eared owl. The analysis provided within the two FEIS documents provides adequate analysis to address this species through the analysis of other raptors.

### **Sage sparrow**

The Grassland Plan provides direction that does apply to sage sparrow habitat protection and enhancement. Since this species was added to the Region 2 Sensitive Species List, no additional stipulations have been identified to improve the management or maintain the viability of this species. Analysis conducted for Brewers Sparrow would also represent much of the same analysis and impacts involving sage sparrow. The analysis contained within the two FEIS documents provides adequate analysis to address this species, (SIR page 8, 10, 12).

### **Sage Grouse**

The Grassland Plan provides direction that does apply to sage-grouse habitat protection and enhancement. Since this species was added to the Region 2 Sensitive Species List, no additional stipulations have been identified to improve the management of this species. Currently the Northeast Wyoming Sage-grouse Working Group is reviewing the management of sage-grouse and its habitat in an area that includes the Thunder Basin National Grassland. Once completed, information from that Conservation Plan may provide additional management recommendations. Currently, populations across the National Grassland appear to be off-setting any declines within any specific Geographic Area. Sage-grouse still occur in all six Geographic Areas. The Thunder Basin National Grassland population appears to be maintaining its viability. The analysis provide within the two FEIS documents provides adequate analysis to address this species.

**C. Sage Grouse populations** appear to be declining in Hilight Bill Geographic Area.

1. Are viable populations of sage grouse being maintained on TBNG?

This question was addressed in the above section for sage-grouse as a Region 2 Sensitive Species. As determined above, populations across the National Grassland appear to be off-setting any declines within any specific Geographic Area. Sage-grouse still occur in all six Geographic Areas, with the majority of the population residing outside the Hilight Bill Geographic Area. The TBNG population appears to be maintaining its viability.

2. Does the Forest Service need to change stipulations in Appendix D of the Grassland Plan?

Appendix D displays the stipulations applied to oil and gas leases to be consistent with Grassland Plan Standards and Guidelines, and a short explanation of the reasons for the stipulations. This is mandated by the oil and gas regulations found in 36 CFR 228 102 (c)(1)(ii). This section also discusses the guidelines by which waivers, exceptions, or modifications may be granted.

Sage-grouse habitat, while being reduced, currently still provides enough suitable, occupied habitat to maintain a well distributed population across the TBNG. At this time, the current oil and gas stipulations appear adequate for leasing to occur. If additional Best Management Practices are identified by the Northeast Wyoming Sage-grouse Working Group, they will be addressed at the “Application for Permit to Drill” (APD) analysis stage.

3. Is the effects determination for Sage Grouse still consistent with PRB FEIS or NGP FEIS?

In reviewing the information in both analyses, it is obvious that the impacts to sage-grouse disclosed in the two Environmental Impact Statements are different. The NGP FEIS deferred its cumulative effects analysis on National Forest System lands west of the Wyodak coal outcrop line (figure 1) until the PRB FEIS disclosed the cumulative effects of coalbed methane development (reference the July 2002 ROD Component 4, page 24). The SIR is the culmination of that process. The NGP FEIS did not evaluate the impacts of oil and gas development in this area and the PRB FEIS supplements the analysis in the NGP FEIS.

Information provided in the PRB FEIS on all land ownerships, including Forest Service and non-Forest Service surface, indicates that, within the FEIS analysis area some “local populations may be extirpated in areas of concentrated development, but viability across the Project Area or the entire range of the species is not likely to be compromised.” (PRB FEIS Vol. 2 of 4, pg 4-270). This analysis for the PRB FEIS accurately reflects the impacts to sage-grouse within the proposed leasing area.

The U.S. Forest Service is incorporating the PRB FEIS analysis to complete this process. The analyses within the two FEIS documents provide adequate analysis to address this species. The determination made in the PRB FEIS for sage-grouse is

“local populations may be extirpated in areas of concentrated development, but viability across the Project Area or the entire range of the species is not likely to be compromised.” (PRB FEIS Vol. 2 of 4, pg 4-270). (SIR page 27).

## **PUBLIC INVOLVEMENT**

This decision is directly tied to two environmental impact statements: the *Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project*, January 2003 (PRB FEIS); and, the *Northern Great Plains Final Environmental Impact Statement for the Land and Resource Management Plan 2001 Revisions* (NGP FEIS).

### **Public Involvement in the PRB EIS:**

The Forest Service and the BLM first informed the public of their intent to conduct an environmental impact analysis of oil and gas development in the Powder River Basin during May and June 2000. In May the agencies prepared and mailed 900 copies of a scoping letter that solicited comments to assist the Forest Service and the BLM in identifying the specific issues and concerns the agencies should address in the analysis and document in the EIS.

On June 21, 2000, formal scoping for the analysis began with publication in the *Federal Register* of a Notice of Intent (NOI) to prepare an EIS. The BLM published additional notices in the *Federal Register* to correct mistakes in the first NOI and to invite the public’s participation in the analysis and potential amendments to the Resource Management Plans for Buffalo and Platte River Resource Areas (BLM units).

A news release was sent to more than 60 media outlets (newspapers, radio stations, and television stations) in Wyoming and Montana. This news release announced the intent of the agencies to prepare an EIS and identified times and locations for public meetings. Additionally, several newspapers prepared stories on the project.

In addition to the publications and mailings, the agencies held four public meetings to discuss the proposal and receive comments from the public. The meetings were held in Sheridan, Wyoming on June 6, 2000; Buffalo, Wyoming on June 7, 2000; Gillette, Wyoming on June 8, 2000, and in Douglas, Wyoming, on June 12, 2000. At all meetings the proposal was described and participants were provided opportunity to ask questions and submit comments.

Finally, the Forest Service and the BLM kept the public informed of the status of the analysis through a periodic newsletter and project-specific web site ([www.PRBEIS.org](http://www.PRBEIS.org)). The BLM also included project information on its Wyoming web site. Comments and the response to comments on the Powder River Basin Draft EIS are contained in the PRB FEIS Appendix S.

### **Public Involvement in the NGP EIS:**

Beginning in 1995, the Forest Service began to engage people in discussions about the national forests and national grasslands in the Northern Great Plains and how they should be managed. These discussions centered around the Nebraska National Forest Administrative Unit in South Dakota and Nebraska (Buffalo Gap National Grassland, Ft. Pierre National Grassland, Oglala National Grassland and Nebraska National Forest), the Dakota Prairies National Grasslands

Administrative Unit in North and South Dakota (Little Missouri National Grassland, Sheyenne National Grassland, Grand River National Grassland and Cedar River National Grassland), and the Thunder Basin National Grassland in Wyoming.

In January, 1996 the first issue of the Northern Great Plains plan revision update newsletter, the *Revision Reporter*, was mailed to people and organizations whose names were consolidated from mailing lists of all administrative units involved in the plan revision. It discussed the planning revision strategy, why revision was needed, and encouraged people to provide input to the planning team.

Between February and May 1996, the Forest Service hosted a series of public events including open houses designed to explain the process and encourage participation.

On February 26, 1997, formal public involvement was initiated with an announcement in the *Federal Register* (Notice of Intent) of the Forest Service's intent to prepare an EIS in conjunction with the revision of the management plans. Widely distributed press releases and another series of open houses invited the public to help define the scope of the analysis and to identify public issues associated with these public lands (approximately 2.9 million acres).

This formal process, known as "scoping", resulted in over 3,100 comment documents with about 65% being form letters. Approximately 1,000 comments, specific to the Thunder Basin National Grassland were received. The Forest Supervisor and Forest Planner read each of those comments, and the planning team developed responses to them (see NGP FEIS Appendix A). A six-month public comment period was then initiated on the EIS. Approximately 48,000 people commented during this six-month period. Responses to those comments were addressed in an attachment to the July 2002 ROD for the plan revision.

Based on the extensive public involvement for both the NGP FEIS and the PRB FEIS, and the deferral of the availability decision on lands west of the coal outcrop as referenced in the July 2002 ROD pending the completion of the PRB FEIS, no further public involvement was conducted.

## **ALTERNATIVES CONSIDERED**

Alternatives for both the PRB FEIS and the NGP FEIS are displayed below. The alternatives are described here in general terms. Only major alternative elements are discussed, and the reader is encouraged to review both Chapters 2 and 3 of the respective FEIS for the full scope of the alternatives and their effects.

### **Alternatives Considered in Detail in the PRB FEIS:**

The PRB FEIS proposed action would occur in Wyoming's Powder River Basin, a project area of almost 8 million acres. Only 58,460 acres of the 8 million acre PRB study area are NFS lands. In the PRB FEIS three alternatives were analyzed in detail: (1) Proposed Action, (2) Proposed Action with Reduced Emission Levels and Expanded Produced Water Handling Scenarios, and (3) No Action.

#### **Alternative 1—Proposed Action**

This proposed action forecasted an estimated 51,000 coalbed methane wells and an estimated 3,200 oil wells in the study area over the next 10 years. Of the total number of wells studied in the PRB FEIS up to 540 may be on the 58,460 acres of NFS lands. Various ancillary facilities will be constructed to include access roads, pipelines to gather gas and produced water, electrical utilities, facilities to treat and compress gas and dispose of produced water, and pipelines to deliver gas under high pressure to transmission pipelines. About 25 trillion cubic feet (tcf) of coalbed methane may be recoverable from coal beds in the PRB within Wyoming.

New wells would be developed throughout the 10-year period beginning in 2002, and most drilling would occur during the first 8 years. Not all 51,000 wells would be drilled into a single coal seam. Wells drilled into different coal seams can be co-located on common well pads. The projected number of well pads is 35,589. The 51,000 forecasted coalbed methane wells included an estimated 12,000 existing wells. The production lifetime of the wells was expected to be about 7 years, and final reclamation was expected to be completed during the 2 to 3 years after production ends.

Wells and ancillary facilities would be constructed, operated, and maintained in 10 of the 18 sub-watersheds that make up the project area. However, most of the new wells (63 percent) and facilities would be constructed in two sub-watersheds: the Upper Powder River and Upper Belle Fourche River. Sub-watersheds that would contain relatively high numbers of wells and facilities include Clear Creek, Crazy Woman Creek, Tongue River, and Little Powder River. The wells analyzed in the PRB FEIS on NFS lands west of the coal outcrop are in the Upper Cheyenne River and Antelope Creek sub-watersheds.

Emphasis for water handling for Alternative 1 was untreated surface discharge. All compression would be powered by coalbed methane.

### **Alternative 2–Proposed Action with Reduced Emission Levels and Expanded Produced Water Handling Scenarios**

Alternative 2 proposed the same number of coalbed methane and conventional wells as the proposed action. However, two additional water-handling methods were analyzed: A) emphasis on infiltration and B) emphasis on treatment for beneficial use.

Two air quality options were analyzed: A) 50 percent of booster compression would be electrically powered and B) 100 percent of booster compression would be electrically powered.

### **Alternative 3 – No Action**

This alternative would consist of no new federal wells. Wells would be developed only on state and private mineral ownership.

### **Alternatives Considered in Detail in the NGP FEIS**

Six alternatives were identified in the NGP FEIS. Plan alternatives, including a no action alternative, addressed oil and gas leasing consistent with the overall alternative theme. In the July 2002 ROD Regional Forester Cables selected Alternative 3-Final with modifications and approved the Revised Plan. The ROD also identified the lands available for oil and gas leasing under Alternative 3 Final on a map for the Thunder Basin National Grassland, available under “Maps” on the worldwide web at

<http://www.fs.fed.us/r2/mbr/projects/forestplans/thunderbasin/index.shtml> .

The oil and gas maps (under Alternative 3-Final) show areas larger than 40 acres where certain lease stipulations will be included in new leases. Sensitive resources in areas smaller than 40 acres can be protected, as necessary, under standard lease terms. These lease stipulations were identified in the NGP FEIS and in the Grassland Plan, Appendix D. The reader is encouraged to review both Chapters 2 and 3 of the NGP FEIS for the full scope of the alternatives and their effects as well as the alternative discussion in the July 2002 plan revision ROD.

## **IDENTIFICATION OF THE ENVIRONMENTALLY PREFERRED ALTERNATIVE**

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.”

### **Environmentally Preferred Alternative in the PRB FEIS:**

As identified in the Record of Decision and Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project, April 2003, Alternative 2A (emphasis on infiltration and 50 percent of booster compression would be electrically powered) is the environmentally preferred alternative. Although Alternative 2A may disturb more land than Alternative 1, it is environmentally preferred because of its emphasis on infiltration to reduce or mitigate impacts to water and its emphasis on minimizing effects to air quality and visibility.

### **Environmentally Preferred Alternative in the NGP FEIS:**

The environmentally preferred alternative was identified as Alternative 3 Final in the July 2002 ROD (July 2002 ROD, page 41). Although Alternative 4 would allow the fewest ground-disturbing activities (the traditional measure of the environmentally preferred alternative), 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. 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 Grassland Plan will prevent undesirable and/or unintended outcomes. Alternative 3 Final preserves the historic and natural aspects of the Grassland and provides for high-quality, sustainable resource management. 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. 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**

This decision applies Grassland Plan standards and guidelines and lease stipulations across the 58,460 acres west of the Wyodak coal outcrop line on which leasing decisions had been deferred in the July 2002 ROD. Chapter 3 of the NGP FEIS concludes that modified Alternative 3-Final 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 NGP FEIS. On a January 12, 2001, 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.
- NEPA – Generally, decisions made in revised management plans do not represent actual irreversible or irretrievable commitments of resources. However, any oil and gas leasing lands authorization decision is an exception to the general rule for management plan decisions. This decision does not make a site-specific or project level decision. Although surface disturbances cannot occur on leased land without further analyses and decision-making, issuance of a lease confers certain rights on the lessee and, therefore, represents a commitment of resources. The issuance of a lease is an irreversible commitment of the oil and gas mineral resource. (NGP FEIS, 3-405-406)

Additionally at the time of this ROD, the Forest Service finds this decision also complies with the:

- Energy Policy Act of 2005

## APPEAL OPPORTUNITIES

This decision is subject to appeal pursuant to 36 CFR Part 215. Because the public comment period for this decision was begun in July , 1999 as part of the Northern Great Plains plan revision, this decision is appealable under the November 4, 1993 Appeal regulations. Any written notice of appeal of this decision must be fully consistent with 36 CFR 215.14 “Content of an Appeal,” including reasons for the appeal, and must be filed no later than 45 days following the date of publication of the legal notice of this decision in the *Laramie Daily Boomerang*, Laramie, Wyoming to:

USDA Forest Service  
Region 2-Rocky Mountain Region  
PO Box 25127  
Lakewood, CO 80225-0127  
ATTN: Appeal Deciding Officer

The appellant is responsible for submitting an appeal on or before the last day of the appeal filing period. Where there is a question about timeliness, the U.S. Postal Service postmark on a mailed appeal or the time and date imprint on a facsimile appeal will be used to determine timeliness.

## IMPLEMENTATION

If no appeal is filed, implementation of this decision may occur on, but not before, 5 business days from the close of the appeal filing period. If an appeal is received, implementation may not occur for 15 days following the date of the appeal disposition.

**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 the decision in this ROD, I have made the 58,460 acres of the TBNG west of the coal outcrop available for leasing with a variety of lease stipulations to protect surface resources (Grassland Plan, Appendix D). The new stipulations do not apply to existing leases.

Copies of the environmental analyses cited in this decision are available for public review at the Forest Supervisor’s Office, Medicine Bow-Routt National Forests and Thunder Basin National Grassland, 2468 Jackson Street, Laramie, WY 82070. Please direct questions about this decision to Misty Hays, Deputy District Ranger, Douglas Ranger District at (307) 358-4690.

Record of Decision  
Thunder Basin National Grassland  
Oil and Gas Leasing-West of Wyodak Coal Outcrop

## **SIGNATURE**

/s/ Mary H. Peterson

MARY H. PETERSON

Forest Supervisor

8/2/06

DATE