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Minerals and Energy Specialist Report

Kiowa, Rita Blanca, Black Kettle and McClellan Creek National Grasslands Plan Revision

Environmental Impact Statement Analysis

Submitted by:

/s/_____

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Executive Summary

The Draft Grasslands Plan addresses needs for revisions based on public and internal comments. New plan components were developed in the preferred alternative (Alternative B) with potential to affect Minerals and Energy Development:

- Scenery plan components (an objective and guidelines) of the preferred alternative that set a target for mitigating adverse impacts of structures to scenery and define and recommend criteria for maintaining levels of scenic integrity which could result in additional mitigation practices by developers on new leases and leases that come due for renewal
- A new standard that addresses removal and deposition of drilling fluids and cuttings to an approved landfill
- Guidelines that address road maintenance and best management practices to mitigate erosion, stockpiling of surface soils during the life of the well to be used for reclamation, recontouring of sites to natural slope and grade, and a reclamation time guideline.
- A management approach addressing rare plant surveys prior to extraction of common minerals or other ground-disturbing activities near Greenhorn limestone outcrops

Overview of the Affected Environment

Gas and oil extracted from the Grasslands play a significant role in society. This is evident at the national level as well as the local level. In 2001, oil and gas wells on the Black Kettle National Grassland (BKNG) yielded roughly 3 billion cubic feet of natural gas and 13,500 barrels of oil, generating royalties that contributed nearly \$400,000 to schools and roads in Roger Mills County and provided roughly 80 jobs in the local communities. In 2010, royalties—predominantly from oil and gas—soared to \$3,965,759.37 from BKNG. Mineral materials (clay, sand, gravel, caliche, etc.) also exist on the Grasslands; however, they are not available for commercial or private use due to stipulations in the Bankhead-Jones Farm Tenant Act.

Summary of Environmental Consequences

The land management plan provides a programmatic framework that guides site-specific actions but does not authorize, fund, or carry out any project or activity. Because the land management plan does not authorize or mandate any site-specific activities or ground-disturbing actions, there can be no direct effects. However, there are implications, or longer term environmental consequences, of managing the forests under this programmatic framework.

The 1985 Plan (Alternative A) has very little guidance on managing for scenic quality with regard to oil and gas development. Under current direction, unmitigated oil and gas development would most likely negatively impact areas with high scenic integrity. However, some oil and gas leases and active wells do exist in areas that are designated as having high or moderate scenic integrity. In many cases, these are nonfederal wells drilled prior to Amendment 12 of the current plan (August 2008) on lands where mineral rights did not transfer to the federal government when lands were purchased under the Bankhead-Jones Act.

With regard to scenery, Alternative B has a specific objective and guidelines that clearly identify benchmarks when certain visual impacts can be visible on differing landscapes. The guidelines have the potential to conflict with some locations and methods by an entity wishing to extract oil, gas, or mineral materials from a given location; however, the objective and guidelines would not prohibit drilling of any new wells, so no adverse outcome to minerals and energy development would occur.

A management approach to Lesser Prairie-Chicken habitat improvement in Alternative B has potential for conflict with location and methods for oil and gas drilling, but it does not prohibit drilling. This management approach is also being pursued under current management, Alternative A. Thus, there is no anticipated adverse outcome to future minerals and energy development under either alternative.

The new standard in Alternative B regarding removal and deposition of drilling fluids and cuttings to an approved landfill would have the potential to add costs to drilling operations if Alternative B were implemented, but this practice has already been adopted on active leases on Black Kettle and McClellan Creek National Grasslands.

Guidelines in Alternative B addressing road best management practices, reclamation practices, and reclamation timelines would have positive consequences to soils and control of invasive plant species establishment. These practices and timelines are generally being done under current management but are not specified in current plan direction.

Alternative C would have the same consequences and outcomes as Alternative B, with the only difference being that no one could extract any minerals from the Canadian River Potential Wilderness Area without valid preexisting rights. An owner of preexisting mineral rights within the potential wilderness could extract oil and gas or “hard-rock” minerals (gold, silver, copper, etc.) if present. As a potential mitigation measure to oil and gas drilling, it might be feasible to directionally drill from outside of the wilderness boundary into the Mills Canyon area and extract oil or gas from the protected area without surface disturbance in the wilderness. However, in that instance, the entity with rights in the wilderness would also need to have mineral rights to the area where the drilling operation is located. Alternative C would have the consequence and outcome of also barring the availability of any hard-rock minerals, should they exist, without preexisting mineral rights in the designated wilderness area.

Specialist Report

Introduction

This report discloses and evaluates the potential environmental consequences on minerals and energy development (oil and gas), herein after referred to as minerals, which may result with the adoption of a revised land management plan. It examines, in detail, three different alternatives for revising the management direction from the 1985 Cibola National Forest Land Management Plan (only that which is relevant to the National Grasslands).

Relevant Laws, Regulations, and Policy that Apply

- 36 CFR 228 Subpart E Leasable Minerals

- FSM 2802 and 2803 Minerals and Geology, Objectives and Policy
- FSM 2822.41 Mineral Licenses, Permits, and Leases Administered by the Department of the Interior, Forest Service Evaluation and Report
- FSM 2850 Mineral Materials
- Surface Occupancy Standards and Guidelines for Oil and Gas Exploration and Development (the Gold Book) published by BLM
- FSM 2822.62 Actions by Forest Service
- FSM 2814.23 Prevent Violations of Laws and Regulations
- FSM 2822.02 Mineral Leases, Permits, and Licenses, Objective
- FSM 2822.04 Responsibility
- FSM 2880.3 Geologic Resources, Hazards and Services, Policy

Methodology and Analysis Process

The statements made within this report are based on regulations found within 36CFR 228 and personal communication with Grasslands District Rangers, department managers, and other Forest Service personnel.

Assumptions

In the analysis for this resource, the following assumptions have been made:

- The land management plan provides a programmatic framework for future site-specific actions.
- Land management plans do not have direct effects. They do not authorize or mandate any site-specific projects or activities (including ground-disturbing actions).
- Land management plans may have implications, or environmental consequences, of managing the forests under a programmatic framework.
- The plan decisions (desired conditions, objectives, standards, guidelines, management areas, monitoring) will be followed when planning or implementing site-specific projects and activities.
- Law, policy, and regulations will be followed when planning or implementing site-specific projects and activities.
- Monitoring will occur and the land management plan will be amended, as needed.
- Funding will be similar to past budget levels (past 5 years).
- The planning timeframe is 15 years; other timeframes may be analyzed depending on the resource (usually a discussion of anticipated trends into the future).
- Modifications to the Forest/Grasslands Plan will only be applicable to leases acquired after the Record of Decision is signed by the Regional Forester.

Revision Topics Addressed in this Analysis

Public scoping has identified a need to have rehabilitation of disturbed sites added to the Grasslands Plan. Under current management practices the Forest Service addressed rehabilitation of sites through regulations under 36 CFR 228.108 (g)(1) through (3)(iv). The only change is language to the current or proposed Plan to stipulate that all drilling fluids and drill cuttings be removed from the Forest/Grasslands in addition to using a closed loop drilling system. All other issues related to reclamation are being addressed.

An important aspect for the public and the reader to recognize is minerals management on Acquired lands is handled differently than minerals management on public domain lands. The Grasslands are considered “acquired lands”, meaning these lands were for the most part homesteaded, or transferred to the railroads (patented) with the intent to settle the western portion of the United States during the early development of the country. The Grasslands were purchased (acquired) back by the Federal Government, predominantly during the Dust Bowl era through the Bankhead Jones Farm Tenant Act of July 22, 1937 (7 U.S.C. 1010-1012) in an effort to assist homesteaders struggling to survive whose land had become ravaged by drought.

The Bankhead-Jones Farm Tenant Act stipulates minerals may not be claimed on a mining claim on acquired lands. However, locatable (hard-rock) and energy minerals can be leased on these lands. Lands are offered for lease by the Department of Interior’s Bureau of Land Management agency (BLM) for public bid. The BLM consults with the Forest Service prior to the said lands being offered for bid and the Forest Service has the right as the land management agency on the Grasslands to object or notify the BLM why the area should not be offered for lease prior to bid proceedings.

On acquired lands, mineral materials (clay, sand, gravel, caliche, etc. *can only be disposed of to public authorities and agencies, and only under the condition that the mineral materials are used for public purposes* (7 U.S.C. 1011(c)).

Summary of Alternatives

Alternative A primarily addresses the fact that mineral production would continue to occur on the Forest. Alternative A also stipulates the current management direction action to take on all locatable mineral operating plans, lease application, and common variety mineral permits as outlined in 36 CFR 228 and FSM 2822.41. Amendment 12 to the current plan adds standards on surface occupancy and closed loop drilling. It excludes surface occupancy of the Mills Canyon Area but does not bar the material from being accessed /extracted from adjacent lands. Some oil and gas leases and active wells do exist in areas on Black Kettle and McClellan Creek National Grasslands that are designated as high scenic or moderate scenic integrity. In many cases, these are nonfederal wells drilled prior to Amendment 12 of the current plan (August 2008) on lands where mineral rights did not transfer to the federal government when lands were purchased under the Bankhead-Jones Act.

Under current management, Forest Service biologists are continuing to collaborate with other federal and state biologists and researchers in determining if the Lesser Prairie-Chicken could be expected to return to the Grasslands and successfully fledge young, and what management activities would benefit their recovery if they returned. In discussing the possible outcome with Beverly DeGruyter (Cibola NF Forest Biologist) any measures taken would not “seek to prohibit

mineral activity but might, indicate a preference for...locating new drill sites on the side of hills as opposed to the top of a hill.” Beverly DeGruyter also mentioned that it appears the Lesser Prairie-Chicken may be listed as an endangered species next year, in which case the lease holders would be required to comply with federal law to protect the bird.

Alternative B addresses a desired condition for minerals and energy development for the Forest/Grasslands Plan. Alternative B has clear objectives pertaining to reclamation measures. The Plan’s guidelines indicate how and when reclamation should be performed. The Standards section carries forward from Alternative A standards related to how and where drilling operations can be conducted. Alternative B contains a new standard that addresses removal and deposition of drill fluids and cuttings from closed loop systems. Alternative B also addresses distances to be maintained from riparian areas and steep slopes unless the operator demonstrates that the activities can be performed without loss of long-term site productivity. Alternative B is similar to Alternative A with regard to ongoing research and management efforts to maintain or restore Lesser Prairie-Chicken habitat. Guidelines in Alternative B address road best management practices, reclamation practices and reclamation timelines. These practices are generally being done under current management but are not specified in current plan direction (Alternative A).

Alternative C is identical to Alternative B with the exception that the Canadian River/Mills Canyon area would be recommended for designation as wilderness. Alternative C would remove said land from potential mineral extraction except for any valid preexisting mineral rights established before federal ownership of the land.

Description of Affected Environment (Existing Condition)

In 2001, 36 active wells on the Black Kettle yielded roughly 3 billion cubic feet of natural gas and 13,500 barrels of oil. On the McClellan Creek National Grassland, 13 wells yielded about 5,900 barrels of oil (UNM-BBER). Production of oil and gas products is vital to the national, regional, and local economies and to the quality of life of most Americans. Oil and gas operations on the Black Kettle make a significant contribution to the local economy, job market, and county and State tax structure (USDA Forest Service 2000). Prior to 2001, Oil and gas operations generated royalties that contributed nearly \$400,000 annually to schools and roads in Roger Mills County and provided roughly 80 jobs in the local communities (Coker 2005; See Table 5) in 2010 royalties, predominantly from oil and gas soared to \$3,965,759.37 (Personal Communication 2010).

The geologic potential for the existence of hard-rock minerals in the Grasslands appears to be limited. “Mineral materials”—common varieties of sand, clay, gravel, or caliche—are common on the Grasslands. There is a potential for small mineral material pits to be developed on the Grasslands; however, mineral materials are not available for commercial or private use because of stipulations in the Bankhead-Jones Farm Tenant Act. The Kiowa and Rita Blanca National Grasslands provide special use permits to public authorities and agencies under the condition that the mineral materials are used for public purposes. Two permits have been granted to county governments for extracting caliche, a subsoil deposit of calcium carbonate that is used to surface roads. At the time of this report, there were two active caliche pits that encompassed less than four acres each. The projected future trend is that there will continue to be an insignificant amount of noncommercial mineral material extraction from the Grasslands.

As of October 1, 2010, two oil and gas leases had been issued for the Rita Blanca National Grasslands in units 89 and 91.

Environmental Consequences

The land management plan provides a programmatic framework that guides site-specific actions but does not authorize, fund, or carryout any project or activity. Because the land management plan does not authorize or mandate any site-specific activities or ground-disturbing actions there can be no direct effects. However, there are implications, or longer term environmental consequences, of managing the forests under this programmatic framework.

Plan components for Scenery and a management approach to wildlife habitat improvement in Alternative B have potential for conflict with location and methods for oil and gas drilling, but do not prohibit drilling; thus there is no adverse outcome to minerals and energy development.

The 1985 Plan has very little guidance on managing for scenic quality with regard to oil and gas development. Oil and gas development, unmitigated, would most likely negatively impact scenic quality. However, some oil and gas leases and active wells do exist in areas that are designated as high scenic or moderate scenic integrity. In many cases, these are nonfederal wells drilled prior to amendment 12 of the current plan (August 2008) on lands where mineral rights did not transfer to the federal government when lands were purchased under the Bankhead-Jones Act.

With regard to scenery, Alternative B has a specific objective and guidelines that clearly identify benchmarks when certain visual impacts can be visible on differing landscapes. The guidelines have the potential to conflict with some locations and methods by an entity wishing to extract oil, gas or mineral materials from a given location; however the objective and guidelines would not prohibit drilling of any new wells, so no adverse outcome to minerals and energy development would occur.

The new standard in Alternative B regarding removal and deposition of drilling fluids and cuttings to an approved landfill would have the potential to add costs to drilling operations if Alternative B were implemented, but this practice has already been adopted on active leases on Black Kettle and McClellan Creek National Grasslands.

Guidelines in Alternative B addressing road best management practices, reclamation practices and reclamation timelines would have positive consequences to soils and control of invasive plant species establishment. These practices are generally being done under current management but are not specified in current plan direction.

Alternative C would clearly have the same consequences and outcomes as Alternative B, with the only difference being that no one could extract any minerals from the potential wilderness without valid existing rights. An owner of preexisting mineral rights in the wilderness could extract minerals. However, regarding oil and gas, if technically feasible, it might be appropriate for the mineral rights holder to directionally drill from outside of the boundary into the Mills Canyon area and extract oil or gas without affecting the surface of the protected area. That case would assume that the operator would also hold rights to the area where the drilling originated. Alternative C would have the consequence and outcome of barring the availability of any potential hard-rock minerals to entities without preexisting mineral rights in the designated wilderness area.

All Other Revision Topics

None of the other items listed in the revision topics column which are discussed within the Draft Revised Plan have a direct impact to the minerals program on the Grasslands. For new drill sites on existing leases, Guidelines will apply to conditions of Approval required at the time of site specific operations.

Developed Recreation was analyzed and found not to have any potential conflicts, noting that a mineral withdraw would be implemented prior to any developed recreation sites being built.

The Heritage Resources Section in the Draft Plan was also analyzed and found not to have any potential conflicts with the minerals program. Heritage resources are analyzed on a site-specific basis; mitigation measures are employed when a cultural site may be affected by a mineral exploration/extraction proposal. Federal law protects heritage resources.

Cumulative Environmental Consequences

At this time the only foreseeable action that could possibly impact alternatives in the Draft Grasslands Plan would be the federal listing of the Lesser Prairie-Chicken as a threatened or endangered species. Such a designation would create the need to protect, not only the Lesser Prairie-Chicken, but also its habitat.

Unavoidable Adverse Impacts

The land management plan provides a programmatic framework that guides site-specific actions but does not authorize, fund, or carryout any project or activity. Before any ground-disturbing actions take place, they must be authorized in a subsequent environmental analysis. Therefore none of the alternatives cause unavoidable adverse impacts.

Irreversible and Irretrievable Commitment of Resources

The land management plan provides a programmatic framework that guides site-specific actions but does not authorize, fund, or carryout any project or activity. Because the land management plan does not authorize or mandate any ground-disturbing actions, none of the alternatives cause an irreversible or irretrievable commitment of resources.

Adaptive Management

All alternatives assume the use of adaptive management principles. Forest Service decisions are made as part of an ongoing process, including planning, implementing projects, and monitoring and evaluation. The land management plan identifies a monitoring program. Monitoring the results of actions will provide a flow of information that may indicate the need to change a course of action or the land management plan. Scientific findings and the needs of society may also indicate the need to adapt resource management to new information. The Forest Supervisor annually evaluates the monitoring information displayed in the evaluation reports through a management review and determines if any changes are needed in management actions or the plan itself. In general, annual evaluations of the monitoring information consider the following questions:

- What are the effects of resource management activities on the productivity of the land?

- To what degree are resource management activities maintaining or making progress toward the desired conditions and objectives for the plan?
- What changes are needed to account for unanticipated changes in conditions?

In addition to annual monitoring and evaluation, the Forest Supervisor reviews the conditions on the land covered by the plan at least every 5 years to determine whether conditions or demands of the public have changed significantly. The forest plan is ordinarily revised on a 10-year cycle and the Forest Supervisor may amend the plan at any time.

Consistency with Law, Regulation, and Policy

All alternatives are designed to guide the Kiowa, Rita Blanca, Black Kettle, and McClellan Creek National Grasslands' management activities in meeting federal law, regulations, and policy.

Other Planning Efforts

It is not apparent at this time that there are any potential conflicts between the proposed action and any other Federal, regional, State, local or Tribal land use plans, policies, and controls for the planning area.

List of Preparers

This report was created by Calvin Parson (Geologist). Qualifications include: Associates degree in Liberal Arts, Bachelors of Science in Environmental Geology and 4 years of experience in working in Minerals with the USDA Forest Service.

References

Personal Communication 2010. Roger Mills County Oklahoma, County Treasurer personal communication with Tom Smeltzer, District Ranger, Black Kettle, National Grasslands. Cheyenne, Oklahoma.