

Executive Summary

Northern Great Plains Management Plans Revision Draft Supplemental Environmental Impact Statement for Oil and Gas Leasing

Purpose and Need

The purpose of this analysis is to determine whether current oil and gas lease stipulations and lease notices are providing adequate protection to resources on the Little Missouri National Grassland on lands previously determined to be administratively available for leasing. The action is needed because the pattern of development and type of operations have changed since the final environmental impact statement was written and since the most recent review in 2008. Other changes include the listing of the Dakota skipper and northern long-eared bat as threatened species under the Endangered Species Act.

In order to provide a basis for analysis for this supplemental environmental impact statement, an updated reasonably foreseeable development scenario was prepared, which gives both long-term and near-term (5 years) estimates for oil and gas development on the Little Missouri National Grassland. This scenario addresses potential oil and gas development in the Bakken and Three Forks formations of the Williston Basin. The analysis includes all available Federal minerals within National Forest System surface on the Little Missouri National Grassland.

The analysis uses information from the updated reasonably foreseeable development scenario, together with other changed resource conditions, to determine the adequacy of the stipulations from the 2003 record of decision for the Northern Great Plains Management Plans Revision to protect natural and social resources while continuing to authorize future oil and gas leasing. The last review of the Final Environmental Impact Statement, a Supplemental Information Report prepared in 2008, determined that the analysis in the Northern Great Plains Final Environmental Impact Statement was adequately displaying the effects of oil and gas development at the time.

Scoping

A notice of intent for the preparation of this supplemental environmental impact statement was originally published in the Federal Register on December 19, 2012. No public comment was solicited at that time (pursuant to 40 CFR 1502.9(c)(4)). A revised notice of intent was published on August 8, 2015 with a request for comments on the project. A scoping letter describing the proposed action was mailed to over 90 organizations, individuals and Native American Tribes. Notice was published in the newspaper of record on September 14, 2015 with a request that comments be submitted by October 5, 2015. A total of eight comment letters and one petition were received.

Issues

The following issues were identified by reviewing comments received during scoping and through internal reviews by Forest Service specialists who work on the Little Missouri National Grassland where oil and gas operations occur. Alternatives were developed around those issues that involve unresolved conflicts concerning alternative uses of available resources.

Reduce Greenhouse Gas Emissions

Oil and gas operations, such as flaring, are regulated by the State of North Dakota and the Environmental Protection Agency. The Forest Service and Bureau of Land Management can allow or prohibit oil and gas leasing and provide stipulations regarding the location of infrastructure and other



stipulations of timing or controlled surface use, but has no authority to restrict flaring, or similar activities. The authority granted to the Forest Service that would reduce future emissions from oil and gas leasing would be to discontinue leasing.

Note that currently held leases that are not yet developed would not be affected by the decision, so some increases in activity would still occur, at least in the near-term, but no new leasing would occur.

Strengthen Protections for Inventoried Roadless Areas

Historically, no surface occupancy has been permitted for mineral estate within inventoried roadless areas, based on lease notices. However, codifying this protection in the lease stipulations strengthens it.

Lease notices are attached to leases to transmit information at the time of lease issuance to assist the lessee in submitting acceptable plans of operation, or to assist in administration of leases. Lease notices do not involve new restrictions or requirements. Any requirements contained in a lease notice must be fully supported in law, regulations, standard lease terms, or onshore oil and gas orders. Lease notices may be revised from time to time to reflect updates in laws, regulation, or other policy.

Specifying no surface occupancy for inventoried roadless areas in a stipulation acknowledges the priorities for protecting these areas from disturbance as found in the Dakota Prairie Grasslands plan.

Insure Protection for Future Developed Recreation Sites

The previous decision listed specific developed recreation sites where no surface occupancy is allowed. The proposed change would prohibit surface occupancy based on the level of recreation site development, thus clearly covering any new sites that may be developed in the future.

Incorporate Updated Management for the Conservation of Greater Sage Grouse

Over the past decade, collaboration between Federal and State agencies resulted in agreements and new management approaches embodied in the Sage Grouse Conservation Strategy. The current stipulations for protecting sage-grouse do not adequately reflect such management.

Insure Persistence of Rare Plants with Narrow Ranges and Limited Populations

Dakota buckwheat (*Eriogonum visheri*), nodding buckwheat (*E. cernuum*), and sand lily (*Leucocrinum montanum*) are sensitive plants with narrow ranges and very few populations on the Little Missouri National Grassland. Impacts from oil and gas surface activities could reduce the capacity to maintain the species within the planning area.

Protect Paleontological Resources Consistent with Current Law and Regulation

The definition of paleontological resources was expanded by the Paleontological Resources Preservation Act of 2009 to include any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust. The current lease notice is applicable only to vertebrate paleontological resources.

Alternatives

The Little Missouri National Grassland Oil and Gas Leasing Supplemental Environmental Impact Statement considers three alternatives:

- Alternative 1 – Continue leasing with current stipulations
- Alternative 2 – No new oil and gas leasing

- Alternative 3 – Continue leasing with revised stipulations

The analysis provides the details of the stipulations and lease notices for each alternative, including those specified in management area direction found in the Dakota Prairie Grasslands Land and Resource Management Plan. These alternatives apply to leasing of parcels, and persist as long as the lease is held. Once a parcel is leased, it may be held for some time before it is developed. Table 1 comparing the three alternatives is appended at the end of this summary.

Alternative 1 - Continue Leasing with Current Stipulations

This alternative represents the current situation regarding oil and gas leasing in the Little Missouri National Grassland. This alternative applies to currently unleased and available areas of federally owned minerals within the administrative boundary of the Little Missouri National Grassland. These lands include areas where both the surface and minerals are federally owned. It does not apply to areas where minerals are federally owned but the surface is under non-federal ownership, or to areas where the surface is owned by Little Missouri National Grassland, but the minerals are owned by a non-federal entity.

Of the 893,200 acres of the Little Missouri National Grassland with National Forest System surface lands over Federal minerals, 216,300 acres are currently unleased and available for leasing. Under this alternative, 75,100 acres would have stipulations of no surface occupancy. Oil and gas resources on these acres could be accessed by horizontal drilling, but no surface disturbance would be allowed. The remaining 141,200 acres could see surface developments of some kind. A total of 97,700 acres would have stipulations for timing limitations and/or controlled surface use, and 43,500 acres would have no stipulations, beyond standard lease terms, specified in the lease. When current leases expire, they could be re-offered for lease with updated stipulations and lease notices.

Table 2 displays current stipulations applicable to alternative 1.

Alternative 2 – No New Oil and Gas Leasing

This alternative would limit oil and gas leasing on the Little Missouri National Grassland to current valid leases. No currently unleased areas would be offered for lease, and as current leases expire, they would remain unleased. Therefore, leasing stipulations, notices, and conditions of approval are not applicable. This alternative was developed to address reducing greenhouse gas emissions, and eliminates potential effects from new leases to resources of concern.

This alternative applies to unleased areas of federally owned minerals with National Forest System surface ownership within the administrative boundary of the Little Missouri National Grassland. This alternative would add another 216,300 acres to Little Missouri National Grassland lands not currently authorized or administratively available, for a total of 264,000 acres. This alternative would not apply to areas where minerals are federally owned but the surface is under non-Federal ownership, or to areas where the surface consists of National Forest System lands, but the minerals are owned by a non-Federal entity.

Currently held leases would not be affected by this alternative, but would continue to operate under the stipulations and conditions in place when the lease was signed. New oil and gas development would continue under this alternative for currently authorized, but undeveloped leases. When current leases expire, they would not be offered for lease again.

Alternative 3 - Continue Oil and Gas Leasing with Revised Stipulations and Lease Notices

Alternative 3 was developed to provide new and revised stipulations to comply with current law and to provide additional protections for resources of concern. Alternative 3 is the preferred alternative. All existing stipulations and lease notices (as described for alternative 1) would remain in effect, except as indicated below:

Stipulations for sage-grouse display grounds (leks) would be revised from no surface occupancy within 0.25 mile to a timing limitation that limits noise and certain activities within 2 miles of an active lek during the breeding season. (Stipulations for sharp-tailed grouse display grounds would remain as current.) New stipulations for controlled surface use and timing limitations for priority sage-grouse habitat would be added.

New stipulations for no surface occupancy would be added for recreation sites, rare plants, and roadless areas to provide more reliable protections and flexibility to protect new recreation sites that may be developed in the future.

A new controlled surface use stipulation for near-field air quality would be added to protect the public from potential air quality exceedances during fracking operations.

The lease notice for paleontological resources would be revised to comply with current law.

Table 3 displays new stipulations that would be added to current stipulations.

Decision Framework

Based on the supplemental environmental impact statement, the responsible official, the Dakota Prairie Grasslands supervisor, will decide whether to continue oil and gas leasing using current lease stipulations and lease notices, to continue with changed stipulations, or to no longer offer new oil and gas leases.

The decision will not affect previously issued valid leases or private mineral rights. Any changes to stipulations or lease notices would apply to future oil and gas leasing and subsequent development on the new leases only. Current and proposed stipulations are described in the analysis. The decision would only apply to lands with federally owned minerals with National Forest System surface ownership; Federal minerals with non-Federal surface ownership are not covered.

The analysis and decision do not cover the actual drilling operations, which would be covered under subsequent site-specific environmental analysis and decisions. However, the standards and guidelines and the design features that may be used are considered in the analysis of effects for this action.

Availability of the Draft Supplemental Environmental Impact Statement

The Northern Great Plains Management Plans Revision Draft Supplemental Environmental Impact Statement for Oil and Gas Leasing is available on the Internet on the Dakota Prairie Grasslands website (<https://www.fs.usda.gov/project/?project=40652>). Paper copies can be obtained from the Dakota Prairie Grasslands Headquarters Office, 2000 Miriam Circle, Bismarck, North Dakota 58501; or by calling (701) 989-7304.

Table 1. Comparison of alternatives for oil and gas leasing on the Little Missouri National Grassland

Measure	Alternative 1: Continue Leasing with Current Stipulations	Alternative 2: No New Leasing	Alternative 3: Continue Leasing with Revised Stipulations
Total acres affected by the decision	216,300	216,300	216,300
No surface occupancy (acres)	75,100	Not applicable	107,800
Timing limitations or controlled surface use (acres)	97,700	Not applicable	77,600
No added stipulations (acres)	43,500	Not applicable	30,900
Total acres with potential for disturbance	141,200	Not applicable	108,500
Total available for leasing (acres)	216,300	0	216,300
Roadless area protections	Provided by lease notice	Not applicable	No surface occupancy stipulation
No surface occupancy for developed recreation sites	Specific sites named	Not applicable	Specified by development scale to include future sites
Protections for rare plants with limited distribution	Provided by lease notice	Not applicable	No surface occupancy stipulation
Lease notice protection for paleontological resources	Covers vertebrate fossils only; does not comply with current law	Not applicable	Covers vertebrate, invertebrate, and plant fossils; complies with current law
Protections for greater sage-grouse display grounds	Timing Limitations prevent surface use within 2 miles 3/1 – 6/15; No surface occupancy within 0.25 miles	Not applicable	Timing limitations 3/1 to 4/30 limiting noise between 6 pm and 9 am; No surface occupancy within 0.25 miles
Protections for sage-grouse priority and general habitat	None	Not applicable	Controlled surface use specifies infrastructure may be moved over 0.25 miles for leks or dense sagebrush

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Table 2. Current stipulations and lease notices comprising alternative 1

Resource	Stipulation or Lease Notice	Area or Rationale that the Stipulation (or Lease Notice) Applies
Water/Woody draws	Controlled surface use	Water, wetlands, woody draws, riparian areas, and floodplains
Soil/ Water	No surface occupancy	Slopes > 40 percent
Bald Eagle or Peregrine Falcon	No surface occupancy	Within 1mile line of sight of active bald eagle or peregrine falcon nest
Bald Eagle	No surface occupancy	Within 1mile (line of sight) of bald eagle winter roost
Prairie Falcon/Burrowing Owl Nest	No surface occupancy	Within 0.25 mile (line of sight) of active prairie falcon or burrowing owl nest
Merlin, golden eagle, ferruginous hawk	No surface occupancy	Within 0.5 mile (line of sight) of active Merlin, golden eagle, or ferruginous hawk nest
Sharp-tailed grouse	Timing limitation	Within 1 mile of sharp-tailed grouse display grounds (3/1-6/15)
Sharp-tailed grouse	No surface occupancy	Within 0.25 mile of center of sharp-tailed grouse display grounds
Sage grouse	Timing limitation	Within 2 miles of sage-grouse display grounds (3/1-6/15)
Sage grouse	No surface occupancy	Within 0.25 mile of center of sage-grouse display grounds
Black-footed Ferret	Controlled surface use	Black-footed ferret reintroduction habitat (roaded) (MA 3.63)
Black-footed Ferret	No surface occupancy	Black-footed ferret reintroduction habitat (roadless) (MA 3.63)
Black-footed Ferret	Timing limitation	Within 1/8 mile of prairie dog colonies occupied by black- footed ferrets (3/1-8/31) (Outside MA 3.63)
Black-footed Ferret	Controlled surface use	Within prairie dog colonies occupied by black-footed ferrets (outside MA 3.63)
Bighorn Sheep	No surface occupancy	Bighorn Sheep Habitat (MA 3.51)
Bighorn Sheep	Timing limitation	Within 1 mile bighorn sheep lambing areas 4/1-6/15 (outside of MA 3.51)
Bighorn Sheep	Controlled surface use	Within 1 mile sight distance of bighorn sheep lambing grounds (outside of MA 3.51)
Bighorn Sheep	Not currently authorized; when leased Controlled surface use and Timing limitation	MA 3.51A Bighorn Sheep with non-Federal mineral ownership
Bighorn Sheep	Controlled surface use and Timing limitation	MA 3.51B Bighorn Sheep with non-Federal mineral ownership
Antelope	Timing limitation	Within mapped antelope winter range (1/1-3/31)
Swift Fox	Timing limitation	Within 0.25 mile of swift fox dens (3/1-7/31)
Threatened, endangered and sensitive species	Lease notice	Threatened, Endangered and Sensitive Plant or Animal Species (Dakota Prairie Grasslands Plan Addendum page 52)
Research natural area	No surface occupancy	Protect MA 2.2 Research Natural Areas

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Resource	Stipulation or Lease Notice	Area or Rationale that the Stipulation (or Lease Notice) Applies
Special Interest Areas - Paleontology or Geologic	Controlled surface use	Special Interest Areas - Paleontology and Geologic Resources - Slope Formation Type Section, Cannonball/Slope Formation Outcrop, Bullion Creek Formation Type Section
Special Interest Areas - Heritage	No surface occupancy	Special Interest Areas - Heritage Resources - Battle of the Badlands, Custer Trail/Davis Creek, and Square Buttes
Special Interest Areas - Botanical	No surface occupancy	Special Interest Areas - Botanical Resource - Aspen Stand, The Bog, Grand River Sand Dunes, Black Butte, Black Cottonwood, Riparian Pools, and Roundtop Butte
Special Interest Areas - Geologic	No surface occupancy	Special Interest Areas - White Buttes, Burning Coal Vein/ Columnar Juniper, and Ice Caves.
Recreation Sites	No surface occupancy	Developed Recreation Sites - Burning Coal Vein, Buffalo Gap, Sather Lake, CCC, Campgrounds; and Summit, White tail Picnic Areas; and 4 Maah Daah Hey Trail overnight camps: Wannagan, Elkhorn, Magpie, and Bennett
Recreation Sites	Timing limitation	Within 0.25 mile of Burning Coal Vein, Buffalo Gap, Sather Lake, CCC, Campgrounds, Summit, and Whitetail Picnic Areas, and 4 Maah Daah Hey Trail overnight camps, Wannagan, Elkhorn, Magpie, and Bennett (5/1-12/1)
Suitable for Wilderness	Not administratively available	MA 1.2A - Long X Divide; Twin Buttes, Bullion Buttes and Kinley Plateau
Nonmotorized	No surface occupancy	MA 1.31 - Back country nonmotorized
Scenic High	Controlled surface use	Areas of High Scenic Integrity, surface occupancy will be subject to operational constraints to maintain landscape character intact including within 1 mile of Theodore Roosevelt National Park
Scenic Moderate	Controlled surface use	Areas of Moderate Scenic Integrity, surface occupancy will be subject to operational constraints to maintain a landscape character that is no more than slightly altered
Heritage Resources	Not administratively available	MA 2.4 - American Indian traditional use areas
Heritage Resources	No surface occupancy	National Register eligible sites
Scenic	No surface occupancy	MA 4.22 - areas within 0.25 mile of Little Missouri River
Paleontology	Lease notice	Paleontologic resources Federal surface and Federal subsurface
Roadless	Lease notice	The Roadless Area Conservation Rule or subsequent modifications thereof may prohibit operations such as road construction or reconstruction

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Table 3. New and revised stipulations and lease notices that combine with existing ones to comprise alternative 3*

Resource	Stipulation or Lease Notice	Area or Rationale that the Stipulation (or Lease Notice) Applies
Recreation sites	No surface occupancy	REVISED: No surface occupancy or use is allowed within sites classified as Recreation Site Development scale 3 through 5.
Sage-grouse leks	Timing limitation	NEW: Prohibit surface activities that create noise at 20dB above ambient measured at the perimeter of an active lek and restrict road and trail maintenance within 2 miles from the perimeter of active leks from March 1 to April 30 from 6 pm to 9 am.
Sage-grouse habitat	Controlled surface use	NEW: In Sage-Grouse Priority and General Habitat Management Areas proposed wells and associated disturbance may have to be moved more than ¼ mile in order to provide topographic screening between the disturbance and active leks and reduce impacts to areas of high density sage brush.
Rare Plants	No surface occupancy	NEW: No surface occupancy allowed within 200 feet of mapped populations for Dakota buckwheat (<i>Eriogonum visheri</i>), nodding buckwheat (<i>E. cernuum</i>), and sand lily (<i>Leucocrinum montanum</i>).
Roadless	No surface occupancy	NEW: To comply with the Roadless Rule, no surface occupancy or use is allowed within inventoried roadless areas
Paleontology	Lease notice	REVISED: define “paleontological resource” as any fossilized remains, traces, or imprints of organisms, preserved in or on the earth’s crust, that are of paleontological interest and that provide information about the history of life on earth, with the exception of those defined as archeological resources under the Archaeological Resources Protection Act of 1979, or cultural items as defined in the Native American Graves Protection and Repatriation Act.

*Note: Only those stipulations and lease notices marked as REVISED replace the similar stipulation in table 2.

All other stipulations in alternative 1 carry forward as part of alternative 3.