

October 13, 2017

The Honorable Ryan K. Zinke
Secretary of the Interior
United States Department of the Interior
1849 C Street, NW
Room 6612
Washington, DC 20240

Dear Interior Secretary Mr. Zinke,

The purpose of this letter is to express our concerns regarding the *Report in Response to Secretarial Order 3353* (Report) and the October 11 Notice of Intent to reopen to amendment the Bureau and Land Management (BLM) and U.S. Forest Service's (USFS) Land Use Plans (LUPs). As scientists who have spent decades studying greater sage-grouse (sage-grouse) and sagebrush habitats, we assisted in the BLM and USFS efforts to revise and amend applicable LUPs to effectively conserve this important species. We are concerned that many of the specifics outlined in the Report as well as the decision to take public comment on possible amendments to the plans may weaken approaches in place to conserve sage-grouse populations before the measures established have been fully implemented or assessed. We want to emphasize that the science community continues to be available to provide ongoing consultation about how science can help inform strategies to sustain the conservation of sage-grouse on our federal public lands.

Our concerns stem from three basic observations about the Report:

- 1) Many recommendations have the potential to result in fewer acres of priority and general sage-grouse habitat limiting management options for the species;
- 2) Many recommendations have the potential to limit the ability of managers to effectively manage anthropogenic aspects of the sagebrush biome; and
- 3) Many recommendations have the potential to limit the ability of managers to effectively manage vegetative aspects of the sagebrush biome.

We recognize that the Report does not change policy, and we applaud several of the recommendations made in the Report. We fully support the collaborative approach being pursued, especially the full engagement of the States from the initiation of the LUP review and engagement with the Western Association of Fish and Wildlife Agencies (WAFWA). We also support the focus placed on improving coordination, increasing data sharing, initiating monitoring and research, and prioritizing staff and funding to implement on-the-ground conservation and restoration actions (Report pp. 1-4). We recognize that not everything is known, especially in regards to managing sagebrush ecosystems to improve the quality of those habitats for sage-grouse. Thus, a consistently applied and rigorous approach to plan implementation, management direction, evaluation and adaptation is critical moving forward. The LUPs were developed considering the best available science with the short-term goal of stabilizing populations by conserving key habitats throughout the sage-grouse range. The habitat preservation framework provided by the LUPs is critical as a foundation for realizing the long-term goal of increasing sage-grouse populations by restoring and enhancing sagebrush habitats. Given the uncertainty surrounding proactive management of sagebrush habitats coupled with the need to pursue innovative management approaches to achieve landscape-scale conservation of sage-grouse, the process of how the LUPs are implemented and evolve is as important as the actual management actions outlined in the plans. We are concerned that the current focus on amending the LUPs will detract from the critical task of building from those plans to realize enhanced conditions in currently designated priority and general habitats and stabilized or increasing sage-grouse populations.

An unprecedented level of collaboration among States, Federal agencies, and other stakeholders was required to amend and revise BLM and USFS LUPs to address sage-grouse populations and habitats. Those revising the LUPs considered the consistency, adequacy and durability of conservation measures relative to recommendations provided through the National Technical Team (BLM) and Conservation Objectives Team (USFWS) sage-grouse reports, ensuring that recommendations from the foremost sage-grouse experts were taken into account through the revision process. Further, decades of extensive published literature on sage-grouse and sagebrush habitats helped frame the BLM and USFS's management strategies. This literature is summarized in volume 38 of *Studies in Avian Biology (Greater sage-grouse: ecology and conservation of a landscape species and its habitats)* edited by Dr. S. T. Knick and Dr. J. W. Connelly) as well as the USGS's Summary of Science report: *Summary of science, activities, programs, and policies that influence the rangewide conservation of Greater sage-grouse* (Manier et al. 2013).

It is worth noting that the Policy to Evaluate Conservation Efforts (PECE) (68 FR 15100) was used heavily as part of the September 2015 decision when considering the overall efforts of the States, private landowners, and the Federal LUPs. The PECE policy provides regulatory flexibility and is used by the USFWS to ensure regulatory certainty of conservation measures that have yet to be fully manifested. But the requirements of certainty of implementation and effectiveness of the plans must be met for those assurances to develop and support the USFWS' not warranted decision for sage-grouse in the future. Thus, the successful implementation of the LUPs is necessary to maintain the not warranted listing decision through interim reviews by the USFWS.

The sage-grouse is an indicator species for the health of the interior West's sagebrush steppe ecosystem, and healthy sagebrush habitats not only support over 350 plant and animal species including some of America's most iconic species of wildlife, but are essential for the economic sustainability of human communities in the western U.S. Today, sage-grouse are present in just over half their historical range, and the number of males counted each spring for the majority of populations across the range of the species has declined since the 1960s. A recent analysis by WAFWA suggested a long-term decline of approximately 1% annually from 1965 to 2015 (<http://www.wafwa.org/>). Declining populations and reduced distribution led the USFWS to conclude that the sage-grouse warranted protection under the Endangered Species Act, but this decision was overturned largely because of the regulatory certainty established by the amended and revised LUPs in combination with State conservation plans and efforts on private lands across the West.

In the following sections we elaborate on our three primary concerns and address some miscellaneous issues we identified in the Report.

1) Priority and General Habitat Management Areas

The Report makes several recommendations that could influence the amount of habitat being managed for sage-grouse. The DOI Sage-grouse Review Team (DOI Team) identified the need for flexibility to modify priority (PPH) and general (PGH) habitat management areas, including a potential plan amendment to "develop criteria for making future adjustments to habitat management area boundaries" (Report Appendix A, p. 17). Further, the DOI Team recommended potential plan amendments to consider eliminating general habitat management areas in Utah (Report Appendix A, p. 18) and removing Sagebrush Focal Area (SFA) designation (Report Appendix A, p. 17). Priority and general habitat designations were based on distributional patterns of nesting females from breeding areas (leks) in combination with the number of sage-grouse breeding on those leks and, in most instances, include the diversity of habitats required to sustain populations from lek complexes through their annual life-cycle. Sage-grouse are considered a landscape-scale species as populations generally inhabit large, interconnected expanses of sagebrush. Within this landscape, sage-grouse rely on habitats with a diversity of species and subspecies of sagebrush interspersed with a variety of other habitats (e.g., riparian

meadows, agricultural lands, grasslands). Habitats not dominated by sagebrush are usually intermixed with stands of sagebrush and are used by sage-grouse during certain times of the year (e.g., summer) or during certain years (e.g., severe drought). The research is unequivocal that those developing management approaches should view the landscape holistically from the need to provide large, functional, connected habitat patches that include the diversity of resources sage-grouse require seasonally and annually.

Approximately 30% of the area identified as the sage-grouse conservation area delineated in the Conservation Assessment of Greater Sage-grouse (2004) is designated habitat (i.e., PPH plus PGH), with approximately 14% of this area being designated as priority habitat. Further, approximately 42% of the current distribution of the species is designated as priority habitat. It is worth noting that because development is still allowed in PPH and, to a greater extent, PGH, degradation of designated habitats will continue to occur over time. Therefore, it is vital that we at least maintain the amount of habitat under greater protection established in the plans while also moving to increase habitat quality in these areas by improving sagebrush range health through enhancement and restoration.

We recommend that any modifications to sage-grouse habitat management boundaries consider the extent and diversity of habitats required by the species. The total amount of land currently identified as priority and general habitat should, at a minimum, not be reduced as a result of boundary modifications, and any areas meant to replace PPH or PGH lost as a result of boundary modifications should provide the species with high quality, diverse sagebrush habitats. SFAs should not be necessary if the quantity (at a minimum) and quality of priority habitats are maintained and managed appropriately.

2) Anthropogenic Considerations

The Report makes several recommendations meant to facilitate and promote the development of oil and gas reserves in sage-grouse habitats. The DOI Team recommends considering a potential plan amendment to rescind agency guidance on prioritizing leasing outside of important habitats, emphasizing to staff that all habitats are open for leasing (Report Appendix A, p. 2), and investigating “opportunities to provide additional waivers, modifications, and exceptions through policy or potential plan amendments” for leasing (Report p. 5) and “accommodating the need for mineral material sales” (sand and gravel) in priority habitat management areas (Report Appendix A, p. 13). The DOI Team further recommends evaluating potential plan amendments “to consider adjusting lek buffers” (Report Appendix A, p. 16), to “clarify disturbance and density requirements” (Report Appendix A, p. 2), and to “determine if a controlled surface use (CSU) stipulation could be changed” (Report Appendix A, p. 1). Although the DOI Team did not elaborate, no surface occupancy (NSO) stipulations in priority habitat management areas were also identified as an issue (Report Appendix A, p. 1). Surface disturbance thresholds and avoidance measures established in the LUPs are based on a substantial amount of data resulting from more than 25 investigations of the response of sage-grouse to energy development. All of the studies investigating the response of sage-grouse to oil and gas development report negative impacts of development on sage-grouse and no studies identify a positive influence of development on individuals, populations or habitats. Sage-grouse population-level declines in response to energy development result from avoidance of infrastructure during one or more seasons and reduced recruitment, productivity, and/or survival. Population declines have consistently been reported when well pad densities exceed 1 pad/square mile. Impacts to sage-grouse are most severe if the infrastructure associated with energy development occurs near sagebrush habitats, but population-level effects remain consistently discernible out to a distance of approximately 4 miles and impacts to 11 miles on trends in the number of males counted on leks range-wide have been reported.

We recommend maintaining current oil and gas infrastructure density and avoidance stipulations in priority habitats as the objective in priority habitats range-wide, and only considering changing these objectives in defined areas where site-specific sage-grouse data empirically and rigorously suggest these

stipulations can be modified without negatively impacting habitat use, fecundity or population growth-rate of the local sage-grouse population. It is important to note that changes to these objectives should be considered in both directions—e.g., increases to NSO distances and decreases to density thresholds should also be considered on a site-by-site basis based on local data.

With the intention of increasing flexibility to develop in priority habitats, the DOI Team recommends considering “changes to the Federal compensatory mitigation standard” (Report pp. 6-7) and a “potential plan amendment to change the net conservation gain standard” (Report Appendix A, p. 3). Compensatory mitigation is used to compensate for unavoidable impacts that remain after all appropriate avoidance and minimization measures have been applied, and is accomplished by replacing or providing substitute resources or environments through the restoration, creation, or enhancement of resources and their values, services, and functions. However, the literature suggests that a tremendous amount of uncertainty exists as to the vegetative and sage-grouse population outcomes of manipulations intended to restore, create or enhance sagebrush habitats. As such, compensatory mitigation measures should balance the spatial and temporal risk associated with mitigation projects and the predicted long-term effects. This should not be interpreted as discouraging high risk projects where substantial conservation gain is possible; in many respects, innovation in new mitigation strategies and practices need to be considered and explored to advance our understanding and ability to achieve landscape-scale conservation of sagebrush habitats. A net conservation gain standard is necessary to allay the inherent spatial and temporal risk associated with compensatory mitigation projects meant to create, enhance or restore sagebrush habitats.

We recommend strictly adhering to the mitigation hierarchy of avoidance, minimization, and compensation for unavoidable impacts. We additionally recommend maintaining a net conservation gain standard to balance the spatial and temporal risk associated with sagebrush habitat management. To achieve long-term success, it will also be necessary to strictly adhere to adaptive management principles when managing sagebrush habitats for sage-grouse. Following these principles will inherently facilitate the application and advancement of the LUPs and the conservation principles described therein and increase the likelihood of attaining net conservation gain long-term across the sage-grouse range. Further, it is important to ensure any measure of mitigation success be evaluated in biological and functional terms for sage-grouse.

3) Vegetation Management

The Report makes several recommendations that could limit the effectiveness of vegetation management, including livestock grazing, in sage-grouse habitats. The DOI Team recommends “a potential plan amendment to revise the habitat objectives tables” included in the LUPs (Report p. 7). The DOI Team further recommends clarifying “existing policy and regulations that allow animal unit months (AUMs) to increase based on forage availability” (Report Appendix A, p. 10). As with the scientific evidence supporting the energy development stipulations, the habitat objectives established in the LUPs are based on extensive published literature. These habitat objectives were established to provide sage-grouse with quality habitat conditions across seasons, and represent one of the few places in the LUPs where the underlying issue with sage-grouse of prevalent vegetative degradation across the sagebrush biome is directly addressed. Livestock grazing is the most widespread land use across the sagebrush biome. The long-term effects of grazing the sagebrush system are primarily seen as shifts in the state of the vegetation from native understory grasses and forbs to plant species more tolerant of grazing; this shift occurred in much of the West over a relatively short time-period of extensive overgrazing during drought conditions in the early 1900s. Because of historic impacts of livestock on plant species composition combined with successional change in sagebrush ecosystems, reduced numbers of livestock in the modern era has not reduced effects of grazing, but rather slowed the rate of vegetative degradation.

We recommend that vegetation goals are established relative to the ecological site paradigm and management strives towards restoring and maintaining vegetative conditions in the reference state. In

situations where results from the rigorous evaluation of site-specific data are not available, we recommend that the guidelines established for vegetation structure, cover, and composition in the LUPs be maintained as the objective in priority habitats. Because the values included in the habitat objectives tables were based on vegetative conditions measured at sage-grouse seasonal use locations throughout the species' range that were, in virtually all cases, grazed by livestock, we emphasize that areas where it is empirically demonstrated that site potential does not allow for the vegetative guidelines to be met will be infrequent and small (e.g., soil inclusions).

Miscellaneous Issues

1. The DOI Team recommended that “new captive breeding [of sage-grouse] efforts continue to be investigated” (Report p. 10). The scientific literature is conclusive in establishing that the captive-rearing of wildlife in general should be used sparingly and as a last resort when other conservation alternatives are unavailable or have been exhausted. The most extensive research on raising sage-grouse in captivity is from Colorado, where the brood augmentation approach pursued was met with limited success recruiting individuals into wild populations. The Attwater's Prairie-Chicken, a species similar to sage-grouse, has been bred in captivity since 1992, yet this program has yet to result in a self-sustaining wild population. Therefore, we recommend that the current focus remain on conserving and restoring the habitats sage-grouse depend on, and that resources that could help habitat efforts not be diverted to investigate a management alternative that is currently unnecessary.
2. The DOI Team recommended investigating “options for corvid control, including streamlining approval and reporting requirements” (Report p. 11). Limited information suggests predator control may benefit some game bird populations short-term in small areas with degraded and fragmented habitat. However, there is no evidence supporting the implementation of predator control programs long-term over large areas as an effective sage-grouse conservation tool. We recommend that the focus of sage-grouse management remain on habitat quantity and quality except in isolated cases where the empirical and rigorous assessment of site-specific data establishes that predation is limiting a population. In these isolated cases, the cause of the problem (e.g., habitat fragmentation) needs to be addressed concomitantly with the implementation of predator control.
3. The DOI Team recommends pursuing “statewide or range-wide population objectives or targets” (Report p. 11). Although we do not disagree with setting population objectives, we want to emphasize that a focus on populations cannot come at the expense of a focus on habitats. We agree with the DOI Team in that “the best method for determining sage-grouse viability is to assess a combination of habitat availability [and quality] and populations [assuming reliable population data], which are inseparable” (Report p. 11).

LUP Implementation

Ultimately, all conservation and management must occur at the local level. To be accomplished effectively and sustainably, conservation needs to be an integral facet of a community's identity—it needs to reflect the values of the community and meet the needs of its individuals. Given the commitment established in the Report of continuing “to work with partners to prioritize staff and funding to implement on-the-ground actions to conserve and restore sage-grouse habitats” (Report p. 1), partnership building and coordination needs to occur at all management and conservation levels (i.e., Federal, State, regional and local). Science-based, community-level programs built on a regional framework and conducted across the sagebrush ecosystem are the most efficient way we can successfully and sustainably engage in proactive conservation of this system. We recommend putting more thought into the bullet list included in Section IV d of the Report (p. 12), and developing the cross-scale coordination suggested by the narrative in this Section into a holistic science-based conservation program that benefits the wildlife and people reliant on sagebrush ecosystems across the West.

We are concerned that following many of the Reports' recommendations will lead to an overall loss of sage-grouse habitat quantity and quality which in turn may result in additional population declines. We are further concerned that the Federal focus on altering the current status could derail developing efforts that will progress our ability to effectively manage the sagebrush ecosystem—for example: WAFWA's Sagebrush Conservation Strategy; NRCS' Sage-Grouse Initiative; the Southern Rockies and Great Northern LCC Green River Basin LCD project; multiple local-scale collaborations between conservation, industry and agricultural interests; etc. It is our opinion that now is not the time to look backwards and challenge the work done by countless stakeholders in support of sage-grouse conservation. Now is the time to build on the momentum and allow the process to mature and evolve from the foundation provided by the LUPs to realize the sustained conservation of sagebrush landscapes and the wildlife and people dependent thereon.

To reiterate, the science community is available to meet with you and your staff and provide ongoing consultation about the available science as well as how we can collectively move forward with a science-based approach to managing and conserving sage-grouse and sagebrush habitats on our federal public lands. We thank you for your consideration of our points and recommendations.

Respectfully,

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