June 3, 2024

Tracy Stone-Manning, Director
Bureau of Land Management
1849 C St., NW
Washington, DC 20240

Dear Director Stone-Manning:

The undersigned scientists, experts in the biology of the Greater Sage-Grouse, are pleased to submit this input to the Bureau of Land Management on the 2024 Greater Sage Grouse Draft Environmental Impact Statement (hereinafter; Sage-Grouse EIS) that will result in amendments to 76 resource management plans across the 67 million acres of habitat managed by the agency. Sage-Grouse populations have continued to decline during the last decade, and recent science supports BLM developing new plans to allow decisive action across state boundaries to accomplish lasting benefits for Sage-Grouse and sagebrush habitat. We support planning outcomes that effectively conserve sage-steppe habitat based on the best available science. To that end, we believe the BLM's Sage Grouse EIS is an important step forward from the agency's earlier effort in 2019. That said, there are still a variety of science-based refinements we believe should be included in the final decision that will advance the BLM's responsible stewardship of these lands.

Habitat Connectivity

Greater Sage-Grouse population persistence is strongly dependent on habitat connectivity at large scales; therefore, effective management needs to focus on large, interconnected expanses of sagebrush habitat (Connelly et al. 2004, Cross et al. 2018, Oyler-McCance et al. 2022). Recent research on Greater Sage-Grouse genetics has demonstrated the importance of maintaining habitat corridors to allow for genetic connectivity between larger populations (Row et al. 2018, Cross et al. 2023, Zimmerman et al. 2023). Alternative 4 in the Sage-Grouse EIS identifies science-based genetic connectivity corridors as Priority Habitat Management Areas (PHMA) which defines these areas as "the highest value to maintaining sustainable Greater Sage-Grouse population". However, in the preferred alternative (Alternative 5) many of these science-based genetic connectivity corridors are not included as PHMAs and instead included as General Habitat Managements Area (GHMA) which are "lands that are or have the potential to become occupied seasonal or year-round habitat". The available science suggests that these areas are critical to Greater Sage-Grouse population persistence and should be designated as PHMA.

Therefore, if the preferred alternative (Alternative 5) is selected, it is critical that genetic exchange habitats, leks that act as genetic exchange hubs (Cross et al. 2018) and winter habitats (e.g., Fedy et al. 2014, Coates et al. 2020, Fremgen-Tarantino et al. 2020) and winter concentration areas (e.g., Smith et al. 2016, Johnson et al. 2024), that are not in PHMA boundaries be effectively managed and conserved through other management mechanisms.

The mechanisms that we believe will be fundamental to maintain populations in critical habitats outside of PHMAs include: 1) maintaining the minimum standard of "no net loss"; 2) consistent application of the mitigation hierarchy; 3) improving grazing practices and consistent monitoring through land health assessments (LHA) and land health standards (LHS); and 4) monitoring Greater Sage-Grouse population trends and responding to negative trends using Targeted Annual Warning System (TAWS) framework.

Sagebrush Habitat – "No Net Loss"

Long term research and monitoring, some dating back over 75 years, should put agencies in a position to minimize or eliminate threats to sage grouse populations and habitat. Moreover, state management plans, federal plans, and policies put in place over the last 20 years should by now show some positive results. Sadly, this is simply not happening.

Habitat loss has been identified as the primary driver of population declines in the Greater Sage-Grouse (Connelly and Braun 1997, Aldridge et al. 2008, Wisdom et al. 2011) and other prairie grouse species such as the Lesser Prairie-Chicken (USFWS 2021), that was recently listed under the Endangered Species Act (ESA; 87 Federal Register [FR] 72674). Recent research demonstrates that loss and degradation of sagebrush habitat continues (Doherty et al. 2022) and sage-grouse continue to decline annually, on average, by 3.1% (Coates et al. 2021, Prochazka et al. 2024). The 2015 Greater Sage-Grouse plan called for a "net conservation gain" when applying compensatory mitigation to address the continued loss of sagebrush habitat. However, the 2024 Sage-Grouse EIS has abandoned the "net conservation gain" standard for a minimum standard of "no net loss". The science is clear that Greater Sage-Grouse populations will not stabilize if widespread sagebrush habitat loss continues across the range.

Strictly adhering to the principle of "no net loss" in both PHMA's and GHMA's is a critical component of the plan and the "no net loss" standard needs to be applied locally where the impacts are occurring.

Lek Buffers – General Habitat Management Areas

We are concerned about the inconsistencies in the application of management and the mitigation hierarchy across state boundaries as put forward in the Sage-Grouse EIS. We are especially concerned with these inconsistencies as they apply to management within GHMAs, where there are no caps on disturbance and fewer limitations on development compared to PHMAs. Lek buffers, for instance, are inconsistent across states boundaries. Wyoming and Montana are two states that contain more than 50% of the remaining Greater Sage-Grouse but allow activities within 0.25 or 0.6 miles of occupied leks. The No Surface Occupancy (NSO) stipulation of 0.25 mile (0.20 sq mile) in GHMA areas in Wyoming is 142 times smaller than buffer areas informed by science (3.0 mile buffer [28.3 sq mile]). The most recent science supports a 3.0 mile NSO buffer to prevent lek abandonment and protect the majority of the nesting and early brood-rearing habitat surrounding an occupied lek (Knick and Hanser 2011, Knick et al. 2013, Coates et al. 2013).

Early research demonstrated that Sage-Grouse habitat use, and particularly nesting, is generally associated with lek locations (Connelly et al. 2000, Holloran and Anderson 2005). Consequently, NSO and Seasonal Timing Limitation (TA) buffers around leks were often employed as an on-site mitigation measure in Greater Sage-Grouse habitat. The buffer distances used in Wyoming and Montana came from early research that suggested 0.25 to 0.6 mile protective buffers, respectively (Wallestad and Schladweiler 1974). More recent Sage-Grouse research has demonstrated that a 0.25 to 0.6 mile buffer distances are not sufficient to prevent lek abandonment and protect nesting and early brood-rearing sage-grouse habitat (Walker et al. 2007, Knick et al. 2013, Hess and Beck 2012, Coates et al. 2013, Dahlgren et al. 2016).

For instance, research conducted by Coates et al. (2013) in California, suggests that a 3.1 mile and 4.7 mile buffer distance around leks is necessary, for non-migratory and migratory Greater Sage-Grouse populations respectively. In their study, 1 mile buffer around the nearest occupied lek contained 50% of the utilization distribution (UD; all seasonal habitats including spring, summer, fall and winter), while a 3.1 mile contained 95% of the Greater Sage-Grouse seasonal UD. Similarly, a 0.9 mile buffer around leks included 50% of the nest sites and a 3.1 mile buffer contained 95% of the nest sites (Coates et al. 2013). A study in Utah found that 90% of nest sites were within 3.1 miles of the nearest occupied lek (Dahlgren et al. 2016). Dahlgren et al. (2016) found the average movement from the nearest occupied lek to the nest site was 1.4 miles. However, Holloran and Anderson (2005) found that the average movement distance from the lek to nest site was 2.9 miles in Wyoming and a 1 mile buffer contained about 25% of the nest sites.

In a range-wide and multiyear (1965 and 2007) study, Knick and Hanser 2011 looked at factors associated with lek abandonment and found that the level of the human footprint within 3.1 miles of a lek was predictive of lek abandonment. Specifically, they found that the likelihood of lek abandonment increased as the human footprint increased within 3.1 miles of a lek (Knick and Hanser 2011). Within a smaller area, Hess and Beck (2012) found that as the number of oil and gas wells within 0.6 miles of a lek increased the likelihood of lek abandonment.

The best available science supports a 3.0 mile NSO buffer. While a 3.0 mile NSO buffer may not be practical in all cases, at a minimum a 1.0 mile NSO lek buffer should be applied for all disturbance activities. We acknowledge this may create management challenges for BLM, but reiterate that the purpose of this letter is to underscore the best available science.

Targeted Annual Warning System

Cross-scale and cross-jurisdictional linkages for co-management of Sage-Grouse have become increasingly important to address the potential of the U.S. Fish and Wildlife Service listing the species under the Endangered Species Act. Fortunately, Sage-Grouse have been monitored by state wildlife agencies since the 1950s, thereby providing an extensive, objective, and relatively consistent set of population data. Thanks to past cooperation between the state and federal agencies via various Western Association of Fish and Wildlife Agencies sponsored committees (e.g. Rangewide Interagency Sage-Grouse Conservation Team, Western States Sage and Columbian Sharp-tailed Grouse Technical Team), Sage-Grouse population trend and the Targeted Annual Warning System (TAWS) models were developed using these data. These models are foundational to determining and documenting Sage-Grouse population trends in order to assess the effectiveness of this plan, as well as those of the states and local entities. TAWS has the ability to inform when management actions are necessary to better address a declining local population as well as to recognize when management actions are effective (Coates et al., 2021).

While TAWS is briefly described and referenced under Adaptive Management Chapter 2, we recommend this topic be expanded and emphasized. State agency coordination and cooperation is critical to the function of the population trend models and TAWS. Models are improved over time with more and well-collected data and are vulnerable to becoming misinformed and inaccurate when data are missing or unable to be included. We urge all efforts be taken to ensure data sharing and cooperation rather than a retreat to jurisdictional borders.

The Sage-Grouse EIS describes the steps that will be taken to evaluate an identified soft or hard population trend threshold, such as conducting a Causal Factor Analysis. However, the preferred alternative (Alternative 5) does not put forward the concrete actions that may be taken to reverse the negative population trends. The actions that should be considered in these situations need to be explicitly stated so they can be consistently applied across state boundaries. Science has demonstrated that as anthropogenic surface disturbance (e.g., habitat removal) increases in Greater Sage-Grouse habitat, reproductive output and recruitment decreases (Aldridge and Boyce 2007, Knick et al. 2013, Kirol et al. 2020). Therefore, when a population trend threshold is identified, a concrete action would be to defer development and cap disturbance in that neighborhood cluster until the TAWS identified negative trend slows or is reversed.

If a soft or hard population trend threshold is identified, concrete actions need to be taken within that neighborhood cluster.

Grazing and General Habitat Condition

Livestock grazing occurs across most Greater Sage-Grouse habitat on BLM lands. Recruitment is a major issue for maintaining and expanding Greater Sage-Grouse populations. Nest success and chick survival are well below species-wide population maintenance levels (Connelly et al. 2000, Aldridge and Brigham 2002, Frey et al. 2013). Many of the existing sagebrush communities across the western U.S. lack resilience and will be difficult to restore (Wisdom and Chambers 2009, Pyke 2011). The Sage-Grouse EIS and associated land-use plans should establish land health standards for the Greater Sage-Grouse and other special status species and identify outcomes that need to be achieved to meet those standards (Cutting et al. 2024).

As described in Alternative 4, if grazing in a particular area is identified as a significant causal factor and not meeting special status species LHS, then adjustments to active animal unit months (AUMs), timing, intensity, duration or frequency of grazing should be required.

We appreciate the opportunity to provide meaningful input on this important process and appreciate BLM's leadership for re-examining this important issue in light of further population declines and associated stressors. Our goal here is not to endorse a particular alternative, but rather to ensure that the final BLM plan is informed by the best available science. By "best available science," we mean information obtained from rigorous, systematic endeavors that build and organize knowledge using testable explanations and predictions regarding Sage-Grouse and sagebrush habitats. The results of these endeavors should be published in the peer-reviewed literature.

That said, the sagebrush biome is at the critical juncture with its fate of whether or not it continues to be a functional ecosystem hanging in the balance. Active management is critical and the time to arrest the decline of the system is short. It bears repeating that we're experiencing a sustained loss of high quality sagebrush of about 1.3 million acres per year. We have to slow the loss of quality sagebrush and at the same time move compromised habitat into a high quality category. We encourage aggressive action to meet this challenge.

We are available to dialogue further with Administration officials.

Sincerely,

Tom Christiansen
Chris Kirol
Terry Riley
Clait Braun
Ann Hild
Jack Connelly
Joe Bohne
Jerry Kobriger
Tom Rinkes
Alison Holloran

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Rollin Sparrowe
Gary White
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