From:	Paul Callahan
To:	Wightman, Catherine
Cc:	Brent Esmoil; Gerald Schaefer; Jeff Berglund; Jodi Bush; John Carlson; Joyce Swartzendruber; Mary Manning; Mason, Monte; McDonald, Ken; Northrup, Rick; Pat Deibert; Pete Husby; Sandra Brooks; Theresa Hanley; Thomas, Shawn; Tim Griffiths; Tubbs, John; Bill McChesney; Brad Hamlett; Carl Wambolt; Curtix Monteau; Gary Forrester; Glenn Marx; Hagener, Jeff; Janet Ellis; Jay Gore; Pat Connell; Ray Shaw; Robert Lee
Subject:	Re: preliminary draft for review
Date:	Tuesday, September 24, 2013 10:32:04 PM
Attachments:	suggested stipulation language.docx

Use this version

On Tue, Sep 24, 2013 at 10:26 PM, Paul Callahan <cpaulcallahan@gmail.com> wrote:

> That was fun! Especially for the first two hours when the power was out in the hotel.
> I did my best on this given the time I had. I think you will see clearly where more work is needed but hopefully this moves us forward.
> Paul
>
> On Fri, Sep 20, 2013 at 5:01 PM, Wightman, Catherine <CWightman@mt.gov> wrote:
>
>> Attached is the preliminary draft of the Sage-grouse Advisory Council's recommended strategy for sage-grouse conservation for review by Council. It is our intent to attach a cover letter to the final when it goes out for public review. Some of you reviewed earlier versions of this document that contained multiple comments and track changes as we worked through this process. Based on feedback I received from Council members and some informal discussions with the Service and others, I have edited the document to make it easier to read as a package. I did not ignore anyone's comments or suggestions; however I was unable to incorporate all of them without additional Council discussion. I have a list of important points that emerged from this process that Council will want to address, as follows and in order of priority:
>>
>> 1. Core area stipulations:
>>
>> a. No Surface Occupancy (NSO) buffers in core areas – these are inconsistently applied in the stipulations so far (I have highlighted this in the attached) and there is yet to be agreement on a biological meaningful buffer that also addresses industry's needs to continue operations.
>>
>> b. Does Council want to recommend re-evaluating core areas now, if so what are the criteria for re-evaluating, and what is the end goal (i.e., a certain % population target)?
>>
>> 2. Special Management core areas
>>
>> a. Specifically, where will these be located?
>>
>> b. More details are needed on how special management core areas will

be managed and relevant sideboards.

3. General and connectivity habitat stipulations

   a. There were recommendations to delete general stipulations entirely, use the 2005 management plan for this section, and ??. Right now these stipulations follow the same pattern as core but actual stipulations are relaxed.

Secondarily and if there is time, Council may want to discuss the structure of the document (there have been several suggestions to change the order and flow, but all in different ways), how to provide justification information, and how/if to provide more detail to the mitigation framework section.

I will send out an agenda for the Sept 24-25 meeting on Monday.

Catherine

Catherine Wightman

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III. STIPULATIONS

A. Core Area Stipulations

Core Area - General Stipulations

The stipulations in this section apply to all new activities in Core Areas with the exception of exempt activities defined in Section V. Additional stipulations that apply to specific industries and activities are described in Section III-B. Where there is a conflict between the stipulations in this section and Section III-B, the more restrictive will apply.

Sage-grouse Core Areas have been designated as areas of highest conservation priority. These stipulations are designed to maintain existing suitable sage-grouse habitat by regulating activities in Core Areas to ensure the maintenance of sage-grouse abundance and distribution in Montana.

1. **Surface Occupancy High Priority Active Leks**: It seems reasonable to assume that not all leks provide the same value to the overall health of the sage grouse population. Therefore, we propose to provide a greater buffer of No Surface Occupancy (NSO) protection for the highest priority leks. NSO, as used in these recommendations, means no surface facilities including roads shall be placed within the NSO area. Other activities may be authorized with the application of appropriate seasonal stipulations, provided the resources protected by the NSO are not adversely affected. For example, underground utilities may be permissible if installation is completed outside applicable seasonal stipulation periods and significant resource damage does not occur. Similarly,

geophysical exploration may be permissible in accordance with seasonal stipulations. See Appendix B for the definition of an active lek. The most valuable 25 leks in Montana will be provided with NSO buffers of three miles. This list of high priority leks will be determined by the MSGOT using information such as genetic mapping research (currently underway at the Rocky Mountain Research Station), current usage levels, number of nearby leks, etc.

2. **Surface Occupancy Active Leks:** For all active leks within Core Areas that are not deemed to be high priority there will be an NSO buffer of 1.0 mile.

3. **Surface Disturbance**: Surface disturbance will be limited to 5% a specified project area. The calculation method for this disturbance density is described in Appendix A. The calculation of total percent disturbance will include:

   a) All existing disturbance (both anthropogenic and wildfire);

   b) Authorized but yet to be implemented activities;

   c) Proposed activities;

but will not include areas that are unsuitable for sage grouse (e.g. bodies of water). A definition of unsuitable habitat is provided in Appendix A.

Distribution of disturbance may be considered and approved on a case-by-case basis with a goal of consolidating disturbance. Unsuitable habitat should be identified in a seasonal and landscape context, on a case-by-case basis, outside the NSO buffer around leks. This will incentivize proponents to locate projects, where technically feasible, in unsuitable habitat to avoid creating additional disturbance acres. Acres of development in unsuitable habitat are not

considered disturbance acres. The primary focus should be on protection of suitable habitats and protecting from habitat fragmentation. See Appendix A for a description of suitable habitat and surface disturbance.

4. **Seasonal Use**: Activity (production and maintenance activity exempted) will be allowed from June 16 to February 29 outside of the NSO perimeter of an active lek in core areas where breeding, nesting and early brood-rearing habitat is present. In areas used solely as winter concentration areas, exploration and development activity will be allowed March 1 – December 1. Activities may be allowed during seasonal closure periods as determined on a case-by-case basis. Activities in unsuitable habitat also may be approved year round on a case-by-case basis.

Core Area - Specific Stipulations

The stipulations in this section apply to specific activities and/or industries. They are in addition to the general stipulations described above. Where there is a conflict between the general and the specific stipulations for any given activity, the more restrictive will apply.

1. ***Transportation**:* Locate main roads used to transport production and/or waste products a minimum of four miles from the perimeter of active sage-grouse leks. Locate other roads used to provide facility site access and maintenance a minimum of one mile from the perimeter of active sage-grouse leks. Construct roads to minimum design standards needed for production activities.

2. **Pipelines**: Bury pipelines and restore disturbed area with native plant species that are compatible with the surrounding ecological site conditions. Co-locate pipelines with roads, transmission lines, and other linear features, when possible.
3. **Overhead Powerlines and Communication Towers**: Locate new transmission (110 kV or greater) and communication towers a minimum of four miles from the perimeter of active sage-grouse leks. Use topographic screening and bury lower voltage transmission lines when possible. Follow USFWS Best Management Practices for tall structures when erecting new communication towers. Locate distribution lines a minimum of one mile from the perimeter of active sage-grouse leks or bury the lines where economically feasible. Co-locate all new power lines with roads, existing power lines, or other linear features when possible. Burying existing overhead lines that have been identified as contributing to decline in sage grouse populations should be considered as a mitigation option. Raptor proofing poles is encouraged when proven effective.
4. **Noise**: New noise levels, at the perimeter of a lek, should not exceed 10 dBA above ambient noise (existing activity included) from 6:00 p.m. to 8:00 a.m. during the initiation of breeding (March 1 – May 15). Ambient noise levels should be determined by measurements taken at the perimeter of a lek at sunrise.
5. **Oil and Gas Development**: Well pad densities are not to exceed an average of one pad per square mile (640 acres). As an example, the number of well pads within a two mile radius of the perimeter of an active sage-grouse lek should not exceed 11, distributed preferable in a clumped pattern in one general direction from the lek.

6. **Mining**:

   a. For development drilling or ore body delineation drilling on tight centers, (approximately 100'x100') the disturbance area will be delineated by the external limits of the development area. Assuming a widely-spaced disturbance pattern, the actual footprint will be considered the disturbance areas.

   b. Monitoring results will be reported annually in the mine permit annual report and to FWP or regulating body. Pre-disturbance surveys will be conducted as required by the appropriate regulatory agency.

   c. The number of active mining development areas (e.g., operating equipment and significant human activity) are not to exceed an average of one site per square mile (640 acres).

   d. Surface disturbance and surface occupancy stipulations will be waived within the Core Area when implementing underground mining practices that are necessary to protect the health, welfare, and safety of miners, mine employees, contractors and the general public. The mining practices include but are not limited to bore holes or shafts necessary to: 1) provide adequate oxygen to an underground mine; 2) supply inert gases or other substances to prevent, treat, or suppress combustion or mine fires; 3) inject mine roof stabilizing substances; and 4) remove methane from mining areas. Any surface disturbance or surface occupancy necessary to access the sites to implement these mining practices will also be exempt from any stipulation.

e. Mining permits will include requirements for off-site mitigation that enhances or promotes genetic diversity, critical habitat, connectivity, and population viability.

7. **Coal Mining**:

f. Coal mining operations will be allowed under the terms and conditions included in permits issued by the Montana Department of Environmental Quality under the authority of the Montana Strip and Underground Mine Reclamation Act (MSUMRA) and the federal Surface Mining Control and Reclamation Act (SMCRA) and imposed by those statutes' implementing state and federal regulations.

g. To avoid potentially significant impacts to sage-grouse, candidate federal coal leases are evaluated against unsuitability criteria during the leasing process which includes analyses of potential impacts to wildlife including sage-grouse. Incorporation of new leases into new and existing mining operations is considered allowable by the State without the imposition of regulatory obligations otherwise required under this strategy, that would go beyond the current requirements under MSUMRA/SMCRA permitting and regulatory programs.

h. New coal mining operations, including expansions in, into and within Core Areas, requires permitting processes under MSUMRA/SMCRA .

8. **Wind Energy**: Wind energy development will be excluded from sage-grouse core areas. This provision will be reevaluated on a continuous basis as new science, information and data emerges.

9. **Vegetation Removal**: Vegetation removal as part of permitted activities will be limited to the minimum disturbance required by the project. All topsoil stripping and vegetation removal in suitable habitat will occur between June 16 and February 29 in areas that are within 4 miles of an active lek. Initial disturbance in unsuitable habitat between March 1 and June 15 may be approved on a case-by-case basis.
10. **Sagebrush Eradication and Treatments**: Sagebrush eradication is considered disturbance and will contribute to the 5% disturbance factor. Sagebrush treatments that maintain sagebrush canopy cover at or above 15% total canopy cover within the treated acres will not be considered disturbance. In stands with less than 15% cover, treatment should be designed to maintain or improve sagebrush habitat. Treatments to enhance sagebrush-grassland will be evaluated based upon the existing habitat quality and the functional level post-treatment. Restored sagebrush grassland habitats that provide effective cover and food for sage-grouse should be recognized as part of the habitat base. This serves as an incentive for restoring and protecting converted habitats.
11. **Conversion to Cropland Agriculture**: Conversion of native range to cropland will be prohibited on federal and state lands in core areas. State and federal agencies are encouraged to work cooperatively with Bureau of Indian Affairs and Tribal governments to adopt policies that prevent conversion of sage-grouse habitat to cropland agriculture.
12. **Wildfire**: Following wildfire, lands shall be treated as disturbed pending an implementation management plan with trend data showing the area returning to

functional sage-grouse habitat. This is specific to wildfire and not intended for other incentive or mitigation situations.

13. **Monitoring/Adaptive Response**: For all activities allowed in Core Areas, sage-grouse monitoring will be conducted to evaluate the response of active leks within 4 miles of project footprint to permitted activity, excluding underground utilities such as pipelines and buried utility lines. Monitoring plans will be coordinated and modified by the permitting agency with input from FWP. Monitoring will include the evaluation of affected leks and at least three reference leks (one control area) located a minimum of >4 miles from disturbance. If declines in affected leks (using a three-year running average during any five-year period relative to trends on reference leks) are determined to be caused by the project, the operator will propose adaptive management responses to increase the number of birds. If the operator cannot demonstrate a restoration of bird numbers to baseline levels (established by pre-disturbance surveys, reference surveys and taking into account regional and statewide trends) within three years, operations will cease until such numbers are achieved.

14. **Reclamation**: Reclamation should re-establish native grasses, forbs and shrubs during interim and final reclamation to achieve cover, species composition, and life form diversity commensurate with the surrounding plant community or desired ecological condition to benefit sage-grouse and replace or enhance sage-grouse habitat to the degree that environmental conditions allow. Seed mixes should include at least two native forbs and two native grasses with at least one bunchgrass species. Where sagebrush establishment is prescribed, establishment is defined as meeting the

standard prescribed in the individual reclamation plan. Landowners should be consulted on desired plant mix on private lands. The operator is required to control noxious and invasive plant species, including cheatgrass.

15. **Existing Activities**: Areas already disturbed or approved for development within Core Areas prior to January 31, 2014 are not subject to new sage-grouse stipulations with the exception that existing operations may not initiate activities resulting in new surface occupancy within 1.0 mile of an active sage-grouse lek. Any existing disturbance will be counted toward the calculated disturbance cap for a new proposed activity. The level of disturbance for existing activities may exceed 5%.
16. **Exceptions**: Any exceptions to these stipulations will be considered on a case-by-case basis and must show that the exceptions are not reasonably expected to cause declines in sage-grouse populations. Any departures from these stipulations must be approved by the MSGOT.

B. Special Management Core Areas

Special Management Core Areas (SMCA) are defined as a subset of Core Areas in which special consideration has been given to valid existing rights and the fact that it is recognized that existing and planned development in these areas cannot be implemented within the constraints outlined in this document. Figure X shows the areas which have been designated as Special Management Core Areas. These are described as follows:

- SMCA 1 - Cedar Creek Anticline:
- SMCA 2 – Coal

- SMCA 3, 4?- Bentonite Area?

Each developer (those with the valid, existing rights) in a SMCAs shall develop a conservation plan in cooperation with FWP. The MSGOT will have approval authority over conservation plans for development in SMCAs. All applicable Core Area stipulations will apply to the SMCA until the conservation plan is approved. The conservation plan will follow the mitigation framework outlined in Section V and will also include a strategy for restoration/reclamation within the core area, that results in a long-term reduction in the trajectory of surface disturbance. In addition, conservation plans must have a monitoring component using peer-reviewed scientific methods, that is designed to monitor sage-grouse populations, the impact of development and restoration efforts on sage-grouse populations, and provide feedback if adjustments are needed in the conservation plan to reduce impacts on sage-grouse populations. It will also include plans for off-set mitigation at a high ratio. The conservation goal of these areas is to maintain and restore seasonal sage-grouse habitats that support viable sage-grouse populations. As industrial activities subside, these populations are expected to expand into vacant functional habitats. All applicable Core Area stipulations will apply to SMCAs until a Conservation Plan has been approved by the MSGOT.

5. General Habitat Stipulations

General sage-grouse habitats are those areas where sage-grouse occur that have not been identified as core or connectivity habitats. General habitat is important for maintaining the abundance and distribution of sage-grouse in Montana. Development scenarios in non-core

areas are more flexible, but should still be designed and managed to maintain populations, habitats and essential migration routes. Non-core areas should not be construed as “sacrifice areas” since this conservation strategy requires habitat connectivity and movement between populations in core areas. The goal in non-core areas is to maintain habitat conditions that will sustain at least a 50% probability of lek persistence over the long term, provide a NSO buffer of 0.25 mi around the perimeter of an active lek, and implementation of appropriate management practices. In some “non-core” locations, important habitat functions of other wildlife species will guide planning and mitigation considerations. Applicable standard management practices and sage-grouse BMPs should be applied to development within both core and non-core areas to achieve the goals of this conservation strategy. The following stipulations apply to general habitat areas:

Threat	Specific Issue	Stipulation
Mining and Energy Development	Energy Development Practices	1) Work cooperatively—agencies, utilities, and landowners—to identify and map important seasonal ranges for sage grouse. 2) Complete a broad scale assessment to identify important areas that require additional protection or conservation during land use planning and leasing of energy reserves. 3) Prioritize areas relative to their need for protection—ranging from complete protection to availability for moderate to high levels of energy development. 4) Encourage development in incremental stages to stagger disturbance (federal leases range from 3-10 years); design schedules that include long-term strategies to localize disturbance and recovery within established zones over a staggered time frame. 5) Provide technical assistance to private landowners who lease privately owned fee minerals. 6) Use off-site mitigation, e.g., creation of sagebrush habitat, or purchase conservation easements with industry dollars to offset habitat losses. 7) Remove facilities and infrastructure when use is completed. 8) Enhance our understanding of the effects of energy development through: a) pre-activity inventory, b) monitoring over the life of the development, and c)Annual evaluations
	Human Disturbance	Allow no surface occupancy within 0.25 miles of an active lek. Use the best available information for siting structures near important breeding, brood-rearing, and winter habitat considering the following: a) Size of the structure (s), b) Life of the operation, c) Extent to which impacts would be minimized by topography and d) Disturbance by noise and maintenance.

		2) Allow no surface use in nesting habitat within 2 miles of an active lek during a period of breeding and nesting—1 March –15 June. 3) Restrict maintenance and related activities in sage grouse breeding/nesting complexes—1 March –15 June—between the hours of 4:00-8:00 am and 7:00-10:00 pm. 4) Allow no surface use activities within crucial sage grouse wintering areas during 1 December-31 March. 5) Remove structures and associated infrastructure when project is completed.
	Roads	1) Develop a comprehensive infrastructure plan prior to energy development activities to minimize road densities. 2) Avoid locating roads and power lines in crucial sage grouse breeding, nesting, and wintering areas. 3) See conservation actions for siting and constructing power lines. 4) Use minimal surface disturbance to install roads and pipelines and reclaim site of abandoned wells to natural communities.
	Noxious weeds and other nonnative plants.	1) See conservation actions related to preventing the spread of weeds and controlling infestations of noxious weeds. 2) Engage industry as a partner to develop and establish
	Noise	1) Restrict noise levels from production facilities to 49 decibels (10 dba above background noise at the lek). 2) Restrict use of heavy equipment that exceeds 49 decibels within 2 miles of a lek from 4 a.m.-8 a.m. and 7 p.m. - 10 p.m. during March 1-June 15.
	Water Management	1) Design impoundments and manage discharge so as not to degrade or inundate leks, nesting sites, and wintering sites. 2) Protect natural springs from any source of disturbance or degradation from energy-related activities.
	Adaptive Management	1) Provide for long-term monitoring of siting requirements to examine effects of current and future development on sage grouse. 2) Set up a schedule for reviewing and revising siting and use criteria with industry.
Power Lines and Generation Facilities	Risk of Increased Predation	1) Document the segment(s) of line causing problems.

		2) Determine by cooperative action—agencies, utilities, and landowners—whether or not modification of poles to limit perching will prevent electrocution of raptors and decrease predation on sage grouse. Inform involved parties of and utilize Avian Power Line Action Committee 1994 guidelines. 3) With consideration given to impact to ratepayers, emphasize the following if perch prevention modifications do not work to protect sage grouse and sagebrush habitat: a) reroute the line using distance, topography, or vegetative cover; or b) bury the line. 4) Explore opportunities for technical assistance and funding. 5) Remove power line when use is completed.
	New line siting	1) Minimize the number of new lines in sage grouse habitat. 2) Site new lines in existing corridors wherever practicable. 3) Encourage the use of off-grid systems such as solar, natural gas micro-turbines, and wind power where feasible in sage grouse habitats. 4) Use the best available information for siting power lines on important breeding, brood-rearing, and winter habitat in an appropriate vicinity of the proposed line. 5) If siting is required within 2 miles of important breeding, brood-rearing, and winter habitat (Connelly et al. 2000b), emphasize options for preventing raptor perch sites utilizing Avian Power Line Action Committee 1994 guidelines or bury a portion of the line. 6) Develop a route—with agencies, utilities, and landowners cooperating—that uses topography, vegetative cover, site distance, etc. to effectively protect identified sage grouse habitat in a cost efficient manner. 7) Restrict timing for construction to prevent disturbance during critical periods: a) breeding—1 March-15 June b) winter—1 December-31 March

		8) Take appropriate measures to prevent introduction or dispersal of noxious weeds during construction and planned maintenance. 9) Remove power line when use is completed.
	Risk of Collision Mortality	1) Document the segment(s) of line causing consistent or biologically significant mortality—with agencies, utilities, and landowners cooperating in the effort. 2) Initiate collision prevention measures using guidelines (Avian Power Line Action Committee 1994) on identified segments. Measures are subject to restriction or modification for wind and ice loading or other engineering concerns, or updated collision prevention information. 3) Remove power lines that traverse important sage grouse habitats when facilities being serviced are no longer in use or when projects are completed.
	Fossil Fuel Generating Facility Siting	1) Use the best available information to: a) identify important sage grouse breeding, brood-rearing, and winter habitat in an appropriate vicinity of a proposed facility and associated infrastructure; and b) site fossil fuel generation facilities and associated infrastructure — with developers, agencies, utilities, and landowners cooperating—using topography, vegetative cover, site distance, etc. to effectively protect identified sage grouse habitat. 2) Restrict timing of construction to minimize disturbance during critical periods: a) breeding—1 March-15 June b) winter—1 December-31 March 3) Take appropriate measures to prevent introduction or dispersal of noxious weeds during construction, maintenance, and operation as required by federal and state laws. Develop offsite mitigation strategies in situations in which fragmentation or degradation of sage grouse habitat is unavoidable.
	Wind generation facility siting.	Consult with USFWS Ecological Services for site selection evaluation information. 2) Use the best available information to: a) identify important sage grouse breeding, brood-rearing, and winter habitat in an appropriate vicinity of a proposed facility and associated infrastructure; and b) site wind generation facilities—with agencies, utilities, and landowners cooperating—using topography, vegetative cover, site distance, etc., to effectively protect identified sage grouse habitat. 3) Identify and avoid both local (daily) and seasonal migration routes. 4) Restrict timing of construction to minimize disturbance during critical

		periods: c) breeding—1 March-15 June d) winter—1 December-31 March 5) Take appropriate measures to prevent introduction or dispersal of noxious weeds during construction, maintenance, and operation as required by federal and state laws. 6) Develop offsite mitigation strategies in situations in which fragmentation or degradation of sage grouse habitat is unavoidable.

Topics that were not included from 2005 Conservation Plan "Conservation Actions":

Fire management

Harvest Management (hunting)

Livestock Grazing management

Noxious Week Management

Recreation Disturbance

Roads and Motorized Vehicles

Vegetation

Managing Other wildlife in Sage Grouse Habitats

1. Connectivity Area Stipulations

Connectivity habitat includes those areas that provide important linkages among populations of sage-grouse, particularly between Core Areas or priority populations in adjacent states. Connectivity areas and potentially additional stipulations will be established ***[It would seem that we need to firm this up or drop it. If we want to have connectivity areas we should say where they are going to be either with certain criteria or specifically draw out our best estimate on a map, then we can stipulate that these connectivity areas will be better defined next year after the EO is issued]*** when more informed science becomes available. Research is underway, based on genetics work, to help better define the composition of priority connectivity habitat. General and connectivity habitat stipulations apply to all suitable sage-grouse habitat outside of Core Areas. Development in winter concentration areas, if identified, will be subject to additional stipulations. The goal of conserving general and connectivity

habitat is to minimize declines in the number of males attending leks by minimizing sagebrush loss and disturbance.