

**National Audubon Society \* Natural Resources Defense Council \* The Wilderness Society  
Conservation Colorado \* Montana Audubon \* Wild Montana \* Rocky Mountain Wild**

February 8, 2022

**Submitted via eplanning** (<https://eplanning.blm.gov/eplanning-ui/project/2016719/510>)

Bureau of Land Management  
Attention: Patricia Deibert, National Sage-Grouse Coordinator  
440 W 200 S, Suite 500  
Salt Lake City, Utah 84101

Re: Scoping comments - Notice of Intent to Amend Land Use Plans Regarding Greater Sage-Grouse Conservation and Prepare Associated Environmental Impact Statements

Please accept and fully consider these comments on behalf of National Audubon Society, Natural Resources Defense Council, The Wilderness Society, Conservation Colorado, Montana Audubon, Wild Montana, and Rocky Mountain Wild. Our organizations and members are deeply invested in sound stewardship of our public lands. The outlook for Greater sage-grouse is incredibly concerning, not only in regards to the bird but for what its decline represents for the biologically, economically, and culturally important sagebrush ecosystem.

We recognize the important role that BLM plays, as the primary land management steward, especially in light of the U.S. Fish and Wildlife Service's (USFWS) March 2010 "warranted, but precluded" finding that identified the inadequacy of regulatory mechanisms as a significant threat to the species. Our organizations were engaged in and supportive of the landscape-scale approach of the 2015 Greater Sage-grouse land use plans (2015 Plans). We also acknowledge that the 2015 Plans were integral to the USFWS's 2015 determination that listing sage-grouse under the Endangered Species Act (ESA) was not warranted.

## **I. OVERVIEW**

Recent published science by a wide range of experts have presented alarming information about Greater sage-grouse populations declining range-wide, predictions of future extirpations should conditions remain the same, and further deterioration from a wide range of threats to the iconic sagebrush ecosystem. Our organizations are appreciative of the BLM assessing what further actions may be needed to support habitat conservation and restoration in sagebrush country. We believe it is essential to *retain and improve* key elements in the BLM plans critical to supporting sage-grouse populations, recognizing the broader benefits to other wildlife and communities.

Our recommendations pertaining to process and analyses (with associated page numbers):

- A. Process should be open and transparent (page 5)
- B. Use best available science with clear, efficient processes to make technical updates (page 5)
- C. Take into account the effects of climate change (page 6)
- D. Analyze and make planning decisions at the landscape-scale (page 7)
- E. Analyze effectiveness of plan implementation to-date (page 8)

Our recommendations pertaining to implementation and strengthening of the 2015 plans:

- A. Limit Energy Development and Disturbance in Sage-Grouse (GrsG) Habitat (page 9)
  - 1) Prioritize Leasing for Energy Development outside of GrSG Habitat

- 2) Review Disturbance Caps, Lek Buffers to Minimize Disturbance to GrSG
- 3) Identify Transmission Corridors Outside of GrSG Habitat
- 4) Limit the Use of Waivers, Exceptions and Modification
- B. Require Effective Mitigation that Meets Standard Principles (page 14)
  - 1) Incorporate, Implement, and Enforce State GrSG Mitigation Programs that Meet a Recognized Set of Principles
- C) Require Effective Monitoring and Adaptive Management (page 16)
- D) Identify and Protect Essential GrSG Habitat (page 17)
  - 1) Consider Additional Habitat Needs: Winter and Connectivity
  - 2) Ensure Sagebrush Focal Areas Protect Essential Habitat from Future Mining
  - 3) Consider Additional Measures to Protect Essential GrSG Habitat
  - 4) Use Durable Mechanisms to Ensure Habitat Protection
- E) Ensure Landscape-Scale Restoration (page 22)
  - 1) Plan for Targeted Restoration Efforts
  - 2) Minimize Risk to Non-Target Species: Pinyon Jays
  - 3) Fire Prevention and Suppression
  - 4) Address Declining Understory Forb and Perennial Grass Communities

Any changes to the 2015 plans should be science-based, carried out at a landscape-scale in an open, transparent, and procedurally appropriate manner such as that proposed in the Notice of Intent, with a full opportunity for participation by all interested stakeholders. Most important, they must be designed to reverse the trend of decreasing sage-grouse populations that will inevitably lead to a listing of the species under the Endangered Species Act if no improvements are made.

## II. INTRODUCTION

### A. Decline of Greater Sage-grouse Populations and Sagebrush Habitat

A 2021 report by the U.S. Geological Survey (USGS) - prepared in cooperation with state agencies - presented one of the most comprehensive population trend modeling efforts ever undertaken for Greater sage-grouse. In Report No. 2020-1154, researchers analyzed counts at over 260,000 leks (1965-2019) and found range-wide population declines.<sup>1</sup> These declines varied with temporal scale - 37% (2002-2019), 65.2% (1986-2019), and 80.7% (1965-2019), relative to initial population. Overall, researchers found a 3.0% range-wide declines per year, consistent across temporal scales. These findings are similar to what has been reported by other large-scale studies. Through modeling, the USGS researchers also determined that 78% of leks have a greater than 50% change of extirpation, mostly located on the periphery of the species' range.

In regards to local populations that are exhibiting asynchronous decline, the USGS researchers reported that in 2019, approximately 3.2% of leks and 2.0% of populations were identified for management intervention range-wide. Furthermore, the BLM's own Rangewide Monitoring Report found that between 2015 and 2020, 42 population triggers were tripped, indicating that population

---

<sup>1</sup> Coates, P.S. et al., 2021, Range-wide greater sage-grouse hierarchical monitoring framework – Implications for defining population boundaries, trend estimation, and a targeted annual warning system; U.S. Geological Survey Open-File Report 2020-1154, <https://doi.org/10.3133/ofr20201154> at pp. 29, 90. (USGS Report No. 2020-1154)

declines have exceeded thresholds set in the adaptive management appendix of the BLM's land use plans.<sup>2</sup>

To further cause concern, recent preliminary Wyoming lek count data (which contains 38% of the world's population of sage-grouse) suggest sage-grouse numbers have continued to decline. In a development termed by state sage-grouse biologist Leslie Schneider as "alarming", in 2021 the state calculated a ratio of 0.8 chicks per hen, well below the 1.5 figure needed to stabilize the population. These data suggest the number of strutting males per lek, which has been in continuous decline since 2016, will fall again in 2022. Schreiber concluded that based on the 2021 chick per hen ratio, "[I]n 2022, Wyoming's [average] sage-grouse lek count will be lower than 16 — the lowest since 1996."<sup>3</sup>

Declines in sage-grouse populations mirror the decline in sagebrush habitat across the western U.S. Sage-grouse depend on large areas of contiguous sagebrush to meet all their seasonal habitat requirements and are thus considered sagebrush-obligate species.<sup>4</sup> Consequently sage-grouse distribution is strongly correlated with the distribution of the sagebrush biome.<sup>5</sup> Interestingly, as the USGS reported a 3% annual decline range-wide for grouse between 1965-2019 (Report No. 2020-1154), the BLM determined that sagebrush availability in all land ownership categories also declined by approximately 3% between 2012-2018<sup>6</sup>. Sagebrush systems were historically the most abundant vegetation type in the semidesert vegetation of North America, but today much of this land has been converted or fragmented, and sagebrush now occupies less than 55% of its historic range.<sup>7</sup>

## **B. Broader Benefits of Greater Sage-Grouse Habitat Protections**

USGS Report No. 2020-1125, prepared in cooperation with WAFWA and BLM, as well as the USFWS and other experts, was also released in early 2021. Titled - *Sagebrush Conservation Strategy – Challenges to Sagebrush Conservation*, the report outlines not only the threats to the ecosystem but the benefits of a healthy sagebrush biome. This team of 94 scientists and specialists note that in addition to providing habitat for sage-grouse, healthy sagebrush biome provide includes a wide breadth of important ecological service related to water (filtration, timing of flows, flood attenuation, irrigation water supply, enhanced connectivity between subsurface and surface water flows), reduce wildfire return intervals, forage (livestock and wildlife), and carbon sequestration.<sup>8</sup>

---

<sup>2</sup> Herren, V., E. Kachergis, A. Titolo, K. Mayne, S. Glazer, K. Lambert, B. Newman, and B. Franey. 2021. Greater sage-grouse plan implementation: Rangewide monitoring report for 2015–2020. U.S. Department of the Interior, Bureau of Land Management, Denver, CO. ([BLM Rangewide Monitoring Report, 2015-2020](#))

<sup>3</sup> Thurber, Angus. *New sage grouse data 'alarming,' state biologist says*. Wyofile (January 7, 2022).

<sup>4</sup> Remington, T.E. et al., 2021, *Sagebrush conservation strategy - Challenges to sagebrush conservation*. U.S. Geological Survey Open-File Report 2020-1125, <https://doi.org/10.3133/ofr2021125> at pp. 27-29 ([USGS Report 2020-1125](#)).

<sup>5</sup> Id. at pp. 27-28.

<sup>6</sup> BLM Rangewide Monitoring Report, 2015-2020.

<sup>7</sup> USGS Report 2020-1125 at pp. xxxvii, 5.

<sup>8</sup> USGS Report 2020-1125 at p. 11.

Healthy sagebrush biome provides habitat for more than 350 species of plants and animals considered species of conservation concern, including 63 vertebrates.<sup>9</sup> Sage-grouse are frequently considered an “umbrella” species, as conservation actions that benefit the sage-grouse also benefit other sagebrush species that often lack data or resources for development of individual conservation strategies.<sup>10</sup> This is particularly true where areas prioritized for sage-grouse conservation overlap with important habitat for other sagebrush-dependent species.<sup>11</sup>

A variety of economic research has found a connection between environmental quality and recreation – such that improvements in the environmental conditions of an area can increase the number of recreational visits to it, while degradation of an area can decrease the number of visits. In 2013, which we acknowledge is prior to the surge in recreation associated with the pandemic and thus numbers today are likely higher, the sagebrush ecosystem powered the outdoor recreation industry to the tune of \$1.06 billion to the overall U.S. economy.<sup>12</sup> In addition, 2013 visits to BLM sagebrush country in the 11 states where sage-grouse are located, generated approximately \$623 million in spending in communities near the recreation sites (\$283 million in personal income), which circulated through the state and national economies creating an additional \$562 million contribution to the national gross domestic product.<sup>13</sup> In a 2017 testimony to the U.S. House Natural Resources Committee, hunters in Montana spend over \$110 million annually in the thirty-eight rural counties that contain designated sage-grouse habitat.<sup>14</sup> Indigenous peoples and more recent arrivals also enjoy cultural benefits from sagebrush landscapes.<sup>15</sup> In sum, conservation of sage-grouse and sagebrush habitat benefits everyone, from sage-grouse to people to other sagebrush-dependent species.

As Tony Wasley, Director of the Nevada Department of Wildlife and Chairman of the Sagebrush Executive Oversight Committee coordinated by WAFWA, recently said, “It’s clear while we individually are winning many battles, we are at risk of collectively losing the war to conserve sagebrush, particularly with regard to fire and cheatgrass.”<sup>16</sup> The review of the BLM plans come at a pivotal time for determining the future of Greater sage-grouse and the broader health of North America’s largest ecosystem.

### III. RECOMMENDATIONS: PROCESS AND ANALYSIS

The BLM is beginning to consider updates to the range-wide management plans for sagebrush habitat adopted in 2015 and amended in 2019. We put forward the following process

---

<sup>9</sup> Wisdom, M.J., Rowland, M.M., and Suring, L.H., eds., 2005, Habitat threats in the sagebrush ecosystem— Methods of regional assessment and applications in the Great Basin: Lawrence, Kansas, Alliance Communications Group, 301 p.

<sup>10</sup> USGS Report 2020-1125 at pp. 193, 197.

<sup>11</sup> Id. at p. 198.

<sup>12</sup> ECONorthwest. 2014. Recreation Spending & BLM Sagebrush Lands. Eugene, Oregon. 26 p. <https://www.pewtrusts.org/-/media/assets/2014/09/recspendingblmlandsreport.pdf>

<sup>13</sup> Id.

<sup>14</sup> Testimony of John Tubbs, U.S. House Natural Resources Committee (October 25, 2017), p. 6. [https://naturalresources.house.gov/uploadedfiles/testimony\\_tubbs.pdf](https://naturalresources.house.gov/uploadedfiles/testimony_tubbs.pdf)

<sup>15</sup> USGS Report 2020-1125 at p. 11.

<sup>16</sup> USGS Press Release, March 17, 2021. <https://www.usgs.gov/news/national-news-release/new-report-highlights-declining-sagebrush-ecosystem-provides-foundation>

recommendations to the BLM as it conducts its review of the 2015 and 2019 Greater Sage-Grouse conservation plans.

### **A. Process Should be Open and Transparent**

Our organization(s) supports the review and amendment process laid out by BLM in its 2021 Notice of Intent, which appears to mirror the process used in 2015, including the preparation of a full environmental impact statement for the revised sage-grouse plans. As in the 2021 Notice of Intent, there was a lengthy scoping process in 2015, where many thousands of comments were received. When the draft environmental impact statements for the plans were released, there was a 90-day public comment period, with extensions provided in some cases. Tens of thousands of comments were put forward before the plans were adopted.<sup>17</sup>

Given the broad implications of this planning process, we expect public interest in the 2021 amendment process will be even greater than in 2015, and we support using the 2015 BLM template as a model, as it appears BLM will do. This process should include working closely with non-profits, private landowners, and community-led work groups (e.g., Local Area Working Groups, soil and water conservation districts, etc.), Native American communities, and other interested stakeholders as well as consulting with Tribal governments and local, state and federal agencies. We underscore the importance of BLM coordination with states and tribes, given their responsibilities for management of the Greater sage-grouse.

Our organizations applaud the BLM for hosting two virtual scoping meetings. The opportunity for the public to hear directly from project managers about the process and be able to ask clarifying questions was incredibly valuable and will not only increase trust in the process but is likely going to result in more productive engagement by stakeholders. These virtual meetings, along with continued updates/communications with the general public (including facilitating engagement by communities with reduced availability to technology) should be seen as a priority by the agency going forward. BLM public affairs officers should also consider creating a means that interested parties can remain informed of the process, such as through sharing announcements via a listserv dedicated to this planning effort.

### **B. Use the Best Available Science and Put in Place Clear, Efficient Processes to Make Technical Updates**

Since the finalization of the 2015 plans, there have been more than 300 new scientific publications related not only to sage-grouse but also to the sagebrush ecosystem, and the variety of stressors facing this iconic landscape. Among these are the previously noted comprehensive scientific sage-grouse populations and habitat assessments completed by the USGS and partners in 2021 (Report No. 2020-1154 and No. 2020-1125, respectively). Monitoring and mapping analyses tools have also been created, thus improving understanding of current and future conditions. The scientific grounding for the BLM's 2015 plans, including the level of certainty in how they were to be applied, was a key part of the foundation for the USFWS decision that listing sage-grouse under ESA was not warranted. Any changes proposed to the plans now by the BLM should meet a similarly high standard, incorporating new, peer-reviewed research.

---

<sup>17</sup> Dear Reader Letter of Neil Kornze (September 18, 2015), attached to the BLM Record of Decision and Approved Resource Management Plan Amendments for the Rocky Mountain Region (September 2015). [2015 Rocky Mountain Region Record GRSG ROD ARMPA 508.pdf \(blm.gov\)](#)

The BLM should also provide modifications or technical corrections to maps, where supported by improved peer-reviewed science and updated data. This includes updates proposed in the 2019 amendments, where defensible by science. Boundary adjustments and complementary adjustments of related management prescriptions should only be made to reflect a changed understanding of the preferences of the species and/or data showing changed use and conditions of habitat; adjustments may not be made to accommodate a proposed use that might otherwise be prohibited or conditioned based on a different habitat classification.

Going forward, the BLM should establish a clear and efficient process to ensure habitat and lek maps can be updated, as needed and as supported by new science, using administrative processes like plan maintenance not requiring a plan revision. Boundaries would generally not be adjusted to exclude non-habitat areas if those areas are wholly contained within existing management boundaries. Clarification in the process should ensure that areas within habitat management boundaries not currently used by sage-grouse but ecologically capable of supporting sage-grouse would not be removed from existing management boundaries. Habitat boundary changes (including justification for changes) should be made available in a consistent online location, easily accessible to stakeholders.

### **C. Take Into Account the Effects of Climate Change**

According to experts, the interaction of rising temperatures and potential modest increases in precipitation are expected to influence patterns of drought and moisture availability within the sagebrush ecosystem.<sup>18</sup> Warmer temperatures will prompt earlier soil drying, leading to longer periods of hot and dry conditions in summer. Climate projections indicate that large decreases in the abundance of sagebrush will occur in the hottest and driest regions within the sagebrush biome. Climate-induced changes in vegetation are expected to cause the loss of sagebrush, increases in bare ground, and reductions in shrub, litter, and herbaceous vegetation in the next 50 years.<sup>19</sup> This has serious implications for the 350+ species of plants and animals of conservation concern associated with the sagebrush ecosystem, including Greater sage-grouse. In fact, at broad scales, species distribution models predict that much of the area currently occupied by sagebrush will become unsuitable for sage-grouse.<sup>20</sup> Changes in the distribution and abundance of vegetation could affect what sage-grouse consider habitat at both the patch and landscape scale.<sup>21</sup> Together, these changes could reduce population abundance and redistribution.<sup>22</sup>

Recent research looked more closely at climate-vegetation forecasts in combination with oil and gas footprint scenarios in southwest Wyoming, while taking into account development restrictions within protected sage-grouse core areas (Wyoming Executive Order No. 2015-4).<sup>23</sup> These researchers found that climate-induced changes in vegetation caused population declines that were

---

<sup>18</sup> USGS Report No. 2020-1125.

<sup>19</sup> Homer, C.G., G. Xian, C.L. Aldridge, D.K. Meyer, T.R. Loveland, and M.S. O'Donnell. 2015. Forecasting sagebrush ecosystem components and greater sage-grouse habitat for 2050: Learning from past climate patterns and Landsat imagery to predict the future. *Ecological Indicators*: 55: 131-145.

<sup>20</sup> Heinrichs, J.A., M.S. O'Donnell, C.L. Aldridge, S.L. Garman, and C.G. Homer. 2019. Influences of potential oil and gas development and future climate on sage-grouse declines and redistribution. *Ecological Applications* 29(6):1116-113.

<sup>21</sup> Fedy, B.C. et al. 2014. Habitat prioritization across large landscapes, multiple seasons, and novel areas: an example using greater sage-grouse in Wyoming. *Wildlife Monographs* 190:1-39.

<sup>22</sup> Heinrichs et al. 2019.

<sup>23</sup> Heinrichs et al. 2019.

roughly comparable to those of development, when individuals were stressed by only existing (legacy) development. When not stressed by development, simulated populations demonstrated a capacity to compensate for climate-induced changes in vegetation, suggesting that development could be a stronger driver than climate. In the scenarios where climate and development were considered, the strongest population declines were noted (48–52% relative to the equilibrium starting size). Of important note, the research conducted by Heinrichs et al. 2019 assumed a stable starting population, despite many sage-grouse populations being in decline.<sup>24</sup>

Given the implications for sage-grouse populations, the impacts of climate change should be considered at (1) the patch and landscape-scale and (2) in conjunction with stressors, such as energy development and invasive annual grasses. These findings should be incorporated into the adaptive management provisions included in the Plan amendments, and included when considering any updates to habitat management criteria/boundaries.

#### **D. Analyze and Make Planning Decisions at the Landscape-Scale, not State-by-State**

Greater sage-grouse depend on a variety of sagebrush habitats throughout their life cycle, and exhibit strong loyalty to seasonal habitats (breeding, nesting, brood rearing, and wintering areas). Each of these habitats has various requirements for successful populations. The USGS Report 2020-1125 stated that migratory populations may travel over 62 miles between breeding and wintering areas.<sup>25</sup> Two other studies found long distance dispersal and migration movements of sage-grouse up to 150 miles.<sup>26</sup> These large seasonal and annual movements emphasize the landscape scale nature of sage-grouse.

In the 2015 not-warranted decision, the USFWS noted that meaningful restoration requires action on a landscape, watershed, or eco-regional scale, rather than individual, non-connected efforts.<sup>27</sup> BLM must ensure that, viewed as a whole, sufficient conservation practices are employed across the species' range, particularly in priority habitat areas.

The USFWS also acknowledged the importance of state plans in 2015, but only cite Wyoming, Oregon and Montana as having “regulatory provisions that provide certainty and will help to reduce habitat loss and fragmentation in the best remaining greater sage-grouse habitat”.<sup>28</sup> Consequently, it is the 2015 Sage-grouse Plans as whole that are the foundation for the USFWS finding – based on their ability to address the wide range of potential threats “with an ecosystem approach” and to provide adequate regulatory certainty. Therefore, it is of primary importance that the range-wide structure of the plans be preserved, as well as measures to address the potential threats USFWS identified.

Changes proposed by the states and other stakeholders must be considered in the aggregate, at a landscape-scale and across the range, since sage-grouse habitat crosses all ownership jurisdictions in 11 states. While the BLM is the steward of the largest share of remaining sagebrush habitat in the

---

<sup>24</sup> USGS Report No. 2020-1154.

<sup>25</sup> Id. at pp. 27-29.

<sup>26</sup>For links to the two studies, see Sage Grouse Initiative. *Sage Grouse Need Intact Landscapes For Long-Distance Movement* (March 28, 2017). <https://www.sagegrouseinitiative.com/sage-grouse-need-intact-landscapes-long-distance-movement>.

<sup>27</sup> USFWS 2015 Greater Sage-grouse Listing Decision, 80 Federal Register at 59888.

<sup>28</sup> USFWS 2015 Endangered Species Act Finding, Frequently Asked Questions, discussing potential threats: <https://www.fws.gov/greatersagegrouse/findings.php>

U.S., meaningful engagement by private landowners and states must also come into play or else the cumulative effect of local or state-specific changes undercuts the underlying framework for sage-grouse conservation by the BLM.

The BLM should not evaluate and amend the Resource Management Plans on a state-by-state basis. Rather, the plans should be reviewed for consistency and at a landscape-scale relevant to sage-grouse. As BLM undertakes a new round of planning to assess what actions may be needed to support sage-grouse and sagebrush habitat conservation, BLM should conduct analysis and make decisions similar to the 2015 Plans – at the two ecoregional scales.

#### **E. Analyze Effectiveness of Plan Implementation To-Date**

In this planning process, BLM must analyze the effectiveness to-date of the existing provisions in the sage-grouse plans. CEQ regulations direct the BLM to consider a “no action” alternative.<sup>29</sup> In practice, evaluating a “no action alternative” means BLM should consider *both* the impacts of continuing the activity, as well as discontinuing the activity.<sup>30</sup> This means that, through this NEPA process, the BLM should consider both the effects of implementing the 2015 plan amendments (as the 2019 and 2020 amendments have been enjoined by court orders) as well as taking no action to conserve sage-grouse *in addition to* considering a reasonable range of alternatives.

When evaluating the effects of implementing the 2015 plans, the BLM now has seven years of data, including its first five-year Rangewide Monitoring Report, new mapping tools, and a track record that should be used to evaluate how the measures in the plans are being executed, or not, and the resulting impact on sage-grouse habitat. It is important to note that the BLM Rangewide Monitoring Report does not provide a full picture of BLM plan implementation. It notes, for example, that “this report does not consider or analyze the BLM’s oil and gas lease sales in Greater sage-grouse habitat because the monitoring framework focuses on actual development, not potential or expected development.”<sup>31</sup> It is essential that BLM fully analyze the status of sage-grouse plan implementation – including past, present and future oil and gas lease sales as well as the impacts of oil and gas, renewable energy and other projects with approved Records of Decision – in order to fully assess the environmental effects of its proposed action.

Clear analysis of the effectiveness of the measures in the 2015 plans, along with updated analysis using all available scientific information, will be necessary to determine which actions are needed going forward.

#### **IV. RECOMMENDATIONS: IMPLEMENT AND STRENGTHEN THE 2015 PLANS**

Our organization supports the framework of the 2015 BLM plans, which represented an unprecedented effort among a wide variety of partners and a new model to proactively manage for imperiled species at a landscape-scale. It was only because of the regulatory measures in the BLM

---

<sup>29</sup> 40 CFR 1502.14.

<sup>30</sup> Lance McCold and James Saulsbury. 1998. Defining the no-action alternative for national environmental policy act analyses of continuing actions. *Environmental Impact Assessment Review* 18:1. Pages 15-37, ISSN 0195-9255, [https://doi.org/10.1016/S0195-9255\(97\)00062-0](https://doi.org/10.1016/S0195-9255(97)00062-0).

<sup>31</sup> Rangewide Monitoring Report (2015–2020) at page vii.

plans<sup>32</sup>, together with state plans and actions by private landowners, that the USFWS found that Greater sage-grouse did not warrant listing under the ESA.

At the same time, Audubon supports changes to the plans supported by new science-based data and research since 2015, so as to reverse the trend of declining sage-grouse populations. Failing to address their decline through scientifically defensible and durable habitat management actions risks the species necessitating future federal protection under the ESA. BLM must evaluate alternatives that provide protections in addition to the 2015 plans.

As the BLM evaluates the 2015 plans, the following should be considered to ensure the 2015 plans are functioning as intended, while also considering enhancements to the 2015 plans that build on the measures in the plans are essential to respond to declining sage-grouse populations. We recommend the following be considered in alternatives to be analyzed by the BLM in an Environmental Impact Statement.

#### **A. Limit Energy Development and Disturbance in Sage-Grouse Habitat**

Disturbance from energy development – both oil and gas and renewable energy – are primary threats to sage-grouse. The 2015 plans included provisions and stipulations designed to minimize the impacts of energy development on sage-grouse and its habitat.

However, these measures have not been implemented with consistency or, in some cases, at all. As the BLM undertakes review of the plans, it is important that the agency, at a minimum, re-commit to the disturbance stipulations originally laid out in the 2015 plans, and ensure these are sufficiently protective to be consistent with any new science that documents vulnerability to disturbance and species declines.

Thoughtful analyses and science-based management decisions regarding disturbances are mandatory to maintain viable sage-grouse populations; they are an essential component of the planning effort that must be carried forward and modified if needed.

##### ***1) Prioritize Leasing for Energy Development outside of Sage Grouse Habitat***

A key component of the 2015 Plans requires BLM to prioritize new oil and gas leasing outside of priority habitat management areas (PHMA) and general habitat management areas (GHMA) in order to protect that habitat from future disturbance.

We note that as of 2014, there was only a 4% overlap between sage-grouse PHMA and existing coal and oil and gas leases on federal lands; approximately 79% of federal lands and minerals in PHMAs have a zero to low oil and gas development potential; and approximately 71% of federal lands and minerals in the principal sage-grouse states that have a medium to high oil and gas development potential are located outside PHMAs.<sup>33</sup> Protections of sage-grouse habitat from oil and gas

---

<sup>32</sup> Of note: In 2010, when GrSG were determined to be warranted for protection under the ESA but adding the species the list of threatened and endangered species was precluded by higher priority listing actions, the USFWS listed two primary factors for ESA protection: (1) Loss or fragmentation of sagebrush habitat and (2) Inadequacy of existing regulatory mechanisms in land use plans. These two reasons were what spurred the unprecedented overhaul of BLM's Resource Management Plans that were approved in 2015.

<sup>33</sup> LeBeau C., J. Fruhwirth and J. Boehrs. 2014. Analysis of the Overlap between Priority Greater SageGrouse Habitats and Existing and Potential Energy Development across the West. Final Report: October 16 2014.

development should be maintained, and this can be done with little impact on oil and gas development opportunities.

In May 2020, BLM's national policy addressing the prioritization of oil and gas leasing outside of sage-grouse habitat, Instruction Memorandum 2018-026, was struck down by a court. *Montana Wildlife Federation v. Bernhardt*, No. 18-cv-69-GF-BMM, 2020 WL 2615631 (D. Mont. May 22, 2020). BLM has not adopted new national guidance on the prioritization requirement and has represented to the Montana court that the agency's previous prioritization guidance (adopted in 2016) also is not in effect. As a result, there is currently no national guidance providing direction on how prioritization is to be applied. Complying with the prioritization requirement of the 2015 Plans must be a central consideration for any lease parcels in PHMA and/or GHMA, and BLM should defer all parcels containing PHMA and/or GHMA at least until new national guidance is issued. The *Montana Wildlife Federation* ruling demonstrates the need for a well-reasoned national directive that fully complies with the purpose and language of the 2015 Plans' prioritization objective.

The USGS Report No. 2020-1154 describes an overall decline in the number of sage-grouse across the majority of their range, something previous studies have shown as well. Between 1965-2019, sage-grouse populations have declined 80.7% range-wide (~3% decline per year). Looking at a more recent time-frame, 2002-2019, range-wide populations have declined 37%. Using lek data collected to date, the researchers also predicted continued dramatic declines into the future - 78% of leks having a greater than 50% probability of extirpation in the next 56 years.

In the Rangewide Monitoring Report for 2015-2020, BLM found there have been 604 land use authorizations (e.g., oil and gas, rights-of-way, etc.) in Priority Habitat Management Areas and Important Habitat Management Areas covering approximately 73,000 acres.<sup>34</sup> In Colorado, the BLM had over 34,000 acres of surface-disturbing authorizations within priority habitat since 2015, followed by Nevada (approximately 22,000 acres) and Wyoming (approximately 13,000 acres).<sup>35</sup> It is important to note that the acreages cited for these authorizations represents the surface-disturbance of the land use authorization, which does not include the far further reaching indirect effects of the disturbance (noise, etc) that can disturb sage-grouse for miles away from the development itself. In conclusion, if the intent of the PHMA and IHMA designations and the provisions in the sage-grouse plans was to limit surface-disturbing activities in essential sage-grouse habitat, this has clearly not been the result.

Reinterpretation of what it means to prioritize outside of PHMA and GHMA by the Trump administration led to the aforementioned litigation. Thus, coherent prioritization guidance is needed from the BLM which can be applied universally across field offices with identified sage-grouse PHMA and GHMA.

---

Prepared for Western Values Project, Bozeman, Montana. Prepared by Western EcoSystems Technology, Inc. (WEST), Cheyenne, Wyoming.

LeBeau C. and G. Gardner. 2017. Analysis of the Overlap between Priority Habitat Management Areas and Existing and Potential Energy Development across the West. Final Report: June 9, 2017. Prepared for Backcountry Hunters & Anglers, Denver, Colorado. Prepared by Prepared by Western EcoSystems Technology, Inc. (WEST), Laramie, Wyoming.

<sup>34</sup> BLM Rangewide Monitoring Report (2015–2020) at page viii.

<sup>35</sup> Ibid.

To meaningfully prioritize oil and gas leasing outside grouse habitat, we recommend the BLM consider the following:

- (1) BLM will look for opportunities to modify parcel boundaries to remove PHMA and GHMA before including them in lease sales.
- (2) BLM will take into account the availability of other parcels for lease in all field offices.
- (3) If parcels are within identified PHMA and low or moderate potential for oil and gas, they should not be included in a lease sale.
- (4) If parcels are within identified PHMA and high potential for oil and gas, are not in proximity to existing disturbance and/or require additional infrastructure to be developed, there should be a strong presumption against including them in a lease sale, especially if there are other parcels that do not have PHMA and do not have other higher priority resource conflicts.
- (5) If parcels are within identified PHMA or GHMA have high potential for oil and gas and are in close proximity to existing disturbance and infrastructure and/or are already within an existing oil and gas unit that has been analyzed in an environmental impact statement, then they may be considered for leasing.
- (6) Parcels outside PHMA should be considered for leasing prior to parcels in PHMA.
- (7) Parcels outside GHMA should be considered for leasing prior to parcels in GHMA, again if there are other parcels that do not have sage-grouse habitat and do not have other higher priority resource conflicts.
- (8) For parcels in PHMA or GHMA that are included in lease sales, there should be an evaluation of other conditions of approval that will limit any new infrastructure and other stressors on sage-grouse.

To prioritize renewable energy leasing outside sage-grouse habitat, so as to reduce long-term impacts to already declining populations, we recommend the BLM consider the following:

- (1) BLM will look at overlap of potential renewable energy development and sage-grouse habitat to identify areas of potential impact.
- (2) BLM will look for opportunities to modify parcel boundaries to remove PHMA and GHMA before including them in lease sales.
- (3) If parcels are within identified PHMA and low or moderate potential for renewable energy development, they should not be included in a lease sale.
- (4) If parcels are within identified PHMA and high potential for renewable energy development, are not in proximity to existing disturbance and/or require additional infrastructure to be developed, there should be a strong presumption against including them in a lease sale, especially if there are other parcels that do not have PHMA and do not have other higher priority resource conflicts.
- (5) If parcels are within identified PHMA or GHMA have high potential for renewable energy development and are in close proximity to existing disturbance and infrastructure and/or are already within an existing oil and gas unit that has been analyzed in an environmental impact statement, then they may be considered for leasing.
- (6) Parcels outside PHMA should be considered for leasing prior to parcels in PHMA.
- (7) Parcels outside GHMA should be considered for leasing prior to parcels in GHMA, again if there are other parcels that do not have sage-grouse habitat and do not have other higher priority resource conflicts.
- (8) For parcels in PHMA or GHMA that are included in lease sales, there should be an evaluation of other conditions of approval that will limit any new infrastructure and other stressors on sage-grouse.

## **2) Review Disturbance Caps and Lek Buffers to Minimize Disturbance to Greater-sage grouse**

Among the three objectives from the 2015 Sage Grouse Plans is the objective to minimize new or additional surface disturbance. At the time, BLM noted that “the most effective way to conserve the sage-grouse is to protect existing, intact habitat” and that even at that point in time, “research clearly shows that sage-grouse declines as the amount of nearby surface disturbance (from roads, oil and gas wells, buildings, etc.) increases.”<sup>36</sup>

To address the threat imposed by infrastructure associated with development, the 2015 Plans established a 3% disturbance cap for anthropogenic disturbance within PHMAs. Once that disturbance cap is reached, additional development will not be permitted on federal lands within the PHMA. The plans also establish buffers around breeding areas known as leks in both PHMAs and GHMAs. With respect to energy development specifically, the plans designate PHMAs as “avoidance” or “exclusion” areas for renewable energy infrastructure and limit oil and gas production to one well pad per 640-acre section. These original disturbance caps and buffer distances should be reviewed to determine if current standards are effective.

In determining surface-disturbance thresholds (or disturbance caps), definitions as to what accounts for “disturbance” should be reviewed by the BLM. The 2015 Plans only account for anthropogenic disturbance. The latest science should be used to determine the accuracy of the sources of disturbance in calculations, to consider if natural disturbances such as fire should be included, and if the 3% disturbance cap is still appropriate given current conditions.

To develop relevant and practical lek buffer distances for the BLM plans, the Department of Interior commissioned the USGS to review the scientific information on conservation buffer distances for sage-grouse.<sup>37</sup> The resulting study recommended there be 3.1 mile between leks and infrastructure related to energy development. It is important to stress that this distance does *not* result in 100% protection for sage-grouse:

[T]he minimum distance inferred here (5 km [3.1 miles]) from leks may be insufficient to protect nesting and other seasonal habitats. Based on the collective information reviewed for this study, conservation practices that address habitats falling within the interpreted distances may be expected to protect as much as 75 percent to 95 percent of local population’s habitat utilization.

A 2016 study in Wyoming found that current regulations may only be sufficient for limiting population declines but *not* for reversing these trends<sup>38</sup> - which recent USGS report suggests is a serious concern across the range. According to the Wyoming study, on average, lek attendance was stable when no oil and gas development was present within 4 miles. That study also noted that areas not protected under the Wyoming plan are not subject to Core Area (PHMA) regulations and thus may experience larger increases in oil and gas development and, therefore, larger declines in

---

<sup>36</sup> FACT SHEET: BLM, USFS Greater Sage-Grouse Conservation Effort  
<https://www.blm.gov/sites/blm.gov/files/BLM-USFS%20Sage-grouse%20Plans%20Fact%20Sheet%20Final915.pdf>

<sup>37</sup> Manier, D.J., Bowen, Z.H., Brooks, M.L., Casazza, M.L., Coates, P.S., Deibert, P.A., Hanser, S.E., and Johnson, D.H., 2014, Conservation buffer distance estimates for Greater Sage-Grouse—A review: U.S. Geological Survey Open-File Report 2014–1239, 14 p., <http://dx.doi.org/10.3133/ofr20141239>.

<sup>38</sup> Green, A.W., Aldridge, C.L., and O’Donnell, M.S. 2016. Investigating impacts of oil and gas development on Greater Sage-Grouse. *The Journal of Wildlife Management* 81(1): 46-57.

sage-grouse populations. A 2016 study in Utah recommended buffers of 3 to 5 miles between disturbed areas and sage-grouse breeding and summer habitats, respectively.<sup>39</sup>

With these and other peer-reviewed studies<sup>40</sup>, the use of a smaller 0.6 mile buffer around leks in PHMAs and 0.25 mile NSO for leks in occupied habitat or GHMAs has been repeatedly shown by science to be inadequate to maintain lek activity. BLM should evaluate larger buffers that reflect the latest science. BLM should also consider whether large variations in site-specific conditions, such as topography, merit site-specific consideration of ecologically appropriate set-backs.

### ***3) Identify Transmission Corridors and Avoid Sage-grouse Habitat***

The 2015 Plans require developers seek to avoid placing high voltage transmission lines and other linear developments (e.g. pipelines) in sage-grouse habitat, as these cause habitat fragmentation/degradation and can cause changes in habitat use. Where important habitat cannot be avoided, mitigation measures are required.

In this BLM plan review and given the increased need for new transmission lines to meet the growth in renewable energy, BLM should encourage avoiding grouse habitat as much as possible – especially PHMA. In addition, recognizing that this may not always be possible, BLM should consider establishing transmission line corridors through sage-grouse habitat and developing/implementing plans for maintaining functional connectivity of PHMAs bisected by transmission corridors. In the Wyoming Executive Order 2019-3, a two-mile wide corridor represents the State’s preferred alternative for routing electric transmission lines across the southern portion of the state while reducing impacts to Core Population Areas and other natural resources, thus encouraging co-location of lines.

### ***4) Limit the Use of Waivers, Exceptions and Modifications***

The use of waivers, exceptions and modifications to the stipulations in the plans should be limited as intended in the 2015 plans to ensure that these provisions do not undercut the purpose of the plans. The 2015 plans set forth clear restrictions to the use of waivers, exceptions and modifications to the stipulations as well as requirements for public notice. These provisions should be honored. Furthermore, the party applying for a waiver should clearly establish that the project they are proposing will result in no net loss of habitat. In addition, the process for determining whether to grant a waiver, stipulation or modification should include consultation with the relevant state wildlife agency and the USFWS (but need not require approval from USFWS). This would allow for localized, science-based decisions that serve the overall conservation purpose of the plans.

---

<sup>39</sup> Dahlgren, D.K., Messmer, T.A., Crabb, B.A., Larsen, R.T., Black, T.A., Frey, S.N., Thacker, E.T., Baxter, R.J., and Robinson, J.D. 2016. Seasonal movements of greater sage-grouse populations in Utah—Implications for species conservation: *Wildlife Society Bulletin*, v. 40, no. 2, p. 288–299.  
<https://onlinelibrary.wiley.com/doi/abs/10.1002/wsb.643>

<sup>40</sup> Holloran, M.J. 2005. Greater sage-grouse (*Centrocercus urophasianus*) population response to natural gas field development in western Wyoming. Dissertation. University of Wyoming, Laramie, WY.

Walker, B. L., D. E. Naugle, and K. E. Doherty. 2007. Greater sage-grouse population response to energy development and habitat loss. *Journal of Wildlife Management* 71(8):2644-2654.

To ensure accountability, public notice and an opportunity for comment should be required of any exception, modification or waiver of sage-grouse conservation measures. In addition, to promote consistency across Greater sage-grouse habitat, quarterly reports regarding exceptions, modifications and waivers requested and the basis on which any were granted should be compiled and published by BLM State Directors and submitted to the Director.

## **B. Require Effective Mitigation that Meets Standard Principles**

Mitigation is a widely accepted regulatory tool and was a critical part of the 2015 decision not to list Greater sage-grouse as endangered. Sound mitigation policy provides agencies such as BLM with a structured, rational, and transparent framework for reviewing use requests and meeting their multiple use and sustained yield mandates. When fairly designed and implemented and evaluated at appropriate scales, mitigation policies can reduce conflict between conservation and land use activities.

BLM has long included compensatory mitigation requirements in a number of land use planning and management decisions.<sup>41</sup> The 2015 BLM sage-grouse plans relied on the mitigation hierarchy to help reach their goal of protecting sage-grouse while also allowing multiple uses to proceed by ensuring associated impacts to habitat are fully offset. The accompanying USFWS not-warranted ESA decision was based not on the stability of the species' population, but rather on the "adequacy of regulatory mechanisms and conservation efforts".<sup>42</sup> Mitigation – avoidance, minimization and, where appropriate, compensatory mitigation – was an essential tool supporting the decision:

All of the Federal Plans require that impacts to sage-grouse habitats are mitigated and that compensatory mitigation provides a net conservation gain to the species. All mitigation will be achieved by avoiding, minimizing, and compensating for impacts following the regulations from the White House Council on Environmental Quality (e.g., avoid, minimize, and compensate), hereafter referred to as the mitigation hierarchy. If impacts from BLM/USFS management actions and authorized third party actions that result in habitat loss and degradation remain after applying avoidance and minimization measures (i.e., residual impacts), then compensatory mitigation projects will be used to provide a net conservation gain to the species.<sup>43</sup>

The USFWS then concluded, "Requiring mitigation for residual impacts provides additional certainty that, while impacts will continue at reduced levels on federal lands, those impacts will be offset".<sup>44</sup> The 2015 BLM Plans thus not only employ the mitigation hierarchy as a regulatory and conservation tool to preclude listing, but the listing decision was, in part, based on the promise of the protections and conservation measures that mitigation would deliver.

---

<sup>41</sup> Justin R. Pidot. The Bureau of Land Management's Infirm Compensatory Mitigation Policy, 30 Fordham Envtl. Law Rev 1, 4 (2018) (article arguing against prior, Trump Administration, policy that disclaims statutory authority for BLM to impose compensatory mitigation); see also, Pidot, 61 B.C.L. Rev. at 1062.

<sup>42</sup> Endangered and Threatened Wildlife and Plants: 12-Month Finding on a Petition to List Greater Sage-Grouse as an Endangered or Threatened Species. 80 Federal Register 59858, 59927 (Dep't. of the Interior October 2, 2015).

<sup>43</sup> Id. at 59881 (citation omitted).

<sup>44</sup> Id. at 59881.

### **1) Incorporate, Implement, and Enforce State Sage-grouse Mitigation Programs that Meet a Recognized Set of Principles**

While the mitigation requirements and standards in the 2015 plans were deemed essential by the USFWS, implementation has not been fully realized. The 2015 Records of Decision for sage-grouse included a commitment to develop compensatory mitigation strategies in each sage-grouse management zone.<sup>45</sup> As the 2015 Plans were completed and implementation efforts began, however, some states had already completed or had begun efforts to develop compensatory mitigation strategies to implement conservation measures for the species on state and private lands. It thus became apparent that developing federal mitigation strategies for each management zone would be redundant and potentially could create conflicts between state and federal mitigation approaches. Given BLM's broad authority to adopt and impose compensatory mitigation to protect sage-grouse, it makes sense for BLM to adopt, implement, and enforce well-designed state mitigation programs on federal land wherever possible.

We support efforts of the states to design and apply different geographically appropriate mitigation approaches. Variability from state-to-state allows for experimentation and, eventually, the ability to compare the effectiveness of different approaches across states. Voluntary approaches to mitigation, however, are not acceptable for the sage grouse, since they provide no certainty that any new habitat will be created in response to development of existing habitat – a clear requirement for USFWS's listing consideration. In addition, application of strict avoidance and minimization principles in these programs is critical because we cannot begin to reduce impacts to sagebrush habitat if development continues to occur on the best habitat.

If state programs are to be adopted by BLM and applied on federal lands, they should meet a common set of defined principles and standards designed to meet a federally established conservation goal for the species. Examples of such standards and principles can be found in the Bureau of Land Management's Mitigation Manual (1794-M) and Mitigation Handbook (H-1794-1) and The Nature Conservancy's 2015 report, *Achieving Conservation and Development: Applying the Mitigation Hierarchy*.<sup>46</sup>

Important features in these policies include:

- Loss/gain methodology: Mitigation programs should have in place loss/gain methodologies to quantify impacts and offsets. These methodologies should ideally be based on a measure of the capacity of areas lost and offset. There are large variations in the quality of habitat for sage-grouse, and it is important to address the variation in habitat quality by including measures of habitat functionality and using adjustment factors to account for the risk of project failure.
- Site selection, service areas, scale-appropriate decision making, and appropriate actions and habitat types: Mitigation programs should provide guidance on appropriate criteria for selecting offset sites, including distance from impact site, boundaries within which impacts may be offset, and any requirements for identifying offset areas based on relevant scale-appropriate conservation information, should be included.
- Performance standards: Mitigation programs should have in place performance standards that are clear, science-based, measurable, and designed to track compliance, effectiveness,

---

<sup>45</sup> See e.g., ROD for the Rocky Mountain Region (Sept. 15, 2015), pp.1-27-8.

<sup>46</sup> McKinney and Wilkinson. *Achieving Conservation and Development: Applying the Mitigation Hierarchy*. (April 2015). [TNC Mitigation Principles WEB FINAL.docx.pdf \(conservationgateway.org\)](#)

and inform any needed adjustments for improvement. They should also clearly specify the conservation outcomes that are expected.

- Durability: All mitigation measures should be designed such that conservation gains are durable.
- Duration: Measures should be designed to be in place at least as long as the duration of the direct and indirect impacts.
- Additionality: Offsets should provide a new contribution to conservation, additional to what would have occurred without the offset.
- Equivalence: Compensatory mitigation measures should strive to deliver offsets that are “in kind” in terms of habitat type, functions, values, and other attributes.
- Certainty and transparency to regulators, developers and the public: Mitigation programs should strive to maximize consistency in implementation and provide predictability for project proponents, participating agencies, and mitigation providers.
- Establish a mitigation goal: Sound mitigation policies are guided by a clear goal statement. A higher goal of net conservation gain, of the type provided for in BLM’s 2015 plans, where mitigation is being relied upon to preclude a listing under section 7(a)(1) of the ESA.

Actions that offset species and habitat loss to a no net loss standard do not advance recovery, but rather, at best, maintain the status quo, which, given the documented decline in sage-grouse populations, increases the likelihood of a decision to list Greater sage-grouse under ESA in the future.

Regardless of whether a net conservation gain or no net loss standard is employed, it is critical that BLM have a high degree of confidence that direct, indirect, and cumulative impacts of infrastructure development will be offset with high quality, durable, timely, and additional compensatory mitigation projects. Without effective mitigation to at least a no net loss standard, sage-grouse habitat will be lost by the proverbial “death by a thousand cuts” from development and other types of conversion.

Additionally, habitat value should be quantified to establish that the ‘no net loss’ metric pertaining to sage-grouse habitat has been met.

- Mitigation on Public Lands: BLM should have the policy prescriptions and tools available to allow for compensatory mitigation on public lands to offset private or public activities.
- Field Guidance and Training: Providing agency field staff with guidance and training is an important mechanism to accelerate permitting and project review.

### **C. Require Effective Monitoring and Adaptive Management**

Monitoring and adaptive management are key components of any plan for sustainable sage-grouse populations, and must receive adequate funding and resources.

BLM should consider the USGS’ Targeted Annual Warning System as a standardized approach to assessing population trends (and identifying concerns), as part of its monitoring and adaptive management.

BLM should ensure that when population drops indicate concern and an adaptive management trigger is tripped, there is a clear, science-based process to put protections of habitat in place to

stem the loss of birds and a monitoring program to determine effectiveness. These measures should include closing areas to development.

Efforts to effectively monitor sagebrush habitat can be problematic, as USGS Report No. 2020-1125 explains:

Most management actions provide insufficient funding to perform monitoring for more than a few years, and thus most project-level monitoring falls into implementation monitoring and not effectiveness monitoring. Some restoration outcomes take years to discern, so a commitment to longer term monitoring efforts is often needed. Monitoring programs used by different agencies, and sometimes within the same agency, are rarely integrated... Ultimately, monitoring programs, whether distributed across the sagebrush biome or at the project level, are constrained by limited funding.

The USGS report concludes that one way to increase sagebrush monitoring efficiency is through better data sharing, a goal that BLM should certainly be working towards in its sage-grouse plans.

Another approach to monitoring which can increasingly be used is based on the development of new technology and statistical design. Advances in remote sensing and data management processes now provide opportunities not previously available, and should also be taken into account as part of the scoping process.

The “Sage-Grouse Habitat Assessment Framework” (HAF) includes a temporal and spatial method for evaluating sagebrush habitats for sage-grouse suitability at various landscape scales.<sup>47</sup> The HAF is recognized as a cornerstone of the habitat monitoring component of sage-grouse conservation. The editors of the HAF coordinated with the BLM assessment, inventory, and monitoring (AIM) team to ensure the data required for the HAF indicator values are consistent with information currently being collected as described in “BLM Core Terrestrial Indicators and Methods,” west-wide monitoring efforts, and grass-shrub stewardship efforts. The intent is for the HAF to be implemented using the principles outlined in “AIM-Monitoring: A Component of the BLM Assessment, Inventory, and Monitoring Strategy”.<sup>48</sup> Our organizations recommend using the HAF/AIM data for effectiveness monitoring of habitat conditions and feeding these data into adaptive management constructs.

#### **D. Identify and Protect Essential Sage-Grouse Habitat**

Protecting the most essential, intact sagebrush habitat is critically important to ensuring the future of the sage-grouse in an increasingly compromised landscape. We offer our recommendations to BLM to analyze and ensure conservation of the most essential habitat (including winter concentration areas, connectivity areas, and sagebrush focal areas) even while allowing for development in other areas (such as GHMA).

---

<sup>47</sup> Stiver, S.J., E.T. Rinkes, D.E. Naugle, P.D. Makela, D.A. Nance, and J.W. Karl, eds. 2015. Sage-Grouse Habitat Assessment Framework: A Multiscale Assessment Tool. Technical Reference 6710-1. Bureau of Land Management and Western Association of Fish and Wildlife Agencies, Denver, Colorado.

<sup>48</sup> Taylor, J.J., E.J. Kachergis, G.R. Toevs, J.W. Karl, M.R. Bobo, M. Karl, S. Miller, and C.S. Spurrier. 2014. AIM-Monitoring: A Component of the BLM Assessment, Inventory, and Monitoring Strategy. Technical Note 445. U.S. Department of the Interior, Bureau of Land Management, National Operations Center, Denver, CO.

### **1) Consider Additional Habitat Needs: Winter and Connectivity**

The usefulness of protected areas as a regulatory mechanism to conserve wildlife populations is based on their ability to contain all seasonal habitats necessary for species persistence. For sage-grouse, there are three distinct life stages for which habitat needs must be considered: nesting, summer, and winter. In the review of the 2015 Plans, BLM should ensure all three life stages are being considered. Specifically, *winter concentration areas* and those habitat areas that provide *connectivity* between populations, should be identified and sufficiently protected, based on the best available science.

The approach of focusing conservation efforts only in PHMAs, and to a lesser degree in GHMAs, are not likely to be sufficient. First, these are - for the most part - based on sage-grouse breeding habitats. Sage-grouse are a partially migratory species with many individuals within populations using spatially distinct breeding and winter habitats.<sup>49</sup> Secondly, scientific studies are finding that protecting just the PHMAs may not be adequate. In Wyoming, where PHMAs/Core Areas were delineated because they had presumably the best and most stable sage-grouse populations, Edmunds et al.<sup>50</sup> found sage-grouse populations in Core Areas continue to decline (77% of the PHMAs declined and 4% of the remaining populations were merely stable), though less than outside Core Areas.<sup>51</sup>

Small changes to available winter habitats have caused drastic reductions in some sage-grouse populations.<sup>52</sup> A glaring example of the importance of these winter areas has been most prominent with Jonah Energy's proposed "Normally Pressurized Lance" (NPL) where about 2,000 sage-grouse from across the region overwinter atop this gas field. Especially during severe winters, these selected landscapes provide food and cover to survive. Smith et al.<sup>53</sup> used aerial infrared videography to identify locations of wintering sage-grouse in south-central and southwest Wyoming. While they found most wintering sage-grouse were located in PHMA, 28 flocks comprising 5 winter concentration areas were located outside of Core Areas and thus had lower protections. Similar protocol could be used to identify where other winter concentration areas are located.

BLM should also identify potential movement pathways, in addition to high quality habitat patches, in maintaining sage-grouse populations across the range. Identifying where these are and affording

---

<sup>49</sup> Connelly, J. W., E. T. Rinkes, and C. E. Braun. 2011. Characteristics of greater sage-grouse habitats: a landscape species at micro- and macroscales. Pages 69–83 in S. Knick and J. W. Connelly, editors. Greater sage-grouse: ecology and conservation of a landscape species and its habitats. Studies in Avian Biology 38. University of California Press, Berkeley, USA.

Dinkins, J. B., K. J. Lawson, K. T. Smith, J. L. Beck, C. P. Kirol, A. C. Pratt, M. R. Conover, and F. C. Blomquist. 2017. Quantifying overlap and fitness consequences of migration strategy with seasonal habitat use and a conservation policy. *Ecosphere* 8:e01991.

Pratt, A. C., K. T. Smith, and J. L. Beck. 2017. Environmental cues used by greater sage-grouse to initiate altitudinal migration. *Auk: Ornithological Advances* 134:628–643.

<sup>50</sup> Edmunds, D.R., Aldridge, C. L., O'Donnell M.S., and A.P. Monroe. 2018. Greater Sage-grouse Population Trends Across Wyoming. *Journal of Wildlife Management* 82(2): 397-412.

<sup>51</sup> Spence, E. S., J. L. Beck, and A. J. Gregory. 2017. Probability of lek collapse is lower inside sage-grouse Core Areas: effectiveness of conservation policy for a landscape species. *PLoS ONE* 12(11): e0185885.

<sup>52</sup> Carpenter, J., Aldridge, A., and M.S. Boyce. 2010. Sage-Grouse Habitat Selection During Winter in Alberta. *Journal of Wildlife Management* 74(8), 1806-1814.

<sup>53</sup> Smith, K.T., Dinkins, J.B., and J.L. Beck. 2019. Approaches to Delineate Greater Sage-grouse Winter Concentration Areas. *Journal of Wildlife Management* 83(7): 1495-1507.

them adequate protections is critical to preserving the likelihood of population persistence by facilitating movements that sustain or recolonize/augment populations, as well as enable dispersal. These habitat connectivity areas will become increasingly important to ensure robust genetic health in an increasingly compromised habitat landscape.

## ***2) Ensure Sagebrush Focal Areas Protect Essential Habitat from Future Mining***

Sagebrush Focal Areas (SFAs) were included in the 2015 Greater Sage-grouse Resource Management Plan Amendments as requested by the USFWS<sup>54</sup> to provide highest levels of protection for the most important sagebrush landscapes. Primarily, this action would have withdrawn designated public land acres from new mineral location and entry. SFA designation was halted when the withdrawal application was cancelled in 2017<sup>55</sup>, a decision that was vacated by federal courts in 2021<sup>56</sup> and has since been reinitiated.

While the mineral location and entry withdrawal is being analyzed in a separate and concurrent NEPA effort<sup>57</sup>, the BLM asked for comment in this scoping effort on:

The identification, management, and conservation of the most important GRSG and sagebrush habitat, referred to as “Sagebrush Focal Areas” in the 2015 and 2019 Sage-Grouse Plan Amendments.

SFA designations and associated protections were part of the original intent of the 2015 amendments. The SFA boundaries should be updated based on the latest science and to address any inaccuracies, working in concert with state wildlife agencies and the USFWS to map and identify these areas. BLM must also consider how the withdrawal of minerals from mining in SFAs will work in concert with other protections and management actions – such as limits on all surface disturbance and restoration – to protect the most intact remaining sagebrush ecosystem landscapes, because limits on mining alone are unlikely to be enough to conserve these areas.

## ***3) Consider Additional Measures to Protect Essential Sage-Grouse Habitat***

The recent push by agencies, nonprofits, and state governments to focus sagebrush conservation efforts on ecosystem function, for example through Threat-based Land Management<sup>58</sup> or the Defend Core Framework<sup>59</sup>, provides the opportunity for the BLM to design sagebrush protections to conserve the “best of the best” habitat. BLM should work towards limiting and removing anthropogenic infrastructure to the maximum extent

---

<sup>54</sup> 2014. Memorandum: Greater Sage-Grouse: Additional Recommendations to Refine Land Use Allocations in Highly Important Landscapes. October 27, 2014.

<sup>55</sup> 82 FR 47248 Notice of Cancellation of Withdrawal Application and Withdrawal Proposal and Notice of Termination of Environmental Impact Statement for the Sagebrush Focal Area Withdrawal in Idaho, Montana, Nevada, Oregon, Utah and Wyoming

<sup>56</sup> Western Watersheds Project v. Bernhardt, Case No. 1:16-cv-00083-BLW, EFC 264

<sup>57</sup> 86 FR 44742 Notice to Re-Initiate Proposed Withdrawal; Sagebrush Focal Areas

<sup>58</sup> Johnson, D. et al. 2019. Threat-Based Land Management in the Northern Great Basin: A Manager’s Guide. Oregon State University Press, Corvallis, USA. <https://catalog.extension.oregonstate.edu/pnw722>

<sup>59</sup> Maestas et al. 2022. Defend the core: Maintaining intact rangelands by reducing vulnerability to invasive annual grasses. Rangelands.10.1016/j.rala.2021.12.008.

practical and restoring high quality, functional habitats to these areas. These should be considered in combination with the mineral withdrawals offered by the SFAs.

The value of using protected areas to meet the goal of maintaining and enhancing populations was supported by Wyoming BLM in 2010, who proposed 11 contiguous square miles or sections as an appropriate minimum size for an area of habitat to qualify for being set-aside for development.<sup>60</sup> This number could be scaled to allow for protecting smaller contiguous areas in states with smaller populations than Wyoming, or in areas, such as northwest Colorado, where there are few remaining 11 contiguous square-mile areas that are not subject to valid existing rights.

The BLM should consider protections to conserve the most essential sagebrush habitat including a No Surface Occupancy requirement. An updated mapping effort could capture the landscapes that would benefit from protection-oriented measures alone, versus needing extensive management or restoration intervention to reverse declines in ecological function. We describe our request for BLM analysis below.

We ask that the BLM consider the composition and extent of the most essential sage-grouse habitat in this planning effort, taking advantage of advances in remotely sensed datasets and mapping platforms, to propose a preferred alternative that identifies the top 20% of acres in each state<sup>61</sup> by ecological integrity (inclusive of all landownerships), and then designate new or revised protected areas (SFAs or similar) to cover as many of the identified BLM-managed acres as practical (including PHMA, GHMA, and Non-habitat) after adjusting boundaries to accommodate several considerations including:

- Where high breeding densities of sage-grouse occur,
- Where a preponderance of current federal ownership or adjacent state-owned land or protected areas serve to anchor conservation importance,
- Where designation would result in fewer, larger, more contiguous SFAs, and
- Where distance from existing development and infrastructure can be maximized.

By ecological integrity, we mean the BLM considers spatial and temporal patterns of functional vegetation groups, including maximizing indicators of desirable ecological conditions including native perennial herbaceous vegetation and woody sagebrush species while minimizing undesirable ones including invasive annual herbaceous vegetation and trees encroaching on rangeland sites. Analysis of these indicators should use best-available science for identifying meaningful thresholds, ratios, or other relevant metrics based on regional differences between the Great Basin, Rocky Mountain, and Great Plains portions of the sagebrush biome. Taken together, these indicators should allow the BLM to identify landscapes where the protection-oriented measures of SFA designation would prevent further loss of ecosystem function.

---

<sup>60</sup> BLM Instruction Memorandum WY 2010-013, available at <http://www.blm.gov/pgdata/etc/medialib/blm/wy/resources/efoia/IMs/2010.Par.43567.File.dat/wy2010-013.pdf>.

<sup>61</sup> Including CO, ID, MT, NV, OR, UT, & WY, but not CA, ND, SD, or WA given the small number of BLM-managed acres and special considerations of those states' small and distinct sage-grouse populations.

Major advances in remotely-sensed datasets and mapping platforms will allow the BLM to conduct this analysis with a transparent and empirical approach that was not available to the agency in 2015. Products including the *Rangeland Assessment Platform*<sup>62</sup> and especially WAFWA's anticipated *Ecological Integrity Map*<sup>63</sup> are ideally suited to facilitate this analysis at a state-scale. BLM should analyze the conservation benefit to sage-grouse if the top 20% of acres in each state were managed in a manner that limits and removes anthropogenic infrastructure to the maximum extent practical and restoring high quality, functional habitats to these areas. It is not only feasible using products like these, but it will also be in keeping with the 'Defend the Core' framework to pragmatically orient sagebrush ecosystem management and restoration around the largest remaining intact landscapes. Targeting the top 20% of acres by ecological function in each state will sufficiently protect remaining intact landscapes while ensuring that other uses of public lands, including infrastructure development, renewable energy siting, and resource extraction, will be possible.

We believe a "best of the best" designation should confer the highest levels of protection possible, including a No Surface Occupancy (NSO) requirement, as well as help prioritize areas for restoration adjacent to these areas. NSO requirements are needed to prevent new fragmentation creating vectors for invasive species spread or anthropogenic wildfire ignitions. Existing uses, especially permitted livestock grazing, may need exceptions for rangeland improvements such as water developments or fences, but NEPA analysis of these projects needs to demonstrate insignificant impacts to sage-grouse through avoidance or minimization measures. We discourage the BLM from creating exceptions for development related for new uses.

#### **4) Use Durable Mechanisms to Ensure Habitat Protection**

BLM should consider the suite of mechanisms provided under its authorities under FLPMA to establish and prioritize durable management and conservation of areas important to sustain healthy sage-grouse populations over the long-term. This should include Areas of Critical Environmental Concern (ACECs) as FLPMA requires the BLM to give priority to the designation and protection of ACECs in its planning directives.<sup>64</sup> ACECs established for sage-grouse would clearly meet relevance criteria for a fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species, or habitat essential for maintaining species diversity).<sup>65</sup>

Science-based conservation designations (e.g., ACECs with sage-grouse specific protections) should be part of the BLM's assessment, in addition to development restrictions (e.g., no-surface occupancy or "NSO"). High-priority areas should be managed specifically for sage-grouse; this approach includes identification of habitat which is set-aside from developmental pressures. BLM should focus on those areas with the most intact sagebrush and the highest ecological value for the Greater sage-grouse, including Sagebrush Focal Areas. Management actions within these areas should focus

---

<sup>62</sup> Jones, M.O. et al. Innovation in rangeland monitoring: annual, 30 m, plant functional type percent cover maps for U.S. rangelands, 1984-2017. *Ecosphere* 9:e02430. <https://doi.org/10.1002/ecs2.2430>

<sup>63</sup> Doherty, K. et al. 2022 – in review.

<sup>64</sup> 43 U.S.C. § 1702 (c)

<sup>65</sup> BLM Guidance. Manual 1613: Areas of Critical Environmental Concern. Evaluation of Relevance and Importance Criteria for Areas of Critical Environmental Concern.

on maintaining and enhancing grouse habitats and viable populations. Designated areas should contain management protections that are specific to sage-grouse.

## **E. Ensure Landscape-Scale Restoration**

Without adequate restoration and management, intact sagebrush ecosystems are likely to experience continued decline as major threats including invasive annual grass infestations and encroaching conifer woodlands continue to spread.

### **1) Plan for Targeted Restoration Efforts**

BLM should identify areas for restoration investments, additional management practices, and prioritized mitigation credit siting.

Specifically, to “Grow the Core”, BLM should identify the spatial extent of major threats that have effective and available restoration actions including:

- Phase I conifer encroachment with cutting,
- Invasive annual grass infestations with an appreciable native perennial bunchgrass component with herbicide spraying,
- Denuded herbaceous understories with native grass seeding, and
- Impaired mesic or riparian resources with fencing, low-tech rock structures, or beaver dam analogues.

These efforts should include ensuring that GHMA maintains habitat value for sage-grouse, providing some resiliency in light of evolving stressors such as climate change. In addition, prioritize restoration projects around the periphery of aforementioned “best of the best” habitat, as part of the ‘Grow the Core/Defend the Core’ approach.

We ask the BLM to develop restoration plans that set restoration goals, ideally to address these threats by 2030.

To facilitate these activities, BLM should also analyze and streamline the NEPA process for restoration projects, using measures such as those evaluated in the Restoration PEIS.

### **2) Minimize Risk to Non-Target Species: Pinyon Jays**

Consideration of impacts of habitat restoration actions on unintended targets should be considered. For example, addressing encroachment of pinyon-juniper, for the intended benefit of sage-grouse populations, should take into account direct and indirect impacts to other species like Pinyon Jay (*Gymnorhinus cyanocephalus*) and incorporate conservation measures that will minimize harm. This year-round inhabitant of pinyon junipers woodlands has had its population decline by 85% between 1970 and 2014, according to Partners in Flight.<sup>66</sup>

---

<sup>66</sup> Rosenberg, K.V.; J. A. Kennedy, R. Dettmers, R. P. Ford, D. Reynolds, J.D. Alexander, C. J. Beardmore, P. J. Blancher, R. E. Bogart, G. S. Butcher, A. F. Camfield, A. Couturier, D. W. Demarest, W. E. Easton, J.J. Giocomo, R.H. Keller, A. E. Mini, A. O. Panjabi, D. N. Pashley, T. D. Rich, J. M. Ruth, H. Stabins, J. Stanton, T. Will. 2016.

The U.S. Forest Service studied the physical and structural characteristics of areas used by Pinyon Jays in the Great Basin. They found that woodland removal projects intended to benefit sage-grouse, are often concentrated in the same areas used by Pinyon Jays.<sup>67</sup> Mastication and thinning strategies, to this point, have had an adverse impact on the pinyon-juniper/sagebrush transition zone that Pinyon Jays and many other species need. While these treatments are widely accepted as cost-effective means of meeting short-term management goals, a considerable amount of uncertainty remains about the long-term impacts on species composition for pinyon-juniper obligate species like the Pinyon Jay.<sup>68</sup>

Landscape-scale priority planning for tree-removal treatments could help align proposed projects with pinyon-juniper stands where Pinyon Jays will not be impacted.<sup>69</sup> Treatments that incorporate the following elements, could benefit Pinyon Jays and other species that depend on transition zones (e.g. mule deer) and mature pinyon-juniper woodlands:

- Avoid creating sharp habitat edges between reclaimed sagebrush and closed-canopy woodland;
- Incorporate a mixed-edge or convoluted edge treatment strategy;
- Retain a mosaic of large areas of open and mixed-age woodland habitat;
- Retain cone-bearing trees; and avoid disturbance within 0.6 miles from known nesting sites and colonies. These elements will also benefit many other species that depend on this transition zone (e.g. mule deer) and mature pinyon-juniper woodlands.

### **3) Fire Prevention and Suppression**

We recognize that fire is part of the sagebrush ecosystem. However, we are now seeing larger, hotter, and more frequent wildfires than is sustainable for sagebrush country. The impacts of this are broad and deep in scope – from wildlife to western communities. From 1984 through 2019, approximately 13.3 million acres of GRSG habitat have been lost to wildfire representing 9% of the habitat range-wide. Notably, within the western states (CA, NV, OR, ID, and western Utah) over 10.3 million acres were lost to wildfire, representing approximately 16.1% of the habitat in this region. This despite planning efforts specifically identifying sage-grouse populations as the highest priority for targeted fire suppression.

Fire prevention and suppression efforts should be emphasized in priority areas and in all areas prone to cheatgrass invasion, including development and incorporation of detailed *fire management plans*, and allocation of resources, no later than 3 months after the final RMPs and ROD are issued. Final EIS's should only allow the use of *prescribed fire* by following guidance provided by Chambers et al. (2014) for using and suppressing fire in sagebrush ecosystems. Plans should include recommendations for wildfire prevention, suppression and rehabilitation.

As with all fires, whether structural or wildland, effective initial attack is the key to reducing the spread and magnitude of the fire. Thus, we propose changes to the current fire suppression

---

Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee. 119 pp. 2016.

<http://www.partnersinflight.org/wp-content/uploads/2016/08/pif-continental-plan-final-spread-single.pdf>

<sup>67</sup> <https://www.fs.usda.gov/rmrs/science-spotlights/where-have-all-pinyon-jays-gone>

<sup>68</sup> <https://www.sagestep.org/2021/04/29/pinyon-jay/>

<sup>69</sup> *ibid.*

program – notably, replacing the ground crew initial attack strategy with an initial air attack strategy followed by ground attack resources. This should minimize the critical time to initial suppression and reduce the overall size of the burn. Vegetation treatments done in response to fire need to be undertaken using native plants and with careful analysis to maximize benefits to sage-grouse and other sagebrush-obligates. A proactive habitat monitoring program that validates, tracks and assess the success of habitat treatments on sage-grouse populations should inform and guide adaptive management protocol.

#### ***4) Address Declining Understory Forb and Perennial Grass Communities***

The understory of big sagebrush plant communities warrant greater attention by the BLM, as on-the-ground managers pursue restoration activities. Forbs and grasses provide cover for sage-grouse at their lekking, nesting, and brood-rearing sites, and these also have a positive relationship with arthropod presence – an important food source for young grouse.<sup>70</sup> As such, percent cover of these is among the 11 indicators of habitat condition that BLM examined in its Rangewide Monitoring Report. Reviewing 2013-2018, percent cover of perennial grasses and forbs on BLM rangelands declined from 24% to 12% within sage-grouse habitat and from 8 to 2% outside sage-grouse habitat.<sup>71</sup> Furthermore, 70% of PHMAs are not meeting criteria for breeding habitat for sage-grouse. For specific states: In Oregon, 51-74% of the monitoring locations in PHMA early brood-rearing habitat did not meet forb cover goals; in Idaho, 62-80% did not meet cover goals, 51% for Montana, and 81% for Wyoming. These low numbers suggest that restoring sage-grouse preferred native forbs and native bunchgrasses should be a greater priority in future management actions.

## **V. CONCLUSION**

The results presented in the BLM’s Rangewide Monitoring Report for 2015-2020, in combination with the USGS’s rangewide population monitoring report (Report No. 2020-1154) and sagebrush conservation strategy (Report No. 2020-1125), collectively emphasize the need for clear action. In the BLM’s own report, the authors strongly support this, with the following call for:

The urgent need to expand ongoing efforts to conserve currently functional habitat and restore currently degraded habitat. Expanding these efforts aligns with Executive Order 14008, which calls for the conservation and restoration of public lands and waters.<sup>72</sup>

Thus, our organizations collectively support BLM in this timely review of the 2015 plans. We look forward to staying engaged in the process and for the realization of management actions that ensure a healthy future for sage-grouse and the broader benefits, including to western communities, resulting from improved sagebrush rangeland conditions.

---

<sup>70</sup>Victoria E. Pennington, Daniel R. Schlaepfer, Jeffrey L. Beck, John B. Bradford, Kyle A. Palmquist, and William K. Lauenroth. 2016. Sagebrush, Greater Sage-Grouse, and the Occurrence and Importance of Forbs. *Western North American Naturalist* 76(3):298-312.

<sup>71</sup>BLM Rangewide Monitoring Report (2015-2020), see Figure 6.

<sup>72</sup>BLM Rangewide Monitoring Report (2015-2020) at page viii.

Respectfully,

Sara Brodnax  
Director, Public Lands Policy  
*National Audubon Society*  
[sara.brodnax@audubon.org](mailto:sara.brodnax@audubon.org)

Daly Edmunds  
Director of Policy and Outreach  
*Audubon Rockies*  
[daly.edmunds@audubon.org](mailto:daly.edmunds@audubon.org)

Luke Schafer  
West Slope Director  
*Conservation Colorado*  
[luke@conservationco.org](mailto:luke@conservationco.org)

Aubrey Bertram  
Staff Attorney  
*Wild Montana*  
[abertram@wildmontana.org](mailto:abertram@wildmontana.org)

Amy Seaman  
Director of Policy & Science  
*Montana Audubon*  
[aseaman@mtaudubon.org](mailto:aseaman@mtaudubon.org)

Megan Mueller  
Interim Executive Director/Senior Conservation Biologist  
*Rocky Mountain Wild*  
[megan@rockymountainwild.org](mailto:megan@rockymountainwild.org)

Dan Smitherman  
Wyoming State Director  
*The Wilderness Society*  
[dan\\_smitherman@twc.org](mailto:dan_smitherman@twc.org)

Helen O'Shea  
Director, Protected Areas Project  
*Natural Resources Defense Council*  
[hoshea@nrdc.org](mailto:hoshea@nrdc.org)