

1. PURPOSE AND NEED

1.1 INTRODUCTION

In many parts of the United States, National Forest System lands overlie geological formations that contain oil and/or natural gas. "Leases" are issued under the mineral leasing laws on many lands for the purpose of drilling exploratory and production wells and extracting oil and/or gas. The mission of the Forest Service in relation to minerals management is to support, facilitate, and administer the orderly exploration, development, and production of mineral and energy resources on National Forest System lands to help meet the present and future needs of the Nation (Mining and Minerals Policy Act [1970] and Forest Service Manual (FSM 2802). In addition, the goal of the Custer National Forest and Grasslands Land and Resource Management Plan (hereafter referenced to as the Forest Plan) as it relates to minerals management on the Forest, is to be responsive to the National demand for energy and strategic minerals consistent with other resource objectives (Forest Plan p. 3).

The United States Department of Agriculture, Forest Service (FS), Custer National Forest (CNF), in cooperation with the United States Department of the Interior, Bureau of Land Management (BLM), North Dakota field office, is conducting an environmental analysis with the intent of identifying federal lands with federal mineral rights and determining whether or not they should be made available for lease for oil and gas exploration, development, and production (oil and gas activities as described in Appendix C). This analysis is being conducted on certain areas of the Sioux Ranger District of the Custer National Forest within the State of South Dakota as shown in Figure 1-1. The Forest Service is the manager of the surface resources on National Forest System lands and BLM is the manager of federal subsurface minerals.

This analysis is being conducted in accordance with the National Environmental Policy Act of 1969 (NEPA) to identify and assess potentially significant environmental impacts and address issues associated with leasing.

1.2 GENERAL BACKGROUND: LEGISLATION AND POLICY

Leasable public domain minerals (those that have never passed out of federal ownership) are leased under authority of the Mineral Leasing Act of 1920, as amended. Acquired minerals (those that were re-acquired by the federal government) are leased under the authority of the 1947 Mineral Leasing Act for Acquired Lands, as amended.

The Mineral Leasing Act of 1920, as amended, provides that all public lands are open to oil and gas leasing, unless a specific land order has been issued to close an area. Prior to 1987, to lease a parcel of land administered by the Forest Service, Department of Agriculture, a request would be submitted to the BLM, Department of Interior. The Forest Service would be asked for a recommendation regarding the offering of a lease tract and appropriate stipulations to protect the surface resources. However, the primary authority and responsibility for determinations regarding leasing remained with the Secretary of the Interior and the BLM.

In 1987, Congress passed the federal Onshore Oil and Gas Leasing Reform Act (Leasing Reform Act). This resulted in modifying the authorities of the Secretary of the Interior and Secretary of Agriculture by increasing the role of the Forest Service in the leasing process. The Leasing Reform Act gave the Forest Service approval authority for leasing public domain minerals on National Forest Systems lands. The Act changed the analysis process from “responsive,” reacting to an application, to “proactive,” analyzing lands for leasing and then offering them for lease through competitive bidding. Subsequently, the Forest Service developed new regulations in March of 1990 (36 CFR Parts 228) to implement the Leasing Reform Act, and to provide guidance for oil and gas leasing and surface-use management on National Forest System land.

The Leasing Reform Act also established a statutory requirement for processing the Surface Use Plan of Operation (SUPO) prior to ground-disturbing activities. This established a staged decision process for sale of a lease and approval of an Application for a Permit to Drill (APD). That is, before a lessee can drill an exploratory well or extract oil or gas from National Forest System lands, the Forest Service must first identify available lands and authorize sale of a lease. At a later time, when a lessee submits an APD, the Forest Service must approve or disapprove a detailed Surface Use Plan of Operations. The lease decision is an environmental analysis in accord with the requirements of the National Environmental Policy Act (NEPA, 40 CFR part 1500-1508) that identifies stipulations needed to protect the environment. The approval of drilling is also based on additional environmental analysis in accord with NEPA, which is specific to the proposed APD and SUPO.

The Leasing Reform Act and the implementing regulations resulted in the establishment of a "staged" decision process designed to accommodate the tentative nature of oil and gas exploration and development, which is very speculative and costly. The stages include decisions on:

- Lands available for leasing
- Whether or not to lease specific lands
- Surface Use Plan of Operations (SUPO) connected with the Application for Permit to Drill (APD)
- Field development if oil or gas is discovered.

Each decision is based on environmental analysis and disclosure of the probable effects in accordance with NEPA. ***This environmental analysis and DEIS addresses only the first two of the four decision stages for National Forest System lands on the Custer National Forest.*** If CNF lands were leased, decisions for stages three and four would be based on site-specific environmental analyses to be conducted after the required SUPOs and APDs are received. The staged decision process is described in detail in Appendix A.

1.3 PURPOSE OF THIS DEIS

The purpose of this DEIS is to disclose the environmental effects of alternative leasing scenarios the Forest Supervisor is considering for managing the oil and gas resources on portions of the Sioux Ranger District. This analysis and Final EIS will also implement the authorities and responsibilities granted to the Forest Service by the Leasing Reform Act and meet the federal regulatory requirements of 36 CFR 228, Subpart E.

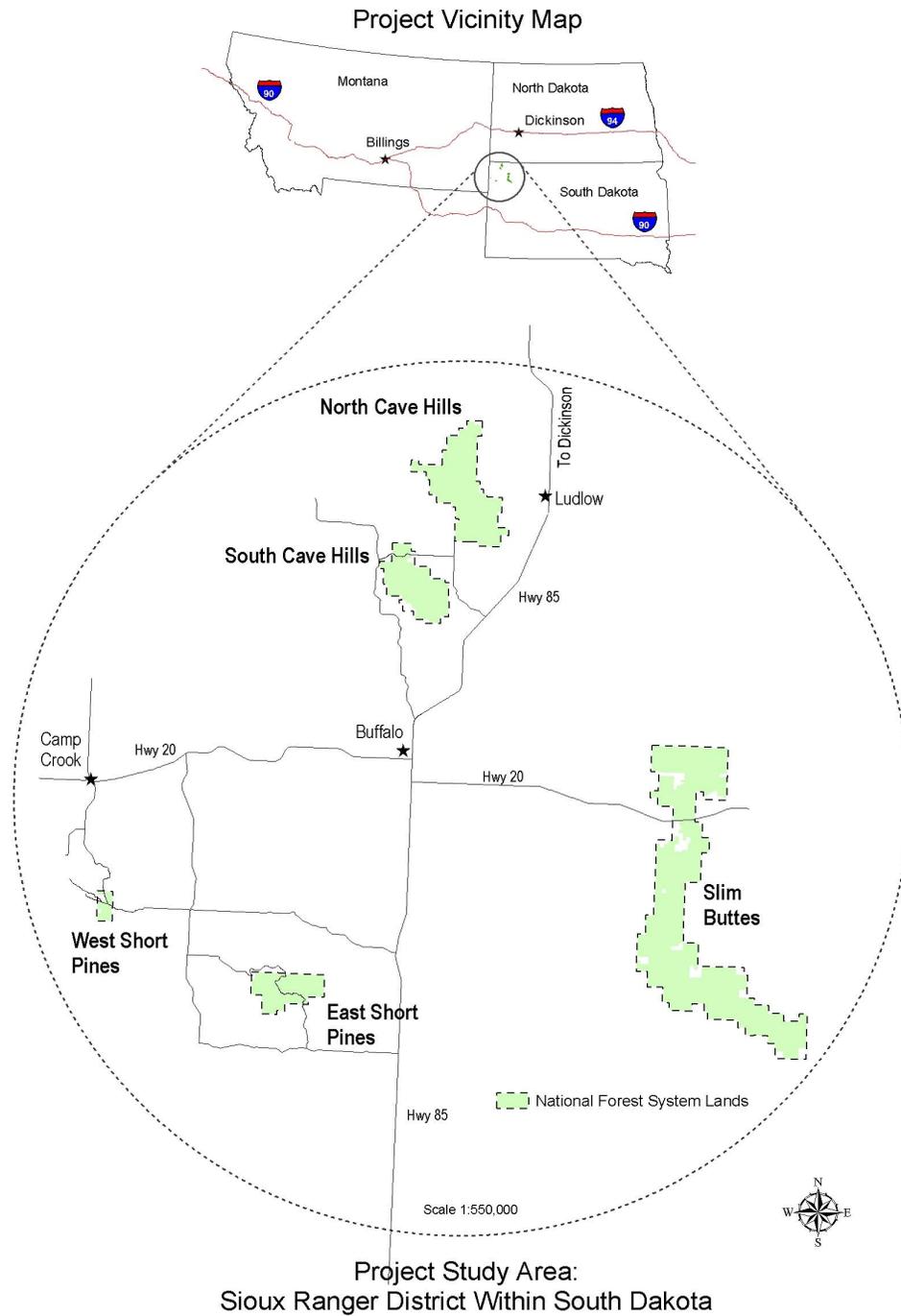


Figure 1-1. Location of Portions of the Sioux Ranger District Being Considered for Oil & Gas Leasing

This DEIS describes:

- the environmental issues and concerns related to the proposed leasing action;
- the potentially affected environment;
- reasonable alternative leasing scenarios;
- mitigating lease stipulations to be applied for each alternative; and
- the direct, indirect, and cumulative environmental consequences of these alternatives.

This DEIS describes and explains the leasing decisions the Forest Supervisor will make. It explains how the Forest Supervisor and the State Director of the BLM would implement any decision, if made, to authorize and sell leases and how future decisions may be made to issue permits to drill and develop fields of oil and gas.

1.4 SUMMARY OF EVENTS AND DECISIONS PRECEDING THIS DEIS

The following is a chronological list of Events and Decisions preceding this DEIS. They are provided here to assist the reader in understanding the legal and policy framework within which the Forest Service must use for the analysis.

1920 - Mineral Leasing Act (as amended)—This Act provides that all public lands are open to oil and gas leasing, unless a specific land order has been issued to close an area. The primary authority and responsibility for determinations regarding leasing remained with the Secretary of the Interior and the BLM.

1947 - Mineral Leasing Act for Acquired Lands—Provides that certain minerals owned by the United States, which are on lands acquired by the United States, may be leased by the Secretary of Interior under the provisions of the mineral leasing laws.

1960 - Multiple Use - Sustained Yield Act (16 USC 528)—This Act establishes the legal mandate that the National Forests are to be administered for outdoor recreation, range, timber, watershed, and wildlife and fish purposes. It further states that management of National Forest System lands shall not affect the use or administration of the mineral resources in these lands.

1966 - National Historic Preservation Act (NHPA)—The National Historic Preservation Act is Public Law 89-665, 80 Stat. 915 (16 USC 470) as amended. Section 106 of the Act requires a Federal agency planning an undertaking to consider the effects of the action on cultural resources eligible for, or listed on, the National Register of Historic Places. Prior to approval of the undertaking, the agency must afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on the undertaking.

1969 - National Environmental Policy Act (NEPA)—Establishes environmental policy for the Nation. Among other items, NEPA requires federal agencies to consider environmental values in decision-making processes.

1973 - The Endangered Species Act of 1973, as amended (16 USC 1531)—This law requires special protection and management for threatened and endangered species on federal lands. The U.S. Fish and Wildlife Service (USFWS), U.S. Department of the Interior, and the National Marine Fisheries Service (NMFS), Department of Commerce are responsible for administration of

this Act. Federal agencies proposing an action or processing an action by a third party that “may affect” identified species must consult with USFWS to determine if the proposed action will jeopardize the continued existence of those species.

1976 - Federal Land Policy and Management Act (FLPMA) (41 USC 1714)—This law authorizes the Secretary of the Department of the Interior to withdraw public lands from entry under the mineral leasing laws. However, on withdrawals of 5,000 acres or more, the Secretary must notify both Houses of Congress of the proposed withdrawal; Congress then has 90 days to nullify that action.

1976 - National Forest Management Act (NFMA)—Each administrative unit of the National Forest System is required by the National Forest Management Act (NFMA) to prepare a Land and Resource Management Plan (Forest Plan). A forest plan provides direction to assure coordination of multiple uses (recreation, range, timber, minerals, watersheds, wildlife and fish) and a sustained yield of products and services. Each forest plan is adjustable through monitoring and evaluation, amendment, and revision.

Approval of a forest plan results in:

- Establishment of forest multiple-use goals and objectives
- Establishment of forest-wide management requirements (standards and guidelines)
- Establishment of management areas and management area direction
- Designation of suitable timber land and establishment of allowable sale quantity
- Recommendations for designation of eligible lands as Wilderness or other special areas
- Establishment of monitoring and evaluation requirements.

Coupled with the laws and regulations that apply to the project level, a forest plan provides a management system for future decision making. Projects and activities are proposed, analyzed, and carried out within the framework of the plan.

1976 - Archaeological Resources Protection Act (ARPA)—The purpose of ARPA (1976) (P.L. 96-96; Implementing Regulations at 36 CFR 296) is “to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites which are on public lands and Indian lands.” ARPA provides for federal agencies to issue permits for scientific excavation by qualified archaeologists. ARPA permits on Indian reservation or trust lands require tribal council consent. ARPA also establishes stringent fines and extended prison sentences for anyone removing artifacts from public lands without an ARPA permit.

1978 - American Indian Religious Freedom Act (AIRFA)—AIRFA (P.L. 95-341) states that it is the policy of the United States to protect American Indians’ right to believe, express and exercise their traditional religions, including but not limited to “access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.” AIRFA reaffirms the responsibility of federal agencies to evaluate their policies and procedures with the aim of avoiding infringements on Native American religious freedom, and to make a good faith effort to consult with Native Americans about protecting their religious

cultural rites and practices and maintaining their access to sites with traditional cultural and spiritual significance.

1980 - The National Materials and Minerals Policy Research and Development Act (30 USC 1601)—This Act states the current federal policy regarding oil and gas exploration and development. It says that private enterprise is to be encouraged to develop domestic mineral resources and that federal agencies are to facilitate availability and development of domestic resources. It also emphasizes prompt reclamation of disturbed lands.

1980 - The Energy Security Act of 1980 (42 USC 8855)—This law directs the FS to proceed in making recommendations to the BLM regarding leasing proposals on National Forest System lands. Applications for geophysical survey permits must also be processed promptly. The FS may not wait for the Forest Land and Management Plans to be completed before acting upon applications for oil and gas leases.

1987 - Approval of the CNF and Grasslands Forest Plan—The Forest Plan for the Custer National Forest and Grasslands was approved in October 1986. This long-range, integrated land and resource management plan provides for integrated guidance for all natural resource management activities as required by the National Forest Management Act of 1976 (NFMA).

CNF and Grasslands Forest Plan, Amendment No. 1 – replaced the Limited Surface Use stipulation with Controlled Surface Use and/or No Surface Occupancy.

1987 - Federal Onshore Oil and Gas Leasing Reform Act—The BLM issues all leases for the production of federally owned oil and gas. Prior to the Leasing Reform Act of 1987, the Forest Service's authority regarding oil and gas leases issued on National Forest System lands was varied, and in most cases, the Forest Service only made non-binding recommendations to the BLM. Under the Leasing Reform Act, the Forest Service's decision to lease with certain stipulations, or not to lease, is binding with the BLM for all federal minerals on National Forest System lands. The 36 CFR 228 regulations, issued in April 1990, established the new process for making oil and gas leasing decisions in accordance with the Leasing Reform Act.

1988 - Cave Resources Protection Act (16 U.S.C. 4301 et seq.; 102 Stat. 4546)—Public Law 100-691 was enacted by Congress in 1988 to secure, protect, and preserve significant caves on federal lands for the perpetual use, enjoyment, and benefit of the public. This statute protects caves in National Parks, National Forests, BLM land, and other lands administered by the Departments of Agriculture and Interior.

1990 – Native American Graves Protection and Repatriation Act (PL 101-601)—NAGPRA provides protection for Native American graves and associated cultural items, and provides provisions for consultation with affiliated Native Americans when archeological sites are encountered. NAGPRA also requires federal agencies and museums receiving federal funds to inventory and develop written summaries for collections of human remains, funerary objects, sacred objects, and objects of cultural patrimony. Requests for repatriation of those remains or objects may be made by federally recognized Indian Tribes.

April 1990 - 36 CFR 228E Regulations—These regulations prescribe methods by which the Forest Service will make decisions with regard to oil and gas leases and subsequent management of oil and gas operations on National Forest System lands. These regulations lay out the process

for determining lands administratively available for leasing, including the designation of stipulations and the projection and analysis of post-leasing activity. (Refer to Appendix A, Lease Decision Issuing Process.) The regulations describe the Forest Service process for authorizing the BLM to offer leases for sale.

May 1990 - Forest Service Resource Planning Act Long Term Strategic Plan—The Resource Planning Act (RPA) program provides general policy guidance at the National level based on a five-decade projection into the future. The Forest Service has defined nine roles in its basic National strategic plan. Multiple-use management, contributions to rural development, and management in situations of mixed ownership situations are three of those roles. The issue of minerals development is described in the 1990 RPA document as:

The mineral resources within the National Forest System significantly affect the economic well-being of local communities and the strategic defense of the Nation. The public is concerned about the effects of minerals development on other resource values and on the environment.

In the RPA document, the long-term strategy for minerals is to meet most demands for access to explore and develop mineral resources, except when doing so would pose unacceptably high risks to other resources.

November 1991 – Interagency Agreement Between the Forest Service and the Bureau of Land Management for Oil and Gas Leasing—The Interagency Agreement promotes timely and effective compliance with the statutory and regulatory responsibilities of both agencies. Both agencies agree that the analysis conducted by the Forest Service for authorizing leasing should ensure an adequate environmental basis for all decisions to be made by the FS or the BLM with respect to offering NFS lands for lease. Within the external boundaries of NFS units, split estate lands (private surface/federal minerals) are to be included in the leasing analysis performed for NFS lands.

1996 – Sacred Lands Executive Order—Executive Order 13007, signed by President Clinton in 1996, mandates that federal agencies protect and accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners of federally recognized tribes. EO 13007 affirms that federal agencies should give reasonable notice of proposed actions or land management policies that may restrict future access to, or ceremonial use of, or may adversely affect the physical integrity of, sacred sites.

1999 - National Natural Landmark Act, as revised (16 USC 461-467)—The goal of this program is to identify, recognize, and encourage the protection of sites containing the best remaining examples of ecological and geological components of the nation's landscape. This program was established by the Secretary of the Interior in 1962, under authority of the Historic Sites Act of 1935, and is administered by the National Park Service. The revised National Natural Landmark Program Regulations, 36 CFR, Part 62, were published in the Federal Register on May 12, 1999.

January 2001 - Roadless Area Conservation Rule—With certain exceptions, this rule prohibits new road construction or reconstruction in inventoried roadless areas on NFS lands. This rule was to become effective on March 13, 2001. The Bush Administration delayed the

effective date of this rule until May 12, 2001. Due to subsequent court actions, the status and effective date of the rule is unknown.

1.5 PROPOSED ACTION - DECISIONS TO BE MADE

The Forest Service and BLM propose to make several decisions related to issuing new leases. This DEIS summarizes alternative scenarios concerning oil and gas leasing on certain portions of the Sioux Ranger District on the Custer National Forest. The Forest Service and the BLM, federal agencies that have separate responsibilities for lands within the Custer National Forest, will make the following decisions and recommendations:

1. The Forest Supervisor of the Custer National Forest will decide, within those designated portions of the Sioux Ranger District within South Dakota, which, if any, National Forest System lands with federal mineral ownership are administratively available for oil and gas leasing and under what conditions (lease stipulations, 36 CFR 228.102 (d)).
2. The Forest Supervisor of the Custer National Forest will decide which, if any, of the lands determined available to specifically recommend for leasing to BLM, subject to Forest Service stipulations to be attached to leases issued (36 CFR 228.102 (e)).
3. The Forest Service will amend the Custer Land and Resources Management Plan (Forest Plan) if, and as necessary, to incorporate the leasing decisions.
4. Subsequently, the BLM will decide whether or not to offer leases for the specific lands recommended by the Forest Service. The BLM will make a decision on non-federal lands with federal mineral ownership (split estate lands).

1.5.1 NEED FOR THE PROPOSAL AND THE NEED TO MAKE THESE DECISIONS

The CNF Forest Supervisor and BLM State Director need to make oil and gas leasing decisions in order to:

1. Address outstanding requests (applications) for leases;
2. Implement authorities and responsibilities granted by the Federal Onshore Oil and Gas Leasing Reform Act;
3. Comply with the Implementing Regulations 36 CFR 228 (see section 1.5.1.2 below);
4. Generate information for making decisions regarding lands currently leased; and
5. Address any additional current and future requests for leases.

Each of these needs is discussed below.

1.5.1.1 Outstanding Applications For Leases

The Custer National Forest currently has 51,000 acres nominated to lease. CNF needs to determine which of these lands are available and specifically recommended for leasing, and which, if any, of the outstanding requests to authorize for leasing. Upon completion of the Final EIS and Record of Decision (ROD), these lease requests will be acted upon.

1.5.1.2 Federal Onshore Oil and Gas Leasing Reform Act

In 1987, Congress passed the Federal Onshore Oil and Gas Leasing Reform Act (P.L. 100-203). The Leasing Reform Act made substantial changes in the way leasing decisions are reached. The Act expanded the role of the Secretary of Agriculture in the leasing decision process.

1.5.1.3 Implementing Regulations 36 CFR 228

Section 228.102 (b) of the Code of Federal Regulations (CFR), Title 36 requires the Forest Supervisor to develop a schedule for conducting oil and gas leasing analysis and 228.102 (c) identifies the requirement of the analysis. The Forest Service has identified the Custer National Forest as a high national priority for completion of this leasing analysis.

1.5.1.4 Decisions For Lands Currently Leased

Currently, there are five existing oil and gas leases in the project area, covering 4,440 acres. There are four producing wells and one well currently being rehabilitated. Current leased lands are included in the analysis so that when any existing lease terminates, the decision has been made whether or not to offer the land for lease again and the required lease stipulations will be known. It is possible that currently leased lands would not be available for lease or would be available with stipulations applied that are not in the current leases.

1.5.1.5 Additional Requests for Leases

The Forest Supervisor may receive additional requests for leases based on past experience and the potential for yielding oil and gas on Custer National Forest. Additional requests will be evaluated in the context of the Final EIS and Record of Decision (ROD).

1.5.2 WHAT THESE DECISIONS CAN AND CANNOT DO

The first decision will address whether lands are "available" or "not available" to lease, and if so, with what stipulations. Once the decision is made regarding availability, then a decision is made whether to lease or not to lease those lands that were determined to be available. Graphically, the decisions look something like the process depicted in Figure 1-2 on the following page. The legal and regulatory authority of the Forest Service and the BLM limits the application of these decisions. These limits determine what the final decisions can and cannot do in several circumstances.

The decisions **CAN** determine the management of federal lands. These decisions **CANNOT** be applied to non-federal minerals owned by private, state, and/or local entities. The Custer National Forest has private lands within its boundaries. In some cases, the mineral rights on the private lands are in private ownership, and in other cases, they are owned by the federal government. Likewise, some of the federal lands have federal mineral rights and some have private mineral rights. These decisions **ONLY** apply to federal lands with federal minerals. They can, however, be used as recommendations for other lands because the Forest Service can request reasonable stipulations be applied to federal lands with non-federal minerals. The surface ownership is displayed on the maps in the accompanying map packet.

The decision **CAN** result in limitations on the rights granted in future federal leases. However, 4,440 acres are already leased and any new requirements must be consistent with the existing lease rights and applicable laws and regulations. Although existing lessees may be willing to voluntarily make changes, the leases they hold do not require them to do so.

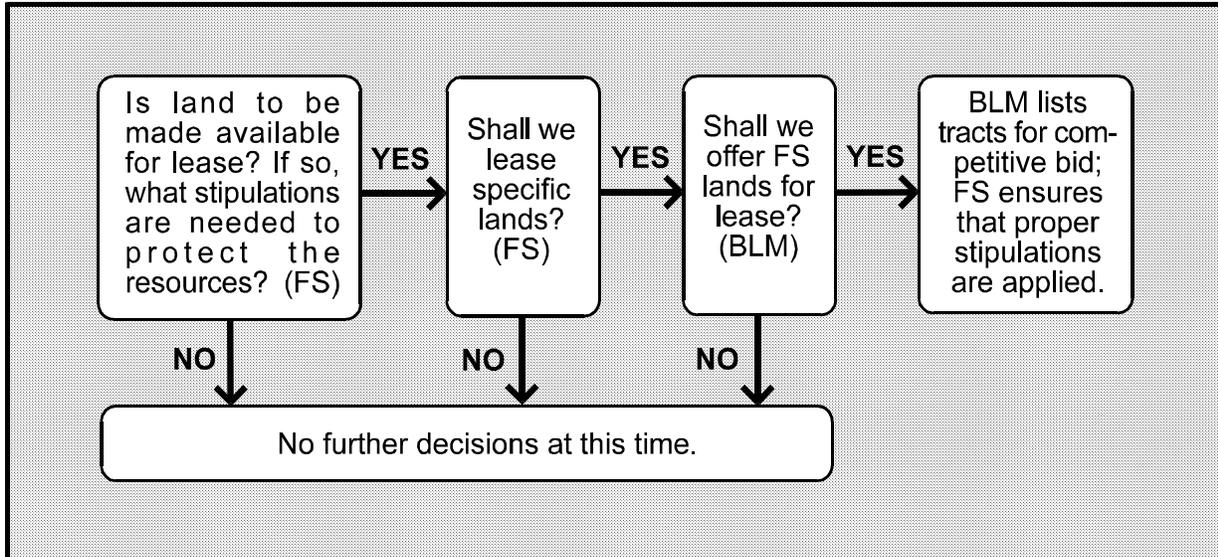


Figure1-2. Oil and Gas Leasing Decision Process

The decision **CAN** provide surface resource protection on federal lands. It **CANNOT** preserve federal or non-federal oil and gas deposits for the future. Regardless of any decision made in this document, oil and gas operators could be able to access non-federal deposits. In doing so, they may drain federal deposits.

The leasing decision for specific lands made subsequent to this DEIS will remain in effect until significant new information or circumstances cause the existing environmental analysis to be out of date, at which time the BLM will be notified and the lands will be scheduled for a new leasing analysis.

A series of statutes including the Leasing Reform Act establishes and defines the authority of the Forest Service and BLM to make these decisions.

Issuance of a lease has been determined to constitute the point of "irreversible and irretrievable commitment of resources" that requires NEPA analysis and disclosure. This DEIS is intended to provide that analysis for the lands within the project area. Any stipulations intended to mitigate effects on surface resources beyond that required by the standard lease terms must be attached to the lease at the time it is issued. A lease confers to the lessee the right to drill and operate somewhere on that lease. Consequently, the identification of stipulations in the determination of administratively available lands is of utmost importance in this DEIS.

1.5.3 SCOPE OF THE PROPOSED ACTION

The scope of the proposed action being considered is both geographic and administrative as described below.

1.5.3.1 Geographic Scope

The geographic scope involves the lands directly, indirectly, and cumulatively affected by the actions being considered.

Lands Involved in the Analysis

The area involved in this leasing analysis is all within the Custer National Forest, Sioux Ranger District, in Harding County, South Dakota (Figure 1-1). There are approximately 77,805 acres within the project area, of which 63,940 acres, or 82 percent, are federal minerals proposed for leasing.

The Sioux oil and gas leasing project area lies at the divides for tributaries draining into the Little Missouri, Grand, and Moreau Rivers in the northwest corner of South Dakota. The project area consists of five discrete land units: North and South Cave Hills, Slim Buttes, and West and East Short Pine Hills. The five land units lie within an area bounded to the north by the North/South Dakota state line, to the west by the Montana/South Dakota state line, to the east by the Harding County line, and to the south by the township line between Townships 15 and 16. Each land unit has its own National Forest administrative boundary, and all lie within Harding County, South Dakota.

Ownership patterns within the project area are fairly simple. National Forest System lands are entirely contained within the administrative bounds of the Custer National Forest. There are no acquired lands within the project area. There are 72 hectares (180 acres) of federal surface overlaying private mineral estates, and 76 hectares (190 acres) of private lands overlaying the federal mineral estate. There are 1,664 hectares (4,120) acres of private surface/private minerals within the project area.

1.5.3.2 Administrative Scope

The decisions to be made in this DEIS are the actions described earlier in this section, under *Proposed Actions - Decisions to be Made*. The analysis of specific federal minerals in the DEIS includes all lands in the study area whether leased or not. The decision will include all land with federal minerals, although the decision cannot be implemented on some lands until current leases expire, terminate, or are relinquished.

Connected and Cumulative Actions

The scope of this DEIS includes the effects of connected actions and cumulative actions. Connected actions are those actions that are (1) closely related to the proposed action and automatically triggered by the proposed action, (2) cannot or will not proceed unless other actions are taken previously or simultaneously, or (3) are interdependent parts of a larger action and depend on the larger action for their justification (40 CFR 1508.25). Cumulative actions are actions that, when viewed with other past, present, and reasonably foreseeable actions (such as road building, wildlife improvements, etc.), may have cumulatively significant impacts. (40 CFR 1508.25.)

The authorization of a lease grants rights to explore for and develop oil and gas within the terms and stipulations of the lease. The exercise of these rights results in implementation of connected actions. However, lease authorization implies that oil and gas development may take place at a future time with identified restrictions. Federal regulation 36 CFR 228.102 (c)(4) directs the Forest

Service to consider the subsequent actions that would be authorized by a lease as connected actions, associated with review and approval of the APD and other associated plans of operation. These actions also meet the definition of connected actions in the procedural requirements for NEPA (40 CFR 1502).

These expected actions are the basis of the environmental analysis from which the leasing decisions will be made. The decision on which lands will be made administratively available, and the subsequent decision authorizing leases, are based upon analysis of the likely environmental effects of the connected actions.

Connected actions are being considered under each alternative in this DEIS. In this context, connected actions include the post-leasing approval of Surface Use Plans of Operation, and issuance of Rights-of-Way authorizations for off-lease activities needed to support oil and gas exploration, development, and production on lease. These actions may authorize or result in other activities such as drilling and construction of production facilities, roads, and pipelines as discussed in Appendices C and D.

As discussed in Section 1.7 on the federal management of oil and gas activities later in this chapter, there are three stages in the process that require additional permitting for actions related to oil and gas leasing. These include the issuance of permits for exploratory drilling and field development. The process for issuance of these site-specific permits requires completion of additional NEPA analyses. The NEPA analysis required would complement the analysis presented in this document. The analysis summarized in this DEIS is key to determining which lands would be administratively available and under which stipulations, including determining those specific parcels that would be designated with a stipulation for No Surface Occupancy (NSO).

Forest Plan Context

Management of each administrative unit of the National Forest System is governed by a Land and Resource Management Plan (Forest Plan). Most of the existing Forest Plans include general decisions, as part of management prescriptions, to provide for oil and gas leasing, but do not include decisions for leasing specific lands. Prior to the passage of the Leasing Reform Act and except for acquired lands, the Forest Service had no authority to make decisions related to issuing or not issuing oil and gas leases on National Forest System lands. Recommendations were given to the BLM and the BLM had the decision authority. Most of the Forest Plan NEPA analyses, which predate the Leasing Reform Act, do not fully meet the intent of the regulations to make site-specific leasing decisions. This analysis process is discussed in more detail in Appendix A. Decisions the Forest Supervisor will make, including availability, will be used to develop an amendment to the Forest Plan (refer to Forest Manuals and Handbooks for Plan Amendment Process).

1.6 REASONABLY FORESEEABLE DEVELOPMENT (RFD) SCENARIO

In order to analyze the environmental effects that could occur as a result of alternative leasing scenarios, hypothetical projections of the kind and amount of activity that could be reasonably anticipated were made. Federal regulations 36 CFR 228.102 (c) (3 and 4) require the Forest Service to “project the type / amount of post-leasing activity that is reasonably foreseeable as a consequence of conducting a leasing program.” These are the activities that would generate physical / biological and social / economic effects.

The Reasonably Foreseeable Development Scenario (RFD) for oil and gas development in the project area was developed using historical oil and gas development information, geologic information and interpretation, and projected market trends. It must be recognized that future exploration and development may not occur as predicted in the RFD and that the RFD only provides a reasonable basis for analyzing potential subsequent activities and associated effects (refer to Appendix D for a summary discussion and presentation of the RFD). The RFD as developed is unconstrained by any other resource considerations.

Oil and gas specialists from the USDA Forest Service Region One and the BLM North Dakota Field Office worked together to develop projections of how much oil and gas activities are most likely to take place on the Forest. Some of the new wells forecast in the RFD will occur on lands currently leased or leases held by production. Producing wells continue to hold these leases in place until production ceases.

The results of the RFD analysis are presented in Chapter 2 for each alternative considered in detail. See Appendix D for additional details regarding the RFD.

1.7 FEDERAL MANAGEMENT OF LEASES AND DEVELOPMENT

This section summarizes more detailed information contained in Appendices A and B of this DEIS. The BLM is responsible for issuing oil and gas leases on federal lands and on private lands for which the federal government retains mineral rights. The BLM cannot issue leases for lands administered by the Forest Service without consent from the Secretary of Agriculture. The Mineral Leasing Act of 1920, as amended, and the Mineral Leasing Act of 1947 for acquired lands, provide the legislative authority for federal oil and gas leasing. Title 43 CFR 3100 provides the regulatory basis for the BLM to administer federal oil and gas leasing. Title 36 CFR 228, Subpart E, provides direction to the Forest Service to administer and regulate surface uses and leases on National Forest System lands.

In areas where exploration and development of oil and gas resources would conflict with the protection or management of other resources or public land uses, the NEPA process identifies measures to mitigate impacts. These mitigation measures are usually applied as lease stipulations, which restrict how operations are conducted or where they can be located.

1.7.1 LEASE TYPES

Competitive and noncompetitive leases may be obtained for oil and gas exploration and development on lands managed by the federal government. The Leasing Reform Act of 1987 requires that all public lands available for oil and gas leasing be offered first by competitive leasing at an oral auction. Noncompetitive oil and gas leases may be issued only after no competitive bids have been received for public lands. Competitive and noncompetitive leases are issued for a period of 10 years. Both types of leases are extended for the duration they are producing oil and gas in paying quantities. The maximum competitive lease sizes are 2,560 acres in the lower 48 states and 5,760 acres in Alaska. The maximum noncompetitive lease size is 10,240 acres in all states. Refer to Appendix A for a more detailed discussion of the competitive and noncompetitive leasing process.

1.7.2 LEASE RESTRICTIONS

Lease restrictions provide a means to mitigate potentially significant impacts. These restrictions take the form of either Standard Lease Terms or Special Lease Stipulations as described below:

1.7.2.1 Standard Lease Terms and Conditions (SLTs)

The standard lease terms are contained in BLM Lease Form 3100-11, *Offer to Lease and Lease for Oil and Gas* (Appendix B). As a minimum, all leases must contain standard lease terms. Under the standard lease terms, the lessee has the right to use as much of the leased lands as is necessary to explore or drill for, extract, remove, and dispose of oil and gas deposits that may be in the leased lands, together with the right to build and maintain necessary improvements thereon. Section 6 of the standard lease form requires the operator to conduct operations in a manner that minimizes adverse impacts to surface resources and other land uses. The federal lessor has the authority to require modifications in the siting and design of facilities, control the rate of development and the timing of activities, as well as to require other mitigation measures to protect threatened, endangered, proposed, and sensitive species, or objects of historic or scientific interest. The lessor can also require relocation of proposed operations by up to 200 meters, and impose timing limitations of up to 60 days, as well as other mitigation described in Appendix B.

1.7.2.2 Supplemental Stipulations

Forest Plan standards and guides will be adhered to during implementation of all of the alternatives. To the extent an alternative is not consistent with the Forest Plan it will require a Forest Plan amendment to implement. Mitigation is employed in three key areas. First, as noted above, standard lease terms of BLM Lease Form 3100-11 (Appendix B), 43 CFR 3100, and 36 CFR 228E, contain basic mitigation measures to protect the environment. Second, at the lease-issuance stage, special stipulations may be added to protect specific resource values. These stipulations are provisions that modify standard lease terms and are attached to and made a part of the lease. Special geographically locatable stipulations to mitigate potentially significant impacts are a key topic of this DEIS. The categories of lease stipulations addressed in this DEIS include:

- No Surface Occupancy (NSO)
- Controlled Surface Use (CSU) and
- Timing Limitation (TL).

Each of these stipulation categories is discussed further below.

Finally, at the APD stage, additional site-specific mitigation measures may be required or incorporated through negotiations with the applicant to protect site-specific resources identified. Additional mitigation measures may be required or negotiated at the APD stage as a result of on-the-ground examination and NEPA analysis. Conditions of Approval (COA) can be required if they are within the terms of the lease and negotiated if they are outside the terms of the lease. These are determined on a site-specific, case-by-case basis. Any post-lease mitigation applied may not change the intent or terms of the lease or impose undue constraint upon the operator.

No Surface Occupancy (NSO)

This stipulation is intended for use only when other stipulations are determined to be insufficient to adequately protect the resource values. NSO is not needed if the desired protection could be

accomplished by relocating proposed operations 200 meters or less as allowed under Standard Lease Terms (43 CFR 3101.1-2). Generally, the Forest Plan Management Standards will preclude access and construction of other resource facilities in areas that require an NSO stipulation. An example of NSO might be no surface occupancy on slopes over 40 percent.

Controlled Surface Use (CSU)

The CSU stipulation is intended to be used when surface occupancy and use are allowed on all or portions of the lease area year-round, but because of special resource concerns or values, lease activities must be strictly controlled. It would be used in areas where restrictions or controls are necessary for specific types of activities rather than all activities, and applies to development as well as production phases. An example of CSU would be in areas that are designated Visual Quality Objective “retention” or “partial retention,” to require facilities and operations to be painted or screened by natural features to meet the scenic objectives.

Timing Limitation (TL)

Standard Lease Terms allow for prohibition of new surface-disturbing operations for periods of up to 60 days. The TL stipulation limits surface use and occupancy for oil and gas exploration and development activities for a period of time greater than 60 days and applies to all on-lease drilling and construction-related activities. It is intended to provide additional protection in areas that may have important seasonal use, such as raptor nest sites and recreation use areas. An example of a TL would be prohibition of activities during a species’ mating season (if longer than 60 days).

1.7.3 STAGED DECISION PROCESS

Following are descriptions of the various stages of oil and gas leasing on National Forest system lands.

1.7.3.1 Lands Available for Lease Decision (36 CFR 228.102(d))

The decision regarding lands available for leasing is based on disclosure and analysis provided in a "Leasing Analysis." This DEIS has been prepared to satisfy the requirements of NEPA for the Leasing Analysis. The decision will identify which, if any, lands will be available for leasing. The Forest Plan will be amended, if necessary, at the same time so that the decisions made on the basis of the Final EIS will be consistent with the Forest Plan.

The Forest Supervisor will decide which lands to make available for leasing, and what stipulations to apply should those lands be leased. The decision to lease or not lease land areas will be made. When making the land availability decision, the Forest Supervisor will look at all legally available land. The time period the decision will be in effect, and processes for review, revision, implementation, and monitoring will be identified.

The decision to make land available for leasing is based on knowledge of the lands and natural resources and knowledge of the standard lease terms and stipulations necessary to protect those lands and resources. This information was reviewed to determine whether or not any given area could be authorized for lease. The RFD-projected activities were used to determine the direct, indirect, and cumulative effects of leasing, and to determine how much, and where, land could be leased should leasing occur.

1.7.3.2 Leasing Decisions for Specific Lands (36 CFR 228.102(e))

The Leasing Reform Act also provides for consent by the Forest Service for the issuance of oil and gas leases for specific lands. The regulations implementing the Leasing Reform Act require the following before consent can be given for leases to be issued by the BLM:

- Verifying that oil and gas leasing on the specific lands has been adequately addressed in a NEPA document, and is consistent with the Forest Plan;
- Ensuring that conditions of surface occupancy identified in section 228.102(c)(1) are properly included as stipulations in resulting leases; and
- Determining that operations and development could be allowed somewhere on each proposed lease, except where stipulations would prohibit all surface occupancy.

The decision to authorize lands for leasing makes an initial commitment of public resources to a potential lessee. When a lease is purchased, the lessee receives the exclusive right to apply for an Application for Permit to Drill (APD) for oil and gas on the lease parcel. The authorization decision will be made on the basis of knowledge of the possible environmental effects prepared as part of the availability analysis, and the ability of the Forest Supervisor to “verify that oil and gas leasing on the specific lands has been adequately addressed according to the requirements of the National Environmental Policy Act, that conditions of surface occupancy identified in section 228.102 (c) (1) are properly included as stipulations in the leases,” and that “operations and development could be allowed somewhere on each proposed lease, except where stipulations will prohibit all surface occupancy.”

The authorization decision will go through a validation process prior to the specific authorization given to the BLM to advertise a lease for sale. This process will include map and on-the-ground field reviews to ensure consistency with the information disclosed in this document, certification that NEPA requirements have been met and that the parcel can be occupied, and that identified stipulations are part of the proposed lease documents. If any of the validation results are unsatisfactory, the consent will be deferred or supplemental NEPA analysis will be completed.

1.7.3.3 Surface Use Plan of Operations (SUPO) and Application for Permit to Drill (APD)

The Final EIS and associated Record of Decision do not authorize any ground-disturbing activities. Site-specific exploration information is not known until a proposal for development is provided by a lessee. Therefore, the Forest Service cannot at this time conduct a NEPA analysis with sufficient site specificity to make decisions regarding specific operations on a leasehold.

When a lessee decides to develop a lease parcel, they must submit a specific Surface Use Plan of Operations (SUPO) included as part of their Application for Permit to Drill (APD). Approval or disapproval of the SUPO is based on additional environmental analysis and is published in a decision document subject to administrative appeal. Even though the RFD has identified the reasonable level of development to be expected, this is the first time that the specific location and extent of ground-disturbing activities is known. The Forest Service will analyze environmental effects of the proposed operations and issue a decision document. The Forest Service’s decision to approve or not approve the SUPO is then forwarded to the BLM. The BLM will then process the APD subject to Forest Service conditions of approval (COAs) attached to the SUPO.

1.7.3.4 Amendment to an APD

If modifications or changes in the APD are needed based on drilling conditions encountered or some other unforeseen circumstance, the operator submits a Sundry Notice to the BLM for review and approval. If the change involves additional surface disturbance or potential affects on surface resources, a copy is forwarded to the Forest Service for approval or comment. Depending on the extent and nature of the change, additional NEPA analysis may be necessary.

1.7.3.5 Field Development Plan

If economically recoverable quantities of oil and gas resources are found through exploratory drilling, the lessee may submit a field development plan after evaluation of the discovery well and available geologic information. The Forest Service, in cooperation with the BLM, would analyze the predicted environmental effects associated with the proposed field development and identify reasonable and necessary mitigation measures. Specific well sites and access routes may not be known at the time the field development plan is analyzed, in which case additional NEPA analysis tiered to the field development plan may be necessary once a specific well is proposed.

1.7.4 BONDING

The lessee, or the lessee's operator, must furnish a lease bond of at least \$10,000 before beginning any surface-disturbing activities related to drilling. In lieu of individual lease bonds, lessees, owners of operating rights (sub-lessee), or operators may furnish a bond in an amount of not less than \$25,000 covering all leases and operations in any one state or a bond in the amount not less than \$150,000 covering all leases and operations nationwide.

The bond is intended to ensure compliance with all lease terms, including protection of the environment. The BLM may increase the bond amount any time conditions warrant such an increase, or the Forest Service can require additional bonding under 36 CFR 228.109.

1.7.5 RENTALS AND ROYALTIES

In the first five years of the lease, annual rental rates for competitive and noncompetitive leases are \$1.50 per acre or fraction of the acre. After the first five years, annual rental rates increase to \$2.00 per acre. The royalty standard rate on production is 12.5 percent for competitive and noncompetitive leases.

1.7.6 EXPIRATION OR TERMINATION OF A LEASE

Oil and gas leases expire at the end of their term. A term is 10 years for competitive and noncompetitive leases, but leases may be extended (not to exceed 2 years) beyond their primary term for diligent drilling operations across the end of the 10-year primary term. Leases that produce paying quantities of oil or gas do not expire until production ends.

Leases without producing wells automatically terminate if the lessee fails to make full and timely payment of the annual rental. The rental must be received by the federal government on or before the anniversary date of the lease.

The owner of a lease also may relinquish the lease in whole or in part by filing a written relinquishment with the BLM State Office having jurisdiction over the leased federal lands. A relinquishment takes effect on the date it is filed. The lessee is responsible for plugging any

abandoned wells. The lessee also is responsible for other work required by the Forest Service and BLM to place the leasehold in proper condition for abandonment and bring the lease account into good standing. If the lessee fails to perform the required abandonment work, the bond will be used to pay for the costs of abandonment, and the lessee will be prohibited from leasing any additional federal lands.

A more detailed description of oil and gas activity is included in Appendix C.

1.8 THE ANALYSIS PROCESS

The land availability decision, the decision to authorize lands for leasing, and the decision to amend the Forest Plan to accommodate these leasing decisions are separate, sequential decisions, but they are based on one analytical process. A brief explanation of this analysis process is presented below.

The Forest Supervisor's three decisions must be based on knowledge and consideration of the effects oil and gas leasing could have on the lands and the natural resources of the Forest, the ways in which those effects might be mitigated, and the ability to satisfactorily mitigate those effects.

To develop this knowledge and make these determinations, the CNF and consultant interdisciplinary (ID) team first analyzed maps of Forest surface features and resources contained in the CNF Geographical Information System (GIS) database.

The team compared the maps of surface features of the Forest with their knowledge of the effects of oil and gas drilling, development, and production from other parts of the Forest or vicinity. That is, the team used information from past oil and gas activity to estimate what the environmental impacts of the RFD-projected post leasing activities would be if they occurred at various locations on the CNF.

The probable effects on National Forest System Lands and resources were then compared with knowledge of the mitigation available through application of the standard lease terms and supplemental stipulations. The ID team then made a series of determinations for each alternative about which environmental effects could be satisfactorily mitigated through use of SLTs and supplemental stipulations. The overall environmental effects of each alternative were compared through an analysis based on the level of development predicted by the RFD. These effects are discussed in Chapter 3 of this DEIS.