United States Department of the Interior

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IN REPLY REFER TO:
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December 29, 2009

EMS TRANSMISSION: January 4, 2010
Instruction Memorandum No. WY-2010- 012
Expires: 9/30/11

To: District Managers and Deputy State Directors

From: State Director

Subject: Greater Sage-Grouse Habitat Management Policy on Wyoming Bureau of Land Management (BLM) Administered Public Lands including the Federal Mineral Estate

Program Area: All programs

Purpose: This Instruction Memorandum (IM) provides guidance to Wyoming Bureau of Land Management (WY BLM) Field Offices on sage-grouse habitat management for proposed activities and resource management planning. The guidance also provides consistency in management practices for WY BLM Field Offices for the conservation of sage-grouse and their habitats. The Wyoming State Office will conduct an annual review of the implementation measures contained in this IM to determine the effectiveness of the guidance and make changes as necessary. This IM replaces IM No. WY-2004-057 (USDI BLM 2004b).

Policy/Action: It is the policy of WY BLM to manage sage-grouse seasonal habitats and maintain habitat connectivity to support population objectives set by the Wyoming Game and Fish Department (WGFD). This guidance is consistent with guidelines provided in the Governor's Sage-Grouse Implementation Team's Core Population Area strategy and the Governor's Executive Order (EO) (Order 2008-2). This policy is consistent with the BLM National Sage-grouse Habitat Conservation Strategy (USDI BLM 2004a) and national policy issued for the 2009 wildfire season that provided guidance for conservation of sage-grouse "Key Habitats" (USDI BLM 2009a). WY BLM sage-grouse Key Habitat Areas correspond to the State of Wyoming's Core Population Areas (Core Areas).

The guidance is structured to utilize an adaptive management approach to habitat conservation, restoration, and enhancement. The policy applies to all programs and activities occurring on

public lands and Federal mineral estate in Wyoming, except for livestock grazing management within the range management program, because recommendations and policy regarding grazing patterns will be issued separately. In addition, the policy herein will not apply to nondiscretionary activities managed under 43 CFR 3809 for locatable minerals and for discretionary activities approved under 43 CFR 3400 including Coal Management, and 43 CFR 3500 including Non-energy Leasables (i.e., trona operations). This policy will be considered in the case of authorizations for discretionary leasable solid minerals (other than coal and trona) and mineral materials actions.

This guidance is to be implemented in conjunction with existing program-specific policies and Best Management Practices (BMPs) such as, but not limited to, those contained in the Oil and Gas Program and the Lands and Realty program.

It is the goal of WY BLM to work toward the conservation of sage-grouse habitats along with the WGFD, input from the Local Sage-Grouse Working Groups (LWG), and other partners and stakeholders through a process that includes the implementation of the following Policy Statements.

Policy Statement 1: Habitat Mapping and Assessment
The WY BLM State Office and other Wyoming partners will continue to support the development of statewide sage-grouse seasonal habitat models for the State of Wyoming. Regional models will be developed for nesting, early brood-rearing, and winter habitats. Draft models are expected to become available for use and testing during FY 10 and final models are predicted for completion in late 2011. Until that time, Field Offices are encouraged to work with the WGFD, LWGs, researchers, industry, and other partners to identify and delineate important sage-grouse seasonal habitats, corridors, and habitat connectivity areas. These corridors and areas of habitat connectivity are best defined by sage-grouse use and suitable areas of sagebrush on the landscape. It is the intent of the Governor's Implementation Team to modify Core Area boundaries using the above listed information. If, in the meantime, BLM Field Offices have sage-grouse habitat use information useful for Core Area boundary modification, which has been coordinated with local WGFD personnel, the information should be presented to the Wyoming State Office Wildlife Biology Team for coordination and consideration by the Governor's Implementation Team.

The BLM Washington Office will be finalizing the Sage-grouse Habitat Assessment Framework by Spring 2010. When it is final, Field Offices will refer to it for methodologies to use when assessing or evaluating sage-grouse habitats at multiple scales.

Policy Statement 2: Timing, Distance, and Density Restrictions
Pending completion of ongoing land use planning decisions, Wyoming Field Offices must consider and evaluate the following sage-grouse habitat conservation measures related to timing, distance, and density for all proposed projects both within and outside of Core Areas. In addition, Field Offices should, on a project-by-project basis, evaluate other habitat conservation measures as appropriate.

Sage-grouse leks inside Core Areas: Surface disturbing activity or surface occupancy is prohibited or restricted on or within a six tenths (0.6) mile radius of the perimeter[1] of occupied or undetermined[2] sage-grouse leks.

Disruptive activity is restricted on or within six tenths (0.6) mile radius of the perimeter of occupied or undetermined sage-grouse leks from 6 pm to 8 am from March 15 – May 15.

Sage-grouse leks outside Core Areas: Surface disturbing activities or surface occupancy is prohibited or restricted on or within one quarter (0.25) mile radius of the perimeter of occupied or undetermined sage-grouse leks.

Disruptive activity is restricted on or within one quarter (0.25) mile radius of the perimeter of occupied or undetermined sage-grouse leks from 6 pm to 8 am from March 15 – May 15.

Sage-grouse nesting/early brood-rearing habitat inside Core Areas: Surface disturbing and/or disruptive activities are prohibited or restricted from March 15–June 30. Apply this restriction to *suitable sage-grouse nesting and early brood-rearing habitat* within Core Areas (See Policy Statement 4).

Sage-grouse nesting/early brood-rearing habitat outside Core Areas: Surface disturbing and/or disruptive activities are prohibited or restricted from March 15–June 30. Apply this restriction in *suitable sage-grouse nesting and early brood-rearing habitat* within mapped habitat important for connectivity or within 2 miles of any occupied or undetermined lek.

Sage-grouse winter habitat/concentration areas: Surface disturbing and/or disruptive activities in mapped or modeled sage-grouse winter habitats/concentration areas that support Core Area populations, are prohibited or restricted from November 15–March 14.

Surface disturbing and disruptive activities are defined in the WY BLM Guidance for Use of Standardized Surface Use Definitions (WY IB 2007-029). For non-emergency actions, to determine if activity proposed in sage-grouse nesting habitats is "disruptive", the activity would require people and/or the activity to be in nesting habitats for a duration of 1 hour or more during a 24 hour period during the nesting season in a site-specific area. Disruptive activity restrictions are not applicable to activities meeting the definition of casual use as found in various sections of the Code of Federal Regulations.

For authorization of any development actions where there are valid existing rights, Field Offices must analyze, in the site-specific or project-level National Environmental Policy Act (NEPA) documentation, an alternative that limits development to one disturbance location per 640 acres within the State's Core Areas to coincide with the Governor's EO.

[1] Mapping of lek perimeters is underway in cooperation with the WGFD. Field offices are encouraged to continue to coordinate with WGFD to complete lek perimeter mapping. Until such time as the perimeter is mapped, use 0.6 miles from the center of the lek.

[2] See the Wyoming Sage-grouse Definitions in Attachment 1.

Density of disturbances: The goal of consolidating anthropogenic features from development and transmission on the landscape should apply regardless of whether proposed actions are inside or outside of Core Areas (See Policy Statement 4) and regardless of land ownership patterns.

Inside Core Areas, the density goal includes:

- maintenance of sagebrush communities by maintaining or reducing the existing level of density of energy production and/or transmission structures on the landscape, or
- to not exceed one energy production location and/or transmission structure per 640 acres. The one location and cumulative value of existing disturbances in the area will not exceed 5 percent of sagebrush habitat within those same 640 acres.

Although they may require timing limitations, vegetation treatments that do not make the habitat unsuitable for sage-grouse, fence lines, two-tracks, water pipelines, stock tanks, etc., should not be added to the density calculation.

The WY BLM Greater Sage-grouse Project Authorization Screens (Figures 1 and 2) are provided below for use when considering project proposals (external proponent or internal BLM). The screens will be used to determine the appropriate timing, distance, and density restrictions that must be evaluated regardless of whether the sage-grouse habitat has been, or has yet to be, fully mapped and modeled. The purpose of the Project Authorization Screen is to provide a process to determine, within the context of an analysis, the appropriate management of sage-grouse seasonal habitats based on the relative amount of disturbance and anthropogenic features on the landscape at the proposed project site. In areas without completed habitat mapping /modeling, Field Offices should use the most recent version of the Governor's Sage-grouse Core Population Area map and GIS layers (located in the WYSO GIS shared drive under "Sage-grouse") until additional mapping is completed.

Figure 1

WY BLM Greater sage-grouse Project Authorization Screen

Prior to Mapping and Modeling Sage-grouse Habitat

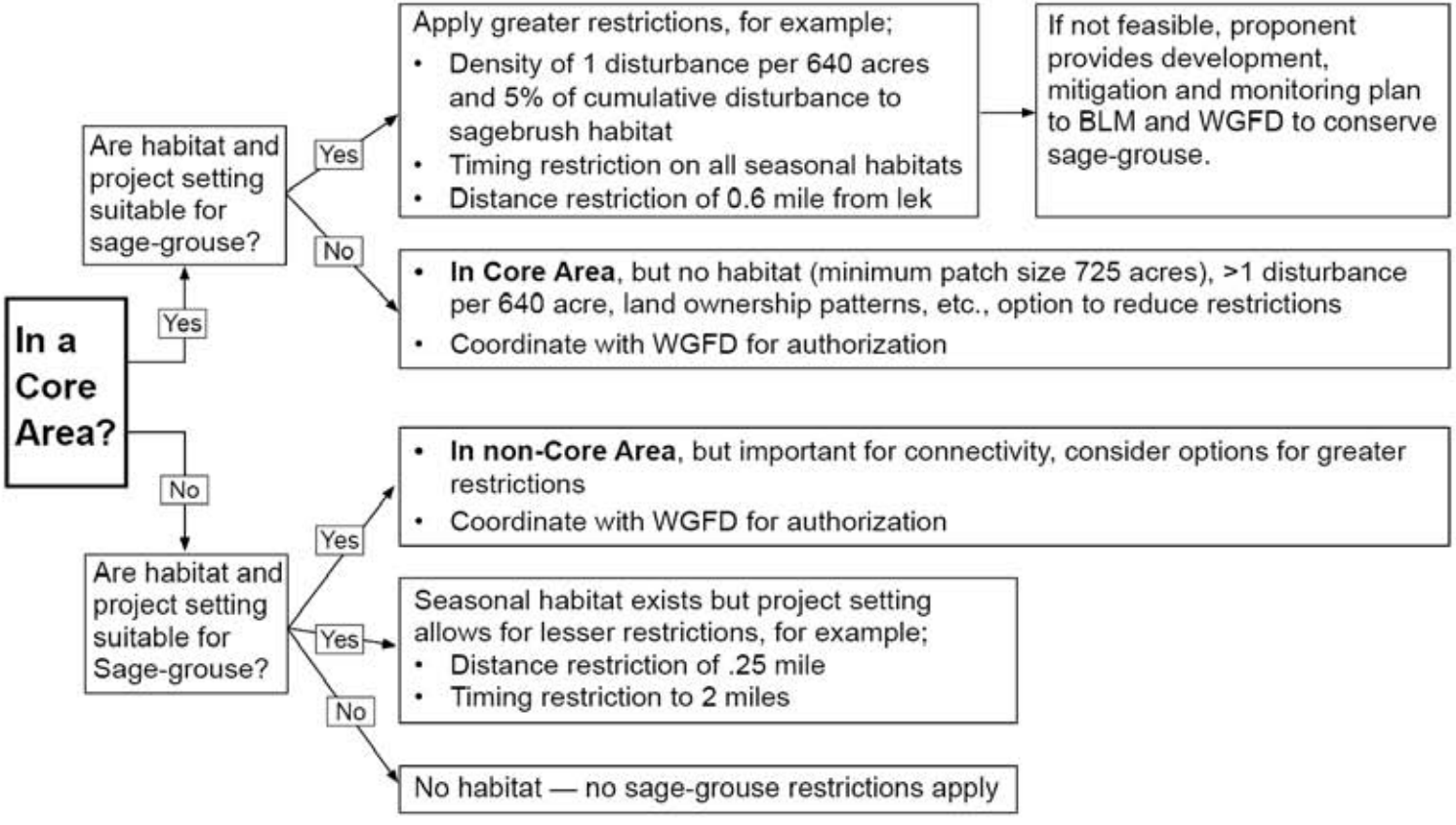
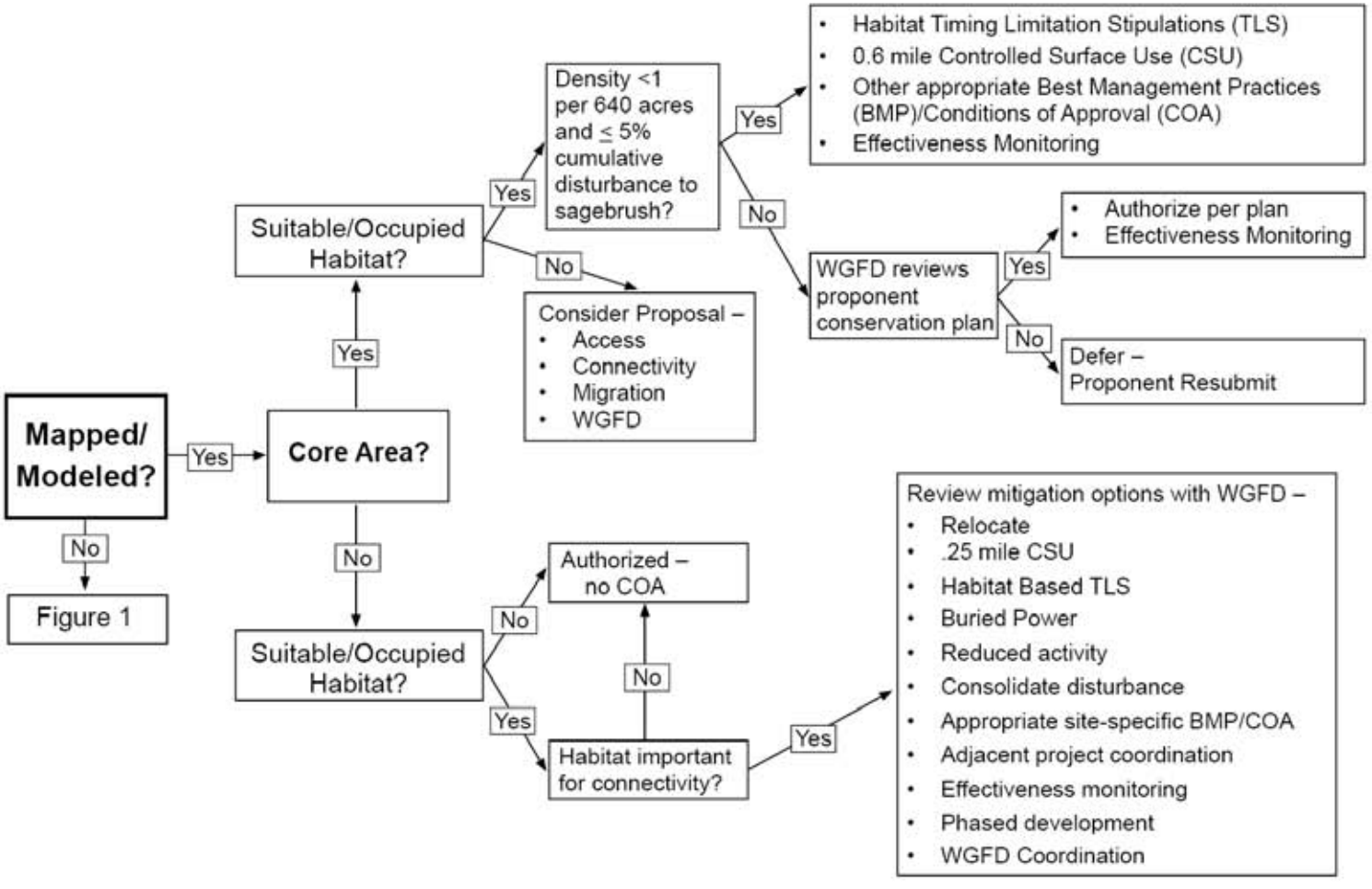


Figure 2
WY BLM Greater sage-grouse Project Authorization Screen
In Mapped and Modeled Sage-grouse Habitat



Timing, distance, and density restrictions will be considered across all Field Offices in NEPA analyses. Field Offices may vary in their application of these restrictions when that variance is based on locally collected scientific data and information and is included in the NEPA analysis (including analyses and rationale that support existing Records of Decision).

Exceptions to lease stipulations, Conditions of Approval (COAs), and terms and conditions (T&Cs), etc. will continue to be considered on a case-by-case basis consistent with approved resource management plans (RMP)**.** Adequate pre-planning can reduce or eliminate the need for exceptions in many cases. When considering exceptions to timing restrictions applied to oil and gas activities, Field Offices will continue to coordinate with the WGFD in accordance with Appendix 5G of the Umbrella MOU (WGFD and USDI BLM 1990, as revised) between the two agencies where exceptions are being considered.

Policy Statement 3: Conservation Objectives and Mitigation
Ensure that site-specific, measurable, conservation objectives are included in project planning within sage-grouse habitats. Include the collection of baseline data and outline post-project monitoring components into the project planning. Utilize LWG plans and other sources of information to guide development of conservation objectives for local management of sage-grouse habitats. Field Offices are encouraged to work within multiple programs, such as the hazardous fuels, fire management, range, and wildlife programs, to accomplish sage-grouse habitat conservation activities.

Field Offices will work with project proponents, partners, and stakeholders to implement direct mitigation (e.g. relocating disturbance, timing restrictions, etc.), and utilize BMPs and off-site compensatory mitigation where appropriate. Information sources to reduce impacts include, but are not limited to, the *Wyoming BLM Mitigation Guidelines for Surface-Disturbing and Disruptive Activities* (USDI BLM 1990) and the BLM *Offsite Mitigation* policy (USDI BLM 2008). Reclamation of surface disturbances in sage-grouse habitats will include consideration of methods for restoring or augmenting functional sage-grouse seasonal habitats in addition to reclamation of the physical disturbance on the site itself in accordance with the Wyoming Reclamation Policy (USDI BLM 2009b). Refer to the WGFD Recommendations for Development of Oil and Gas Resources within Important Wildlife Habitats (May 2009 as amended) for planning and management considerations to avoid, minimize, or reduce impacts from oil and gas development activities. WY BLM will recognize the population goals set by the WGFD when considering mitigation. In Core Areas, the goal is to maintain or enhance sage-grouse populations. Outside Core Areas, the goal is to sustain lek persistence over the long term, in sufficient proportions of the sage-grouse population to maintain connectivity and movements.

This policy does not preclude the development and immediate implementation of new mitigation or conservation measures to reduce activity/project impacts to sage-grouse or their habitats. Any new measures applied for sage-grouse will be coordinated with the WGFD. All recommendations, mitigation, and conservation measures will be analyzed in site-specific NEPA documents. As appropriate, these measures may be incorporated into COAs of the permit, plans of development, and/or other use authorizations.

Policy Statement 4: Project Locations and Analyses

Many sage-grouse seasonal habitats, where proposed surface disturbing activities may occur, are encumbered by valid existing rights, such as mineral leases. In some cases, such leases may include less stringent lease stipulations than the timing, distance, and density restrictions identified for consideration by this policy. Field Offices will work with proponents in these situations to ensure that measurable sage-grouse conservation objectives such as, but not limited to, consolidation of infrastructure to reduce habitat fragmentation and loss, and effective conservation of seasonal habitats and habitat connectivity to support population objectives set by the WGFD, are included in project proposals. Field Offices will work with project proponents (including those within BLM) to site their projects in locations that meet the purpose and need for their project, but have been determined to contain the least sensitive habitats whether inside or outside of Core Areas.

For the purpose of effects analysis for a proposed action, a sage-grouse habitat evaluation shall extend, at minimum, out to 4 miles from relatively small individual proposed actions and shall extend, at minimum, out 11 miles from the project boundary for large-scale proposed actions. Current research suggests that impacts to greater sage-grouse leks from energy development are discernable out to a minimum of 4 miles, and that some leks within this radius have been extirpated as a direct result of development (Walker et al. 2007, Walker 2008, Naugle et al. *In press*). Evaluation of the area within the 11-mile radius from the project boundary in large projects is required to encompass the majority of seasonal habitats that may be affected (Connelly et al. 2000).

For the purpose of illustrating the implementation of this policy, examples of relatively small actions may include but are not limited to, exploratory wells, individual rights-of-way (including surface level linear projects), vegetation treatments less than 500 acres, and wind energy site testing and monitoring projects. Examples of large-scale actions may include, but are not limited to, oil and gas full field developments, wind energy development projects, large power lines, and vegetation treatments larger than 500 acres in size. Field Managers will be responsible for the determination of whether an individual project is large or small within their Field Office Area.

BLM regularly conducts wildlife habitat evaluations in response to proposed activities. Evaluations involve a review of baseline data from office-based sources including, but not limited to, aerial photography, satellite imagery, sage-grouse demographic data, potential threats to sage-grouse, and may include field visits to identify and map seasonal habitats, especially leks, nesting, early brood-rearing, and winter habitat/concentration areas. During habitat evaluations, other vegetation communities not generally used by sage-grouse can be identified as potential sites in which to relocate projects with surface disturbing or disruptive activities. Sage-grouse habitat indicators that may be useful to consider when identifying conservation measures may include existing disturbances, habitat availability, patch size, fragmentation of existing habitats, patch connectivity, patch dynamics (i.e., seral stages of vegetation), habitat edge characteristics, and corridors potentially used for migration.

In cases where the migratory status of sage-grouse populations is not known, BLM personnel will make management decisions based on the assumption that the population is migratory. If populations have been documented as not migratory, the habitat evaluation will extend, at

minimum, out 4 miles from the project boundary regardless of the project size. For populations that have been documented as migratory, use the distances and locations appropriate to that population.

Policy Statement 5: Resource Management Plans (RMPs)
For ongoing and future RMP revisions, follow Section 1.3.1 of BLM's National Sage-Grouse Habitat Conservation Strategy (USDI BLM 2004a) for sagebrush habitat conservation in BLM RMPs. The following table provides an example of a range of alternatives for analysis:

No Action	Resource Protection Example	Resource Use Example	Balanced Example
RMP specific	Limit the density of disturbances on the landscape to 1 per 640 acres. The cumulative acres of disturbance must not exceed 5% of the sagebrush within the same 640 acres. Controlled Surface Use (CSU) for 0.6 mi from leks Timing Limitation Stipulation (TLS) on all nesting, early brood rearing and winter habitats. Consider identifying areas for no leasing or exclusion.	Possibly the same as No Action - CSU for ¼ mi from leks TLS to habitat within 2 miles from lek TLS on mapped winter concentration areas	Apply Resource Protection Alternative management in areas that contain at least 2/3 of the population in WY (Core Areas). Apply Resource Use Alternative measures to areas outside the Core Areas.

The following items will be incorporated into WY BLM Field Office RMPs as modifications occur:

- Identify areas not available for oil and gas leasing or wind energy development in an alternative as appropriate. Also consider deferring leasing when existing leases expire.
- Recommended management practices and sage-grouse conservation measures from the 1.4.1 of BLM's National Sage-Grouse Habitat Conservation Strategy (USDI BLM 2004a), Wyoming Greater Sage-Grouse Conservation Plan, local sage-grouse working group plans, peer reviewed research, and other available information, to the extent possible, for public lands and the Federal mineral estate.
- Objectives for maintenance and improvement of sage-grouse habitats to support population objectives set by the Wyoming Game and Fish Department. These objectives and associated management practices will be designed to limit loss, degradation, simplification, and fragmentation of habitats (US EPA 1993). See section 1.3.1 of BLM's National Sage-Grouse Habitat Conservation Strategy (USDI BLM 2004a) for further direction in developing RMP goals and objectives and a range of alternatives for sage-grouse and sagebrush habitats. (See example above)

- Develop plans to monitor sage-grouse habitats in order to assess effectiveness of conservation measures that will be applied in achieving the conservation of sage-grouse habitats.
- All BLM authorized activities located in sage-grouse habitats will require appropriate sage-grouse conservation measures.
- Sage-grouse specific exception criteria for application of greater or lesser restrictions to short or long-term activities. Exception evaluation factors may include, but are not limited to, condition of the habitat, presence of sage-grouse or their sign, presence of other activities in the area, importance for migration or connectivity, duration and timing of proposed activity, local topography, severity and forecast of weather, beneficial aspects of the project for sage-grouse, including possible reclamation activities, and cover and forage availability.
- Landscape scale conservation strategies that may include special management of seasonal habitats and linkage zones. Use program-specific BMPs such as, but not limited to, temporary set-asides, phased development and/or off-site mitigation if offered by the proponent, reclamation methods, buried power lines, and efforts to reduce or consolidate surface-disturbing and disruptive activities in these strategies.

Policy Statement 6: Lek Data

The official Wyoming sage-grouse lek database is maintained by the WGFD in accordance with Appendix 4B of the Umbrella MOU between the WGFD and BLM (WGFD and USDI BLM 1990).

BLM and WGFD will meet at least annually to coordinate and review the accuracy of data and incorporate the most up-to-date information. For data to be included in the database, it must be collected using techniques and accuracy standards agreed upon by WGFD and BLM. Annual lek surveys and lek counts will be coordinated between WGFD and the BLM to reduce duplicated efforts and minimize disturbance in accordance with the Umbrella MOU.

Policy Statement 7: West Nile Virus

Artificial water impoundments will be managed to the extent of BLM's authority to prevent the spread of West Nile virus where the virus poses a threat to sage-grouse. This may include but is not limited to: a) the use of larvicides and adulticides to treat reservoirs; b) overbuilding ponds to create non-vegetated and muddy shorelines; c) building steep shorelines to reduce shallow water and aquatic vegetation; d) maintaining the water level below rooted vegetation; e) avoiding flooding terrestrial vegetation in flat terrain or low lying areas; f) constructing dams or impoundments that restrict seepage or overflow; g) lining the channel where discharge water flows into the pond with crushed rock, or use a horizontal pipe to discharge inflow directly into existing open water; h) lining the overflow spillway with crushed rock and construct the spillway with steep sides to preclude the accumulation of shallow water and vegetation; and i) restricting access of ponds to livestock and wildlife (Doherty 2007).

Field Offices should consider alternate means to manage produced waters that could produce vectors for West Nile virus such as injection under an approved UIC permit, transfer to single/centralized facility, etc.

This does not apply to naturally occurring waters. Impoundments for wildlife and/or livestock use should be designed to reduce the potential to produce vectors for West Nile Virus where the virus may pose a threat to sage-grouse.

Policy Statement 8: Use of Dogs
At this time, BLM is not aware of any technique other than radio telemetry that is effective for detecting individual nesting sage-grouse. Field Offices are not to utilize dogs as a sole mechanism for conducting clearances to provide exceptions for activities to occur in sage-grouse nesting habitat during the nesting season. Carefully consider the disturbance or potential for mortality of birds before using this methodology. The use of well-trained dogs and experienced handlers for conducting clearances of winter concentration areas is permissible only when conducted with simultaneous verification of bird presence by visual observation of sage-grouse or their sign. This policy is in compliance with the WY BLM policy (USDI BLM 2009c) which does not allow employees to transport dogs in government vehicles.

Policy Statement 9: Monitoring Effectiveness
It is extremely important that the directives contained in this IM are monitored to determine the effectiveness of their implementation. Field Offices are to establish monitoring protocols that will be incorporated into project approvals as necessary. Small or in-house projects will also have a monitoring plan incorporated in the approval document.

Policy Statement 10: Variances
This statewide policy is intended to provide consistent sage-grouse habitat management directives on BLM administered public lands including the Federal mineral estate in Wyoming. Because Wyoming is such a diverse State, there may be occasional, special circumstances which could justify deviation from the policies stated herein. Field Offices may vary from this policy **where locally collected scientific data supported by comprehensive, objective NEPA analysis of a proposed action presents compelling justification for variance.** Where justified, changes will be made as COAs and terms and conditions to **all** land use authorizations affected at the site. In all cases, prior to actions wherein deviations from policy or variance from standard policies may take place, Field Offices will coordinate with WGFD counterparts and advise the Deputy State Director for Resource Policy and Management (WY 930) and the Deputy State Director for Minerals and Lands (WY 920) through the District Office of their intent to take such actions. The purpose of such notification and interaction is to ensure statewide awareness through monitoring of the number and type of such actions, and not to request advance WY BLM State Office approval for such actions.

Timeframe: Effective immediately.

Budget Impact: There may be a significant effect on the budget.

Background: Since 1999, many petitions have been submitted to the U.S. Fish and Wildlife Service (FWS) to list greater sage-grouse as threatened or endangered under the Endangered Species Act (ESA). Following the previous status reviews, the FWS determined in 2005 that the species was "not warranted" for listing. Decision documents supporting that determination noted the need to continue or expand all efforts to conserve sage-grouse. The FWS is currently

reviewing the status based on litigation challenging the past FWS determinations (Winmill 2007). Future petitions to list sage-grouse under the Endangered Species Act (ESA) are anticipated. Part of the ESA listing process includes evaluating the adequacy of regulatory mechanisms to protect or conserve species, and this IM is intended to ensure that WY BLM has adequate regulatory mechanisms in place.

Because of the potential for ESA listing, the State of Wyoming took a proactive approach to sage-grouse conservation. Following the Wyoming Governor's 2007 Sage-grouse Summit, the Governor's Implementation Team developed a map of Core Population Areas in Wyoming. The Governor's Executive Order (EO) 2008-2, titled Greater Sage-grouse Core Area Protection, issued on August 1, 2008, directed State agencies to focus on maintenance and enhancement of sage-grouse habitats and populations within Core Population Areas. State agencies have been directed to work collaboratively with Federal agencies to ensure, to the greatest extent possible, a uniform and consistent application of the EO to maintain and enhance sage-grouse habitats and populations. The EO does not specifically apply to public lands; however, it is important to note that, at the time the Core Population Areas were developed, approximately 82 percent of the State's peak male sage-grouse attendance at leks was located within those Core Areas. To form the Core Area to encompass at least two thirds of the population in Wyoming, polygons were drawn on a paper map with a sage-grouse density background. The lek density map is based on peak male observation data from 2005 to 2007 from the WGFD database. A buffer was applied to each lek with a 4 mile radius. Then, highest density areas were delineated that represent the following categories of male sage-grouse lek counts: 65 percent, 70 percent, 75 percent, 80 percent and 85 percent of the male population. Modifications to the boundaries are expected to occur with new information and can be accomplished during RMP revisions, large projects EISs, and upon completion of mapping efforts for example.

WY BLM identified Key Habitat Areas in May 2008 in response to a national level effort to identify key sage-grouse habitats on BLM lands. The Key Habitat Areas differed slightly from the Governor's Core Population areas by the addition of sagebrush areas along State borders in order to edge match Key Habitat Areas with adjacent States. The BLM Washington Office issued direction to the BLM Fire and Wildlife Programs on June 19, 2008 (USDI BLM 2009) to protect all Key Habitats during fire management operations, especially in Sage-grouse Management Zones 3, 4 and 5. Although sage-grouse populations in Wyoming are in Management Zones 1 and 2, WY BLM implemented the guidance in the IM.

Broad application of the new restrictions as COAs to existing leases would likely be considered an interference with lease rights unless the lease contains language allowing for such a modification. Sage-grouse Lease Notice No. 3 has been attached to all leases issued by Wyoming BLM since April 2008. BLM may, to some degree, exceed the siting/timing limitations set forth in 43 C.F.R. § 3101.1-2 if supported by current research, site-specific NEPA analysis demonstrating the necessity of the additional mitigation and consistency with lease rights. The application of additional post-lease mitigation must also be consistent with the terms of the governing RMP. Development plans should be reviewed on a case-by-case basis to determine if impositions of these new conditions are consistent with the governing RMP and would not interfere with lease rights and allow for reasonable use and development of the leaseholds. A recent Interior Board of Land Appeals (IBLA) decision (176 IBLA 144 – 161) upheld the BLM's

exercise of discretion in applying a timing restriction out to 3 miles from a lek as a COA on an APD permit because it was consistent with the governing RMP, was biologically based, was adequately supported by site-specific NEPA analysis, and because the lessee did not show how it interfered with lease rights.

The Mineral Leasing Act (MLA) provides that all lands subject to the Act "which are known or believed to contain oil or gas deposits may be leased by the Secretary [of the Interior]." 30 U.S.C. 226(a) (2009). The Supreme Court held that the Act gives the Secretary broad discretion not to offer an oil and gas tract for leasing. *Udall v. Tallman*, 380 U.S. 1,4 (1965). The U.S. Court of Appeals for the Ninth Circuit held that refusing to issue leases is a legitimate exercise of the Secretary's discretion under the MLA. *See Burglin v. Morton*, 527 F.2d 486, 488 (9th Cir. 1975) (citing *Tallman*, 380 U.S. at 4). The IBLA has expressly held that lands identified for oil and gas leasing in an RMP are open for permissible uses, and the BLM has no duty to offer them for lease, even when the BLM has received a pre-sale non-competitive offer to lease, *Richard D. Sawyer*, 160 IBLA 158, 163 (2003), or a nomination for competitive lease. *Marathon Oil Co.*, 139 IBLA 347 (1997). The BLM may also decline to lease even after it has received bids and bonus monies at a competitive lease sale. *Continental Land Resources*, 162 IBLA 1, 14-15 (2004). The IBLA has also upheld the BLM's authority to impose more stringent protection measures on approval of development plans or permits than provided for in lease stipulations when supported by current science and analyzed through the NEPA process. *See William P. Maycock*, 177 IBLA 1 (2009); *Yates Petroleum Corp.*, 176 IBLA 144 (2008); IBLA Order 2008-236 (Sorenson).

Standard terms related to surface activities found in the Wyoming BLM *Guidance for Use of Standardized Surface Use Definitions* (USDI BLM 2007) were used throughout this IM. The Wyoming Sage-grouse Definitions (WGFD 2006) found in Attachment 1 were used to standardize terminology associated with sage-grouse habitat management in Wyoming.

WY BLM has adopted the management vision contained in the 2000 Western Association of Fish and Wildlife Agencies (WAFWA) Memorandum of Understanding (MOU) with BLM, and incorporated the principles and strategies contained in the BLM National Sage-Grouse Habitat Conservation Strategy (USDI BLM 2004a); the WY Greater Sage-Grouse Conservation Plan (WGFD 2003); and the Local Working Group plans. Updates to these documents will be incorporated into this policy as appropriate.

Manual or Handbook Sections Affected: No manual or handbook sections are affected.

Coordination: This IM was coordinated among the Washington BLM Division of Fish, Wildlife and Plant Conservation and the Division of Minerals, Realty and Resource Protection, the WY BLM Field Offices, other BLM State Offices, the Wyoming Office of Governor Freudenthal, and the Wyoming Game and Fish Department.

Contacts: Chris Keefe, Wildlife Biologist, 307-775-6101 and Bill Hill, Deputy State Director for Resources, Policy and Management, 307-775-6113.

Signed by:
Bill Hill
Acting State Director

Authenticated by:
Pamela D. Hernandez
Wyoming Central Files

4 Attachments:
1 – Wyoming Sage-Grouse Definitions (4 pp)
2 – Seasonal Sage-grouse Habitat Components Descriptions (2 pp)
3 – Background for Sage-grouse Habitat Management (2 pp)
4 - References (3 pp)

Distribution

Director (230), Room 204, LS	1 (w/o atchs,)
Field Managers	2 (w/atchs,)
CF	2(w/atchs,)

Wyoming Sage-Grouse Definitions:
(Revised 12/16/09)

The following definitions have been adopted for the purposes of collecting and reporting sage-grouse data. See the sage-grouse chapter of the Wyoming Game and Fish Department's Handbook of Biological Techniques for additional technical details and methods.

Lek - A traditional courtship display area attended by male sage-grouse in or adjacent to sagebrush dominated habitat. A lek is designated based on observations of two or more male sage-grouse engaged in courtship displays. Before adding the suspected lek to the database, it must be confirmed by an additional observation made during the appropriate time of day, during the strutting season. Sign of strutting activity (tracks, droppings, feathers) can also be used to confirm a suspected lek. Sub-dominant males may display on itinerant (temporary) strutting areas during population peaks. Such areas usually fail to become established leks. Therefore, a site where small numbers of males (<5) are observed strutting should be confirmed active for two years before adding the site to the lek database.

Satellite Lek – A relatively small lek (usually less than 15 males) that develops within about 500 meters of a large lek during years of relatively high grouse numbers. Locations of satellite leks should be encompassed within lek perimeter boundaries. Birds counted on satellite leks should be added to those counted on the primary lek for reporting purposes.

Lek Perimeter – The outer perimeter of a lek and any associated satellites. Perimeters should be mapped by experienced observers using established protocols for all leks with larger leks receiving higher priority. Perimeters may vary over time as population levels or habitat and weather conditions change. However, changes to mapped perimeters should occur infrequently and only if grouse use consistently (2+ years) demonstrates the existing perimeter to be inaccurate. A point **within** the lek perimeter must be recorded or calculated as the identifying location for the lek. The point may be the geographic center of the perimeter polygon as calculated though a GIS exercise or a GPS point reflecting the center of breeding activity as typically witnessed on the lek.

Lek Complex - A lek or group of leks within 2.5 km (1.5 mi) of each other between which male sage-grouse may interchange from one day to the next.

Lek Count - A census technique that documents the actual number of male sage-grouse observed attending a lek complex. The following criteria are designed to assure counts are done consistently and accurately, enabling valid comparisons to be made among data sets. Additional technical criteria are available from the WGFD.

- Conduct lek counts at 7-10 day intervals over a 3-4 week period after the peak of mating activity. Although mating typically peaks in early April in Wyoming, the number of males counted on a lek is usually greatest in late April or early May when attendance by yearling males increases.
- Conduct lek counts only from the ground. Aerial counts are not accurate and are not comparable to ground counts.

- Conduct counts between ½ hour before sunrise to 1 hour after.
- Count attendance at each lek a minimum of three times annually during the breeding season.
- Conduct counts only when wind speeds are less than 15 kph (~10 mph) and no precipitation is falling.
- All leks within a complex should be counted on the same morning.

Lek Count Route – A lek route is a census of a group of leks that are relatively close and represent part or all of a single breeding population/sub-population. Leks should be counted on routes to facilitate repetition by other observers, increase the likelihood of recording satellite leks, and account for shifts in breeding birds if they occur. Lek routes should be established so that all leks along the route can be counted within 1.5 hours following the criteria listed under "Lek Count".

Lek Survey - Ideally, all sage-grouse leks would be counted annually. However, some breeding habitat is inaccessible during spring because of mud and snow, or the location of a lek is so remote it cannot be routinely counted. In other situations, topography or vegetation may prevent an accurate count from any vantage point. In addition, time and budget constraints often limit the number of leks that can be visited. Where lek counts are not feasible for any of these reasons, surveys are the only reliable means to monitor population trends. Lek surveys are designed principally to determine whether leks are active or inactive, requiring as few as one visit to a lek. Obtaining accurate counts of the numbers of males attending is not essential. Lek surveys involve substantially less effort and time than lek counts. They can also be done from a fixed-wing aircraft or helicopter. Lek surveys can be conducted from the initiation of strutting in early March until early-mid May, depending on the site and spring weather.

Annual status – Lek status is assessed annually based on the following definitions:

- **active** – Any lek that has been attended by male sage-grouse during the strutting season. Acceptable documentation of grouse presence includes observation of birds using the site or signs of strutting activity.

- **inactive** – Any lek where sufficient data suggests that there was no strutting activity throughout a strutting season. Absence of strutting grouse during a single visit is insufficient documentation to establish that a lek is inactive. This designation requires documentation of either: 1) an absence of birds on the lek during at least 2 ground surveys separated by at least 7 days. These surveys must be conducted under ideal conditions (4/1-5/7, no precipitation, light or no wind, ½ hour before to 1 hour after sunrise) or, 2) a ground check of the exact known lek site late in the strutting season (after 4/15) that fails to find any sign (droppings/feathers) of strutting activity. Data collected by aerial surveys may not be used to designate inactive status.

- **unknown** – Leks for which status as active or inactive has not been documented during the course of a strutting season. Use of this status should be rare. Leks should be checked

with enough visits to determine whether it is active or not. It is better to have two good checks every other year and confirm it "inactive" than to check it once every year, not see birds, but remain in “unknown” status.

Management status - Based on its annual status, a lek is assigned to one of the following categories for management purposes:

- **occupied lek** – A lek that has been active during at least one strutting season within the prior ten years. Occupied leks are protected through prescribed management actions during surface disturbing activities.

- **unoccupied lek** – (Formerly “historical lek”.) There are two types of unoccupied leks, “destroyed” and “abandoned.” Unoccupied leks are not protected during surface disturbing activities.

    - **destroyed lek** – A formerly active lek site and surrounding sagebrush habitat that has been destroyed and is no longer suitable for sage-grouse breeding. A lek site that has been strip-mined, paved, converted to cropland or undergone other long-term habitat type conversion is considered destroyed. Destroyed leks are not monitored unless the site has been reclaimed to suitable sage-grouse habitat.

    - **abandoned lek** – A lek in otherwise suitable habitat that has not been active during a period of 10 consecutive years. To be designated abandoned, a lek must be “inactive” (see above criteria) in at least four non-consecutive strutting seasons spanning the ten years. The site of an “abandoned” lek should be surveyed at least once every ten years to determine whether it has been reoccupied by sage-grouse.

- **undetermined lek** – Any lek that has not been documented active in the last ten years, but survey information is insufficient to designate the lek as unoccupied. Undetermined leks will be protected through prescribed management actions during surface disturbing activities until sufficient documentation is obtained to confirm the lek is unoccupied. Use of this status should be rare (see “unknown” above).

Winter Concentration Area - During winter, sage-grouse feed almost exclusively on sagebrush leaves and buds. Suitable winter habitat requires sagebrush above snow. Sage-grouse tend to select wintering sites where sagebrush is 10-14 inches above the snow. Sagebrush canopy cover utilized by sage-grouse above the snow may range from 10 to 30 percent. Foraging areas tend to be on flat to generally southwest facing slopes or on ridges where sagebrush height may be less than 10 inches but the snow is routinely blown clear by wind. When these conditions are met, sage-grouse typically gain weight over winter. In most cases winter is not considered limiting to sage-grouse. Under severe winter conditions grouse will often be restricted to tall stands of sagebrush often located on deeper soils in or near drainage basins. Under these conditions winter habitat may be limiting. On a landscape scale, winter habitats should allow sage-grouse access to sagebrush under all snow conditions.

Large numbers of sage-grouse have been documented to persistently use some specific areas which are characterized by the habitat features outlined above. These areas should be delineated as "winter concentration areas". Winter concentration areas do not include all winter habitats used by sage-grouse, nor are they limited to narrowly defined "severe winter relief" habitats. Delineation of these concentration areas is based on determination of the presence of winter habitat characteristics confirmed by repeated observations and sign of large numbers of sage-grouse. The definition of "large" is dependent on whether the overall population is large or small. In core population areas frequent observations of groups of 50+ sage-grouse meet the definition while in marginal populations group size may be 25+. Consultation and coordination with the WGFD is required when delineating winter concentration areas.

The following definitions are derived from the WAFWA sage-grouse guidelines (Connelly et al. 2000):

Non-migratory Populations – Sage-grouse populations that **do not** make long distance movements (i.e., > 10 km one way) between or among seasonal ranges.

Migratory Populations – Sage-grouse populations that **do** make long distance movements (i.e.,> 10 km one way) between or among seasonal ranges. These long distance movements may take place in stages between 2 or 3 distinct seasonal ranges.

The following definitions are derived from the EPA habitat evaluation guidance (US EPA 1993):

Habitat Destruction (Loss/Conversion) – The ultimate form of a habitat impact. The destruction of a natural ecosystem through its conversion to another land use. In each conversion, the original natural characteristics of the land are eliminated, while the associated habitat values are modified to varying degrees.

Habitat Fragmentation (Breakdown Partitioning) – A form of habitat impact which often only destroys part of a habitat, leaving other portions of the habitat intact. Depending on the scale of concern, many instances of local habitat destruction are better thought of as habitat fragmentation, or partitioning. Such fragmentation can be the principal cause of loss of "area-sensitive" species (e.g., grizzly bears, sage-grouse, etc.), and is the most serious threat to biological diversity.

Habitat Simplification (Removal of Components) – A habitat impact that includes the removal of ecosystem components, such as standing dead trees, cover logs, or stream debris, the death of sensitive submerged plants from siltation, and the loss of microhabitats (such as nests and dens) that are rendered unusable by human intrusion. The removal of vertical habitat structure can reduce the diversity of species.

Habitat Degradation (Reduced Quality/Contamination) – This form of habitat impact specifically refers to a decrease in the health or ecological integrity of the "intact" habitat. Chemical contamination, invasion of exotic plants and animals, increased water temperatures, UV-B exposure, or draw-down of aquifers are all examples of habitat degradation.

BASIC SAGE-GROUSE HABITAT COMPONENT DESCRIPTIONS

To effectively manage for sage-grouse and their habitat it is necessary to have a basic understanding of general sage-grouse biology and habitat needs.

The following seasonal use periods and habitat components are important to sage-grouse and contribute to their productivity and conservation. Breeding habitats have been identified as limiting factors in sage-grouse populations across their range. Winter habitats have been identified as a limiting factor in portions of their range when sage-grouse are unable to have access to sagebrush under a variety of snow conditions. The following habitat descriptions are a composite characterization of sage-grouse seasonal use areas found across Wyoming as presented in the Wyoming Sage-grouse Conservation Plan (WGFD 2003). These descriptions are most useful in providing an overall, contextual view of typical sage-grouse seasonal habitats in Wyoming, a State of very diverse ecosystems. Important sage-grouse seasonal habitats and use areas can vary from one part of the State to another. The regional sage-grouse plans prepared by the local sage-grouse working groups (LWG) provide a more specific description of the seasonal habitats and use areas for each region of the State.

The following are descriptions of breeding and winter habitat components which are based on definitions entitled "Wyoming Sage-grouse Definitions" developed and adopted by the WGFD, and others (Attachment 1).

BREEDING HABITATS: Breeding habitats are composed of leks, nesting and early brood-rearing habitats.

> **Leks -** A lek is typically an open area surrounded by potential nesting habitat. The common feature of leks is that they have less shrub and herbaceous cover than surrounding habitats. The sagebrush cover that surrounds a lek provides important hiding cover from predators for both the male sage-grouse and particularly hens while attending a lek. Sagebrush cover immediately adjacent to a lek may or may not meet the following definition of productive, high quality nesting habitat.
>
> **Nesting/Early Brood-Rearing Habitat** - Nesting habitat for sage-grouse in Wyoming is generally described as sagebrush stands having canopy cover 15 to 30 percent and shrub heights of 11 to 32 inches (40-80 cm). Grasses and forbs with height (6 inches (15 cm) or greater) and shrub canopy cover (greater than 15 percent) provides important cover and food for sage-grouse using these habitats. Early brood-rearing habitat generally has 10 to 25 percent sagebrush canopy cover and has slightly higher canopy cover of grasses and forbs than nesting habitat. Early brood-rearing habitat is generally used by sage-grouse hens with chicks when the chicks range in age from newly hatched up to 21 days of age.
>
> Research conducted on sage-grouse nesting activities range-wide has established that incubating hens normally leave the nest twice a day for 20 to 45 minutes during the early morning and late afternoon to feed (Holloran 2005). Activities or actions that cause hens to leave the nest more frequently or for longer periods increase the likelihood of nest failure. Studies since 1977 indicate that many populations of sage-grouse contained birds

nesting much further than 2 miles from the lek of breeding. Studies conducted in Wyoming from 1994 to 2003 indicate 45 percent of sage-grouse hens nest within 1.86 miles (3 km) of the lek, 64 percent nest within 3.1 miles (5 km), and 74 percent of nests are located within 4 miles (6.5 km) of the lek (Holloran and Anderson 2005, Holloran et al. 2007). Nest locations are independent of lek location, and are based on availability of suitable nesting habitat. Not all sagebrush habitats within these 2 to 4 mile radius distances may be suitable as nesting habitat or other seasonal habitats for sage-grouse.

WINTER HABITATS: During winter, sage-grouse feed almost exclusively on sagebrush leaves and buds. Suitable winter habitat requires sagebrush above snow. Sage-grouse tend to select wintering sites where sagebrush is 10-14 inches (25 -36 cm) above the snow. Sagebrush canopy cover utilized by sage-grouse above the snow may range from 10 to 30 percent. Foraging areas tend to be on flat to generally southwest facing slopes or in areas where sagebrush height may be less than 10 inches (25 cm) but the snow is routinely blown clear by wind. When these conditions are met, sage-grouse typically gain weight over winter. In most cases, winter conditions are not considered limiting to sage-grouse. Under severe winter weather conditions sage-grouse will often be restricted to tall stands of sagebrush usually located on deeper soils in or near drainages. Under these severe winter conditions, winter habitat may be limiting. On a landscape scale, sage-grouse winter habitats should allow sage-grouse access to sagebrush under all snow conditions.

Large numbers of sage-grouse have been documented to consistently use some specific areas which are characterized by the habitat features outlined above. These areas are "winter concentration areas." Not all winter habitats used by sage-grouse, or "severe winter relief" habitats (a survival range), serve as winter concentration areas. Delineation of these concentration areas is based on determination of the presence of winter habitat characteristics confirmed by repeated observations and/or sign of large numbers of sage-grouse. The definition of "large" is dependent on whether the overall population is large or small. In core population areas frequent observations of groups of 50+ sage-grouse meet the definition, while in marginal populations group size may be 25+.

Background for Sage-grouse Habitat Management

Information in this background synopsis exemplifies the need for large, landscape-level, sage-grouse habitat evaluation and management.

The *Guidelines to Manage Sage-grouse Populations and Habitats (2000 WAFWA Guidelines)* (Connelly et al. 2000) and *Monitoring of Greater Sage-grouse Habitats and Populations* (Connelly et al. 2003) recommend that agencies determine if sage-grouse populations are migratory or non-migratory in order to apply the appropriate management prescriptions. When nesting habitats are distributed less uniformly around a lek, sage-grouse hens travel greater distances from the lek to locate nests within suitable nesting habitat. In migratory populations, sage-grouse hens may nest up to 15 miles (25km) or further from the lek of breeding. Non-migratory populations may have all seasonal habitats interspersed within their annual ranges with no major barriers (e.g., topography, large reservoirs, subdivisions, or other large scale developments) or long distance movements (>6.2 miles; 10 km) between seasonal habitats. Most sage-grouse populations in Wyoming are migratory and have large annual ranges with distinct seasonal use areas. Migratory populations may use areas within a landscape as large as 1042 square miles (2700 km^2) on an annual basis. Within these areas, sage-grouse use specific habitats each year and exhibit high fidelity to seasonal ranges. Use of these seasonal habitats can be highly dependent on traditional migratory corridors between these areas (Connelly et al. 2000, 2003, and 2004). Activities that impact these traditional use corridors and seasonal habitat areas (occupied or unoccupied) may adversely affect sage-grouse populations and their habitats at great distances from the activities. See Attachment 1 for definitions of migratory and non-migratory sage-grouse populations.

Research studies conducted in the upper Green River Basin since 1999 (Lyon and Anderson 2003, Holloran 2005, and Kaiser 2006) and studies in the Powder River Basin since 2002 (Walker et al. 2007a, and Doherty et al. 2008) describe the impact of oil and gas field development on sage-grouse. These recent studies conclude sage-grouse are sensitive to human disturbance and habitat degradation at even relatively low levels, and detrimental impact thresholds to sage-grouse can be reached quickly at the landscape scale. The Recommendations for Development of Oil and Gas Resources within Crucial and Important Wildlife Habitats (WGFD 2009) provides sage-grouse specific thresholds derived from the scientific literature.

Lek sites that appear to be abandoned may be important habitat components for rebounding sage-grouse populations. Analysis of long-term monitoring data suggests sage-grouse populations are cyclic or oscillate based on environmental factors such as drought (WGFD 2003). Within these cycles, sage-grouse populations decline and some leks become temporarily inactive for a period of years. Once environmental conditions improve, these leks may become active again. These cycles appear to be approximately 10 years.

The recent spread of West Nile virus (WNv) in North America represents an important new stressor on greater sage-grouse populations. In 2003, an outbreak of WNv decreased late-summer survival of sage-grouse by 25% (Naugle et al. 2004) and resulted in near-extirpation of a local breeding population (Walker et al. 2004). By summer 2004, survival across the species'

range was 10% lower (86%) at sites with WNv mortalities than at sites without (Naugle et al. 2005). Extreme susceptibility of sage-grouse was confirmed in 2004 when all non-vaccinated birds experimentally infected with WNv died (Clark et al. 2006). Infection rates in sage-grouse show that impacts of WNV in the near future will depend more on changes in climate and vector distribution than on spread of resistance (Walker et al. 2007b).

Domestic livestock grazing has occurred within the range of sage-grouse for over 150 years and is the most common and widespread use of rangelands in the western U.S. Livestock grazing practices may affect herbaceous composition, cover, and height and has a potential to impact sagebrush habitats. WY BLM has standards and guidelines to ensure proper livestock grazing management on public lands which can help maintain healthy rangeland conditions and provide functional habitat for sage-grouse. However, poor livestock grazing practices can have long-term negative impacts on sage-grouse habitat by degrading sagebrush, meadow, and riparian communities (Bohne et al. 2007).

In recent decades, prescribed fire has been used as a preferred land management treatment in many locations. Baker (2006), Dahlgren et al. (2006), and Woodward (2006) have evaluated the use of fire in sage-grouse habitats. An interagency report entitled "Wyoming Guidelines for Management of Sagebrush Communities with an Emphasis on Fire Management" (Wyoming Interagency Vegetation Committee 2002) presents some broad, landscape guidelines for use of fire in sagebrush ecosystems and is further supplemented with sage-grouse specific information in Bohne et al. (2007).

Wildfires are a natural occurrence in sagebrush ecosystems, though they may not be occurring at “natural” frequencies, severities and intensities. As fire goes through a site both the understory and overstory vegetation are removed on the surface, and it may take many years for some species of sagebrush to return to some sites. Sage-grouse are highly dependent on the presence of sagebrush in their habitat, and loss of sagebrush to fire can have a highly detrimental effect on sage-grouse within their range. Invasive species such as cheatgrass, etc., can increase fire frequency and may prevent the establishment of sagebrush and native grass and forb understory. Cheatgrass is a landscape issue threatening sage-grouse habitats. Management guidance goes beyond the scope of this policy although integrated pest management could be included in the Conservation Objectives and RMP policy statements.

Drought severity and frequency have a significant impact to sagebrush ecosystems. Impacts may include loss of vegetation to support brood-rearing habitat function (insects, succulent forb production, hiding cover, etc.). Drought can amplify detrimental effects and slow habitat recovery from disturbances such as fire. Local sage-grouse working groups, Natural Resource Conservation Service (NRCS) offices, BLM field offices and others have specific reclamation recommendations which include seed mix compositions appropriate for consideration in reclaiming sage-grouse habitats.

This information was provided as background for sage-grouse habitat management.

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