

APPENDIX F

OIL AND GAS LEASING AND DEVELOPMENT

The purpose of this appendix is to provide additional information on:

- 1 The decisions made in the Revision related to leasing of federal minerals.
- 2 The overall process for leasing, exploration, and development of oil and gas resources.

The Forest Service Minerals Program Policy is provided in FSM 2801 - "encourage, 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 "

Decisions to be Made

The ROD will make the following decisions.

1. Lands administratively available for leasing [36 CFR 228.102(d)], including conditions (stipulations) under which lands will be available. This decision also may be referred to as the availability decision or the "d" decision.
2. Lands authorized for leasing [Leasing decision for specific lands, 36 CFR 228.102(e)]. This decision also may be referred to as the authorization decision or the "e" decision.

The availability and authorization decisions constitute Stages 1 and 2 of a four-stage decision-making process for oil and gas leasing, exploration, and development. (See Figure F.1) Neither the availability nor authorization decision authorizes ground-disturbing activity. Ground-disturbing activity will be authorized through an Application for Permit to Drill (APD) for an exploration well (Stage 3), and, in the event of a discovery, through a development plan (Stage 4) NEPA analysis specific to such proposals (APD's and development plans) will be conducted when and if industry ever submits such proposals.

Analysis for the availability and authorization decisions is combined in this document for the following reasons:

- The same type and level of resource information is being used to make both decisions.
- Information about the location, type, and extent of drilling and development activities that have occurred on existing leases is the same for both decisions. Such information is pertinent to typical drilling operations, the effects of such operations on particular resources, and the effectiveness of various mitigation measures designed to protect particular resources.
- The Forest Service has no information about specific well locations or other ground-disturbing activities at the time the leasing analysis and decisions are made. Such specific information about ground-disturbing activity is not available until industry proposes a location, and such a proposal cannot occur until the leasing decisions have been made and leases issued.

Lands Included in the Leasing Analysis

Only areas of the Forest and Grassland with a high or moderate potential for the occurrence of oil and gas resources, or lands with leasing interest by the industry, were analyzed. These lands include

1. The entire Pawnee National Grassland - 192,542 acres (high potential and existing production)
2. The western Sulphur District - 99,279 acres (high potential)
3. A parcel in the northwestern Redfeather District - 3,760 acres (previously leased, low potential)

The analysis area on the Sulphur and Redfeather Districts in the mountains is 103,039 acres, or 11 percent, of the Forest that is not withdrawn from leasing

The remainder of the Forest that is not withdrawn from leasing, 862,706 acres, or 89 percent, have low or no known potential for oil and gas deposits and no past industry interest, and have not been analyzed. The Reasonably Foreseeable Development predictions for future activity (RFD) do not forecast any activities for these lands. Therefore, evaluating the effects of leasing when no development is predicted is difficult to justify when the potential for activity is very low. If ever submitted, lease applications from industry for parcels in these areas will be evaluated with the appropriate environmental analysis on a case by case basis.

Conducting the Leasing Analysis

The leasing analysis described in 36 CFR 228.102 (c) provides the basis for making the availability ("d" decision) and the authorization ("e" decision). Following direction in 36 CFR 228.102 (c) (1), the analysis identifies.

- Lands open to development with standard lease terms (described in Section 6 of every lease)
- Lands open to development, but subject to constraints that require the use of supplementary lease stipulations when the standard lease terms are not sufficient to protect surface and subsurface resources.
- Lands closed to leasing, distinguishing between those areas closed through exercise of management direction by the Forest Service and those closed by law or regulation

Such lands are identified in the Oil and Gas Leasing Maps for the alternatives

Mitigation measures in the form of lease stipulations are related to the different emphases of the alternatives for oil and gas management. Alternatives A, C, and I emphasize more access for leasing and development with less restrictions. Alternatives B and E use more restrictions, including prohibiting surface occupancy to protect surface management. Alternative H closes the mountain analysis areas to leasing and uses extensive prohibitions of surface occupancy on the Grassland to emphasize biodiversity and ecosystem management.

After analyzing the effects of development on surface resources, including consideration of environmentally sound drilling technology, reclamation, and effects of prohibiting surface

occupancy, the Forest Service may determine that the impacts are unacceptable for some areas. These areas may be closed to leasing at the discretion of the Forest Service. Alternatives B, C, and E do not lease 2,860 acres containing the Crow Valley Recreation Area and the Pawnee Buttes on the Grassland. Alternative H does not lease Crow Valley, the Pawnee Buttes, and an additional 13,869 acres of research natural areas on the Grassland, and the analysis areas on the mountain Districts. Alternative A does not lease Crow Valley, and Alternative I leases all of the analysis areas

The analysis also:

- Identifies alternatives to the lands available and lands authorized decision [36 CFR 228.102 (c) (2)].
- Includes a projection of the type/amount of post-leasing activity that is reasonably foreseeable as a consequence of conducting a leasing program consistent with that described in the proposal and for each alternative [36 CFR 228.102 (c) (3)]
- Analyzes the reasonable foreseeable impact of post-leasing activity projected for the proposal and for each alternative [36 CFR 228.102 (c) (3)]

Reasonable Foreseeable Development

The Forest Service and the Bureau of Land Management (BLM) cooperatively determined Reasonably Foreseeable Development scenarios (RFD) for the Forest and Grassland that were used to delineate the analysis area and determine the effects of possible development. Based on known geology and past history of development, an estimate of the expected activity for the 10-15 year life of the Plan was determined for exploratory drilling and successful producing wells. The number of wells and the analysis assumptions of surface disturbance for each well (see the Minerals and Geology section of Chapter Three) were used to forecast the effects of leasing and development.

1. Sulphur RD - four exploratory wells will be drilled, with one possibly being successful and leading to an additional four wells being drilled for field development. The total is three dry holes and five producing wells. The analysis assumption is 13.7 acres of surface disturbance per well, or 110 acres over the next 10-15 years (includes well site, roads, pipelines, production facilities, etc.)
- 2 Redfeather RD - Two production wells are predicted for analysis purposes, resulting in 27 acres of surface disturbance.
- 3 Pawnee NG - Twenty five wells will be drilled, with 10 being successful. The analysis assumptions are 3.7 acres for drilling, and 1.8 acres for production, or a maximum of 92.5 additional acres disturbed over the life of the Plan. Reclamation of dryholes and unneeded areas of producing wells will reduce this to 18 acres.

Note that not all of this activity will occur at the same time - the effects will occur over the entire life of the Plan. Dry holes will be reclaimed in 3-5 years, as will areas of successful wells not needed for production.

Lands Available for Leasing

This decision identifies which, if any, lands will be available for leasing and the constraints (lease stipulations) that will be applied to those lands. Constraints may be limited to Standard Lease Terms, or one or more supplemental stipulations for specific resource protection (See Appendix D of the Plan) Stipulations addressing specific resource issues have been developed based on known effects of typical drilling activities on specific resources, and the projected type/level of post-leasing activity that is reasonably foreseeable as a consequence of conducting the proposed leasing program or its alternatives

Leasing Decision for Specific Lands

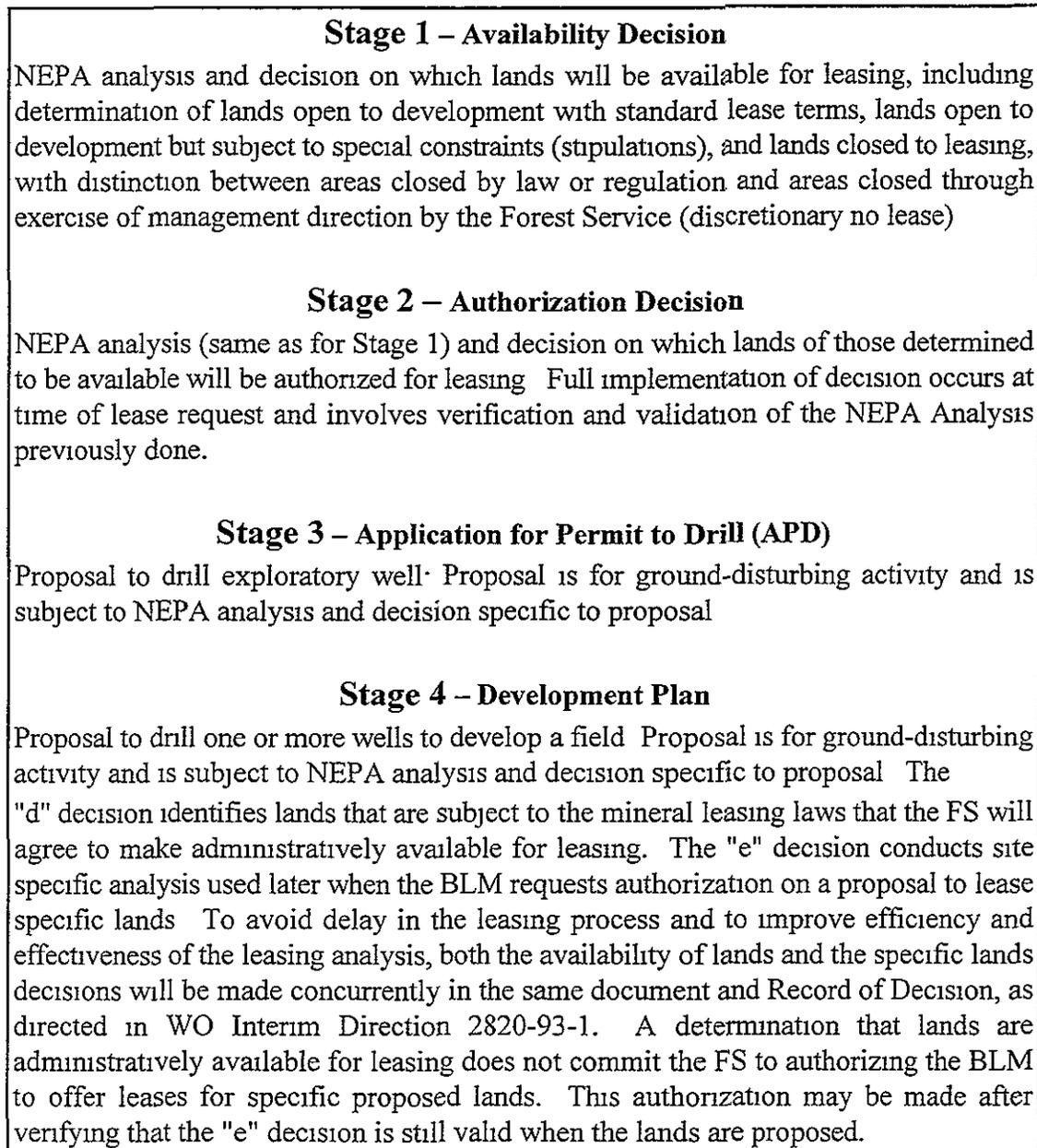
This decision is based on the same analysis as the availability decision, and on the availability decision itself All lands authorized for leasing must be available for leasing, but all lands identified as available for leasing may not necessarily be authorized for leasing (see discussion under “Decisions to be Made” above). During implementation, the authorization decision is subject to an administrative review, consisting of:

- 1 Verifying that oil and gas leasing of the specific lands has been adequately addressed in a NEPA document (for example, this EIS and ROD), and is consistent with the Forest Land and Resource Management Plan If NEPA has not been adequately addressed, or if there is significant new information or circumstances as defined by 40 CFR 1502.9 requiring further environmental analysis, additional environmental analysis will be done [36 CFR 228.102 (e) (1)] In other words, if at some time during the 10-year life of this decision, verification of NEPA on a requested lease area is found to be inadequate, or reveals new or changed circumstances since NEPA analysis for the authorization decision was done, that area may not be leased until it has undergone new NEPA analysis and a decision has been made
- 2 Ensuring that conditions of surface occupancy are properly included as stipulations in resulting leases [36 CFR 228.102 (e) (2)]
- 3 Determining that operations and development could be allowed somewhere on each proposed lease, except where stipulations will prohibit all surface occupancy [36 CFR 228 102 (e) (3)]

At any time during the 10-year life of the authorization decision, industry may submit a request to the BLM for a lease(s) within the area analyzed for the availability and authorization decisions. The BLM will forward the request to the Forest Service The FS will then conduct NEPA verification and validation (described above), and if all criteria are met, will forward the parcel(s) with consent for leasing back to the BLM This NEPA verification and validation process is part of implementation of the authorization decision and is not appealable at the time it is performed The authorization itself is appealable when it is made

As stated above, if in performing NEPA validation and verification on the requested lease area, the FS finds that NEPA had not been addressed adequately or there are significant new information or circumstances, then new NEPA analysis must be performed pursuant to making a new authorization decision for that parcel(s) Any new authorization decisions are appealable at the time they are made

Figure F.1. Four Stages of Forest Service Decision-Making Process for Leasing, Exploration, and Development.



Criteria for Waivers, Exceptions, and Modifications

Although supplementary stipulations are provided to protect surface resources in some areas, the need for these requirements may change when specific development is proposed Only when an Application for Permit to Drill (APD) is submitted by the industry may the request for changes be made These changes include

- 1 Waivers - the mitigation measure is permanently removed from the lease An example is removal of an NSO stipulation to protect a raptor nest in a tree on the Grassland when the tree falls over and can no longer be used as a nest site

2. Modifications - the mitigation measure is permanently changed on the lease. An example could be the change in the timing limitation period for the Mountain Plover on the Grassland, based on new information
3. Exceptions - the mitigation measure is removed on a case by case basis. An example is removing a timing limitation to protect big game winter range due to warm weather allowing the elk to leave the winter range earlier than expected in the spring.

Conditions for waivers, modifications, and exceptions will be part of the rationale for each stipulation. Where appropriate, environmental analysis and NEPA documentation will be completed before the changes are made, as required in 36 CFR 228.104.

The Leasing and Development Process

The leasing and development process has two phases for deciding whether to authorize the BLM to offer oil and gas leases on NFS lands and two additional phases for actual development.

PHASE I - Forest Service Makes the Lands Available for Analysis, the Lands Administratively Available for Leasing, the Leasing Decision for Specific Lands, the Lands Closed to Leasing, and the Conditions for waivers, Modifications, and Exceptions Decisions in the Revision Record of Decision. THESE DECISIONS ARE APPEALABLE.

PHASE II: Forest Service Verification of Leasing Decision for Specific Lands.

After receiving a lease proposal for a specific parcel from the industry, the BLM requests a Lease Report from the FS. From direction in 36 CFR 228.102(e), the FS will verify that

- 1 leasing for the proposed lands has been adequately addressed in the Revision,
- 2 the stipulations determined in the Revision are still adequate, and
- 3 operations are feasible on the parcel unless it is totally NSO

If the criteria are met, the BLM is authorized to offer the parcel for sale. **THIS IMPLEMENTATION OF THE PREVIOUSLY MADE REVISION DECISIONS IS NOT APPEALABLE.**

If the criteria are not met due to significant new information or issues, the appropriate NEPA documentation will be completed and the decision made to authorize the BLM to offer or not offer the parcel for sale. **THIS DECISION IS APPEALABLE.** The Mountain Plover EIS and ROD for leasing on the Grassland were the result of significant new information.

Although all lands authorized for a competitive lease sale offering must be administratively available, it is important to understand that not all of the administratively available lands will necessarily be authorized for lease. When the BLM forwards an industry proposal for leasing a specific parcel, the Forest Service may authorize the BLM to offer the parcel for competitive lease, pending verification of the three criteria in 36 CFR 228.102(e).

If authorized by the FS, the BLM offers the parcel for sale by competitive bidding. If sold, the lease is issued with the standard terms and stipulations from the Revision EIS, or from the NEPA

analysis resulting from the verification. If not sold, the parcel is available noncompetitively for two years, without further action by the FS.

PHASE III: Lessee Submits an Application for Permit to Drill (APD).

The lessee submits an APD for drilling a well on the lease. The FS reviews the APD and completes the appropriate NEPA to address site specific effects and determine needed Conditions of Approval. **THIS DECISION IS APPEALABLE.** The Conditions of Approval are the last opportunity to provide specific location mitigation requirements that do not infringe on the lease rights.

However, note that a lease gives the lessee a vested right to develop the mineral resource - the earlier analysis and decisions must be clearly documented and determined. It is not similar to a special use permit that can be terminated by the Forest Service - restrictions available are discussed in the Section 6 of the standard lease terms and additional stipulations for each lease. The Forest Service may disapprove a specific APD, but denying activities on a lease that allows development could be found to be a taking of private rights by the courts.

PHASE IV: Lessee Submits a Proposal for Field Development.

The lessee submits a proposal for field development to produce the mineral resource. The FS reviews the proposal and APDs and completes the appropriate NEPA to address site specific effects and determine needed Conditions of Approval. **THIS DECISION IS APPEALABLE.**

Lease Stipulations

As required by 36 CFR 228.102 (c), the leasing analysis will include maps of lands which show the lands available for leasing and the appropriate supplementary stipulations, if any, that are required. The appropriate lease terms are discussed in the Minerals and Geology section of Chapter Three.