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**Buffalo Resource Management Plan Comments from American Bird Conservancy**

Dear Mr. Bills,

Thank you for this opportunity for American Bird Conservancy to comment on the draft Buffalo Resource Management Plan. American Bird Conservancy and other groups have publicly expressed support for the National Greater Sage-Grouse Planning Strategy and have offered recommendations to ensure its success most recently in a letter sent to U.S. Department of the Interior Secretary Jewell in July 2013

([www.abcbirds.org/pdfs/Conservation\\_Organizations\\_Letter\\_Secretary\\_Jewell\\_Sage-Grouse.pdf](http://www.abcbirds.org/pdfs/Conservation_Organizations_Letter_Secretary_Jewell_Sage-Grouse.pdf)).

**The Greater Sage-Grouse Conservation Alternative**

During scoping, conservation groups submitted to the Bureau of Land Management (BLM) a comprehensive conservation alternative to support and inform the planning process attached to this comment and available at <http://bit.ly/KdDwD8>. In our view, this conservation alternative represents what is necessary to conserve Greater Sage-Grouse in perpetuity, and to provide the agency with an appropriate regulatory framework to manage the land moving forward. We urge that its recommendations, some of which are reiterated in the text of this comment letter, be included in the final EIS and RMP.

Our alternative, the "Sage-Grouse Recovery Alternative" (recovery alternative), is reasonable and scientifically sound. It seeks to maintain and increase current sage-grouse abundance and distribution by conserving, enhancing and restoring sagebrush steppe. It is an evidence-based

alternative that takes a precautionary approach to resource management. It will likely differ from other alternatives developed in the planning process in at least two key ways:

1. *The Sage-Grouse Recovery Alternative prescribes additional, and more restrictive, conservation measures than the Report on National Greater Sage-grouse Conservation Measures.* The BLM convened a Sage-Grouse National Technical Team (NTT) in 2011 to review information on sage-grouse and sagebrush steppe and produce “A Report on National Greater Sage-grouse Conservation Measures” (SGNTT 2011). The BLM will primarily consider management recommendations in that report in the planning process (BLM Memo 2012-044). However, the NTT’s assessment and recommendations for some planning issues, such as livestock grazing and associated infrastructure, vegetation management, invasive plants, and wind energy development, are insufficient to robustly conserve sage-grouse across its range. The Sage-Grouse Recovery Alternative incorporates information from other agency and peer-reviewed references to make additional and stronger management prescriptions for these land uses and related effects.
2. *The Sage-Grouse Recovery Alternative recommends that the BLM designate a system of Areas of Critical Environmental Concern (ACECs) to conserve sage-grouse and other sagebrush-dependent species.* The planning notices invite the public to propose ACECs in scoping comments (76 Fed. Reg. 77011). The Sage-Grouse Recovery Alternative recommends criteria for identifying a system of ACECs (BLM) and Sagebrush Conservation Areas (USFS) rangewide to serve as refugia for sage-grouse and other species.

### **Recommended Guidelines for Designating Sagebrush Reserves**

1. Protect Large Expanses of Sagebrush Steppe

Greater Sage-grouse are a landscape species (Connelly et al. 2011a). Migratory populations have large annual ranges that can encompass >2,700 km<sup>2</sup> (1,042 mi<sup>2</sup>/667,184 ac) (Knick and Connelly 2011a, *citing* Dalke et al. 1963; Schroeder et al. 1999; Leonard et al. 2000) (the species may use up to 2,500 mi<sup>2</sup> per population (Rich and Altman 2001)). Large-bodied birds are generally more strongly affected by habitat loss and fragmentation (Winter et al. 2006). Although conclusive data on minimum patch size is unavailable (Connelly et al. 2011a), conserving large expanses of sagebrush steppe is the highest priority to conserve sage-grouse (Aldridge et al. 2008; Connelly et al. 2011b). Knick and Hanser (2011) identified ten lek complexes that were >5,000 km<sup>2</sup> (1,930 mi<sup>2</sup>/1,235,526 ac) (range 5,395–100,288 km<sup>2</sup>) and 8 of them contained >100 leks (range 143–1,139). Some sagebrush-dependent species use different habitat composition, structure or succession than sage-grouse prefer. Protecting large blocks of habitat will also help preserve a mosaic of different habitats of varying successional stages used by sage-grouse and other sagebrush-dependent species.

2. Protect Small Areas and Connectivity in Sagebrush Steppe

Protecting small habitat patches can help connect larger areas. Conservation strategies for sage-grouse should preserve networks of populations and/or habitat patches, including connecting smaller lek complexes within 18 km that could serve as intermediary islands of habitat for dispersing sage-grouse (Knick and Hanser 2011). Protecting small habitat patches is also important to conserve smaller birds and maintain avifaunal diversity (Winter et al. 2006).

Sage-grouse may move long distances between seasonal habitats (Connelly et al. 1988). Annual movements of 40-160 km (24.8-99.4 mi) by sage-grouse along established routes have been reported (Dalke et al. 1963; Connelly 1982; Leonard et al. 2000). Although much is still unknown about the distribution, configuration, and characteristics of sage-grouse migration corridors (Connelly et al. 2011a), Beck et al. (2006) recommended conserving habitat corridors to facilitate easier movement for migratory sage-grouse.

### 3. Protect Sage-Grouse Leks, and Nesting and Brood-rearing Habitats

The loss and degradation of nesting and brood-rearing habitats, which leads to reduced nesting success and increased chick mortality, appears to be a primary cause of declining Greater Sage-grouse populations rangewide (Aldridge and Boyce 2007; Holloran et al. 2005). Most sage-grouse nesting and brood-rearing habitat is found near sage-grouse leks. Sage-grouse conservation strategies should focus on protecting leks and associated habitat.

- Conservation of sagebrush within 5 km (3.1 miles) of sage-grouse leks was recommended to maintain most nesting and early brood-rearing habitat used by nonmigratory populations, whereas 18-km radii (11.2 miles) have been recommended for migratory populations (Wakkinen et al. 1992; Connelly et al. 2000; Holloran and Anderson 2005).
- Braun (2006, unpublished report) recommended restricting surface occupancy and construction of new roads within 5.5 km (3.4 mi) of active sage-grouse leks.
- A 4-mile (6.4 km) lek buffer encompassed 74-80 percent of sage-grouse nests in Montana and Wyoming (Moynahan 2004; Holloran and Anderson 2005).
- Doherty et al. (2010b), in mapping breeding densities of Greater Sage-grouse rangewide, buffered leks by 8.5 km (5.3 mi), identified by Holloran and Anderson (2005: 746) as an area of interest.
- A majority (~90%) of nesting and brood-rearing habitat was within 10 km (6.2 miles) of active leks in Alberta (Aldridge and Boyce 2007); 97 percent of nests were found within 6.2 miles of leks where females were marked in the Powder River Basin in Montana and Wyoming (Doherty et al. 2010a).
- Sage-grouse nesting habitat was accurately predicted up to 20 km (12.4 mi) from leks in the Powder River Basin in Montana and Wyoming (Doherty et al. 2010a).
- Movements from lek sites to nesting locations can exceed 25 km (15.5 mi) (Holloran and Anderson 2005).

- Characteristics of sagebrush steppe within 54 km (33.6 miles) of sage-grouse leks might influence seasonal movements and also incorporate habitats used outside the breeding season (Swenson et al. 1987; Leonard et al. 2000).

GIS modeling can identify sage-grouse habitat, but only at a larger scales (Doherty et al. 2010a). Within areas identified by GIS modeling as nesting habitat, there is some local variability in which sites are actually suitable for nesting. For example, sage-grouse nests may be clumped in one area, but not other areas the same distance from a lek.

#### 4. Protect Other Seasonal Habitats

Conservation strategies focused on conserving sage-grouse nesting and brood-rearing habitats that fail to address other important seasonal habitats may not yield intended benefits for sage-grouse (Connelly et al. 2000; Doherty et al. 2008). For example, sage-grouse consume forbs in summer found at mesic sites (e.g., wet meadows, riparian areas) and/or at higher elevations (Connelly et al. 2011a, citing others). A lack of mesic sites (for example, during dry years) can be limiting on sage-grouse due to lack of summer food sources (Aldridge 2000). Conservation strategies should seek to protect and restore mesic sites in sage-grouse habitat.

The availability of winter habitat is also important to sage-grouse persistence. The quality of winter habitat appears to influence the abundance and condition of female sage-grouse and their nesting effort and clutch sizes in spring (Moynahan et al. 2007). The species depends almost exclusively on sagebrush exposed above the snow for food and shelter (Connelly et al. 2011a, citing others). Suitable winter habitat is often on wind swept ridges, south-facing slopes or in protected draws (Braun et al. 2005). These landscape features may be limited in some areas (e.g., Beck 1977). Winter habitat should be locally identified and conserved (Braun et al. 2005, *citing* Connelly et al. 2000 and others; Moynahan et al. 2007).

#### 5. Protect a System of Reserves

A system of reserves must conserve a large proportion of habitat to sustain biological processes and conserve species. The commonly cited goal of conserving 10 percent of a given landscape lacks basis in science (Soulé and Sanjayan 1998; Svancara et al. 2005). Much larger areas, perhaps 50 percent of rangewide distribution, may be necessary to conserve biodiversity and ecosystem integrity (Soulé and Sanjayan 1998). Conservation sites identified by experts to protect diverse habitats and species (including sage-grouse) in the Great Basin covered 40 percent of the region (Nachlinger et al. 2001, unpublished report). A system of reserves must be large enough to achieve the goals of biological representation, and ecological redundancy and resiliency within an ecosystem (Svancara et al. 2005). The percentage area needed to conserve biodiversity and ecosystem processes should emerge from the biological requirements of species. Braun (2006, unpublished report) recommended conserving large blocks of sagebrush steppe (in excess of 20 mi<sup>2</sup>), one per Township (36 mi<sup>2</sup>), in fragmented habitat to conserve sage-grouse.

A system of reserves should protect centers of species abundance on the landscape. Doherty et al. (2010b) found that, while sage-grouse occupy large areas, their breeding distribution is aggregated in relatively small areas. Areas representing 25 percent of the known sage-grouse population were 3.9 percent of the species range, and 75 percent of sage-grouse were within 27 percent of the species range (Doherty et al. 2010b).

A system of reserves should protect peripheral and/or genetically distinct populations of species. Peripheral populations are often located at the ecological limits of a species range, where species are exposed to environmental circumstances that may later become prevalent in central populations, such as effects from climate change. Such testing of the periphery can act to stabilize the entire species in the face of environmental change (Lesica and Allendorf 1995). Genetically distinct populations increase genetic diversity in a species and expand the genetic background against which natural selection occurs (Lesica and Allendorf 1995). Reserves should be designated to protect the Columbia Basin and Bi-State distinct population segments of Greater Sage-grouse in Washington (Wisdom et al. 2005c) and eastern California/southwestern Nevada, respectively.

A system of reserves should prioritize preservation of areas have moderate or high potential to be maintained or restored in the face of climate change, cheatgrass incursion, unnatural fire and effects from historic and current land uses (see Wisdom et al. 2005c). In general, most areas with high potential to maintain or restore sagebrush communities are concentrated in Wyoming, eastern Idaho and northern Nevada. Areas with very low, low, or moderate potential to maintain or restore sagebrush are concentrated in Washington, Oregon, western Idaho and much of Nevada (Wisdom et al. 2005c).

### **Planning Criteria to Consider**

BLM planning guidance requires that the agency address planning issues and follow planning criteria when developing and revising land use plans (BLM Handbook 1610-1). Planning criteria guide the development of a plan by defining the planning space involved. Described another way, the preferred alternative must meet the planning criteria. The planning criteria and issues associated with the recovery alternative draw on objectives and guidelines for sage-grouse conservation in the NTT report and other sources:

- Designate priority sage-grouse habitat in each WAFWA management zone (Stiver et al. 2006) across the current geographic range of sage-grouse that are large enough to stabilize populations in the short-term and enhance populations over the long-term.
- Maintain or increase current sage-grouse populations, and manage or restore priority habitat so that at least 70 percent of the land cover provides adequate sagebrush habitat to meet sage-grouse needs.
- Protect priority habitat from large-scale anthropogenic disturbances that will adversely affect sage-grouse distribution and abundance at any level. Disturbances include but are not limited to highways, roads, transmission lines, substations, wind turbines, oil and

gas wells, heavily grazed areas, range developments, severely burned areas, pipelines, landfills, mines, and vegetation treatments that reduce sagebrush cover.

- If priority habitat cannot be protected from disturbance (e.g., due to valid existing rights), minimize impacts by limiting permitted disturbance to one instance per section of sage-grouse habitat regardless of ownership, with no more than three percent surface disturbance (or, where stipulated, implement the disturbance cap prescribed in the applicable state conservation plan, whichever is more protective).
- Ensure that unavoidable small scale disturbances do not cumulatively disturb more than three percent of each priority area.
- Increase the amount of protected priority habitat by aggressively using available tools to resolve land use conflicts, including fluid mineral lease retirement, voluntary grazing permit retirement, mineral withdrawal, coal unsuitability findings, and mineral claim buyout.
- Reduce road density in priority habitat, and establish exclusion areas for new right-of-way permits.
- Ensure that disturbance or land uses permitted outside priority habitat do not negatively impact sage-grouse populations in priority habitat.
- Manage range resources to meet sage-grouse habitat objectives.
- Only implement vegetation treatments that are demonstrated to benefit sage-grouse and retain sagebrush height and cover consistent with sage-grouse habitat objectives.
- Design and implement fuels treatments to protect existing sagebrush ecosystems and support sage-grouse habitat objectives.
- Require adequate protections for sage-grouse general habitat to maintain habitat connectivity, and support sage-grouse persistence and management goals in priority habitat.
- Identify sage-grouse restoration habitat; use primarily passive restoration to restore these areas to support sage-grouse objectives.
- Designate sagebrush reserves (ACECs, SCAs) and develop management stipulations to achieve sage-grouse conservation goals.
- Ensure that plan implementation includes both agency and independent verification through collaborative monitoring.
- Evaluate actions using independent peer review standards (OMB 2004; DOI 2010; USDA 2011).
- Provide a linked sequence of measurable objectives for goals, needed land use prescriptions, actions taken to resolve identified issues, and verifiable monitoring.
- The preferred alternative should be achievable under current and foreseeable agency resources.

### **National Technical Team (NTT) Report: A Science Foundation to Build On**

Although the Buffalo RMP conservation alternative considers the conservation measures in the NTT report, the draft instead adopts some version of Wyoming's sage-grouse strategy as the preferred alternative for managing the species. That strategy, developed by the state and

generally adopted by Wyoming BLM in statewide sage-grouse management guidance, is likely to be inadequate to fully recover sage-grouse for the long-term. There are significant differences between the Wyoming strategy and recommendations in the NTT report (see Appendix 5). The Wyoming sage-grouse amendments and individual RMP revisions must not adopt weaker management prescriptions for sage-grouse than land use plans in other states and regions are expected to use.

The NTT report defines “discrete” disturbances to include roads, transmission lines, oil and gas wells, wind turbines and similar, definite development (SGNTT 2011: 8). The three percent disturbance threshold does not include “diffuse” disturbances; the NTT report identifies livestock grazing and fire (depending on the scale and effects) as diffuse disturbance (SGNTT 2011: 8). We are concerned that the NTT report defines the pervasive, tangible, cumulative effects of livestock grazing as “diffuse.” The NTT report notes that “diffuse disturbance over broad spatial and temporal scales can have similar, but less visible effects” (SGNTT 2011: 8). The BLM and USFS should consider heavily grazed areas and range developments as discrete disturbance in sagebrush steppe.

The NTT report identifies remaining areas outside priority sage-grouse habitat as “general habitat” (SGNTT 2011: 9). The NTT report lists sub-objectives for general habitat that include quantifying and delineating general habitat to buffer and connect priority areas; serve as potential replacement priority habitat; and serve as potential restoration sites (SGNTT 2011: 9-10). The recovery alternative, which is structured like the NTT report, also stipulates conservation measures based on habitat designation. In addition to “priority” and “general” habitat, the recovery alternative would designate two additional habitat types: ACECs and “restoration” habitat.

### **The Wyoming Core Area Strategy Needs Strengthening**

A study by Copeland et al. (2013) assessing the Wyoming “core area” conservation strategy, which Bureau of Land Management (BLM) plans including the Buffalo draft RMP have generally adopted as the preferred alternative, predicted that recommended conservation measures will reduce the rate of sage-grouse’s decline, but will not stabilize grouse numbers or provide for the species’ recovery. This indicates that the preferred alternative must be modified. Another study by Knick et al. (2013) concluded that sage-grouse appear to need greater protection, a three percent disturbance standard, rather than the five percent standard provided by the Wyoming core area strategy.

The State and Wyoming BLM have failed to incorporate new scientific information in their strategies to enhance sage-grouse conservation—even, in the case of Wyoming BLM, that produced by their own agency. In 2011, the BLM convened a Sage-Grouse National Technical Team (NTT) to review scientific and management information on sage-grouse and sagebrush steppe and produce “A Report on National Greater Sage-grouse Conservation Measures”

(SGNTT 2011). The report recommended new management prescriptions that are more conservative than the Wyoming Core Area strategies. The NTT report is a scientific benchmark against which the Wyoming Core Area strategies can be measured.

***a. The Wyoming Core Area strategies allow too much surface disturbance in core sage-grouse habitat.***

Land surface disturbance in sage-grouse habitat is well known to affect the species. Disturbance thresholds are commonly applied in areas of energy development. Under the Wyoming Core Area strategies, the amount of cumulative disturbance allowed in sage-grouse core habitat is five percent per square mile, as calculated by an algorithm known as the Density Disturbance Calculation Tool (DDCT). The DDCT is used to establish an area for measuring the amount of disturbance that may be allowed under a project proposal. The DDCT essentially buffers a proposed project area by 4 miles, identifies all occupied leks within this area and buffers them by 4 miles, and uses the combined area as the denominator to calculate the total land area from which to derive the total percentage of land that could be disturbed by the project.

The five percent disturbance threshold is not known to conserve sage-grouse long-term and is only a best guess by agencies and others seeking to accommodate development in sage-grouse habitat. Past projects approved prior to implementation of the Wyoming Core Area strategies indicate that sage-grouse are adversely affected at lower levels of disturbance. For example, for the Continental Divide/Wamsutter II Natural Gas Project approved in 2000, 3,000 wells were proposed with 22,400 acres of new surface disturbance, representing 2.1 percent of the planning area (with an average well density of 4 wellsites per square mile) (BLM 2000); today, sage-grouse are virtually extirpated in this area, although more than 50 leks existed prior to the project.

In contrast to the Wyoming Core Area strategies, the NTT report recommends managing priority sage-grouse habitat so that discrete anthropogenic disturbances cover less than three percent of any single square-mile section regardless of ownership (SGNTT 2011 at 7). Furthermore, once the three percent limit is reached, additional surface-disturbing projects are precluded, and in cases where the three percent limit is already exceeded, restoration must occur to meet this threshold under the NTT recommendations.

***b. The Wyoming Core Area strategies allow too much development density in core sage-grouse habitat.***

Scientific research has determined that one energy site per square mile is the density threshold at which significant impacts to sage-grouse populations begin to occur. In accordance with these findings, the Wyoming Core Area strategies set a limit of one energy development site per square mile in core habitat. The same DDCT area used to determine a project's disturbance



limit is also used to calculate the density of sites (e.g., number of wellsites) that may be developed per square mile. But the DDCT only calculates site density per square mile, rather than *capping* density at one site per square-mile of land. In cases where the DDCT area is very large, the Core Area strategies may allow more than one well or mine site to be developed in a given square mile as long as the surrounding Core Area lands are relatively free from other development disturbance.

The Lost Creek Uranium In Situ Recovery Project exemplifies how development can exceed disturbance and density limits under the DDCT. The 4,254-acre permit area is located inside a Core Area, and it intersects the 4-mile buffers of 15 sage-grouse leks.<sup>1</sup> The DDCT area for this project is 147,060 acres, almost 230 square miles. If this were a hypothetical oil and gas project with the same 147,060-acre DDCT area, 229 wells would be allowed in the 4,254-acre permit area, for a density of 34.4 well-sites per square mile within the permit area. This extreme density would destroy habitat function for sage-grouse locally, even though well density for the DDCT area would still be within the one well per square-mile limit in the Core Area strategies.

In the case of the Lost Creek project, the extra-large DDCT area was adopted to accommodate intense development within the permit area. The project expects to disturb (i.e., bulldoze) 345 acres, which, when combined with preexisting disturbance, amounts to less than one percent for the DDCT area, but when compared to the 4,254-acre permit area, would yield 8.1 percent disturbance, far above the limit in the Core Area strategies. The 345-acre development area is also violates the strategies' limitation on site density. The DDCT assumes individual development sites (like oil and gas wells) will only each affect 4-5 acres. But for this project, Wyoming Game and Fish Department (WGFD) has classified the entire 345-acre development site as a single "site," which, although it meets the one site per square mile requirement in the Core Area strategies, will eliminate half of square mile section where it is located, and certainly have deleterious effects on sage-grouse for miles around.

***c. Sage-grouse lek buffers in the Wyoming Core Area strategies are too small.***

Protecting sage-grouse leks and associated nesting and brooding habitat are fundamental to conserving the species. The best available science has recorded significant negative impacts from producing oil and gas wells drilled within 1.9 miles from active leks (Holloran 2005), measureable impacts from coalbed methane fields extend out to 4 miles (Walker 2008), and new research has recorded effects as far away as 12.4 miles from leks (Taylor et al. 2012). WGFD, using lek buffers of 0.25 mile, 0.5 mile, 0.6 mile, 1.0 mile, and 2.0 mile, estimated lek persistence of 4, 5, 6, 10, and 28 percent, respectively (Christiansen and Bohne 2008,

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<sup>1</sup> Calculations derived from data presented in the Lost Creek In Situ Recovery Project Final EIS at ES-2, 4.9-8, 4.9-27, and Appendix D.

memorandum). Unfortunately, both the State and Wyoming BLM Core Area strategies only require protective buffers of 0.6 miles around leks in designated core habitat. By comparison, the NTT report generally recommends a 4-mile lek buffer for siting industrial development in sage-grouse habitat (SGNTT 2011), a prescription in greater accord with the science.

Buffers prescribed for leks outside Core Areas are even smaller. Both Wyoming strategies call for buffers of only 0.25 miles. The WGFD's stated position is for 50 percent probability of lek persistence outside Core Areas (WGFD 2010 at 31). But this is the same level protection criticized by former Governor Freudenthal and former WGFD Director Cleveland as grossly inadequate in 2007, and which were found to be inadequate by State fish and game biologists in 2008 (Christiansen and Bohne 2008, memorandum). The BLM has implemented the 0.25-mile lek buffer, paired with a 2-mile seasonal restriction on development activities around sage-grouse leks for years in Wyoming (as prescribed in Instruction Memorandum WY-2012-019), and significant impacts to sage-grouse populations have been documented where these stipulations have been applied (Holloran 2005; Holloran et al. 2008).

***d. The Wyoming BLM Core Area strategy's 11-square-mile fluid mineral leasing loophole leaves much core sage-grouse habitat unprotected.***

The Wyoming BLM Core Area strategy proscribes future leasing of fluid minerals in Core Areas, but only in areas of 11 contiguous square miles of unleased, BLM-managed minerals (BLM IM WY-2012-019). Unfortunately, many sage-grouse Core Areas were already encumbered with prior existing oil and gas leases at the time of their establishment, and the BLM is in many cases citing the existence of these prior existing leases (the majority of which are undeveloped paper assets that have yet to have any effect on sage-grouse habitat on the ground) as a justification for allowing new leasing inside Core Areas. As of July 10, 2012, twelve of the 31 Core Areas in Wyoming were at least 20 percent leased according to WGFD data, ranging up to 66 percent leased. These 12 Core Areas represent almost 4.5 million acres of sage-grouse habitat. Compounding this problem, all but three of the 31 Core Areas have at least 20 percent non-federal mineral ownership, meaning that a large proportion of Core Area is exempt from protection from future leasing.

The NTT report takes a much stricter approach to future mineral leasing. It recommends two alternatives: closing all priority habitat (Core Areas) to future leasing, or closing all priority habitat to future leasing unless it could be shown that proposed development would result in a net gain in sage-grouse populations for that Core Area.

***e. The Wyoming Core Area Strategies are unlikely to conserve sage-grouse.***

The new Sage-Grouse Conservation Objectives Draft Report (COT), an accompaniment to the NTT report prepared by a team of federal and state sage-grouse scientists, recommends

conserving all sage-grouse populations and avoiding anthropogenic disturbances in key sage-grouse habitat (COT 2012, *draft*: 29, 33, 35). The COT report indicates that Wyoming's sage-grouse populations must be maintained or restored to help support the species' long-term persistence (COT 2012, *draft*: 35). The Wyoming Core Area strategies will fail to achieve these goals.

New research (Copeland et al, submitted) projects continued sage-grouse population declines at 14-29 percent in Wyoming. The same study estimates that, even when bolstered by \$250 million in targeted conservation easements on private property (a very unlikely assumption), the Core Area policies would only cut anticipated sage-grouse population declines by half in Wyoming, and by two-thirds within high abundance areas.

### **Government Studies Indicate Protected Areas are Necessary to Conserve Greater Sage-Grouse**

A new report by the U.S. Geological Survey (USGS) and other peer-reviewed research indicate that conserving the Greater Sage-Grouse will require both protecting large areas of habitat and making significant changes in land management to reverse population declines of this wide-ranging species. The USGS study (Manier et al) finds that most priority sage grouse habitat is already subject to significant overlapping cumulative impacts and that grouse are only persisting in large, relatively-undisturbed blocks of habitat. (See attached table).

The Conservation Objectives Team report developed by the U.S. Fish and Wildlife Service identifies Priority Areas for Conservation for sage-grouse. These areas are key for sage-grouse conservation and should be specially protected for grouse and other sagebrush-dependent species. The import of this report is that to ensure grouse populations will persist over time, some areas need a much higher level of protection.

The report finds that the loss and fragmentation of sage brush is a primary cause of sage-grouse decline and that very little sagebrush within the range of the sage-grouse remains undisturbed or unaltered. It notes that grouse populations can be significantly reduced, and in some cases locally extirpated by non-renewable energy development activities.

In response, the report recommends the general conservation objective of stopping population declines and habitat loss and states that "achieving this objective requires eliminating activities known to negatively impact sage-grouse and their habitats, or re-designing these activities to achieve the same goal. For priority areas (PACs) these objectives include reversing negative population trends within each Management Zone. Retaining sage-grouse habitats within PACs is identified as a priority as is retaining all remaining large intact sagebrush patches, particularly at

low elevation. Energy development in PACs should be avoided as should sagebrush removal in sage-grouse breeding or wintering habitats, and mining.

In many instances, the draft Buffalo RMP does not follow the guidance of the Conservation Objectives Team report and continues to allow for oil and gas development, mining and other activities likely to further disturb and fragment habitat, including in priority areas. Only within the proposed sagebrush ACEC are the proposed standards in keeping with its recommendations.

## **Comparison of the Conservation and Preferred Alternatives**

### **a. Soil Resources**

The conservation alternative B is more protective of soil resources than the preferred alternative. In particular, it prohibits surface disturbing activities on badlands, rock outcrops, biological crusts, and steep slopes, while the preferred alternative allows for continued disturbance. Soils with severe erosion hazard are protected from surface disturbance year-round instead of from March 1 through June 15.

### **b. Mineral Resources**

The preferred alternative D doesn't place adequate limitations on mineral development and should instead follow the recommendations of the conservation alternative B. The resource conservation alternative recommended 618,256 acres for withdrawal from mineral entry, but only 115,614 acres were proposed in the conservation alternative. Similarly coal leasing would be closed on 4,072,115 acres and open on 715,388 acres in the conservation alternative, but the preferred alternative keeps 4,775,136 open. Oil and gas drilling would have stricter limits in the conservation alternative with 2,612,920 administratively withdrawn from fluid mineral leasing, 124,467 acres subject to moderate constraints and 642,232 acres subject to major restraints. The preferred alternative only makes 101,214 acres unavailable, and puts moderate restraints on 2,753,125 acres and major constraints on 292,098 acres. Priority Greater Sage-Grouse habitat would also be administratively unavailable for leasing under the conservation alternative. Similar story with other leasable mineral development with only 193,060 acres open to leasing in the conservation alternative compared to 4,244,144 acres in the preferred. For salable minerals the conservation alternative is open on 129,430 acres and closed or restricted on 1,663,422 while the preferred alternative has 2,957,960 open and only 390,162 acres closed or restricted.

### **c. Riparian Resources**

The conservation alternative is more protective of water and riparian resources than the preferred alternative. Most notably, it prohibits surface-disturbing and disruptive activities within 500 feet of riparian/wetlands systems, aquatic habitats, and floodplains, and has a no surface occupancy stipulation for fluid mineral leasing within 500 feet. These standards are absent from the preferred alternative.

#### **d. Wildlife Resources**

The conservation alternative would require application of appropriate seasonal restrictions on surface-disturbing and disruptive activities related to development projects while the preferred alternative have a more permissive standard that would forgo seasonal restrictions if wildlife resource objectives can still be met. Alternative B requires burial of all new low voltage utility lines while the preferred would still allow them if they are identified in an already approved distribution plan.

The conservation alternative prohibits surface disturbance within .25 mile of Sharp-tailed Grouse leks at any time and prohibits surface disturbance within a two-mile radius of leks from April 1 through July 15. The preferred alternative just advises avoidance with the .25 mile perimeter and again just recommends avoidance within the two-mile radius from April 1 – July 15. For raptors, the conservation alternative prohibits surface disturbance and occupancy within a biologic buffer zone around active nests, while the preferred allows it when nest productivity would not be harmed.

The preferred alternative provides for less wildlife habitat enhancement activities than the conservation alternative (86,274 versus 165,134 acres). It also provides for far less Greater Sage-Grouse lek buffers where surface disturbing activities are prohibited.

#### **e. Areas of Critical Environmental Concern**

Although the BLM has invited commenters to nominate individual ACECs in the planning process, the recovery alternative is more ambitious. It recommends BLM designate a system of ACECs across sage-grouse range and prescribes even more restrictive measures for these designations than for priority habitat.

Alternative B proposed to designate 467,897 of the BLM-administered surface sagebrush ecosystem and 2.2 million acres of federal fluid minerals within four miles of Greater Sage-Grouse leks and winter concentration areas as an Area of Critical Environmental Concern. The area would recommended with mineral withdrawal and would not be available for additional fluid mineral leasing. However, seventy-five percent of the planning area has already been leased for oil and gas drilling, including within ACECs and those leases will be honored.

Mineral material activity would be prohibited and silviculture treatments kept to a minimum. Renewable energy would be excluded and new rights of way would be prohibited. Livestock grazing would be allowed where compatible with other values. The sagebrush ecosystem ACEC, which would also benefit other bird species of conservation concern such as Brewer's Sparrow, Sage Sparrow, and Sage Thrasher, was not included in the preferred alternative.

"A sagebrush ecosystem ACEC meets relevance characteristics for conserving wildlife resource values and natural systems. Sagebrush ecosystems provide essential habitat that support several BLM special status species including the Greater Sage-Grouse, an Endangered Species Act Candidate species. Additional BLM sensitive species dependent upon sagebrush ecosystems, and present within the planning area, include: Brewer's sparrow, sage sparrow, and sage thrasher. Sagebrush ecosystems are terrestrial plant communities that support multiple resources (soil, water, native vegetation, biodiversity, rare and sensitive species, etc.) and land uses (recreation, livestock grazing, etc.) for which the BLM is responsible for sustainable management.

A sagebrush ecosystem ACEC meets importance characteristics for protecting a natural system and for meeting national priorities. Sagebrush ecosystems are fragile and sensitive systems that provide essential habitat for several special status or rare species. Sagebrush ecosystems and the rare and sensitive species that they support are vulnerable to adverse change. Sagebrush ecosystems have been fragmented in the planning area by energy development particularly CBNG. Greater Sage-Grouse conservation is a national priority, and the proposed ACEC has been recognized as appropriate to maintaining sustainable Greater Sage-Grouse populations. The Powder River Basin provides important genetic linkage between population strong holds in Montana (Management Zone 1) and the Wyoming basins (Management Zone 2)." (450-451)

#### **f. Cumulative Impacts**

The draft notes that "actions on adjacent parcels such as the widespread CBNG development may affect the ability to manage for wildlife, visual resources, and other ACEC values." While there is an effort made to account for these likely effects within the region, no additional conservation measures to compensate and mitigate these likely impacts on adjacent state and private lands are included in the draft.

Table 4.75 summarizing the impacts of Areas of Critical Environmental Concern shows that in nearly every environmental value analyzed, the conservation alternative B, outperformed the preferred alternative D which designated fewer ACECs, and C which designated none.

The preferred alternative would allow for 64,000 more acres of disturbance in the short-term and 50,000 more in the long-term than the conservation alternative. A total of 1,773 new oil and gas wells, 2,721 new CBNG wells, 785 miles of new roads, are projected in the planning

area. There are also 16,853 non-federal CBNG wells within the planning area with another 3,253 projected and 1,944 conventional wells with another 1,875 on the way.

Wind energy development is more likely to take place under the preferred alternative with 75,000 BLM acres expected to be utilized as part of 30 new projects. Impacts to another 161,818 acres are anticipated from non-federal wind development projects.

Roads are expected to disturb another 150,086 acres, double the amount of the conservation alternative at 75,043 acres. Almost ten times the area is closed to motorized vehicle use in the conservation alternative, 312,561 acres versus only 31,536 in the preferred. Rights of Way exclusion areas total 101,081 acres in the preferred, but 370,088 in the conservation alternative. An additional 11,000 acres of disturbance from coal development is expected under the preferred alternative over the conservation alternative.

Livestock grazing is allowed on 772,110 acres of the preferred but only on 314,205 acres in the conservation alternative. And areas incompatible with grazing amount to only 9,992 acres in the preferred but 467,897 in the draft.

This is in addition to extensive direct and indirect impacts to grouse habitat documented in the draft EIS and the USGS Baseline study:

“Oil and gas developments directly impact Greater Sage-Grouse through avoidance of infrastructure, or when development affects survival or reproductive success. Indirect effects include changes to habitat quality, predator communities, or disease dynamics (Naugle et al. 2010). Currently nearly 16% of MZ1 is within 3 km of oil and gas wells, a distance where ecological effect is likely to occur (Knick et al. 2011).

Urbanization and infrastructure development in MZ1 has also impacted Greater Sage-Grouse habitat. Development at population centers and subdivisions or smaller ranchettes and associated buildings, roads, fences, and utility corridors has also contributed to habitat loss and fragmentation in portions of MZ1. Current estimates suggest about 16% of MZ1 is within 6.9 km of urban development, although MZ1 generally has lower population densities and lower rates of population increases compared to the other management zones (Knick et al. 2011). Infrastructure development effects to Greater Sage-Grouse habitats in MZ1 are primarily related to highways, roads, powerlines and communication towers, with nearly 92% of MZ1 within 6.9 km of a road, 32% within 6.9 km of a powerline, and 4% within 6.9 km of a communication tower (Knick et al. 2011). Increased recreation and OHV use on lands in MZ1 are also thought to impact Greater Sage-Grouse habitats, but have not been studied (Knick et al. 2011).

The cumulative and interactive impact of multiple disturbances and habitat loss has influenced the current distribution of Greater Sage-Grouse in MZ1. The cumulative extent of human

caused changes, the human footprint, on Greater Sage-Grouse habitat in MZ1 one is highest at the northern edge of MZ1, but occurs throughout MZ1 (Leu and Hanser 2011).” (p. 361)

“As a result of past and ongoing human activities in the planning area, substantial areas of Greater Sage-Grouse habitats have been altered from their natural conditions. For example, 46% (3,386,530 acres) of the planning area is BLM-administered fluid mineral estate of which 75% (2,544,512 acres) has been leased (Map 12); the majority of which has been developed and is held by production.” (p. 366)

“Energy development within two miles of leks is projected to reduce the average probability of lek persistence from 87% to 5% (Walker et al. 2007a). Current research suggests that impacts to leks from energy development are discernible out to a minimum of 4 miles, and that some leks within this radius have been extirpated as a direct result of energy development (Apa et al. 2008). Even with a timing limitation on construction activities, Greater Sage-Grouse avoid nesting in oil and gas fields because of the activities associated with operations and production.

Greater Sage-Grouse avoidance of oil and gas infrastructure results in even greater indirect habitat loss. Doherty et al. (2008) demonstrated that Greater Sage-Grouse in the Powder River Basin avoided otherwise suitable wintering habitats once they have been developed for energy production, even after timing and lek buffer stipulations had been applied. Research indicates that oil or gas development exceeding approximately one well pad and its associated infrastructure per square mile results in calculable impacts to breeding populations, as measured by the number of male Greater Sage-Grouse attending leks (Holloran 2005; Walker et al. 2007a). The WGFD recommends avoiding a well density greater than three or greater than 60 acres of disturbance per square mile (WGFD 2009b).” (p. 367)

“The end result is that the Wyoming Powder River Basin population supports a small remaining Greater Sage-Grouse population that has experienced an 82% decline within the expansive energy fields (Walker et al. 2007a).” (p. 368)

The total cumulative predicted disturbance raises concern that the preferred alternative may not represent a significant improvement over current management since there is more cumulative disturbance than current plan direction predicts. The total cumulative disturbance for Alternative A is 2,445,486 acres, for Alternative B it is 2,313,142, and for the preferred alternative D it is 2,655,756. The draft indicates that additional acres will be reclaimed from BLM actions, but that amount is dependent on available resources and is uncertain.

#### **g. Other Species of Concern**

The draft EIS will affect many other avian species of concern including Bald Eagle, Ferruginous Hawk, Northern Goshawk, Peregrine Falcon, Swainson’s Hawk, Western Burrowing Owl, Baird’s Sparrow, Brewer’s Sparrow, Loggerhead Shrike, Long-billed Curlew, Mountain Plover, Sage Sparrow, Sage Thrasher, Trumpeter Swan, White-faced Ibis, and Yellow-billed Cuckoo. Dan



Casey, American Bird Conservancy's Northern Rockies BCR Coordinator has submitted a separate letter with detailed comments concerning the conservation of Long-billed Curlew.

### **An Improved Conservation Alternative B Provides Best Basis for Further Analysis**

While resource conservation alternative B in the draft EIS does not follow all of the recommendations indicated by the best available science, it is the best alternative for grouse conservation that was analyzed. It conserves the most land area, designates a significant acreage as a Greater Sage-Grouse Areas of Critical Environmental Concern, and is the most restrictive of vehicle use and mineral development.

We are concerned that Alternative C focused on resource development does not meet the purpose of the draft, in that, it would not conserve grouse populations, and would likely cause further population declines. Similarly, the Preferred Alternative D more closely resembles the resource development Alternative C than the recommendations of conservation Alternative B, and as a result, would likely not halt the decline of grouse populations or provide an adequate regulatory mechanism for the species conservation.

We urge the agency to focus further analysis on an improved Alternative B and the designation of Areas of Critical Environmental Concern for Greater Sage-Grouse and to make these the basis for the final Buffalo RMP. The Buffalo draft EIS analyzed conservation measures that can be included in the final plan to ensure sustainable management and provide an adequate regulatory mechanism to ensure conservation of the grouse. These include requiring a three percent disturbance standard and designating protected areas.

Thank you for this opportunity to comment. We look forward to working with Bureau to develop a regional plan that will ensure the conservation of the Greater Sage-Grouse. Please contact me at 202/234-7181 ext. 216 or [sholmer@abcbirds.org](mailto:sholmer@abcbirds.org) if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Steve Holmer", with a stylized, flowing script.

Steve Holmer  
Senior Policy Advisor  
American Bird Conservancy  
202/234-7181 ext. 216  
[sholmer@abcbirds.org](mailto:sholmer@abcbirds.org)