

July 5, 2023

Tracy Stone-Manning  
U.S. Department of the Interior  
Director, Bureau of Land Management  
1849 C St. NW, Room 5646  
Washington, DC 20240

Attention: 1004-AE92

SUBMITTED VIA Federal eRulemaking Portal (<https://www.regulations.gov>)

**Re: Comments on Proposed Conservation and Landscape Health Rulemaking under the Federal Land Policy and Management Act of 1976**

Dear Director Stone-Manning:

Thank you for the opportunity to comment on the Bureau of Land Management (BLM) proposed rule titled, “Conservation and Landscape Health”. On behalf of the millions of members and supporters of the undersigned, we applaud the BLM for recognizing and proposing to codify what has been the law of the land since the passage of the Federal Land Policy and Management Act (FLPMA) in 1976. Environmental protection was always meant to be at the forefront of public land management.

In addition to the comments offered below, we also incorporate by reference the comment letter submitted by the Western Environmental Law Center (WELC).

In general, we support the objective of the proposed rule to raise the status of conservation through regulation. In fact, BLM has long had this authority and it has long been underutilized. Under Section 102 (8) of FLPMA, Congress declared as a matter of policy:

*The public lands be managed in a manner that will protect the quality of the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource and archaeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition, that will provide food and habitat for fish and wildlife and domestic animals and will provide for outdoor recreation and human occupancy and use.*

It is undeniable that the protection of environmental quality is a priority established by Congress and is, in fact, tantamount to all of the multiple uses for which the agency is directed to manage public lands. “Multiple use” is clearly defined by statute to ensure that these values are given greater footing than fundamentally destructive uses of public lands. FLPMA states that all public lands require:

*“harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output.”*

While the goals of protecting and restoring degraded federal lands are laudable, the mechanics of this regulation are in need of significant revision to ensure that all decisions, including those for extractive uses such as livestock grazing, are built on a foundation of conservation principles and objectives. In these comments, we focus particularly (but not exclusively) on the most widely-distributed extraction and stressor

(other than and cumulative with climate change) on BLM lands, namely livestock grazing. We offer several overarching considerations that we urge the BLM to consider as you revise the proposed rule.

- The BLM has far more discretion in how development and extractive uses are permitted than it acknowledges in the proposed rule. It is well within the authority of the agency to cancel or phase out any discretionary activities that cause degradation of the public lands.
- Conversely, the proposed rule confers far too much discretion to local managers, allowing landscape level protections to be excluded from final decisions as long as the appropriate planning boxes are checked. In the final rule, the BLM must include clear and unequivocal direction at the national level to ensure implementation, rather than simple consideration, of conservation and restoration measures.
- Rather than create new mechanisms such as conservation leasing to achieve the goals and objectives of FLPMA, the BLM should fully account for the causes of environmental destruction and revise the regulations for the offending activities so that public lands will be protected and restored and future harm prevented.
- The public is generally and often acutely aware of the ongoing loss of natural areas due to development, the climate crisis, population growth, and/or extractive industries and wish them conserved (see, e.g., the 2023 results of the 13<sup>th</sup> annual [Conservation in the West](#) poll undertaken by Colorado College). Meaningful public engagement at all levels of planning, decision making, and throughout project implementation is a fundamental principle of democracy and sound public land management. The final rule must clearly detail the responsibilities of the agency under the National Environmental Policy Act and discourage the use of categorical exclusions that exclude the public.
- Congress formally authorized the National Landscape Conservation System (NLCS) in 2009. However, the BLM has never undertaken rulemaking for the NLCS and many lands that are currently designated for conservation are lacking sufficiently protective management plans and continue to allow for uses that are incompatible with conservation objectives and are actively degrading these lands. The final rule should either include specific direction for the NLCS to ensure the highest levels of protection are implemented in a timely manner or clearly state that the rule does not apply to lands within the NLCS system.

### **The Proposed Rule and Livestock Grazing**

While the proposed rule does not explicitly address livestock grazing on public lands, based on multiple statements from BLM officials and the FAQ on livestock grazing provided by the BLM, we are greatly concerned about the potential for the adoption of practices that are fundamentally incompatible with conservation, in the context of both preservation and restoration. Specifically, **domestic livestock grazing and associated “land enhancement” projects to promote livestock forage or benefit livestock operations are neither restoration practices nor are they compatible or complementary with conservation use.**

Decades of scientific research, including the BLM’s own determinations about the current health of the public lands it manages, indicate that livestock grazing almost always has a deleterious impact on ecosystem function, fish and wildlife populations, native plants, invertebrates and pollinators, and recreational opportunities. Livestock grazing also contributes substantially to biodiversity loss and global climate

change, and reduces the capacity of BLM lands to withstand climate related impacts. Conversely, absence of this widespread stressor is associated with myriad land health indicators.<sup>1</sup>

The concept of “properly managed grazing” as conservation is a myth that the BLM must clearly dispatch in the context of this rule and the upcoming grazing regulations. At best, grazing management practices can limit the inherently negative impacts from the presence of non-native domestic livestock raised for commercial production. In practice, most livestock grazing permits authorized by the BLM allow for substantial destruction of ecological resources and are a primary cause of the land degradation. We have already commented extensively on this issue, both in concept and in practice, in our 2020 comments on the proposed BLM Grazing Regulations Revision which we have attached as an appendix.<sup>2</sup>

In summary, the legacy effects of livestock grazing managed by the BLM to western ecosystems are significant and contemporary livestock use of BLM lands generally maintains or exacerbates many of these effects:<sup>3</sup>

- Livestock are significant sources of greenhouse gasses through enteric fermentation and manure deposition;<sup>4</sup>
- Livestock defoliate native plants, trample vegetation and soils, and accelerate the spread of exotic species resulting in a shift in landscape function from carbon sinks to sources of greenhouse gasses;<sup>5</sup>
- Livestock exacerbate the effects of climate change on ecosystems by creating warmer and drier conditions;<sup>6</sup>
- Livestock husbandry practices and the very presence of livestock on the landscape are disturbance events that fragment, degrade, and decrease biodiversity on public lands;<sup>7</sup>
- Livestock grazing on BLM lands almost always costs the American taxpayer more than it generates from fees collected, especially when the social cost of carbon is contrasted with the grazing revenues and auxiliary economic impacts of BLM grazing allotments;<sup>8</sup>
- Livestock grazing is a greater threat to biodiversity in intact landscapes on federal land than mining, logging, and oil and gas drilling;<sup>9</sup>
- The BLM livestock grazing program is a direct descendant of the open range era when European settlers slaughtered bison and other native wildlife and native peoples to make way for their livestock. The BLM has failed to address the impact of the livestock grazing program and permit system on tribal sovereignty<sup>10</sup> and environmental justice, especially during the era of climate change.<sup>11</sup>

Thus the removal or reduction of grazing use in these altered ecosystems is the most effective means of initiating ecological recovery.

Ironically, this rule purports to be necessitated by the recognition that a large percentage of BLM-managed lands are degraded and require restoration without ever acknowledging that a large percentage of that

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<sup>1</sup> An unfinished (37 of 53 studies) but fully referenced summary of all published research studies that have been located on the Colorado Plateau and which quantitatively compare livestock-grazed sites with comparable livestock-free sites documents the conservation benefits almost always found in the absence of livestock grazing (Appendix A). Benefits of nongrazed areas include, for instance, reduced dust generation; reduced sediment loss; improved habitat for rare wildlife species; increased bird species richness and abundance; increased mid-canopy shrub composition; increased perennial plant cover; reduced annual plant cover; and increased biological soil crust cover.

<sup>2</sup> Appendix B [Western Watersheds Project et al BLM Grazing Regs Scoping 3 6 20.pdf](#)

<sup>3</sup> Beschta, R.L., Donahue, D.L., DellaSala, D.A. *et al.* Reducing Livestock Effects on Public Lands in the Western United States as the Climate Changes: A Reply to Svejcar *et al.* *Environmental Management* 53:1039–1042 (2014). <https://doi.org/10.1007/s00267-014-0263-5>

<sup>4</sup> Kauffman, J.B., Beschta, R.L., Lacy, P.M., and Liverman, M.Li *vestock Use on Public Lands in the Western USA Exacerbates Climate Change: Implications for Climate Change Mitigation and Adaptation.* *Environmental Management* 69(6): 113 (2022) DOI: [10.1007/s00267-022-01633-8](https://doi.org/10.1007/s00267-022-01633-8)

<sup>5</sup> Kauffman *et al* (2022)

<sup>6</sup> Kauffman *et al* (2022): 1137

<sup>7</sup> Beschta *et al* (2014)

<sup>8</sup> Kauffman *et al* (2022)

<sup>9</sup> Ripple, W.J. *et al.*, Rewilding the American West, *BioScience*72,(10): 931-935 (2022) <https://doi.org/10.1093/biosci/biac069>

<sup>10</sup> Goldstein, A. *By Force of Expectation: Colonization, Public Lands, and the Property Relation* *UCLA Law Review* (2018) <https://www.uclalawreview.org/by-force-of-expectation/>.

<sup>11</sup> Knowlton, C, *Cattle Kingdom: The Hidden History of the Cowboy West*. Boston, Houghton Mifflin Harcourt, 2017.

degradation is a consequence of how livestock are managed. Yet the rule as written will allow for and even potentially promote the very activities that are causing degradation while redefining them as conservation.

## **Recommendations**

We offer the following recommendations which are explained in more detail later in this letter. We believe these changes are necessary to meet the goals of improving the condition of BLM lands and combating the climate and biodiversity crises. Importantly, actions implementing the final rule should be subject to public process and environmental review under the National Environmental Policy Act (NEPA) and other applicable laws, as well as consultation with Native American Tribes. The use of categorical exclusions under NEPA should be discouraged except in cases of activities known to be solely beneficial.

1. *Include explicit direction that if an area meets the eligibility criteria for designation as an area of environmental concern (ACEC) it shall be designated as such and a protective management plan be implemented immediately.* The final rule should also provide direction to significantly reduce, cancel or suspend discretionary uses that are incompatible with protection of the relevant and important resources for which an ACEC is designated. Additionally, the final rule should specify Research Natural Areas (RNA) as a specific category of ACECs and prioritize the establishment of RNAs to serve as a comprehensive network of reference areas throughout BLM managed lands. RNAs must explicitly exclude anthropogenic impacts such as domestic livestock grazing.
2. *Consistently define and apply FLPMA's fundamental requirement to prevent permanent impairment, undue, and unnecessary degradation.* The final rule should include direction mandating the cancellation or suspension of discretionary authorizations such as livestock grazing that cause permanent impairment, undue, or unnecessary degradation.
3. *Clarify and provide direction for restoration actions including affirmation that passive or natural processes are the preferred method of restoration.* The final rule should explicitly direct the BLM to cancel or suspend discretionary authorizations including livestock grazing that are identified as the primary cause of degradation or a primary impediment to restoration. The final rule must also strike the definition of "land enhancement" and ensure that destructive actions such as chaining, mowing, planting non-native forage crops, and other similar practices are not authorized as restoration activities. The rule must further clarify that livestock grazing, regardless of how it is managed, is not a restoration activity on public lands.
4. *Ensure that the protection of intact landscapes includes the authority to cancel or suspend or deny permits for discretionary activities.* The presence of domestic livestock and associated infrastructure must be identified as disturbance factors and factors contributing to landscape fragmentation.
5. *Mandate the application of the mitigation hierarchy for all uses of public lands and require compensatory mitigation to adhere to universal principles that will ensure durable, high-quality restoration that is additional and completed in advance of impacts.* Mitigation shall be applied hierarchically: BLM must first avoid impacts, then minimize impacts, then rectify impacts, and then compensate for any residual impacts from proposed actions including livestock grazing authorizations. The final rule must clearly establish rules and requirements for compensatory mitigation as a component of conservation leasing. In general, public lands present a poor opportunity for compensatory mitigation for all but the most temporary of impacts. The final rule should clearly authorize the BLM to decline to offer compensatory mitigation opportunities if universal principles cannot be applied. Livestock grazing management changes are not appropriate as compensatory mitigation credit
6. *Clarify and expand on the application, processes and management of conservation leases.* The final rule must require the establishment of public processes regarding engagement with the public prior to issuance and throughout the implementation of conservation leases. Non-use of an existing grazing authorization shall be considered restoration in the context of a conservation lease. Conservation leases result in durable restoration by clearly providing the authority and requirement to deny future authorizations for discretionary activities that are incompatible with maintaining restored conditions. The renewal of livestock grazing authorizations is discretionary and any new authorizations must ensure that grazing will not reverse or jeopardize restoration that has been achieved.
7. *Strengthen and clarify how the Fundamentals of Rangeland Health will be applied to all BLM activities.* The proposed rule leaves far too much ambiguity about how Land Health Standards are to be applied more

broadly to all uses of BLM managed lands. The final rule should take into account the failure of the current program as applied to grazing and ensure that the same mistakes will not be repeated. Further, the collection and use of data as applied to determining land health require greater understanding of the limitations and purposes of existing and novel methods including remote imagery.

8. *Incorporate accountability mechanisms to ensure that the purposes and direction included the proposed rule and subsequent handbooks and manuals that will guide implementation are carried out in a consistent and meaningful manner.* One need only look to the failure of National, State, and local managers to implement the Fundamentals of Rangeland Health and properly analyze grazing authorizations under NEPA to understand the need for consistent and enforceable accountability measures. The BLM must develop new structures within the agency to ensure that policy leads to action and in this case of this proposed rule, better ecological conditions on BLM managed lands.

### 1. ACECs & Research Natural Areas (RNAs)

The proposed rule does not meet FLPMA's command to "give priority to the designation and protection of areas of critical environmental concern,"<sup>12</sup> The proposed rule says:

In the land use planning process, authorized officers must identify, evaluate, and *give priority* to areas that have potential for designation and management as ACECs. Identification, evaluation, and *priority management* of ACECs shall be *considered* during the development and revision of Resource Management Plans and during amendments to Resource Management Plans when such action falls within the scope of the amendment (*see §§ 1610.4–1 through 1610.4–9*). [emphasis added]

The proposed rule language falls short of requiring designation if the criteria is met, as FLPMA requires. The statute requires the "priority" of "designation and protection" while the proposed rule merely requires that designation be considered. Tellingly perhaps, the proposed rule makes no mention of "protection" required by the statute, but merely "priority management." Unless the "management" is *protection*, the management is likely mismanagement.

We suggest that the meaning of "priority" be clarified in the final rule to include a directive that BLM must designate areas as ACECs if the relevance and importance criteria are met and the area requires special management as required by FLPMA. The current draft allows discretion for a Field Manager to merely consider, but not designate an ACEC that meets the relevance and importance criteria. As the proposed rule preamble states, FLPMA provides a clear command to prioritize the *designation* of ACECs.

While the term "priority management" is not explained or defined in the rule, part 3(d)(3) defines special management attention as management prescriptions that:

(i) Conserve, protect, and restore relevant and important resources, values, systems, processes, or that protect life and safety from natural hazards; and

(ii) Would not be prescribed if the relevant resources, values, systems, processes, or hazards were not present.

To ensure adequate protection of ACECs, BLM should establish a non-degradation standard as part of the priority management for ACECs. A new management standard for ACECs is firmly within FLPMA authority to prioritize the designation and protection of ACECs. With the exception of ACECs established to protect life and safety from natural hazards, the rule should require the authorized officer to administer an ACEC in a manner that conserves, protects, and enhances the resources, systems, or processes of the Area and only allow uses of the Area that the authorized officer determines would further the protection of such.

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<sup>12</sup> 43 USC 1712(c)(3)

Additionally, if the BLM determines that no special management is required, the authorized officer must affirmatively demonstrate why current management is sufficiently protective. The mere presence of other statutory obligations such as the National Historic Preservation Act are not sufficient justification to preclude protective management.

The following is an example of what needs correcting in the ACEC proposal process. In 2008, the Kanab Field Office (KFO) in Utah was preparing an updated Resource Management Plan. An ACEC was proposed in Coral Pink Sand Dunes, a popular OHV recreation area, to protect the most extensive population of the Listed Threatened Welsh's milkweed (*Asclepias welshii*). Demographic and distribution data were collected on this population in 2003. Results indicated that reproductive success of individuals that were unprotected from mechanical damage from OHVs was half that of individuals in a protected area. It is likely that plants that were often run over spent most of their energy on replacing vegetative parts and had little left over for production of flowers and fruits. An ACEC was proposed for the main part of the population. The KFO acknowledged that the criteria for an ACEC had been met, but declined to designate one because they claimed current management of the area provided enough protection. Instead, a high-intensity OHV play area was located in the densest concentration of the unprotected population. The final rule should require that proposed ACECs that meet all the criteria should be established. If it does not, an in-depth analysis of the reasons for dismissal of a proposal, using the best empirical data, should be provided.

In decision documents affecting ACECs, the authorized officer should also be required to explain how the proposed ACEC management is using best available scientific information and/or Indigenous Knowledge.

#### Emphasize Research Natural Areas

The proposed rule does not mention Research Natural Areas (RNAs), which we believe is an important designation for the rule to address given the rule's overall purpose and objectives.

43 C.F.R. Subpart 8223 addresses Research Natural Areas on Bureau of Land Management Lands. The purpose of this subpart is to "provide procedures for the management and protection of public lands having natural characteristics that are unusual or that are of scientific or other special interest." This purpose aligns closely with § 6101.2 objectives (b) and (d) in particular of the proposed rule.

43 CFR § 8223.0-5 defines a Research Natural Area as follows:

**(a) *Research natural area*** means an area that is established and maintained for the primary purpose of research and education because the land has one or more of the following characteristics:

- (1) A typical representation of a common plant or animal association;
- (2) An unusual plant or animal association;
- (3) A threatened or endangered plant or animal species;
- (4) A typical representation of common geologic, soil, or water features; or
- (5) Outstanding or unusual geologic, soil, or water features.

The proposed rule seeks to protect landscape intactness and habitat connectivity through ACEC designation. RNAs generally include the most intact lands in an area, which are in need of special protection. In addition, the proposed rule cites section 102(a)(8) of FLPMA, which establishes as the policy of the United States that "the public lands be managed in a manner...that, where appropriate, will preserve and protect certain public lands in their natural condition". RNAs are often the epitome of public lands in their natural condition. Furthermore, information from RNAs can supply important information relevant to management and decision making is often not provided by any other means.

43 C.F.R. § 8223.0-6 provides the following policy for RNAs, "Areas established as research natural areas must be of sufficient number and size to adequately provide for scientific study, research, and demonstration purposes."

The BLM Land Use Planning Handbook H-1601-1 provides the following direction: “Designate research natural areas and outstanding natural areas as types of ACECs using the ACEC designation process” (Appendix C p. 28). In addition, BLM Manual 1613 on ACECs states that the procedures set forth there must be used as a basis for future designations of RNAs. Thus, given that the rule proposes amendments regarding designation of ACECs, we believe that addressing Research Natural Areas in this rule would be appropriate.

Research Natural Areas could be of significant service to the direction in § 6102.5(c) to use high quality information and multiple lines of evidence to evaluate resource conditions and inform decision making. RNAs can provide important reference condition information that is highly relevant to local on-the-ground conditions and decision making, which can be an integral part of the best available scientific information for an area. The BLM should take advantage of the ability of RNAs to inform management in locally relevant and meaningful ways. For all of these reasons, we believe that the BLM should begin building a robust network of Research Natural Areas to provide decision makers with high quality information, similar to what the Forest Service has done through its system of RNAs.

### ***Recommendations for ACECs:***

Specifically, we propose that the following modifications and additions to §1610.7-2 (**bold** is addition; ~~strikethrough~~ is deletion):

1. At the end of § 1610.7-2(a), add:

**Protection of these resources will be given priority. Discretionary uses may continue only if it can be affirmatively demonstrated empirically that such uses are compatible with the protection of the relevant and important resources for which an ACEC is designated; and Research Natural Areas (RNAs) are a type of ACEC. As such, RNAs are also subject to the following direction regarding ACECs.**

2. BLM should add language to §1610.7-2, (b) Designation of ACECs, that BLM must designate an area as an ACEC if it meets the relevance and importance criteria and requires special management as follows:

In the land use planning process, authorized officers must identify, evaluate, and give priority to areas that have potential for designation and management as ACECs. Identification, evaluation, and priority management of ACECs shall be considered **and designated if relevance and importance criteria are met and the area requires special management** during the development and revision of Resource Management Plans and during amendments to Resource Management Plans when such action falls within the scope of the amendment. **Further, the ACEC should be managed in a manner that conserves, protects, and enhances relevant and important values, resources, systems, or processes of the Area and only allow uses of the Area that the authorized officer determines would not impede the protection of the area** (see §§1610.4-1 through 1610.4-9).

3. We also propose striking the following language in (g) as it provides the opportunity for a Field Manager to not designate an ACEC if there appears to be an unacceptable tradeoff. FLPMA requires that, in the development or revision of resource management plans, BLM shall “give priority to the designation and protection of areas of critical environmental concern.” (43 USC 1712(c)(3). Therefore, for any and all areas on the public lands where “special management attention is required... to protect and prevent damage to important historic, cultural, or scenic values, fish and

wildlife resources or other natural systems or processes...”, BLM must designate and protect ACECs. BLM does not have the discretion to trade off ACEC designation and protection in favor of other uses.

(g) Planning documents must include at least one alternative that analyzes in detail all proposed ACECs. ~~to provide for informed decisionmaking on the trade-offs associated with ACEC designation.~~

#### 4. Jurisdictional Issues with ACEC designations

The proposed rule attempts to address intact landscapes and habitat fragmentation. However, some causes of landscape fragmentation are a result of arbitrary, political boundaries between BLM administrative units. A classic example is Nine Mile Canyon in Utah. Nine Mile is world-renowned for archaeological, historic and scenic resources. Unfortunately, the canyon makes lazy S curves back and forth between the Vernal and Price Field Offices. Both offices designated an ACEC. The boundaries do not match across the district lines and the ACEC values are different across district lines leading to more protection in some areas and less in others. The final rule should provide direction that ACEC nominations should encompass the relevant terrain and resources regardless of administrative borders. If a proposed ACEC crosses a BLM Field Office boundary, all the affected offices should work together regardless of where they are in the planning cycle.

#### 5. Evaluation of existing ACECs

We support rule language that directs Field Managers to evaluate existing ACECs. We suggest additions to clarify the scope for evaluating existing ACECs to ensure that existing ACECs are adequate in terms of geographic coverage and special management direction including resource use limitations.

Clarify rule language for 1610.7-2 (c)2:

The Field Manager must evaluate **the adequacy of existing ACECs to protect the relevant and important values** when plans are revised or when designations of ACECs are within the scope of an amendment, including considering potential changes to boundaries and management.

#### 6. Interim management of ACECs.

We appreciate the proposed rule language that Field Managers *may* provide interim management until a planning process to determine whether to designate the ACEC has been completed, consistent with interim ACEC guidance issued in November 2022.<sup>13</sup> However, allowing protective interim management to be discretionary is likely to result in relevant and important resource values to be degraded or lost if interim management is not granted until determinations can be made in plan revisions or amendments. Plan revisions can take years and there is a significant backlog of Resource Management Plan revisions. The final rule should require that ACEC nominations received outside of the planning process be evaluated in a timely manner and if found by BLM to meet the eligibility criteria, interim management must be provided.

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<sup>13</sup> BLM IM 2023-013 Clarification and interim guidance for consideration of areas of critical environmental concern designations in resource management plans and amendments. <https://www.blm.gov/policy/im-2023-013>



Requiring interim management is fully consistent with existing BLM Policy. The ACEC Manual (Section 1613.21E) states:

If an area is identified for consideration as an ACEC and a planning effort is not underway or imminent, the District Manager or Area Manager must make a preliminary evaluation on a timely basis to determine if the relevance and importance criteria are met. If so, the District Manager must initiate either a plan amendment to further evaluate the potential ACEC, *or provide temporary management until an evaluation is completed through resource management planning*. Temporary management includes those reasonable measures necessary to protect human life and safety or significant resources values from degradation *until the area is fully evaluated through the resource management planning process*. [emphases added]

The final rule should require that ACEC nominations received outside the planning process must be evaluated in a timely manner, such as 90-120 days. If found by BLM to meet the relevance and importance criteria, temporary management that protects the relevance and importance values must occur.

#### 7. Additional eligibility criteria.

We strongly support the proposed rule's language that updates and expands the eligibility criteria for ACECs by striking the "more than locally significant" from the importance criteria. We also support expansion of the importance criteria in 1610.7-2(d)(2) by enabling BLM to consider "the national or local importance, subsistence value, or regional contribution of a resource, value, system, or process" and "resources, values, systems, or processes may have substantial importance if they contribute to ecosystem resilience, including by protecting intact landscapes, and habitat connectivity."

We recommend that BLM add biodiversity and habitat connectivity to the importance criteria and interpret the "natural systems or processes" provision in FLPMA to protect landscapes or ecosystems from drought, climate change and other threats.

We believe that such additional direction follows from the plain language of FLPMA section 202(c)(3) that directs the prioritization of the designation and protection of ACECs, and that this additional direction would provide helpful clarity regarding implementation of the statute.

## **2. Permanent Impairment, Unnecessary and Undue Degradation (Complete)**

The proposed rule must implement FLPMA's non-discretionary requirement for the BLM to ensure that the management of public lands does not result in permanent impairment, unnecessary and undue degradation (UUD). In order to effectively accomplish this, the rule's language must be strengthened and these requirements must be consistently defined and applied throughout the rule's text.

We affirm here the suggestions (pasted below) offered by Western Environmental Law Center (WELC) to incorporate the prevention of permanent impairment and UUD into the purpose and objectives of the proposed rule and to expand upon the definitions of each term:

### **A. Section 6101.1 Purpose**

BLM is, for the first time, promulgating rules to conform public lands planning and management with FLPMA's core conservation-centered mandates, in particular its duties to prevent permanent impairment (43 U.S.C § 1702(c)), unnecessary degradation (43 U.S.C. § 1732(b)), and undue degradation (43 U.S.C. §

1732(b)). We think it logical and essential for BLM to reference those mandates in the rule's purpose. The rule's purpose should also acknowledge the federal government's environmental justice commitments, which we discuss in more depth below. Accordingly, we recommend the following addition to Section 6101.1:

The BLM's management of public lands on the basis of multiple use and sustained yield relies on healthy landscapes and resilient ecosystems. The purpose of this part is to promote the use of conservation to ensure ecosystem resilience, **prevent permanent impairment, unnecessary degradation, and undue degradation of the lands, and achieve environmental justice.** This part discusses the use of protection and restoration actions, as well as tools such as land health evaluations, inventory, assessment, and monitoring.

## **B. Section 6101.2 Objectives**

Given FLPMA's plain language, BLM should explicitly acknowledge that the rule's objectives are to prevent permanent impairment (43 U.S.C. § 1702(c)), unnecessary degradation (43 U.S.C. § 1732(b)), and undue degradation (43 U.S.C. § 1732(b)), and to achieve environmental justice. To do this, we recommend the addition of two new subsections, (g) and (h). We also recommend changes to improve the cohesion and consistent use of terminology in the rule as a whole and a new subsection (i) to reflect our recommendations regarding the need and opportunity to set the stage for the rule's effective implementation. In sum, our recommended changes to Section 6101.2 are as follows:

The objectives of these regulations are to:

- (a) Achieve and maintain ecosystem resilience when administering Bureau programs; developing, amending, and revising land use plans; and approving uses on the public lands;
- (b) Promote conservation by protecting and restoring **resilient** ecosystems ~~resilience~~ and intact landscapes, **including the connectivity of ecological structure, processes, attributes, and functions within and across ecosystems;**
- (c) Integrate the fundamentals of land health and related standards and guidelines into resource management;
- (d) Incorporate inventory, assessment, and monitoring principles into decisionmaking and use this information to identify trends and implement adaptive management strategies;
- (e) Accelerate restoration and improvement of **impaired or** degraded public lands and waters to properly functioning and desired conditions; ~~and~~
- (f) Ensure that ecosystems and their components can absorb, or recover from, the effects of disturbances or environmental change through conservation, protection, restoration, or improvement of essential structures, functions, and redundancy of ecological patterns across the landscape.
- (g) Prevent permanent impairment, unnecessary degradation, and undue degradation of the lands;**
- (h) Achieve environmental justice; and**

**(i) Improve the clarity of Bureau programs and decision-making by ensuring that decisions are rationally connected to environmental reviews and associated inventory, assessment, and monitoring information.**

#### **D. Section 6101.4 Definitions**

##### **1. Permanent Impairment**

The proposed rule perplexingly fails to define “permanent impairment.” This is a mistake. FLPMA’s directive that BLM manage the public lands “without permanent impairment” is a key guardrail governing multiple use authorizations that Congress left BLM to define. It is referenced on multiple occasions in the proposed rule. And the guardrail animates the proposed rule’s central focus on ecosystem resilience and the protection of intact landscapes.

We propose the following definition. Our proposed language clarifies and directly links FLPMA’s statutory mandates with the proposed rule’s central focus on ecosystem resilience and intact landscapes:

***Permanent impairment* means the adverse impact of a land use plan, implementation plan, resource management authorization, or management action, that:**

- (1) Permanently or significantly disrupts, impairs, or degrades ecosystem resilience, intact landscapes, the connectivity of ecological structure, processes, attributes, and functions, or scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values;**
- (2) Impairs or degrades an ecosystem such that it is no longer able to sustain native biodiversity or environmental justice;**
- (3) Fails to provide for the sustained yield of renewable multiple use resources;**
- (4) Precludes periodic landscape-scale adjustments of multiple uses to:**
  - (i) Conserve ecosystem resilience;**
  - (ii) Conform to changing needs and conditions determined by consideration of the best available science;**
  - (iii) Provide for the long-term needs of future generations for renewable and non-renewable resources;**
  - (iv) Account for the relative values of resources; or**
  - (v) Further or achieve environmental justice.**

In providing this recommended definition, we note our concern with BLM’s apparent understanding of its duty to manage public lands “without permanent impairment.” As the preamble explains, “[c]onsistent with applicable law and the management of the area, authorized officers would [] be required to avoid authorizing any use of public lands that permanently impairs ecosystem resilience.”<sup>14</sup> However, in the next

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<sup>14</sup> 88 Fed. Reg. 19592.

sentence, the proposed rule hedges, stating that “[p]ermanent impairment of ecosystem resilience would be difficult or impossible to avoid, for example, on lands on which the BLM has authorized intensive uses, including infrastructure and energy projects or mining ...”<sup>15</sup> The proposed rule’s preamble then re-writes FLPMA by stating that the “proposed rule does not prohibit land uses that impair ecosystem resilience; it simply requires avoidance and an explanation if such impairment cannot be avoided.”<sup>16</sup> This is *not* what FLPMA commands. FLPMA commands that BLM manage *all* public lands “without permanent impairment of the productivity of the land and quality of the environment.”<sup>17</sup> BLM has no authority to authorize or otherwise condone extractive uses that cause permanent impairment (or unnecessary or undue degradation). Where permanent impairment cannot be avoided, incompatible uses cannot, by law, be authorized.

## 2. Unnecessary and Undue Degradation

The directive to “prevent unnecessary and undue degradation” is the “heart” of FLPMA’s substantive requirements.<sup>18</sup> Written in the disjunctive, BLM must prevent degradation that is “unnecessary” and, separately, degradation that is “undue.”<sup>19</sup> Each of these protective mandates applies to all BLM planning and management decisions.<sup>20</sup>

While the duties to prevent both “unnecessary” and “undue” degradation are separate, they are interrelated and correlated. “Application of this standard is necessarily context-specific; the words ‘unnecessary’ and ‘undue’ are modifiers requiring nouns to give them meaning, and by the plain terms of the statute, that noun in each case must be whatever actions are causing ‘degradation.’”<sup>21</sup> The proposed definition of “unnecessary or undue degradation” in the draft rule falls short of FLPMA’s mandates.

To address this deficiency, we recommend that the final rule strike the proposed definition and, instead, disentangle the terms “undue degradation” and “unnecessary degradation” into two separate and defined terms. This would improve the clarity of the rule consistent with FLPMA’s plain language, as reinforced by judicial precedent and authority.

We also recommend that BLM expressly link these terms to BLM-defined expertise and management goals, objectives, thresholds, and standards. Where such goals, objectives, thresholds, and standards are not defined, BLM, to avoid a finding of permanent impairment, would be required to employ the mitigation hierarchy. Consistent with FLPMA’s charge that BLM, through planning, coordinate with other relevant Tribal, federal, state, and local agencies, we further recommend language providing that BLM ensure that public lands activities comply, where appropriate, with other governmental requirements. 43 U.S.C. § 1712(b)(9).

Regarding a definition of “undue degradation,” we propose the following:

***Undue degradation* means the adverse impact of a plan, decision, action, or use that:**

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<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> 43 U.S.C. § 1702(c).

<sup>18</sup> 43 U.S.C. § 1732(b); *Mineral Policy Ctr. v. Norton*, 292 F.Supp.2d 30, 33, 41-43 (D.D.C. 2003).

<sup>19</sup> *Id.* at 41-43.

<sup>20</sup> 43 U.S.C. § 1732(a); *see also, Utah Shared Access All. v. Carpenter*, 463 F.3d 1125, 1136 (10th Cir. 2006) (finding that BLM’s authority to prevent degradation is not limited to the RMP planning process).

<sup>21</sup> *Theodore Roosevelt Conservation Partnership v. Salazar*, 661 F.3d 66, 76 (D.C. Cir. 2011) (citing *Utah v. Andrus*, 486 F. Supp. 995, 1005 n. 13 (D. Utah 1979) (defining “unnecessary” in the mining context as “that which is not necessary for mining” and “undue” as “that which is excessive, improper, immoderate or unwarranted.”)); *see also Colorado Env’t Coalition*, 165 IBLA 221, 229 (2005) (providing that “unnecessary or undue degradation” requires a showing “that a lessee’s operations are or were conducted in a manner that does not comply with applicable law or regulations, prudent management and practice, or reasonably available technology, such that the lessee could not undertake the action pursuant to a valid existing right.”).

**(1) Violates a resource condition goal, objective, threshold, or standard established to conserve resilient ecosystems, intact landscapes, the connectivity of ecological structure, processes, attributes, and functions, or scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values;**

**(2) In the absence of an identified resource goal, objective, threshold, or standard, threatens or causes a reasonably foreseeable resource impact that is either not mitigated or is not feasible to mitigate and results in excessive or disproportionate harm.**

**(3) Fails to comply, to the extent consistent with the laws governing the administration of the public lands, with a land use plan, implementation plan, regulation, or standard of other Federal, Tribal, State, or local departments and agencies;**

**(4) Is not mitigated within a reasonable time period.**

Our separate proposed definition of “unnecessary degradation,” below, hinges off the BLM’s defined purpose and need for a proposed project,<sup>22</sup> not the “use’s goals,” as the proposed rule is currently written. The agency’s interests, as expressed in the purpose and need for a planning or decision-making process, should define what is or is not “unnecessary” to ensure that FLPMA’s spirit, letter, and intent animate decision-making. The risk in using a “use’s goals” should be obvious: a “use’s goals” are derivative of the “user’s” goals—e.g., an oil and gas operator’s profit-centered interests when drilling a well—not the public’s interest in providing for use that is compatible with FLPMA’s conservation-centered guardrails.

Our proposed definition of “unnecessary degradation” also provides that mitigation is appropriate whatever the prospective severity of an adverse impact. FLPMA’s mandate to prevent “unnecessary degradation” is not contingent on the severity of harm. If harm can reasonably be avoided, then it must be avoided to comply with FLPMA. Importantly, even minor adverse impacts can, over space or time, prove cumulatively significant.<sup>23</sup>

In this context, we propose the following definition of “unnecessary degradation”:

***Unnecessary degradation* means the adverse impact of a plan, decision, action, or use that:**

**(1) Is not needed to accomplish the purpose and need of the plan, decision, action, or use; or**

**(2) Can be but is not mitigated.**

There are numerous applications of these proposed definitions to permitted domestic livestock grazing. Examples of permanent impairment include:

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<sup>22</sup> Provided the purpose and need is not itself defined so narrowly as to constrain NEPA’s requisite consideration of a range of reasonable alternatives or sweep aside BLM’s responsibilities, pursuant to FLPMA, to, conserve resilient ecosystems and intact landscapes or to prevent permanent impairment, unnecessary degradation, and undue degradation.

<sup>23</sup> See, e.g., *CEQ, National Environmental Policy Act Interim Guidance on Consideration of Greenhouse Gas Emissions and Climate Change*, 88 Fed. Reg. 1196, 1201 (Jan. 9, 2023) Available at <https://www.govinfo.gov/content/pkg/FR-2023-01-09/pdf/2023-00158.pdf>; (recognizing that “diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large impact”); *Wildearth Guardians v. U.S. Bureau of Land Mgmt.*, 457 F. Supp. 3d 880, 894 (D. Mont. 2020) (noting that “the global nature of climate change and greenhouse-gas emissions means that any single lease sale or BLM project likely will make up a negligible percent of state and nation-wide greenhouse gas emissions. Thus, if BLM ever hopes to determine the true impact of its projects on climate change, it can do so only by looking at projects in combination with each other, not simply in the context of state and nation-wide emissions.”); *Dine Citizens Against Ruining Our Env’t v. Haaland*, 59 F.4th 1016, 1043-1044 (10th Cir. 2023) (recognizing that “all agency actions causing an increase in GHG emissions will appear de minimis when compared to the regional, national, and global numbers”); *Id.* at 1047 (recognizing that Hazardous Air Pollutant (HAP) emissions from thousands of wells cumulatively and over time—even if each individual well emits HAPs for “only” 90 days during well construction and completion—can cause significant long-term exposures and health impacts).

- Ecological state changes such as the conversion of a shrub steppe ecosystem to cheatgrass monoculture,
- Bare ground exceeding 20 percent departure from reference conditions,
- Streambank stability exceeding 20 percent departure from reference conditions,
- Seeding of non-native, rhizomatous forage species;
- Livestock grazing during periods of extreme (D3) to exceptional drought (D4);

In addition to establishing very specific and objective measures of when permanent impairment has occurred as a result of grazing, it is essential for the BLM to develop clear and inalienable criteria for when grazing authorizations result in UUD. We suggest the following be added as an example in the preamble to the rule and adopted in the upcoming grazing regulations:

**Impacts associated with the authorization of domestic livestock grazing will be considered as undue and/or unnecessary degradation if after a determination that grazing is a causal factor in the non-attainment of land health standards or does not conform to guidelines, the allotment does not meet standards after 10 years from commencement of corrective actions. Failure by the BLM to initiate corrective action before the next grazing season or to complete a subsequent evaluation and make a determination will be considered a failure to meet standards for the purposes of determining UUD.**

### **3. Restoration**

*A. Assure ecological restoration is science-based and consistent with internationally agreed-upon principles and standards.*

Ecological restoration is complex. Restoration can take years to decades; and results are not always guaranteed. Unfortunately, we have seen the term restoration applied to a variety of activities, some of which do not meet the definition of restoration. For example, land treatments such as chaining and removing pinyon juniper across vast acreage of BLM lands are frequently justified as restoration. In fact, the practice is primarily employed to increase forage for domestic livestock, is highly damaging and can cause significant harm.<sup>24</sup> Restoration executed absent a rigorous science-based framework, can cause significant harm.

It is therefore imperative that BLM ensure that its restoration strategies, plans, decisions and actions are consistent with high-quality scientific information. We recommend the BLM consider incorporating by reference and using the “Society for Ecological Restoration International Principles & Standards for the Practice of Ecological Restoration, 2nd Edition (SER Standards)” to guide ecological restoration.<sup>25</sup> The SER Standards provides “a robust framework for restoration projects to achieve intended goals, while addressing challenges including effective design and implementation, accounting for complex ecosystem dynamics (especially in the context of climate change), and navigating trade-offs associated with land management priorities and decisions.”<sup>26</sup> The SER standards are widely accepted and endorsed internationally. Our recommendations are based on and draw from the SER Standards.

*B. Clarify the construct for restoration planning and priority setting to assure consistency with SER Standards.*

<sup>24</sup> Jones, Allison. (2019). Do Mechanical Vegetation Treatments of Pinyon-Juniper and Sagebrush Communities Work? A Review of the Literature. 10.13140/RG.2.2.12538.13760.

<sup>25</sup> Gann GD, McDonald T, Walder B, Aronson J, Nelson CR, Jonson J, Hallett JG, Eisenberg C, Guariguata MR, Liu J, Hua F, Echeverría C, Gonzales E, Shaw N, Decler K, Dixon KW (2019) [International principles and standards for the practice of ecological restoration. Second edition.](#) *Restoration Ecology* 27(S1): S1–S46. P. S35.

<sup>26</sup> *Id.* At S3.

The construct for restoration planning and priority setting is confusing and needs clarification. As the Rule currently is constructed, BLM must include a restoration plan identifying restoration goals, objectives, and actions in the RMP (that is, at the management unit scale), and then field managers implement restoration actions to achieve the RMP goals and objectives.

The Rule language as constructed does not clearly communicate the spatial and temporal scale at which each of these requirements are met and conflates the concepts of restoration plans, strategies, and actions. It establishes that restoration goals and objectives are established at the management unit scale and not required at the project scale which is inconsistent with SER Standards, Principle. 5. It does not explain where or when restoration priorities are set or how restoration priorities inform RMP restoration plans and site-level actions. Below, we offer recommendations to add clarity to the section and in doing so reflect the principles offered in the SER standards.

1. Define terms to ensure consistency, shared understanding, and consistency with SER standards.

- a) Restoration

*Restoration* is defined in the proposed Rule as “the process or act of conservation by assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.” Given FLPMA’s affirmative obligation to protect the quality of ecological values and provide habitat for fish and wildlife,<sup>27</sup> We recommend that this definition reference biodiversity. Also, given the Rule’s emphasis on resilience, we recommend that the definition indicates how restoration contributes to ecosystem resilience. The Convention for Biological Diversity defined restoration using these terms: “Ecological restoration refers to the process of managing or assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed as a means of sustaining ecosystem resilience and conserving biodiversity.”<sup>28</sup>

We recommend the following definition:

**Ecological restoration refers to the process of managing or assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed as a means of sustaining ecosystem resilience and conserving biodiversity.**

- b) Restoration Plan, Restoration Action and Restoration Strategy.

The terms *restoration plan*, *restoration project*, and *restoration action* are used in the Rule but not defined, which leads to confusion. We propose that the BLM provide definitions for these terms as well as define *restoration strategy* and use these terms consistently throughout section 6102.3.

The rule does not present a clear picture of what a restoration plan is or contains. We recommend that the rule define this term consistent with SER standards, Section 3 and distinguish it from the concept of a restoration strategy (e.g., watershed scale vs management unit scale). Further, we recommend that the rule define the term Restoration Action to clarify that restoration actions are identified in restoration plans and are carried out to achieve restoration goals and objectives.

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<sup>27</sup> See 43 USC 1701 § 102 (a) (8): “The Congress declares that it is the policy of the United States that...the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.”

<sup>28</sup> See Convention for Biological Diversity. Decision adopted by the conference of the parties to the convention of biological diversity: XIII/5. [Ecosystem restoration: short-term action plan](#). December 10, 2016. Page 4.

**A *restoration strategy* is a landscape-scale plan that identifies broad-scale threats to ecological integrity and resilience, and broad-scale restoration goals and desired conditions, objectives, priorities, and monitoring questions and indicators. The restoration strategy should address landscape scale metrics related to the ecological characteristics and conditions of ecosystems and include areas where efforts will be focused such as those not meeting land health standards and/or, not meeting desired conditions, including the reasons why.**

**A *restoration plan* is a site-level plan for moving a degraded ecosystem to a trajectory of recovery that allows adaptation to local and global changes, as well as persistence and evolution of its component species. It includes goals and desired conditions, objectives, targets (the native ecosystem to be restored at a site as informed by the reference ecosystem conditions, along with any social outcomes or constraints), a suite of restoration actions designed to achieve the goals and objectives, and a monitoring strategy that identifies indicators (specific, quantifiable measures of attributes that directly connect longer-term goals and shorter-term objectives) and adaptive management approaches.**

**A *restoration action* is an action identified in restoration plans that addresses threats, reduces or eliminates natural and human-caused stressors and assists recovery in order to achieve restoration project goals and objectives.**

The draft rule does not invoke the very important concept of using reference ecosystem conditions as a basis for restoration goals and objectives. See SER standards, Principle 3 and Section 3. We suggest you include a definition for “reference ecosystem conditions.”

***Reference ecosystem conditions* are structural and functional ecosystem characteristics that would have existed before degradation, adjusted as necessary to accommodate changed or predicted change in biotic or environmental conditions.**

Each restoration project should have a reference condition for that ecological site type. If an unimpacted site is not available, a site in healthy condition should be selected and exclosed to provide a control for assessment of management actions success and progress toward meeting objectives.

### *C. Support Passive Restoration*

The proposed regulation defines *restoration* to mean “the process or act of conservation by assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.” In other places, the regulations state that “the BLM should employ active management to promote restoration.” This language implies that restoration must be active and creates ambiguity, for example about whether an authorized officer could issue a restoration lease for passive restoration, which involves the removal of stressors that are contributing to the degraded conditions intended for restoration. The exclusion or removal of livestock from an area or allotment or the reclassification of a classified road as closed are examples of passive restoration. Passive restoration is a crucial component of restoring America’s public lands and should be the preferred method for achieving ecological recovery. While active restoration is sometimes necessary, the BLM should explicitly identify the validity of passive restoration as an important tool in restoring our public lands. Indeed, it would make little sense to engage in active restoration while failing to address the presence of discretionary stressors identified as causes of landscape degradation, damage, or destruction.

In a recent and ongoing systematic literature search for all published studies comparing matched grazed and ungrazed sites on the Colorado Plateau, which encompasses portions of Arizona, Colorado, New Mexico, and Utah, which turned up 53 studies. **Appendix A** summarizes the results of 37 such studies, which is what we have been able to summarize so far. We intend to complete this review of the remaining 16 studies



in the near future. Conservation or restoration of biological soil crust, habitat for rare or declining plant or wildlife species, retention of sediment, and reduction of dust generation are examples of conservation or restoration associated with absence of livestock grazing in these studies.

The studies summarized demonstrate the overwhelming ecological recovery and benefits of passive restoration in the form of the cessation of grazing by domestic animals, and the significant conservation opportunity provided by passive restoration more generally. While the studies reviewed are limited to those undertaken on the Colorado Plateau, few differences in results would be expected to be found in any similar review comparing grazed and ungrazed sites in other states encompassing BLM lands. Recovery of elements of land health following removal of livestock have of course been documented throughout the West following fencing of degraded aquatic and riparian areas. Ecosystem recovery following removal of livestock from the Hart Mountain National Antelope Refuge is on display in [Rewilding a Mountain](#). Elimination of livestock grazing has resulted in great improvement in riparian areas, meadows, and dry uplands. Repeated bird surveys have documented population and diversity increases.<sup>29</sup>

Significant reductions in or cessation of livestock grazing involves removal of one known stressor, but is relevant to all land-disturbing stressors on BLM lands, whether recreational or mining-related. For these reasons, we recommend that the BLM should amend the following sections to explicitly include passive restoration.

1. Amend § 6102.3(c) to include passive restoration, as follows:

The BLM should employ active **and passive** management to promote restoration.

Passive restoration can also be “durable, self-sustaining, and expected to persist based on the resource objective” over the long-term. In many instances, passive restoration can accomplish these goals better than active restoration.

2. § 6102.3-2 directs authorized officers to include a restoration plan in any Resource Management Plans that are adopted or revised. We applaud this direction, and propose also making explicit at § 6102.3-2(a) that passive restoration can be part of such a restoration plan as follows:

Authorized officers must include a restoration plan in any resource management plan adopted or revised in accordance with part 1600 of this chapter. **Such a plan may include active and passive restoration.** Each restoration plan must include goals, objectives, and management actions...

We strongly support the language in § 6102.3-2(b)(2) which states, “Ensure that restoration management actions address causes of degradation, focus on ecological process-based solutions, and where possible maintain attributes and resource values associated with the potential or capability of the ecosystem.” This direction is not only consistent with but encourages passive restoration in addition to active. Often, addressing the cause of degradation with a focus on ecological process-based solutions is best accomplished through passive restoration rather than active. We believe that the changes suggested above are necessary to support this direction and provide clarity about the role of passive restoration as a preferred tool.

3. Strike Land Enhancement

We strongly recommend that the BLM strike the definition of *land enhancement* in the proposed rule. In general, we believe that any such definition should be guided by the best available scientific information on ecological restoration and resilience. Some components of the current definition seem to encourage the continuation of landscape manipulation that is not informed by the best available science. For example, improving the production of forage, improving vegetative composition, and providing water have been and

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<sup>29</sup> <https://onda.org/selected-scientific-publications-from-the-greater-hart-sheldon/>

may continue to be done in a host of ways that run contrary to ecologically-informed restoration. This includes the BLM's engagement in intentional site conversion of native vegetation communities to ones dominated by non-native forage species, and in jeopardizing the future integrity and existence of springs through water extraction and distribution. The continuation of such activities under the heading of land enhancement is not consistent with the purpose and objectives of the proposed rule. In particular, we do not believe that such activities are consistent with objective (b) to "promote conservation by protecting and restoring ecosystem resilience and intact landscapes."

In addition, we believe that the proposed definition of *Land enhancement* leaves out the important component of infrastructure removal. Infrastructure removal can restore and improve the health of the land, contribute to ecosystem resilience, or otherwise "enhance" the land. Just as some infrastructure may be used in pursuit of these goals, in other instances infrastructure removal can also be so used. BLM should provide for the use of this additional tool in the pursuit of landscape health and resilience.

For the above reasons, we propose striking the definition of *land enhancement*

#### *D. Employ Nature-Based Solutions*

We suggest the rule recommend the following two references to Field Managers in the rule:

1. Council on Environmental Quality. 2022. Opportunities To Accelerate Nature-Based Solutions: A Roadmap For Climate Progress, Thriving Nature, Equity, & Prosperity. A Report To The National Climate Task Force. NOVEMBER 2022.

This CEQ publication is accompanied by:

2. Nature-Based Solutions Resource Guide. A Compendium Of Federal Examples, Guidance, Resource Documents, Tools, And Technical Assistance

The latter provides over 30 examples of successful projects across a multitude of agencies. Sadly, BLM is not mentioned in any of them. BLM should strive to be a leader in nature-based solutions. Throughout its history, BLM has chained, plowed, seeded, and applied herbicide to millions of acres. It is time to set those tools aside and engage in real restoration as opposed to farming for livestock and big game.

#### *E. Calculate the Social Cost of Carbon*

Under current climate change trends and regimes, certain ecosystems can lose their ability to "maintain and regain their fundamental structure, processes, and function", which the rule indicates defines a "resilient ecosystem" (Fed Reg p. 19599). As the BLM notes (Fed Reg. 88(63):19584), ". . .public lands are increasingly degraded and fragmented due to adverse impacts from climate change and a significant increase in authorized use."

The rule notes (Fed Reg p. 19587) that Executive Order 13990: Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis "highlights the need to use science to reduce greenhouse gas emissions, bolster resilience to the impacts of climate change, and prioritize environmental justice" (emphasis added). And then neither the word "emissions" nor the concept of "using science to reduce greenhouse gas emissions" again appears in the rule.

A key step in prioritizing and selecting among BLM restoration projects or conservation leases and their alternatives should be to calculate the greenhouse gases they will emit or reduce over the life of the project or lease and estimate their social cost (SC-GHG) or benefit. In its Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, the Council on Environmental Quality (CEQ) urges all federal agencies to calculate and provide context for a proposed action's GHG emissions and climate effects (Fed Reg

88(5):1202. As the CEQ notes, “This is a simple and straightforward calculation that should not require additional time or resources” (Fed Reg 88(5): 1102).

As a major source of the powerful greenhouse gas, methane, livestock enteric emissions actively bolster climate change as opposed to bolstering resilience to climate change. This is best available science and cannot be ignored in calculations of compatibility of livestock grazing with conservation use.

*F. Require the use of native plant materials in restoration and management activities, consistent with SER Standards and best practice.*

Fundamental to successful ecological restoration is to revegetate with native seeds and plants that are genetically appropriate for the site (SER Standard, Appendix 1). BLM has struggled to meet this standard for several reasons. BLM has a shortage of botanists to help develop planting lists and guide native seed development. As a result, it is not uncommon for BLM to reuse old planting lists and rely on outdated practices and misconceptions about the effectiveness of native seedings. Also, BLM does not have a mandate to use native seed and thus often uses non-native seeds or cultivars which are generally less expensive and easier to source. Finally, the native seed supply is inadequate partially because BLM has not fully invested in substantial and long-term native plant material development. Despite these real challenges, BLM must update its practices and policies to require native seed use if its restoration endeavors are to enhance, and not diminish, ecological resilience and biodiversity.

1. Best practices and scientific understanding call for using genetically appropriate native seed and plants in restoration and management.

Best available science calls for using genetically appropriate native plant material in restoration and land management projects. The National Academy of Sciences, Engineering, and Medicine in January 2023 published a report on native seed needs and capacities entitled [An Assessment of Native Seed Needs and the Capacity for Their Supply](#). The report emphasized the importance for sustaining biodiversity of using genetically appropriate native plant material for ecological restoration projects. The SER Standards (see SER Standards, Appendix 1) also emphasize the importance of using genetically appropriate native plant material in restoration activities.

The [National Academy’s report](#) (2023) offers ten recommendations. Recommendation 4 addresses policy and calls for native seed policies and multi-year restoration and plant material planning:

**Establish clear agency policies on native seed uses.** Land management agencies should establish clear policies on seed use on lands under their stewardship that support the use of locally adapted native plant materials in management activities, along with clearly delimiting the circumstances for allowing exceptions. This will send a strong signal of species and provenance needs to suppliers.

And

**Conduct proactive restoration on a large scale.** Millions of acres of US public land are ecologically impaired. With new federal resources for restoration, federal and state agencies should plan restoration projects on a 5-year basis, ensure that stock seed has been made available to suppliers, and set annual purchase targets for the collection and acquisition of needed ecotypes of native plant species. These actions will result in considerable expansion and stabilization of the market for native seeds, benefitting suppliers and users alike.

In contrast to BLM<sup>30</sup>, other federal land management agencies have more affirmatively incorporated the requirement to use native plant material into their policy and practice. The Forest Service established a strategy in 2012.<sup>31</sup> The National Park Service disallows use of non-native plant species in natural landscapes and is rigorous in maintaining the locally-derived genetics of plant species. It does this by wild collecting seeds proximal to restoration sites and growing them out when needed to generate larger volumes needed for restoration.<sup>32</sup> The US Fish and Wildlife Service directs refuge managers to maintain and restore biological integrity, diversity and environmental health at the refuge scale, and mandates that only native and not genetically modified seeds are used in ecological restoration.<sup>33</sup>

2. BLM is not using genetically appropriate native seed.

BLM is not consistently using genetically-appropriate native seed in its restoration and management. For instance, in 2020, BLM field units purchased 1.4 million pounds of grasses, 220,000 pounds of forbs, and 110,000 pounds of shrub seed. Of these seeds, about 1/8 of the grasses, 1/4 of the forbs, and 2/3 of the shrubs were native source-identified seed. The rest of the seed – 7/8ths of the grasses, 3/4 of the forbs, and 1/3<sup>rd</sup> of the shrubs -- was either non-native seed or seed of released native germplasms or cultivars (National Academies of Sciences, Engineering, and Medicine 2023).

3. Add provisions requiring use of native seed and five-year native seed and restoration planning, consistent with National Academy of Sciences recommendations, SER Standards, and best practices.

This Rule is the logical place to include direction to use genetically appropriate native plant materials in ecological restoration. We therefore recommend that BLM add provisions to the Final Rule that requires the use of genetically appropriate native plant material with limited exceptions allowed only with written approval from the Associate Director for Resources and Planning. The final rule should also establish a system for planning ecological restoration and native plant material needs on a rolling five-year basis, which would help drive and stabilize the native seed market.

While we understand that native seed is difficult to source, forcing its use will drive investments in the native seed supply chain. The Department of the Interior has made the [national seed strategy](#) a [keystone initiative](#) for the Department's investments of IRA and ILJA funds presenting real opportunities to scale up the native seed supply and its use.

*G. Distinguish how restoration is addressed at the RMP level and in step-down restoration plans.*

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<sup>30</sup> To this point, one of the Idaho Land Health Standards is: "Rangelands seeded with mixtures, **including predominately non-native plants**, are functioning to maintain life form diversity, production, native animal habitat, nutrient cycling, energy flow, and the hydrologic cycle." See: *Idaho Standards for Rangeland Health*

*And Guidelines for Livestock Grazing Management, 1997. Available at:*

<https://www.blm.gov/sites/blm.gov/files/Idaho%20Standards%20for%20Rangeland%20Health%20and%20Guidelines%20for%20Livestock%20Management.pdf>.

<sup>31</sup> [Native Plant Materials Policy, A Strategic Framework](#) (September 2012) ("The Forest Service's native plant policy requires that "native plant materials are to be given primary consideration when selecting plant materials for use in land management projects. Land management prescriptions will include the selection and use of native plant species that are genetically appropriate and adapted to on-the-ground ecological conditions. When and where necessary, nonnative species may be used that enhance the likelihood of successful native plant survival, growth, and adaptation. The policy also directs that these prescriptions be written and/or approved by a plant materials specialist who is knowledgeable and trained in the plant community type where vegetation management will occur. National Forest System units are to anticipate plant material needs for emergency and planned revegetation projects and develop core plant lists, planting guidelines, and lists of appropriate and adequate plant material sources and seed storage and propagation facilities...")

<sup>32</sup> National Park Service Management Policies 2006. 4.4.2.4 ("Natural landscapes disturbed by natural phenomena, such as landslides, earthquakes, floods, hurricanes, tornadoes, and fires, will be allowed to recover naturally unless manipulation is necessary to (1) mitigate for excessive disturbance caused by past human effects...Landscape revegetation efforts will use seeds, cuttings, or transplants representing species and gene pools native to the ecological portion of the park in which the restoration project is occurring. Where a natural area has become so degraded that restoration with gene pools native to the park has proven unsuccessful, improved varieties or closely related native species may be used.")

<sup>33</sup> [601 FW 3, Biological Integrity, Diversity, and Environmental Health](#), Sections 3.7(D) and 3.15(A) and (C).

The rule calls for restoration planning (i.e., a restoration strategy) at the RMP scale but does not include the concept of a project-level restoration plan. It relies on RMP-level direction to guide restoration actions. The RMP is designed to guide the management of a field office at a broad -scale and thus is the appropriate place to identify broad-scale restoration needs, goals, objectives, priorities, and broad-scale monitoring. The RMP is not the appropriate place for project-level restoration planning or actions. We therefore recommend the final rule incorporate the concept of a project-level restoration plan (see proposed definition above) and distinguish it clearly from a RMP-level restoration strategy (see proposed definition above). The final rule should specify that the RMP should include a restoration strategy that identifies broad-scale restoration needs, goals, objectives, priorities, and broad-scale monitoring.

In addition, the rule would benefit from more detail on how to identify restoration needs, goals and objectives. Section 6102.3(b) directs generally that “in determining the restoration actions required to achieve recovery of ecosystems and promote resilience, the BLM must consider the degree of ecosystem degradation and develop restoration goals and objectives designed to achieve ecosystem resilience and land health standards.” As structured, the Rule leans on land health standards to guide restoration priority and goal setting. While land health standards are helpful, they do not provide an understanding of the natural ecological conditions (structure, function, process, composition, landscape pattern) in an area covered by the RMP and where current conditions have departed from natural conditions.

The Forest Service addresses such by requiring the management unit to identify *desired conditions* in the land management plan<sup>34</sup> and establishes that plan direction must result in maintaining or restoring ecological integrity.<sup>35</sup> Identifying *desired conditions* and places within the field office that are not achieving desired conditions informs the development of broad-scale restoration goals, objectives, and priorities.

We recommend that BLM adopt this conceptual approach by requiring officials to identify in the RMP broad-scale desired conditions based on reference ecosystem conditions and land health standards and identify where current conditions are departed from natural conditions to inform the development of the restoration strategy.

#### H. *Clarify where, how and when restoration priorities are determined.*

Section 6102.3-1 of the rule requires authorized officers to identify restoration priorities not less than every five years using provided criteria. However, the rule does not clarify the process, form, or and public engagement associated with this restoration priority setting process. For instance, are authorized officers identifying priority watersheds for restoration or some other land unit? Should priorities be identified in the RMP or through some other process? Is there a public place like a webpage where restoration priorities are posted? Does the public have an opportunity to weigh in? How does this process relate to Section 6102.3-2 restoration planning requirements? How do restoration priorities relate to conservation leases in Section 6102.4? How does BLM’s Endangered Species Act 7(a)(1) obligations inform restoration priority setting?

In the final rule, BLM should add needed detail to § 6102.3-1 to clarify where, when, and how restoration priorities are set. Restoration priorities should flow from the RMP and be based on where current conditions are departed from reference conditions and where land health standards are not being met. Whatever process BLM lands on, BLM should ensure that the process is transparent and the public has opportunities to comment and receive a response. Priority areas for each field unit should be posted online along with the

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<sup>34</sup> The US Forest Service establishes the concept of desired conditions as “a description of specific social, economic, and/or ecological characteristics of the plan area, or a portion of the plan area, toward which management of the land and resources should be directed...” 36 CFR 219.7(e)(1)(i).

<sup>35</sup> 36 CFR 219.8(a)(1).

rationale for the prioritization. When restoration plans are developed for the priority areas, they should also be posted online along with annual updates on their implementation progress.

Having a defined and transparent process will enable the public to participate in priority setting as well as easily access information about current priorities. It will also enable more effective partnerships and help entities contemplating conservation leases understand where restoration priorities exist and propose leases for these areas.

As a practical matter, BLM should assess the degree of damage in the proposed restoration sites and prioritize those projects that are more likely to succeed. Sites that are heavily degraded require far more resources per acre to restore, if it's even possible, than sites that are functioning at risk and close to a tipping point. They are more easily improved and often require fewer resources to restore.

- I. *Clarify that the RMP-level restoration strategy and restoration plans should utilize the restoration progression articulated in the SER Standards.*

SER International Principles, Section 4, Part 2, *Identifying Appropriate Ecological Restoration Approaches*, describes a progression of steps that should be taken in approaching restoration, starting with 1) identifying constraints preventing ecosystem recovery, 2) natural regeneration where site recovery potential is high, 3) assisted recovery, 4) and reconstruction. This progression is designed to effectively achieve ecological restoration with the least disturbance necessary and building off existing ecosystem elements. It also is designed to recognize that restoration can involve activities that are not ground-disturbing (e.g., retiring or modifying a grazing permit, modifying recreational access authorizations).

- J. *Clarify the tracking requirements in §6102.3-2(c).*

§6102.3-2(c) as written is not clear whether it is requiring authorized officials to track restoration projects and how well they contribute to RMP goals, or requiring authorized officials to track whether restoration projects achieve the goals set forth for each specific project. Further, because *restoration project* is not currently defined in the Rule, it is not clear if the section is asking for tracking of restoration actions or step-down plans or something else.

One of the challenges with tracking and evaluating restoration projects and how well they achieve site and landscape scale goals and objectives is that it can take years for the benefits of restoration work to manifest (SER Standards at S7). Thus, monitoring needs to be conducted over an appropriate period of time and thresholds for adaptive management may need to be established for multiple timeframes.

We recommend that the final rule require tracking the number and locations of restoration projects underway and completed during the year (implementation monitoring). We also recommend that BLM conduct effectiveness monitoring at two scales (broad-scale and *restoration strategy plan* scale) to ascertain the effectiveness of *restoration plans* in meeting RMP level restoration goals and objectives and the effectiveness of *restoration actions* in achieving *restoration plan* project goals and objectives, respectively. Implementation monitoring lends itself to annual tracking while effectiveness monitoring should occur at timescales appropriate to the project but at least every five years.

- K. *Address post-restoration land use to protect the restoration investment.*

BLM needs to avoid the situation where it invests in restoration projects, which can take years to develop and decades to be effective—and which can also be very costly—and later allows post-restoration land uses that undermine that public investment. We recommend that the final rule require BLM to address post-

restoration land use in the RMP-level restoration strategy and/or restoration planning in the context of the causes of degradation and threats. For instance, BLM could simultaneously adopt a restoration plan and amend an RMP to assure that post-restoration land use is consistent with achieving and sustaining restoration goals and objective and land health standards.

#### **4. Protection of intact landscapes**

Given the importance of conserving landscapes with relatively high ecological integrity, BLM must substantially strengthen and clarify direction for intact landscapes. This includes analyzing the impact of rangeland infrastructure on connectivity, the impact of livestock presence on lethal control of native carnivores; protecting the last remaining intact landscapes; strengthening and clarifying the Intact Landscapes section; and addressing intact landscapes with wilderness characteristics.

##### *A. Analyze the impacts of rangeland infrastructure for the management of livestock grazing on intact landscapes*

Rangeland infrastructure including but not limited to fences, roads, corrals, and stock water wells has “numerous, diverse, and often deleterious,” impacts on wildlife and the intactness of landscapes.<sup>36</sup> Recent research shows that the impacts of fencing on wildlife extend far beyond blocking animal migration routes and include facilitating disease transmission by concentrating animals, altering the hunting practices of predators, and impeding access to key areas of water and forage. Fences may also prevent “genetic rescue” if an isolated population of wildlife is decimated by disease or a natural disaster.<sup>37</sup>

Of particular concern to the BLM should be the impact on Sage Grouse of fencing for livestock grazing. Numerous studies and conservation efforts have demonstrated that “significant Sage Grouse mortality may be caused by collisions with livestock fences.”<sup>38</sup> Given the enormous efforts the BLM, USFWS, USDA and the States have undertaken to prevent the listing of the Sage Grouse on the Endangered Species Act, it is reckless to consider any livestock grazing managed with fences in Sage Grouse habitat as conservation and especially as part of an intact landscape.

This is just one example of a species that is critically imperiled largely due to the management of livestock grazing by the BLM. If the tools of livestock management cause habitat degradation, fragmentation, genetic isolation, and incidental take, livestock grazing must be considered not as a tool for conservation, but as a key driver in the rapid loss of intact landscapes and a source of anthropogenic disturbance that must be accounted for and mitigated.

##### *B. Analyze the impact of livestock presence on the lethal control of native carnivores*

Meeting the rule’s objectives to conserve habitat, better manage wildlife, and ensure ecosystem resilience will require widespread use of non-lethal conflict reduction (i.e., ‘coexistence’) measures anywhere grazing occurs in carnivore habitat. The BLM permits livestock grazing in the habitat of native carnivores including bears, mountain lions, coyotes, and wolves. When BLM-permitted livestock is or may be harmed by carnivores, carnivores are often killed preemptively or in retaliation. Killing carnivores on public lands for the perceived benefit of the private livestock industry is antithetical to conservation.

Short of eliminating grazing, requiring carnivore coexistence measures with grazing may help BLM maintain healthy wildlife habitat and resilient ecosystems and make “wise management decisions based on

<sup>36</sup> *Handbook of Road Ecology, First Edition*. Edited by Rodney van der Ree, Daniel J. Smith and Clara Grilo. © 2015 John Wiley & Sons, Ltd. Published 2015 by John Wiley & Sons, Ltd. Companion website: [www.wiley.com/go/vanderree/roadecology](http://www.wiley.com/go/vanderree/roadecology)

<sup>37</sup> *A Fence Runs Through It: A Call for Greater Attention to the Influence of Fences on Wildlife and Ecosystems*. Jakesa, Andrew F., , Paul F. Jones , L. Christine Paige , Renee G. Seidler, , Marcel P. Huijsere (2018) <http://jhwildlife.org/wp-content/uploads/2019/01/Fence-paper-by-Paige-et-al-1.pdf>

<sup>38</sup>[https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/oregon/deserts/Pages/Sage-grouse\\_Fences.aspx](https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/oregon/deserts/Pages/Sage-grouse_Fences.aspx)

science and data.” 88 F.R. 19,592. The rule should establish a framework under proposed section 6102.5 by which BLM can incorporate situationally and temporally appropriate coexistence measures into grazing permitting, allotment management, and land use planning processes.

Killing carnivores on behalf of livestock ranchers cuts against the proposed rule’s goal to “ensure healthy wildlife habitat . . . and ecosystem resilience,” 88 F.R. 19588. Carnivores like wolves, coyotes, mountain lions, and bears play an essential role in maintaining the natural function and balance of ecosystems. Protecting their populations from negative livestock interactions will help ecosystems on BLM lands stay or become resilient.<sup>39</sup>

Permitting grazing in carnivore habitat also cuts against the proposed rule’s goal to ensure that BLM makes “wise management decisions based on science and data.” 88 F.R. 19,583. A large and growing body of scientific research shows that nonlethal carnivore-livestock conflict deterrents and animal husbandry practices effectively reduce carnivore predation on livestock.<sup>40</sup> On the other hand, the relevant science on killing carnivores to reduce conflicts has produced mixed results at best, and may actually increase conflicts. Requiring carnivore coexistence measures in grazing will help “guide the balanced management of public lands” and meet the agency’s goal to “ensure wise decision-making in planning [and] permitting.” 88 F.R. 19,583. The BLM should take this opportunity to lead the paradigm shift from killing native wildlife at the behest of the livestock industry to an ethic of coexistence through non-lethal conflict reduction practices.

*C. Protecting the last remaining intact landscapes is of paramount importance to ecological resilience and biodiversity and is integral to this BLM’s “protect and grow the core” concept.*

The BLM presents the proposed rule as having a three-part structure: 1) protect intact and important landscapes, 2) restore degraded parts of the landscape, and 3) make science-based decisions that promote ecological resilience going forward. This three-part structure aligns with the proactive conservation strategy of “defend the core, grow the core, mitigate impacts” recently proffered by BLM, Western Governors and others (Doherty et al. 2022, Western Governors Association 2020) in the context of managing the sagebrush biome. This strategy is based on the concept that conservation networks, which are necessary for sustaining native biodiversity and ecological resilience, are anchored by landscapes with low threats, expanded outward into more threatened areas through conservation actions (e.g., acquisition) and restoration and ultimately connected (Doherty 2022).

This approach makes conceptual sense because we know protecting places of high ecological integrity before they are degraded is of paramount importance to conserving ecosystems and landscapes, and that restoring degraded areas, while vital for resilience and biodiversity, is a difficult, complex, often expensive undertaking that can take many years to replicate natural systems, if it can be done at all.

*D. Strengthen and clarify the Intact Landscapes section to more effectively “defend the core.”*

§§ 6102.1 and 6102.2 would require BLM in the RMP process to identify intact landscapes on public lands and determine which, if any, should be put to conservation use by considering several criteria. Those put into conservation use must be managed to protect their intactness through conservation, restoration,

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<sup>39</sup> See, e.g., Berger, et al. (2008); Berger & Conner (2008); Bergstrom, et al. (2014); Beschta & Ripple (2018); Beschta (2003); Mezquida, et al. (2006); Ordiz, et al. (2021); Ramana, et al. (2013); Ripple & Beschta (2006); Ripple & Beschta (2008); Ripple & Beschta (2012); Ripple, et al. (2014a); Ripple, et al. (2014b); Ripple & Larsen (2000); Wallach, et al. (2015); Wilmers et al. (2003).

<sup>40</sup> See, e.g., Bangs, et al. (2006); Bergstrom (2017); Bradley, et al. (2015); Breck, et al. (2012); Breck, et al. (2011); Davidson-Nelson & Gehring (2010); Eklund, et al. (2017); Gehring, et al. (2010); Harper et al. (2010); Lance, et al. (2010); Morehouse & Boyce (2011); Moreira-Arce, et al. (2018); Santiago-Avila, et al. (2018); Shivik (2004); Sime, et al (2007); Stone, et al (2017); Treves, et al. (2016); van Eeden, et al. (2018); van Eeden, et al. (2018a); Western Wildlife Outreach (2014)



mimicking natural disturbance,<sup>41</sup> and strategically managing compatible uses. BLM is also required to “seek to prioritize actions that conserve and protect intact landscapes.” BLM must collect and track disturbance data that indicate cumulative disturbance and direct loss of ecosystems at a watershed scale resulting from BLM-authorized activities. The presence of domestic livestock and associated livestock infrastructure are disturbance factors that must be included.

This section is not clear and raises several questions. For instance, is BLM required to try to prioritize conservation within all identified intact landscapes, or just the ones that the RMP identifies for conservation use? Is the tracking requirement restricted to intact landscapes, the intact landscapes managed for conservation use, or all BLM managed lands? Under this construction, it seems as if BLM is obligated to manage at least one landscape for intactness but not necessarily more – is that the intention? Do intact landscapes include connectivity corridors?

Further, the criteria for determining which intact landscapes should be put to conservation use are not tied to the definition of intact landscapes (e.g., degree of ecological integrity and naturalness) but instead appear to be social in nature (e.g., existence of partnerships, potential for co-stewardship, agreement of communities, feasibility for leasing). It is not clear if meeting the criteria argues for or against the determination to protect an intact landscape. BLM should replace these criteria with those that will help discern the intact landscapes that are the most important for ecological resilience and biodiversity. Finally, the management direction to seek to prioritize conservation within intact landscapes needs to be strengthened. *Seeking to prioritize* has not proven to be successful in the context of sage-grouse conservation and thus raises concerns here. BLM’s sage-grouse plans directed BLM to prioritize energy development outside of sage-grouse habitats,<sup>42</sup> yet BLM actually increased energy development within priority and general habitats over the first four years of the plan implementation.<sup>43</sup>

*E. An important subset of intact landscapes are lands with wilderness character and this subset is not addressed in the rule.*

Wilderness quality lands are a unique and dwindling resource. They provide myriad ecological benefits that flow from their absence of roads and motorization, size, and naturalness and substantially contribute to ecological resilience. They are a subset of intact areas and often serve as the inner core to larger intact landscapes. BLM has a duty to maintain an ongoing inventory of wilderness quality lands<sup>44</sup> and the authority to establish wilderness study areas under FLPMA section 202.<sup>45</sup>

Given the absolute importance of wild places to ecological resilience, BLM should address wilderness quality lands in this section of the rule by, among other things, reiterating BLM’s obligation to maintain an ongoing inventory and its authority to establish wilderness study areas. Each year that goes by without clear direction on managing for the sustainability of the wilderness resource, we lose more wilderness quality lands to development and reduce the ecological resilience of our western landscapes.

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<sup>41</sup> We would prefer that this say “allow natural processes including those that result in natural disturbances to maintain, and, when necessary, implement management actions that mimic natural disturbances.”

<sup>42</sup> IM No. 2016-143; *Also see*, Rocky Mountain Greater Sage-Grouse Resource Management Plan amendments ROD at page 1-25, Great Basin ROD at page 1-23.

<sup>43</sup> In 2019, several environmental organizations published a report showing oil and gas leasing from October 2015 through March 2019 in relationship to general and priority sage-grouse habitat. The report showed that leasing inside general and priority habitat relative to outside sage-grouse habitat actually increased over this time period (TWS et al. 2019). In addition, Public Employees for Environmental Responsibility, Western Watersheds Project and other conservation groups submitted evidence to BLM showing clearly that, despite direction to prioritize development outside of buffer zones and habitat, its Wyoming field offices granted approximately 90% of the 127 industry applications for exemptions from protective stipulations within these sage-grouse areas. *See See* letter submitted to Tracy Stone-Manning, Nada Culver, and Andrew Archuleta dated March 6, 2023. Available at: [https://peer.org/wp-content/uploads/2023/03/3\\_7\\_23\\_Letter-BLM-re-GSG-exceptions-3-6-23.pdf](https://peer.org/wp-content/uploads/2023/03/3_7_23_Letter-BLM-re-GSG-exceptions-3-6-23.pdf).

<sup>44</sup> 43 U.S.C. § 1711(a); *Oregon Natural Desert Ass’n v. BLM*, 625 F.3d 1092, 1098-99, 1113 (9th Cir. 2010) (wilderness characteristics are among the “resource and other values” of the public lands that BLM must inventory and manage “as part of the complex task of managing ‘the various resources without permanent impairment of the productivity of the land and the quality of the environment’”).

<sup>45</sup> 43 U.S.C. § 1712.

By definition, Wilderness should be considered an intact landscape. There are impacts, however, mainly from livestock grazing (cattle and sheep), that diminish Wilderness and other protected areas where grazing is occurring. Passive restoration is the best method of restoring or maintaining intactness, and this is especially true of livestock grazing. A passive approach, for example, would be to allow recovery in sensitive areas like Wilderness by ending or reducing livestock grazing. Because of the statutory definition that Wilderness is to be untrammelled, the ecological interventions and manipulation contemplated by the proposed rule are not compatible with Wilderness.

Indeed, the direction in the proposed rule leans almost exclusively on active manipulation, even for intact landscapes, presumably including Wilderness. This is both unnecessary and counterproductive.

The proposed rule, if applied to Wilderness, would damage the untrammelled or wild nature of Wilderness:

**§ 6102.1 Protection of intact landscapes (emphasis added).**

(a) The BLM must manage certain landscapes to protect their intactness. This requires: ...

(3) Maintaining or restoring resilient ecosystems *through habitat and ecosystem restoration projects* that are implemented over broader spatial and longer temporal scales. ...

(5) Pursuing management actions that maintain or *mimic* characteristic disturbance.

This approach can best be described by the following: “manipulating an ecosystem to restore it highlights a fundamental tension and dilemma in wilderness stewardship, that is manipulating the ecosystem to protect or restore the natural quality of wilderness by definition compromises the untrammelled quality, while not manipulating (i.e. practicing restraint or hands- off management) preserves the untrammelled quality but may compromise the natural quality of wilderness”<sup>46</sup>

In sum, Wilderness is about natural processes, not endpoints. As such, it is inconsistent with the proposed rule's focus on active manipulation “through habitat and ecosystem restoration projects that are implemented over broader spatial and longer temporal scales.”

***Recommendations***

We recommend that BLM restructure §§ 6102.1 and 6102.2 to provide a clearer and more consistent approach to managing intact landscapes to assure that they are sustained and continue to contribute to ecological resilience and biodiversity and address the issues raised in the preceding section, as follows:

1. Establish generally that:
  - a. Intact landscapes have relatively high ecological integrity and naturalness and thus can serve as an anchor around which lands can be restored to expand and connect intact landscapes;
  - b. Lands that facilitate connectivity should be included in intact landscape boundaries;

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<sup>46</sup> Landres et al. 2020

- c. A subset of intact landscapes are lands with wilderness characteristics for which the BLM has long-standing authority under section 202 of FLPMA to establish new Wilderness Study Areas through land management planning.<sup>47</sup>
  - d. Designated Wilderness and Wilderness Study areas are not appropriate for “active” management with the exception of the removal of physical infrastructure such as livestock handling facilities and fences. Passive restoration activities including the removal of domestic livestock will be prioritized.
2. BLM will manage intact landscapes by:
- a. Prioritizing conservation and not authorizing discretionary activities that would permanently or significantly disrupt, impair, or degrade the structure or functionality of intact landscapes;
  - b. Limiting cumulative disturbance (including livestock grazing and associated infrastructure) on intact landscapes to no more than 1%;
  - c. Establishing strict limitations on the construction of public motorized roads or trails or the conversion of administrative or non-motorized travelways to public accessways open to motorized use.
  - d. Only allowing uses and activities that are found to be compatible with sustaining or enhancing the ecological integrity of intact landscapes and, in the case of lands with wilderness characteristics, compatible with maintaining and enhancing wilderness character.
  - e. Mandating that livestock owners practice carnivore coexistence techniques when livestock grazing occurs in native carnivore habitat
3. In the RMP process, BLM will:
- a. Inventory and identify intact landscapes, including lands with wilderness characteristics, that in whole or in part are located on public lands<sup>48</sup>; and
  - b. Determine which activities and uses can be contemplated within each intact landscape based on whether they are compatible with maintaining and enhancing intact landscapes, and, in the case of lands with wilderness characteristics, compatible with maintaining and enhancing wilderness character.
  - c. Determine if livestock grazing in a particular area will cause an increase in lethal predator control and therefore a decrease in the intactness of the landscape.
4. BLM in inventoried intact landscapes will collect and track disturbance data that indicate the cumulative disturbance at a watershed scale.

## **5. Mitigation**

We appreciate the BLM’s inclusion of mitigation as a component of the proposed rule. However, we have significant concerns about how the rule defines and implements both the mitigation hierarchy and compensatory mitigation. Specifically, we are concerned that the rule as constructed will result in little actual protection or restoration and may be used as a smokescreen to justify increased development and destruction of habitat.

As noted throughout this letter, current domestic livestock grazing is a significant contributing factor to the overall degraded state of BLM managed lands regardless of specific management practices. The final rule should clearly specify that livestock grazing or the adjustment of grazing management practices are not a restoration action and are not eligible to be counted as compensatory mitigation. Rather, livestock grazing

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<sup>47</sup> 43 U.S.C. § 1712(c)(4).

<sup>48</sup> 43 U.S.C. § 1711(a); *Oregon Natural Desert Ass’n v. BLM*, 625 F.3d 1092, 1098-99, 1113 (9th Cir. 2010) (wilderness characteristics are among the “resource and other values” of the public lands that BLM must inventory and manage “as part of the complex task of managing ‘the various resources without permanent impairment of the productivity of the land and the quality of the environment’”).

authorizations should be subject to the mitigation hierarchy and any residual impacts must be mitigated by the grazing permittee.

The achievement of land health standards on the paucity of lands where standards are actually met and not just “making significant progress” is an indicator of neither desired conditions nor the ecological potential of BLM managed lands. It is also not an indicator that grazing is not resulting in significant impacts that must be avoided, minimized or mitigated. Land health standards are the floor below which discretionary authorized uses should be modified, suspended or canceled.

#### *A. Definitions*

##### 1. Add irreplaceable natural resources.

We recommend adding “irreplaceable” to the definition of mitigation to include a critical class of resources. Some lands, waters or wildlife should be recognized as of such irreplaceable character that minimization and compensation measures, while potentially practicable, may not be adequate or appropriate. For these resources specifically, but also other sensitive and important resources, the BLM should promote avoidance in the mitigation hierarchy. There is precedence for including irreplaceable resources under mitigation policy issued in 2016.<sup>49</sup> That policy refers to resources recognized through existing legal authorities as requiring particular protection from impacts and that because of their high value or function and unique character, cannot be restored or replaced. Large-scale plans and analysis should inform the identification of areas where development may be most appropriate, where high natural resource values result in the best locations for protection and restoration, or where natural resource values are irreplaceable. We recommend adding the following:

***“Irreplaceable natural resources refers to resources recognized through existing legal authorities as requiring particular protection from impacts and that because of their high value or function and unique character, cannot be restored or replaced.*”**

##### 2. Mandate application of the mitigation hierarchy

The proposed rule’s definition of mitigation kneecaps the purpose and intent of the mitigation hierarchy by vaguely and without explanation stating that it only “generally applies.” This language is a recipe for mischief.

The final rule should clarify that the hierarchy is non-negotiable: action to avoid impacts must be considered first. Where impacts cannot be avoided—but it is legally permissible for a proposed action to move forward—then the agency must minimize, rectify, or otherwise reduce or eliminate impacts. Where that is not possible—and, again, it is legally permissible for a proposed action to move forward—then, and only then, should the agency consider compensatory action. Accordingly, we recommend that the definition of mitigation be changed as follows:

**Mitigation means, in sequence of priority:**

**(1) Avoiding the impacts of a proposed action by not taking a certain action or parts of an action;**

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<sup>49</sup> <https://obamawhitehouse.archives.gov/the-press-office/2015/11/03/mitigating-impacts-natural-resources-development-and-encouraging-related>

**(2) Minimizing impacts by limiting the degree or magnitude of the action and its implementation;**

**(3) Rectifying the impact of the action by repairing, rehabilitating, or restoring the affected environment;**

**(4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and**

**(5) Compensating for the impact of the action by replacing or providing substitute resources or environments. Compensatory mitigation must result in a net gain for the species or habitat being impacted.**

~~In practice, the mitigation sequence is often summarized as avoid, minimize, and compensate. The BLM generally applies m~~**Mitigation shall be applied hierarchically: BLM must first avoid impacts, then minimize impacts, then rectify impacts, and then compensate for any residual impacts from proposed actions.**

### 3. Net gain

The no net loss standard in the proposed rule enshrines the status quo, by allowing continued degradation of intact habitat and not requiring any reversal of habitat loss or population declines of imperiled wildlife. We urge requiring a net gain conservation standard in the rule. Net gain is the standard promoted by the International Union for the Conservation of Nature<sup>50</sup>. Absent this requirement, the sum of degraded public lands will never decrease.

A “no net loss” standard normally aims for a neutral outcome for biodiversity after losses and gains are taken into account. A “net gain” standard seeks an improved outcome. In the case of greater sage grouse, a neutral outcome is not acceptable and does not support best available science that all intact sage grouse habitat must be protected from degradation and large amounts of habitat need to be restored to reverse steep population declines. Habitat loss from drought, fire and spread of invasive species is highly likely to continue, thereby placing a very high imperative on preventing habitat loss from discretionary anthropogenic activities and restoring degraded habitat.

Further, a global study on the efficacy of no net loss policy (impacts offset by protecting intact habitat elsewhere) identified large gaps between the global implementation of offsets and the evidence for their effectiveness.<sup>51</sup> Only 38% of studies achieved no net loss success for biodiversity offsets. In those cases where no net loss was achieved, success was largely due to high offset ratios and success with wetland restoration.

For example, the science of sagebrush restoration is still evolving and the re-establishment of sagebrush is difficult. It’s not simply a matter of scattering seeds on top of the soil. Planting small seedlings is more successful than seeding but is too labor intensive for large-scale restoration. Even when seedlings do survive, it can take decades to a century for sagebrush to reach height requirements needed by sage grouse for different life cycles. The failure rate for restoration is even higher in warmer sites with less precipitation. Therefore, a promise to restore greater sage grouse habitat as mitigation for degrading habitat is a

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<sup>50</sup> International Union for the Conservation of Nature. Review Protocol for Biodiversity Net Gain: A guide for undertaking independent reviews of progress towards a net gain for biodiversity. [https://portals.iucn.org/library/sites/library/files/documents/2017-033\\_0.pdf](https://portals.iucn.org/library/sites/library/files/documents/2017-033_0.pdf)

<sup>51</sup> Zu Ermgassen, SOSE, Baker, J, Griffiths, RA, Strange, N, Struebig, MJ, Bull, JW. The ecological outcomes of biodiversity offsets under ‘no net loss’ policies: A global review. *Conservation Letters*. 2019; 12:e12664.

questionable proposition. Indeed, until the science of sagebrush restoration is proven, healthy sagebrush habitat should be considered an irreplaceable resource.

### *B. Application of the mitigation hierarchy*

We urge BLM to mandate use of the mitigation hierarchy. But to the degree BLM has a (yet to be disclosed) rational basis for deviating from the mitigation hierarchy, the rule should be modified as follows:

- First, the rule should provide crystal clear criteria providing that any deviation from the mitigation hierarchy must be an exception, not the rule, and explicitly and narrowly state what situations would warrant such a deviation.
- Second, where it is unclear what level of mitigation would be required to address site-specific impacts, such as when BLM issues an oil and gas lease that confers surface or subsurface use rights, the agency must expressly retain the legal authority to impose site-specific mitigation on the basis of site-specific NEPA. In other words, BLM cannot confer site-specific use rights without first considering the need for site-specific mitigation. This is not a hypothetical concern: BLM routinely confers oil and gas lease rights without knowing where, when, or how development will proceed but, by virtue of conferring those rights, limits the agency's mitigation authority once development plans crystallize at the drilling stage.[1]
- Third, the rule should obligate BLM to substantiate, in the record, why the agency deviated from the mitigation hierarchy and how the agency's ultimate choice adheres, legally and factually, to exception criteria and the agency's overarching mandates to prevent permanent impairment, unnecessary degradation, and undue degradation.

Absent these changes, BLM's inclusion of "generally applies" creates a problematic ambiguity that will prove confusing to agency officials, risk non-compliance with FLPMA, and substantially increase the probability that specific decisions will prove contentious and expose BLM to litigation.

### *C. Universal Principles of Compensatory Mitigation (UPCM)<sup>52</sup>*

The proposed rule's construction of compensatory mitigation is substantially flawed. Absent significant changes including the adoption of UPCM, compensatory mitigation is likely to result in waste, fraud and abuse, and most importantly, a failure to ensure that BLM managed lands are actually improving in terms of ecological function, biodiversity and resilience even in the face of destructive development and the continued authorization of uses that create adverse impacts.

1. Equivalency - All compensatory mitigation, whether on private or public lands, should adhere to equivalent standards.

This principle is not addressed by the proposed rule. Absent equivalency standards, project proponents will seek the least expensive mitigation alternative. Only when regulators insist upon meaningful and uniform mitigation standards can consistent quality and pricing be achieved across different mitigation options. Equivalency eliminates demand for substandard, less expensive offset options.

2. Durability - Compensatory mitigation should be durable for the life of the impact.

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<sup>52</sup> <https://environmentalbanking.org/wp-content/uploads/Best-Universal-Principles-of-Compensatory-Mitigation-by-NEBA.pdf>

The issue of durability is not adequately addressed by the proposed rule. The rule states only that, “A conservation lease issued for purposes of mitigation shall be issued for a term commensurate with the impact it is mitigating...” However, in many cases, impacts are essentially permanent resulting in a loss of habitat for species that will never be restored. The BLM simply does not have the authority to provide permanent protections in the same way that private landowners can through conservation easements in perpetuity. It is likely inappropriate for the BLM to issue compensatory mitigation credits for activities that will permanently impair public lands. Mitigation for these activities, if they must be approved and cannot be avoided, should occur on private lands.

3. Assurance- Financial assurances are recommended to ensure providers don't default on mitigation projects.

The proposed rule does not adequately address the issue of assurance. Bonding for conservation leases only seems to apply to the reclamation of damages from failed projects.

4. Advance Mitigation - Mitigation should demonstrate success before being allowed to offset impacts.

This is perhaps one of the biggest failings of the current structure for mitigation in the proposed rule. It appears that the BLM is going to rely on mitigation contractors that accept in-lieu fee payments or “pay for success” programs. These types of compensatory mitigation schemes are highly prone to failure as projects fail to achieve results and in many cases are never completed. Restoration that results in functional occupied habitat must come before the destruction of habitat elsewhere.

5. Additionality - Mitigation should demonstrate additionality: restoration activities above those normally expected.

The BLM must be very clear about the requirement for compensatory mitigation to provide conservation benefits in addition to those for which the agency already has rules, regulations, programs, and funding to accomplish. The fact that the BLM has not satisfied its statutory obligations to manage public lands according to the Fundamentals of Rangeland Health and has not addressed the invasion of annual grasses are not acceptable justifications to farm out those responsibilities to third parties in exchange for compensatory mitigation credits. For example, modifying grazing management on an allotment that is not meeting land health standards so that it will eventually meet them is in no way additional. The BLM is required by law to change grazing management including requiring non-use in order for allotments to meet standards. Conversely, the BLM should apply the mitigation hierarchy to such livestock grazing authorizations and require compensatory mitigation for impacts that result from the failure to meet standards. That mitigation must also be additional to simply meeting standards and should result in a net gain for conservation.

6. Scientific - Compensatory mitigation should be based on scientific data with success monitoring and transparent reporting.

Any conservation lease or other authorization for compensatory mitigation must be based on proven results from advance mitigation efforts elsewhere. Additionally, the BLM must meaningfully engage with the public prior to the initiation of compensatory mitigation projects, during the life of the project, and for post restoration management. Site-specific data submitted by the public related to a compensatory mitigation project must be accepted, considered and responded to by the appropriate officials.

7. Adaptive - Compensatory mitigation plans should include adaptive management to anticipate likely unknowns.

The final rule must clearly define the parameters of adaptive management for compensatory mitigation projects. A simple review every five years is not sufficient. Ecologically appropriate benchmarks must be established along with hard and soft triggers. The BLM must also more clearly delineate when it will determine whether a compensatory mitigation project has failed and financial recovery for the value of the mitigation project is required.

## 6. Conservation leasing

- A. *Conservation leasing as proposed raises significant questions and concerns, and is lacking important sideboards*

The proposed rule offers a new leasing program for conserving, restoring or enhancing BLM-managed lands. The rule envisions two types of conservation leases: those taken on voluntarily (up to ten years in length with possibility of renewal) and those that are established as compensatory mitigation for damaging activities on private or public lands elsewhere (duration commensurate with the impact it is mitigating). Qualified entities (individual, business, non-governmental organization, or Tribal government) may apply for a conservation lease following a specified process. Leases do not have a size requirement and, in the case of the second category, do not have to be relatively proximal to the impact being mitigated. They also do not have to be issued in areas identified as restoration priorities.

The proposed leasing program offers opportunities for conservation organizations, mitigation banks, Tribes, restoration companies and others to offer to pay BLM for access to conserve, restore, or enhance tracts of lands. The rule lacks the necessary sideboards that would help ensure the efficacy of leases and prevent abuse.

1. Conservation leasing applications and activities must be informed by high quality information and restoration plans and activities should be consistent with SER standards.

Just as BLM decision-making must be informed by high quality information, so should activities authorized under conservation leases. For activities involving restoration, as discussed in **Section 3** on restoration, high-quality information is the [SER standards](#). We therefore recommend that the final rule requires that conservation lease applications and projects are consistent with high-quality information and, in the case of restoration activities, with the SER standards.

2. Conservation leasing should not allow land enhancement projects

As noted previously, BLM has a mixed history when it comes to land enhancement projects. While undoubtedly some land enhancement projects have resulted in environmental benefit, others have resulted in harm. For instance, for decades, BLM removed sagebrush to increase forage even though it harmed the ecology and hydrology. Similarly, BLM has a history (and continues) to cut down pinyon-juniper woodlands to reduce fuel loads, enhance sage grouse habitat, and improve forage for livestock and ungulates even though recent literature reviews have cast doubt on the efficacy of projects for achieving desired outcomes.



More generally, empiric data calls into question the efficacy of land treatments for ecological outcomes. Since 1980, BLM implemented over 10,000 projects on about 40 million acres<sup>53</sup>, yet ecological conditions as measured, for instance, by exotic grass invasions<sup>54</sup> and wide-ranging species with ranges that aggregately cover much of the interior west, such as desert tortoise<sup>55</sup>, sage grouse<sup>56</sup>, pygmy rabbit<sup>57</sup> and pinyon jay populations<sup>58</sup>, are generally worsening. Land treatments are often not designed to result in conservation (defined as maintaining resilient, functioning ecosystems by protecting or restoring natural habitats and ecological functions) and thus may not lead to ecological improvements.

For these reasons, we request that land treatment be removed as an allowed activity under conservation leasing in §6102.4 and recommend rewriting §6102.4(a)(1) as follows:

(1) Conservation leases on the public lands may be authorized for the following **conservation use** activities:

(i) ~~Conservation use that involves~~ **Restoration or protection of natural habitats and ecological functions**; ~~or land enhancement~~; and

(ii) Mitigation.

3. Protect the conservation lease investment.

BLM needs to avoid the situation where it authorizes activities and uses that undermine the investments made by a conservation lessee under an active lease or after the lease has terminated. The rule therefore needs to address how it resolves conflicts between conservation leases and the impacts and needs of other authorized uses and prevents the benefits accrued from lease activities from being negated by future authorizations or administrative activities. The BLM should clarify that current and future discretionary authorizations such as permitted livestock grazing may be modified, suspended or canceled if they impede or jeopardize conservation gains.

4. Impose additional requirements and conditions for mitigation leases.

a. Require compliance with the Universal Principles of Compensatory Mitigation (UPCM)

Any conservation lease application and proposal for compensatory mitigation purposes must adhere to the UPCM as outlined in Section 5 (C). Additionality and Durability are key components that require additional consideration. As explained earlier, compensatory mitigation is only appropriate for restoration projects

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<sup>53</sup> Calculated in 2020 from data available through the USGS Land Treatment Digital Library.

<sup>54</sup> Doherty, K., Theobald, D.M., Bradford, J.B., Wiechman, L.A., Bedrosian, G., Boyd, C.S., Cahill, M., Coates, P.S., Creutzburg, M.K., Crist, M.R., Finn, S.P., Kumar, A.V., Littlefield, C.E., Maestas, J.D., Prentice, K.L., Prochazka, B.G., Remington, T.E., Sparklin, W.D., Tull, J.C., Wurtzebach, Z. & Zeller, K.A. (2022). A sagebrush conservation design to proactively restore America's sagebrush biome: *U.S. Geological Survey Open-File Report 2022-1081*. <https://doi.org/10.3133/ofr20221081>

<sup>55</sup> Allison, Linda J. and M. ad McLuckie. Population trends in Mojave desert tortoises (*Gopherus agassizii*). 2018. In *Herpetological Conservation and Biology* 13(2):433–452. [https://www.fws.gov/sites/default/files/documents/Allison%20and%20McLuckie.2018.Popln%20trends%20in%20MDT\\_0.pdf](https://www.fws.gov/sites/default/files/documents/Allison%20and%20McLuckie.2018.Popln%20trends%20in%20MDT_0.pdf).

<sup>56</sup> Coates, P.S., Prochazka, B.G., O'Donnell, M.S., Aldridge, C.L., Edmunds, D.R., Monroe, A.P., Ricca, M.A., Wann, G.T., Hanser, S.E., Wiechman, L.A., and Chenaille, M.P., 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, 243 p., <https://doi.org/10.3133/ofr20201154>.

<sup>57</sup> Rulemaking Petition to List the Pygmy Rabbit (*Brachylagus idahoensis*) under the Endangered Species Act as an Endangered or Threatened Species and to Concurrently Designate Critical Habitat. Available on US Fish and Wildlife's Webpage at <https://ecos.fws.gov/ecp/species/1126>.

<sup>58</sup> Petition to List the Pinyon Jay (*Gymnorhinus cyanocephalus*) as E or T under the ESA. Available on US Fish and Wildlife's Webpage at <https://ecos.fws.gov/ecp/species/9420>.

that go above and beyond existing statutory requirements and authorities. Livestock grazing management changes for allotments that are not meeting land health standards would not qualify. Similarly, projects to remove invasive species do not qualify. Further, for compensatory mitigation that is intended to offset permanent or functionally permanent impact, durability cannot be achieved absent Congressional action to permanently withdraw the area from mineral leasing and livestock grazing. RMP direction is insufficient to achieve permanent protections and safeguard against the loss of conversation gains.

- b. Require compensatory mitigation to have an ecological nexus to the impact being mitigated

The rule does not require that conservation leasing, when authorized as part of compensatory mitigation, have an ecological nexus to the impacts for which the lease is mitigating.<sup>59</sup> It also does not require that conservation leasing activities be sited where BLM has identified a need – for instance, in restoration priority areas. To rectify this, we recommend that conservation leases authorized for mitigation should be sited in identified priority areas for restoration. They should also be sited so that there is an ecological nexus between the impacts incurred and the proposed mitigation.

- c. Require 3<sup>rd</sup> party annual monitoring and certification of mitigation-derived conservation leases.

Mitigation-derived conservation leases are designed to compensate for adverse impacts incurred by an authorized activity. As such, it is important that lessees are held to strict monitoring and reporting requirements to assure that the mitigation activities are happening as prescribed and that the mitigation standards are being met. The rule calls for reviewing mitigation leases for consistency with its provisions every five years. We think that this timeframe is too long as much can happen (or not) within five years. Further, to assure objectivity in the review, we recommend that the rule call for 3<sup>rd</sup> party monitoring of the lease provisions and that the monitoring results are shared in real time online (for instance, on e-planning).

Further, in order to comply with Advance Mitigation principle, the BLM should engage a 3<sup>rd</sup> party to certify that restoration has occurred and is durable before any compensatory mitigation credits can be issued.

## 5. Integrate specific requirements and constraints into the conservation leasing process.

BLM should integrate more specific requirements and constraints into the conservation leasing process to increase assurances that conservation lessees are qualified to engage in conservation and restoration activities, that the public can follow the leasing process and progress once leases are issued, and that activities authorized under conservation leases are appropriate.

- a. Define qualified applicant.

The rule states that “Authorized officers may issue conservation leases to any qualified individual, business, non-governmental organization, or Tribal government” but fails to define *qualified*. Given the potential scope and magnitude of the effects of conservation leases, it is imperative that BLM does not hand over the proverbial keys to the kingdom to an entity that is not qualified to carry out scientifically rigorous

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<sup>59</sup> A basic tenet of mitigation is that there should be an ecological nexus between the impacts and the mitigation. This principle for instance is reflected in Chapter 1.1.B.1 and Chapter 3.3 of BLM H-1794-1.

conservation and restoration activities. Hence, BLM should define qualified using criteria (e.g., proven track record in conservation and restoration; qualifications of project personnel; financial and logistical means to implement lease provisions, history of performance on federal contracts, leases or permits). We believe conservation leasing has the potential to contribute to rural economic development through fueling a restoration industry. Hence, the criteria should not present undue barriers to entry while still assuring a demonstrated level of competence and security.

- b. Require annual status reports and make them accessible online to the public along with the conservation lease.

Conservation leasing is a novel program and thus would benefit from maximum transparency and regular reporting. Lessees therefore should be required to report on their progress under the conservation lease at least annually and those reports should be posted online annually along with the conservation lease agreement and monitoring information.

- c. Identify appropriate and inappropriate activities for conservation leasing.

The Rule should give examples of valid activities under a conservation lease to communicate that an array of activities from monitoring to ground disturbance could qualify for a conservation lease and are consistent with the definitions of conservation and restoration. Include voluntary grazing permit retirements, species monitoring, native species translocations, collection and growing out of local native seed, and natural recovery with monitoring.

- The rule should also specify specific activities that are impermissible under a conservation lease including (but not necessarily limited to):
- Construction of permanent roads or motorized public travelways, or redesignation of non-motorized or administrative travelways as motorized public travelways;
- Revegetation with plant material that is not source-identified and native;
- Activities that are not consistent with SER Standards; and
- Activities that would diminish inventoried wilderness characteristics.

- d. Establish processes for public participation

In the case of conservation leasing, an application for a conservation lease must be filed with the applicable BLM management area (§6102.4(a)(5)(b)(1)) and approval is proposed to be “solely at the discretion of the authorized officer” (§6102.4(c)(4)(d)). Each lease shall be reviewed mid-term for consistency with the lease provisions ; (§6102.4(a)(3)(i)). Land health assessments, and determinations must be made as decisions about restoration and conservation actions are undertaken (§61023.1).

The proposed rule fails to address or encourage public participation in providing high-quality information regarding restoration and conservation actions and yet this is critically important in light of multiple commitments to agency assessment and monitoring amid limited agency budgets. The public should have ready access to information regarding all these processes, and managers should be required to respond when the public submits objective, documented information relevant to decision-making regarding conservation lease issuance as well as assessment of outcomes of restoration activities and conservation leases. This will require a commitment to maintain information on restoration and conservation lease processes online to avoid requiring reliance by the public on the FOIA; and to retain all objective, documented information

submitted by the public in the files of the relevant project. Without these provisions, the public might have to watch resource degradation occur unattended and unmonitored by a budget- or staff-depleted BLM.

e. NEPA

The conservation rule is silent as to whether conservation leases will be issued under Categorical Exclusion and thus exempt from public review. We request that BLM include a notice and comment provision on all conservation leases. As conservation leases can be issued for land restoration, enhancement and mitigation actions “. . . solely at the discretion of the authorized officer” (§6102.4(d); and may be issued for ten-year periods (§6102.4(a)(3)(i) and (iii)), it is essential that the BLM indicate which types of proposed conservation lease actions will be subject to public input under NEPA (i.e., an EA or EIS), and which under a Categorical Exclusion.

At a minimum, any proposed leases that involve other than incidental land disturbance, e.g., use of non-native plant or animal species, or potential adverse impact on sensitive species habitat should require at least an EA to determine if there would be no significant adverse impact. What is “land enhancement”, “restoration” or “mitigation” in the eyes or goals of a given authorized officer or applicant may be recognized by others as problematic for particular ecological processes, ecosystem services, or habitats for particular sensitive species based on scientific research, documentation, or observation. Such impacts may not be known, perceived, or of concern to the particular authorized officer or permittee, but may rise to the level of a potentially significant impact under NEPA and legitimate public concern based on relevant evidence and best available science. It is critical that processes exist by which members of the public who have evidence that adverse impacts may accompany a proposed conservation lease can provide this information and challenge approval via Categorical Exclusion.

*B. Wilderness and Conservation Leasing*

Conservation leases, as envisioned by the proposed rule, are not compatible with Wilderness. The conservation lease system would charge fair market value and one logically infers it is part of a commercial enterprise, in conflict with section 4(c) of the Wilderness Act which prohibits commercial enterprise.

Similarly, mitigation is a main focus throughout the proposed rule and its background. The anticipated mitigation would be for commercial enterprises that affect public land. Since Wilderness is already statutorily protected, having conservation leases in Wilderness as mitigation would detract from rather than increase conservation on public lands. Indeed, it is hard to imagine what kind of additional protections in Wilderness would result from conservation leasing. At best, it would allow existing protected landscapes to be claimed as mitigation for new development proposals, which is a net loss for conservation. At worst, it would allow destructive manipulation in Wilderness while also allowing new development proposals, doubling the loss for conservation.

In lieu of allowing conservation leases in Wilderness, there should be a mechanism within the final rule for the permanent retirement of grazing permits in Wilderness and other sensitive areas. Additionally, the final rule could include direction to prioritize the removal of fences or other infrastructure or restoration of an impacted campsite as long as these actions are carried out in a wilderness compatible way (no motors or mechanization).

*C. The Rule Should Expressly Prohibit the Use of Conservation Leases to Generate Carbon Offset Credits*

The rule should expressly prohibit conservation leases to generate carbon offset credits. We are concerned that the proposed rule creates mechanisms that may be used to expand the leasing of public lands for

conservation and mitigation purposes, specifically generating carbon offsets markets on BLM lands without full legal and environmental analysis. We believe that offset projects on federal lands need to be approved through federal legislative or specific regulatory rulemaking process and subject to a full NEPA analysis.

Offsets generated on BLM lands would have ownership issues. One principle of carbon offsets is that no parties other than the registered project developer must be able to claim ownership of the GHG reductions. We believe that these ownership claims would be impossible to make for offsets on federal lands under current federal law and regulations.

We also question whether offsets generated on BLM lands can be real, additional, permanent, and verifiable. One problem with carbon offsets on BLM lands is that BLM should already be managing these lands for conservation purposes if they are not being used for grazing or resource extraction, such as mining. The problems of additionality would be significant on the land management by BLM. If BLM decides to allow the generation of carbon credits on the lands it manages, BLM must first propose a separate rulemaking that specifically addresses the legal, environmental and compliance issues associated with the offset program it is proposing.

We strongly urge BLM to prohibit the use of carbon offsets on BLM lands. In addition to the specific issues that would be associated with carbon offsets on BLM lands, the general problems with using carbon offsets to achieve greenhouse gas emissions and net zero emissions are well-documented. Carbon offset programs allow utilities, fossil fuel companies, and other polluters to purchase credits that “count” as emission reductions, instead of actually reducing and eliminating their emissions. This could result in the federal government greenlighting additional fossil fuel and resource extraction projects generated on public lands leased by third parties and BLM managing third party mitigation banks that are held on public lands to “offset” the emissions from these projects. Incentivizing expansion of oil and gas development on public land through offsets will do nothing to address climate change, increase air, and water pollution.

We recommend that BLM prevent public subsidies from supporting the development of carbon offsets, carbon markets, bioenergy, and grazing operations.

## **7. Land Health Standards, Data and Monitoring**

We generally support applying land health standards and guidelines to ensure ecosystem resilience across all BLM lands and program areas. However, we have questions about how this will be applied to certain activities and note that the current system for ensuring that the fundamentals of land health are met for grazing is failing and has been doing so for decades.

Land health standards currently have a domestic livestock use focus. Standards and guidelines developed with a focus on livestock grazing and forage may not translate well to other BLM activities. To expand these assessments over all BLM lands and activities, we assume new standards will need to be developed that reflect the rule’s conservation focus. Measures addressing biodiversity, intact landscapes, habitat connectivity, and climate change will need to be added as they are conspicuously absent from the current grazing-focused standards and guidelines.

For example, landscape fragmentation is not currently a consideration when devising or revising BLM Travel Management Plans, rights of way projects, or range improvement projects. Fences frequently restrict wildlife movement, block preferred migration routes, and cause direct mortality. The effect of non-native species on reducing biodiversity is not accounted for in current standards. In fact, non-native species are acceptable if they appear to contribute to one or another ecological functions. For example, Properly Functioning Condition standards are only concerned with whether streambanks are stable or not. It does not matter whether they are stabilized by exotic tamarisk, highly invasive reed canary grass, or native willow, because the long-term effects of non-native species on biodiversity and other ecosystem processes are disregarded.

We are also not sure what landscape health means in relation to some BLM activities, especially those related to mineral development. Is the vision that the open pit gold mines in Nevada, the Jonah Field in Wyoming, or large solar farms in the Mojave can be made to support landscape health? Or is the vision that the negative impacts to land health and intact landscapes can somehow be measured and then mitigated?

A. Issues with the current application of land health standards and recommendations for the proposed rule

Unfortunately, BLM's Land Health Standards (LHS) program has not resulted in effective management for the health of lands used for commercial livestock grazing on BLM lands. Without changes to how the program operates, these failures will grow worse if the proposed rule is finalized without addressing the underlying causes of these failures.

BLM's own data point to a shocking failure to assess lands for their health. BLM data collected by Public Employees for Environmental Responsibility (PEER) [Rangeland Health And BLM Grazing Programs Findings Factsheet Mapping The Range](#) show that 41 million acres of the 155 million acres of rangeland have not yet even been assessed. BLM does not prioritize monitoring, so it is difficult to support expanding a program when it currently does not do the minimum of collecting allotment-level data on livestock use..

In those places where BLM does collect the data, it is often failing to manage the lands. BLM data show us that 50 percent of the lands assessed by BLM, or 54 million acres, do not meet BLM's land health standards.

Notable findings in BLM's Land Health data:

- Of the total acres assessed, BLM reports that 50% failed to meet land health standards. That is 54,000,000 acres – about the area of Washington state.
- Of the lands that failed to meet LHS, BLM reported that in 72% of cases, “a significant cause” was livestock grazing. That is approximately 40,000,000 acres that are failing to meet standards due to overgrazing.
- A portion of the assessed lands that are classified as “meeting” standards are actually only “making significant progress” toward meeting the standards, not actually meeting them.
- There are massive individual allotments –some over 1,000,000 acres--that lack assessment.

Currently, BLM monitors land health standards based on available staff and budget. In addition, BLM fails to complete Environmental Assessments on renewals of grazing permits. Instead, the agency relies on a legislative “rider” that allows BLM to reauthorize the 10-year grazing permits without making any changes in the permit conditions, pending completion of an analysis of the National Environmental Protection Act (NEPA). BLM uses this rider to justify not conducting Environmental Assessments under NEPA on grazing allotments, often citing staffing shortages, despite evidence that overgrazing is the major cause of failing land health on BLM lands. For example, an analysis of BLM data from 2021 by the Western Watersheds Project found that 54% of grazing allotments were renewed under this “rider.” There are ten-year grazing permits on BLM allotments that have gone through two renewals (that is 20 years) without BLM assessments of the land's health.

A close look at BLM's current land health data reveals other serious problems and inconsistencies. In assembling the BLM data, we noticed that there are outliers in the data that indicate issues are not being addressed. This is the ideal opportunity for the BLM to step in and analyze the situation. For instance, we see several cases in Utah and Wyoming of one allotment in an ecoregion that is classified as meeting standards, yet it is surrounded by tens of thousands of acres that are not meeting standards. We see field offices in Nevada differ completely in their application of land health standards from an adjoining field office. New Mexico reports more grazing allotments meeting land health standards at a much higher rate

than expected when compared to surrounding states in similar ecosystems and we have seen a very different type of supporting documentation.

We urge that the final rule include the following revisions to help ensure that land health standards are met on a timely basis. These suggested revisions are drawn from extensive experience with land health standards in the context of livestock grazing. One important way this rule can begin to address these failures and head off future failures is by changing performance mechanisms and certain definitions to ensure meaningful progress towards land health standards are being made.

1. *Ensure consistent methodology, and adequate standards and guidelines are applied across field offices.*

The proposed rule appears to allow land health standards and guidelines to differ across field offices through revisions to the land use plans even when the habitat may be the same. The draft rule states:

- (2) Authorized officers must review land health standards and guidelines during the land use planning process and develop new or revise existing land health standards and guidelines as necessary for all lands and program areas to ensure the standards and guidelines serve as appropriate measures for the fundamentals of land health.

This potentially uneven application of methodology, standards and guidelines could result in weaker standards in certain offices.

Further, the BLM at times sets inadequate and scientifically unjustified standards and guidelines for qualification as meeting land health. For example, the standards BLM set for grazing in the Sonoran Desert National Monument are inadequate and unsupported by science.<sup>60</sup> The BLM first failed to make a formal determination as to whether livestock grazing furthers the primary purposes of the monument and reversed their 2007 determination that grazing was incompatible with the monument purposes. The BLM then posited an unscientific methodology and set inappropriately low standards for meeting land health. For example, the BLM's methodology provides an incredibly low bar for the achievement of environmental standards on the SDNM for Standard 3, "productive and diverse upland and riparian-wetland communities of native species exist and are maintained."

Specifically,

An ecological site within an allotment achieves Standard 3 if the majority, greater than 50 percent, of the plots representing the ecological site are achieving DPC objectives. A plot representing an ecological site achieves Standard 3 if more than 50 percent of the DPC objectives are achieved. (LHE pg. 34).

Using such a low bar (51%) as a cutoff to a passing grade does not assure the health of Monument objects—half non-intact vegetation communities do not represent healthy, functioning desert ecosystems.

In its decision, the BLM claims, without scientific support:

When Standards are achieved on plots that represent specific monument objects, the health of those objects are assured. For example, if the Standards are being achieved within the vegetation communities of the SDNM, livestock grazing would be compatible with the

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<sup>60</sup> [CBD\\_SDNM RMP Protest\\_2021.pdf](#)

monument objects those vegetation communities represent (functioning desert ecosystem, diversity of plant species, saguaro nurse plant, creosote-bursage, palo verde-mixed cactus, and wash communities, and wildlife habitat)

Additionally, deciding whether a grazing allotment meets land health standards or not during the Evaluation phase is inconsistent between management units. For example, the Evaluation process on Grand Staircase-Escalante National Monument was created in-house. Sites were rated by the Interpreting Indicators of Rangeland Health method according to the degree of departure from a reference condition. Ratings of 1 or 2 indicate high degrees of departure, and those sites failed Standards. Ratings of 4 or 5 indicate low degrees of departure from a reference condition, and those sites passed Standards. Ratings of 3 were considered Functioning At Risk. They were moderately healthy but at a tipping point where, without a change, conditions could decline to a 1 or a 2. After much discussion with staff, these sites were counted as meeting Standards, which in practice meant no change was implemented. Attempts to improve land health conditions were focused on the sites not meeting Standards. (This is a poor strategy. The sites that are only moderately departed from reference conditions often require smaller expenditures of resources to improve than the sites that aren't meeting Standards. But the latter draw all the management attention and resources. Efforts in sites rated 1 or 2 are less likely to succeed and, even if they do, the price per acre of restoration effort is much higher.)

In addition, the Evaluation process changed midway through. The initial procedure required that a grazing allotment be Evaluated as not meeting Standards if even one of its land health assessment sites was found to be not meeting Standards. That resulted in so many allotments not meeting Standards that the State Office required a change in the procedure so more allotments could be Evaluated as meeting Standards. This kind of manipulation reduces the utility of these land health Evaluations as a credible source of information for the management proposed by this rule.

Further, since the Evaluation process is not standardized, an allotment Evaluated with one field office's method could be meeting Standards while the same allotment Evaluated with another field office's method could be failing to meet Standards. Letting states decide what meets Standards for themselves may result in inconsistent and, especially on GSENM and the SDNM described above, inadequate protections. The proposed rule is heavily dependent on accurate LHA to prioritize and manage conservation actions. Therefore, it is imperative that BLM standardize this process across management units.

We therefore urge the final rule to require the development of consistent methodology, and adequate standards and guidelines that are appropriate for particular permitted uses, to be applied across field offices for implementing land health standards and guidelines.

## *2. Require establishment of benchmarks based on ecological reference conditions.*

The BLM's Handbook for Rangeland Health Standards states that "The purpose of the standards and guidelines are [sic] to provide a measure (Standard) to determine land health, and methods (guidelines) to improve the health of the public rangelands. **Success will be measured in concrete outcomes on the lands we manage.**"<sup>61</sup> (emphasis added).

Current rangeland health standards allow for lands that are making "significant progress" to be counted in meeting land health standards. The draft rule similarly includes making significant progress a measure of meeting land health standards. However, the BLM has never defined "significant progress" in a meaningful way. The Rangeland Health Standards handbook defines significant progress as: "Movement toward meeting standards and conforming to guidelines that is acceptable in terms of rate and magnitude.

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<sup>61</sup> Department of Interior Bureau of Land Management H-4180-1 Rangeland Health Standards. 1/19/2001.



Acceptable levels of rate and magnitude must be realistic in terms of the capability of the resource, but must also be as expeditious and effective as practical.”

To date, without a quantitative, independently verifiable, definition of what constitutes significant progress, an appropriate benchmark against which to measure progress and specific timeframes to measure and attain progress, millions of acres of BLM lands remain impaired and fail to meet land health standards and will continue to do so.

The rule begins to address this issue by calling for “measurable” progress towards attainment of land health standards in the context of Restoration Planning at § 6102.3–2. Requiring measurable progress is good, but *measurable* may or may not constitute *significant* progress. The rule also states that “indicator values can be compared to benchmark values to help evaluate land health standards.”<sup>62</sup> Similarly, the inclusion of benchmarks is not sufficient without defining what they are based on.

We recommend that benchmark values be required and that those benchmarks should be based on reference conditions that reflect the recovery goals. Establishing reference conditions, as discussed earlier in this comment letter, is a foundational concept for any strategy to maintain and restore ecosystem functionality and integrity. Measuring against the recovery standard will keep action focused on that goal, rather than merely incrementally improving over already degraded conditions. BLM should develop a crosswalk between ecological site conditions and setting the 5- and 10-year benchmarks. Benchmarks should be established based on the desire to attain recovery goals as expeditiously as possible with consideration of site potential. The final rule should require authorized uses that impede attainment of benchmarks to be modified, suspended or canceled.

We also recommend that benchmarks be set at five- and ten-year intervals after implementation of corrective actions. These timeframes and appropriate benchmark setting should allow for meaningful action to be taken and progress achieved, hopefully breaking the cycle of nonattainment and inaction that has plagued achievement of fundamentals of land health to date for tens of millions of acres under grazing management.

These benchmarks allow ample time for achievement of land health standards. If after 10 years, the corrective actions are not resulting in the achievement of land health standards, the authorized office should be allowed and directed to suspend or cancel the authorized use. Allowing for corrective action in the form of suspended or canceled authorization provides needed incentive for meaningful changes on the ground.

3. *Require a timeframe for determining the causal factors and for taking appropriate action.*

The rule requires authorized officers to determine the causal factors if resource conditions are determined to not be meeting land health standards. The draft rule requires identification of causal factors no later than within a year of the land health assessment that identified nonattainment. The concern we have is that the draft rule also allows for authorized officers to merely “make progress toward determining the causal factors for nonachievement.” As discussed above, making progress towards a goal is wholly subjective and does not guarantee that real progress is being made. Absent a required timeline to determine causal factors, the state of nonattainment could go on for years while “progress” is being determined.

Further, while the language requires the authorized officer to take appropriate action, the draft does not require a specific timeframe for such action to be taken. The final rule should require that appropriate action be taken no later than one year after causal factors are determined. Absent a required timeframe, land degradation will worsen, making it even more difficult to meet land health standards.

4. *Strike significant causal factors in determining nonattainment of land health standards.*

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<sup>62</sup> 88 Fed. Reg. 19604

Like the current grazing regulations, the draft rule allows for existing management practices or levels on public lands to be identified as causal factors for nonachievement of standards and guidelines. Significant causal factors are defined in BLM's Rangeland Health Standards and appropriately allow that "a use may be one of several causal factors contributing to less-than-healthy conditions; it need not be the sole causal factor inhibiting progress towards the standards." However, given that the rule will apply rangeland health standards across all BLM programs and activities, BLM should guard against evaluations that do not properly attribute nonattainment to causal factors given the multitude of activities that will now be assessed and evaluated. In other words, BLM should guard against assessments that conclude that a range of factors are causing nonattainment and only those deemed "significant" result in meaningful changes to existing management practices or levels of activity. Skeptics have commented that applying the fundamentals of land health standards to all BLM programs and activities could result in taking attention off the ongoing and significant degradation to lands and waters caused by the grazing program. Notwithstanding how "significant" causal factors is defined in BLM's Rangeland Health Standards, we recommend the draft rule strike the word "significant" from § 6103.1-2 , (e)(1).

5. *Appropriate action should include temporary changes in authorized use.*

If an authorized officer identifies a current land use or level of activity as contributing to nonachievement of land health standards, the authorized officer must be directed to allow for temporary changes in that authorized use to facilitate meeting of land health standards. We recommend the final rule include language provided in 43 CFR§ 4130.4, Authorization of temporary changes in grazing use within the terms and conditions of permits and leases, including temporary nonuse. This provision is an example of the kind of appropriate corrective actions that an authorized officer can take. BLM should promulgate similar allowed temporary changes in authorized use for other uses.

6. *Standardize the Evaluation process across the agency to ensure that the same procedure is used to determine whether allotments are meeting land health standards or not.*

Each state's Evaluation procedures needs to be reviewed and approved by BLM's Washington Office with input from specialists in these kinds of assessments. This is necessary to allow BLM to understand the degree to which public lands are meeting land health standards across management units and states. Currently, each management unit devises its own Evaluation criteria, which makes it impossible to aggregate Meeting vs Not Meeting categories. More oversight is needed here.

### ***Recommendations***

Based on the discussion above we suggest the following revisions to § 6103.1-2 Land health assessments, evaluations, and determinations:

§ 6103.2.

(2) Use multiple lines of evidence. Indicator values can be compared to benchmark values to help evaluate **achievement of** land health standards. Attainment or nonattainment of a benchmark for one indicator can be considered as one line of evidence used in the assessment and evaluation.

**Benchmark values must be based on reference conditions.**

(d) If resource conditions are determined to not be meeting, or making progress toward meeting, land health standards, authorized officers must determine the causal factors responsible for nonachievement, as soon as practicable, **but not more than one year after assessment of nonachievement.**

(e) Authorized officers must ~~make progress toward~~ **determine** the causal factors for nonachievement as soon as practicable but not later than within a year of the land health assessment identifying the nonachievement.

(1) Upon determining that existing management practices or levels of use on public lands are ~~significant~~ **causal** factors in the nonachievement of the standards and guidelines, authorized officers must take appropriate action as soon as practicable, **but not more than one year after determination of causal factors.**

(2) Taking appropriate action means implementing actions, consistent with applicable law and the terms and conditions of existing authorizations, that will result in significant progress toward fulfillment of the standards and significant progress toward compliance with the guidelines. **Appropriate action can include authorization of temporary changes in authorized use within the terms and conditions of permits and leases, including temporary nonuse.**

(3) **Appropriate action must include quantifiable benchmarks. Benchmarks must be set relative to a recovered condition that are derived from reference conditions. Benchmarks should be set at five- and ten-year intervals after implementation of corrective actions and should be established based on the desire to attain recovery goals as expeditiously as possible with consideration of site potential. Authorized uses that impede attainment of benchmarks shall be modified, suspended or canceled. Achievement of benchmarks is the indicator of significant progress.**

(4) **If after ten years the corrective actions are not resulting in the achievement of land health standards, the authorized office may suspend or cancel the authorized use.**

(5) Relevant practices and activities may include but ~~must are~~ not be limited to the establishment of terms and conditions for permits, leases, and other use authorizations ~~and land enhancement activities.~~

**We recommend that the final rule strengthen the Land Health Standards section by also including the following:**

1. Accountability measures
  - a. Review public lands to assess if they are achieving Land Health Standard every five years.
  - b. Local managers should be required to provide a response within 30 days to objective documentation by any interested party of evidence of a discrepancy between assessed land health and conditions on the ground. The response must indicate corrective action that will be taken, or explain why no responsive action is warranted. a violation of LHS.
2. Create an LHS Team at Headquarters who are “authorized officers” which will:
  - a. Fast-track and review all allotments that have not been reviewed for LHS in the last ten years. BLM can support field staff and address the backlog by moving some of the work to a Headquarters LHS Team.
  - b. Prioritize the fast-track review for allotments that have known impacts to biodiversity resources. BLM can prioritize management of allotments in sage-grouse habitat and those with threatened, candidate, or endangered species.
  - c. Review data and investigate consider outliers in LHS assessments. and investigate.
  - d. Spot check regional LHS decisions and supporting data.
3. Create a transparent system for LHS review:

- a. Place LHS data in a centralized public database like the RAS and AIM data.
- b. An independent agency, like USGS, should be funded to regularly audit BLM LHS compliance.
- c. Expand on the definition of “Authorized Officer.” On each field office’s web page, clearly label the individuals who are Authorized Officers and list their contact information.

## B. BLM Needs to Improve Data Quality Issues

We are concerned about the quality of the data that is increasingly being used to evaluate Land Health Standards. In the proposed rule, remarkably, the suite of methods, sampling design, data collection and integration, and how these data will be used apparently still have yet to be developed. What we know is the planned use of Assessment, Inventory, and Monitoring (AIM) plots and Rangeland Analysis Platform (RAP or remote imagery) data. But how these data will actually be used is unclear. We urge the agency to reconcile the issues that we point out below before moving forward.

The proposed rule states; “In implementing the fundamentals of land health, the proposed rule codifies the need across BLM programs to use high-quality information to prepare land health assessments and evaluations and make determinations about land health condition.”

RAP and AIM are both wonderful tools that can supplement allotment-level field work. We appreciate how the data can be centralized and accessible to all levels of BLM staff and the public. However, BLM has started using almost solely satellite data to assess massive swaths of land. For example, BLM evaluated 1,372 livestock permits for renewal on over a million acres of public land in Montana, based upon satellite-generated RAP data and some AIM plot points in one “Broad Scale Report.” At least 100 of those permits have been renewed based on that report. Since BLM has indicated in the slide and at Sec.6103.2 that to implement the Rule, it will increasingly be relying on RAP and AIM, it is essential that the data be as ground-checked as possible.

### *1. Sec. 6103.2 Assessment, Inventory and Monitoring Data*

The goal of [AIM](#) is to provide standardized monitoring and assessments of resource conditions and trends of BLM lands. The program is made up of a set of plot points randomized across the country on land and some in riparian areas. The program has AIM crews that go into the field and gather monitoring data which is centralized. As AIM is relatively new, the AIM crews are often siloed in their work and rarely work with the range staff, so we commend BLM for integrating this work into Land Health Standards. Until recently, we rarely saw the AIM data used by the range staff in allotment renewals or AIM data mentioned about land health.

AIM is cited in the draft rule as an information source for determining if rangeland health standards are being met. There are some important caveats to keep in mind, however, in using these data for that purpose. Assessing the land health of an evaluation site requires knowing what its reference condition is. Ideally, an area in the same ecological site that has not been affected by human impacts is available for comparison. This is rarely the case, however, so the ID team often must rely on Ecological Site Descriptions, if they are available. If not, teams must create their own reference benchmarks. Some of us have been on many rangeland health assessment ID teams, and know that developing these benchmarks is complicated. Often the appropriate data are not available. AIM data are not always collected on sites in a reference condition, so a direct comparison can’t be made between AIM data and site potential. Some AIM researchers recommend using ecological functionality rather than reference condition to assess land health (Kachergis et al. 2008 p. 12), but this degree of knowledge is not always available at the field office level. It also sets a lower, vague

standard for meeting land health conditions. In addition, this method is somewhat less standardized across evaluation sites than might be desired. Since the benchmark descriptions are created *ad hoc* for each site using variable information sources, there will be variation in the benchmarks across management units even for the same ecological site.

The gold standard of reference sites is a multi-year grazing enclosure. This is the best way to show site potential for land health evaluations. People are vulnerable to a shifting baseline syndrome in which the current state of the land is seen as normal (i.e., “normalized degradation”), and we have seen perspectives shift dramatically when an ungrazed enclosure shows what the potential is. Enclosures are also invaluable as controls to determine the effectiveness of management activities. Since land health determinations are a foundational component of this proposed rule, we urge BLM to install enclosures in all allotments. Ideally there would be one in each major ecological site, but the most important areas are those characterized by heavily-used vegetation types (e.g., sagebrush-grassland and salt desert shrub communities). We are available to help BLM install these structures and collect data as needed.

It is important to note that the ID team making the land health evaluation and determination are not always involved in the AIM data collection. Because field teams do not necessarily record data on cattle impacts such as trampling or forage production, it is harder for the ID team to decide whether a failure to meet standards is due to livestock management. If AIM data will be used as an information source for land health assessments, livestock impacts should be added as core indicators. We recommend collecting data on trampling, percent utilization of plants, and streambank destabilization and browse in riparian sites.

AIM has made noteworthy progress since its inception in 2011 which we applaud. In BLM AIM data from 2021 we see that there are approximately 35,000 terrestrial or upland plot points, 2,794 stream and rivers plot points and 131 wetland or riparian plot points. Considering that BLM manages 245 million acres of land in 21,000 grazing allotments, and at least 121 million acres of commercially grazed land this is hardly sufficient for making small scale/allotment level analysis. As the AIM plots are located randomly, they are not necessarily located at sites actually used by livestock.

The number and distribution of AIM plots differs dramatically between states. For example, Nevada has a much higher density of plots than does neighboring Utah. In addition, many allotments lack even a single AIM sample plot. The AIM program was intended to track broad regional trends in conditions, (but not causes of changing conditions over time) rather than to inform local management of lands at pasture and allotment permit scales. In response to the Sage Grouse plan there are more plot points in states with sage grouse habitat. We recommend that more plots be added so that all lands are equally represented.

The AIM statistical sampling design underrepresents areas that are the most susceptible to disturbance impacts. Since AIM plots are set in randomized locations, we recommend extra AIM teams for additional plots in focal areas. We recommend AIM plots be added around known disturbance areas like livestock tanks, fences, fuel breaks, and to show riparian use. Considering that biodiversity is often focused around wetlands and riparian areas, without far more plot points and evaluation of these critical areas in relation to known livestock and recreational use the data are not representative and not necessarily useful.

We encourage BLM to expand the use of AIM data, but it is essential to make sure the data are as complete and useful as possible.

## 2. *Sec. 6103.2 Rangeland Analysis Platform data*

BLM's [Rangeland Analysis Platform](#) (RAP) uses remote sensing technology for these assessments. It is supplemented with minimal field work and includes some AIM plot points.

One issue that we have recently seen is the "double counting" of AIM plot points. That is, RAP uses the plot points in its algorithm. Then later when BLM is using the RAP data to analyze range conditions, they will state that they are also using field data. We have seen that the only data BLM is referring to is AIM data, the same plot points as the RAP. This requires better coordination between USGS and BLM for its use..

In meetings with us, BLM has stated that RAP is useful for analysis at the ecosystem level, yet it is being used at the allotment level to tier categorical exclusions for commercial livestock grazing permit renewals. The RAP output is simply too coarse and the accuracy of the sub-pixel vegetation cover discrimination just too low for practical use to identify causes of disturbance at the pasture and allotment management scale. This screen shot is of a heavily grazed area with both livestock trails and several dirt tracks, revealing that the RAP data are too coarse to even identify dirt roads, let alone livestock impacts, two types of disturbance common in lands managed for grazing on both public and private rangelands in the West. We also question whether it can be used for prioritizing watersheds --a further fine scale land health assessment that the agency may be considering as it evaluates lands for conservation.

It is important to note that RAP does not distinguish between native and non-native grasses when analyzing cover. So, the cover may appear to be increasing over time and the agency may state that the land is recovering, when in the field, we are seeing a non-native cheatgrass invasion that indicates declining health, or the spread of the rhizomatous smooth brome, which indicates the exclusion of diverse species. We recommend that the annual grasses and cover markers in RAP not be used to assess land health but instead that BLM use perennial shrubs as an indicator of health. Moreover, native and non-native forbs, relevant both to native biodiversity in general and to pollinators in particular, are not identified by RAP. Pollinators, a foundation of ecosystem function, are in steep decline globally and locally.

See the BLM report linked [here](#) in which experts state that RAP is no substitute for targeted fieldwork and may oversimplify ecological changes and result in systematic failures to recognize deteriorating conditions.

For RAP data to be suitable for purposes of management, the data must be able to discriminate vegetation cover type percentages with respect to departure from reference conditions and be sensitive enough to detect both degradation and recovery. Livestock grazing impacts need to be discernible.

While remote sensing is a promising tool, it must be used in coordination with and not in place of on-the-ground assessments and determinations. The final rule should specify that qualified professional ID Teams must physically assess landscapes before determinations can be made and that use of remote data is only a complementary tool for that purpose.

We recognize that BLM is working to address many of the monitoring issues. **We applaud the BLM for its latest effort to standardize and centralize LHS data.** However, data is only part of the problem. Because of local politics, conflicts of interests, personalities, history of violent response, and the reality that it is easier for BLM staff to not to make difficult decisions, BLM has not indicated that LHS will be used to make management changes. Before expanding the LHS program, BLM must be committed to working through these issues. We agree that the use of centralized data like AIM and RAP can relieve some of the pressure on field staff but that it is still incumbent on field staff to manage land health.

### ***Recommendations***

We recommend that the final rule strengthen the AIM provision and provide additional direction on its use, including:

1. Increase the number of terrestrial AIM plot points to at least one per 1,000 acres of upland public land,
2. Distribute randomly within riparian areas on a lineal basis and at a higher rate commensurate with the ecological, wildlife, and ecosystem importance of assessing the condition of riparian areas.
3. Distribute them evenly across states on a per-acre basis for upland areas and per/mile basis for riparian areas.;

  - a. Ensure that each plot has a reference condition, including riparian areas.
  - b. Exlosures should be established in all open allotments and all areas where management actions have been taken (e.g., restoration projects);
  - c. Record the cause(s) of disturbance identified at AIM sampling plots as a “core” measurement. [OB] This must be done immediately for all existing AIM plots using high resolution imagery until field determinations can be made, and henceforth for all new sample plots. The fact that the single most frequently-cited cause of disturbance in the agency’s data is livestock, original field data indicators consistent with livestock-caused disturbance and photo-interpretation signs consistent with livestock impacts should be identified as having been caused by livestock until proven otherwise.

4. We recommend that BLM produce an annual report so that the public without GIS skills can see AIM trends.

We recommend the final rule include additional guidance on the application of RAP data including:

1. Correct weighting of AIM plot points;
2. Limit its use to the ecoregion or possibly watershed scale;
3. Eliminating the use of cover as an indication of range health in the RAP as it does not distinguish between native and non-native grass or forb cover, and it does not distinguish between cover and ecological changes enough to record livestock impacts;
4. Ensure that local standardized allotment level data are used when RAP is used.

## **8. Staffing and Accountability**

### **A. BLM Lacks the Capacity to Implement the Proposed Rule**

We believe BLM lacks the staff and resources to implement the proposed rule. Specifically, we are concerned that without a significant addition of resources and the development of staff expertise, BLM will be unable to:

1. Conduct meaningful and scientifically defensible land health assessments;
2. Accurately assess the environmental impacts of land use decisions, including those in the conservation and restoration leases proposed in this rule; and,
3. Adequately engage the public in its decision-making processes.

Therefore, we recommend that BLM conduct a workforce analysis to specifically address the staffing and resource needs to implement this rule and share the information publicly. This will help BLM prioritize the agency’s conservation programs based on those that will deliver the most cost-effective results. Without addressing workforce issues and agency priorities, we are concerned that:

1. Existing programs will suffer;
2. BLM will be unable to provide adequate oversight for the innovative programs in this proposed rule: and,
3. BLM will outsource important government functions to contractors and non-governmental organizations resulting in further capture of BLM by special interest groups that have an interest in obtaining and renewing leases.

Understaffing is already a genuine issue at BLM. From 2003-2020, the agency's workforce has declined by roughly 20 percent. This decline occurred during a time when BLM has seen explosive growth in visitation to agency lands. In the last decade, the number of recreational visits has increased from about 59 million in 2010 to over 81 million visitors in 2022.

In addition, in recent years, agency staff have been increasingly concentrated in occupations that focus on extraction over conservation and on addressing and combating the growing size and intensity of rangeland fires. For BLM to undertake the new work proposed in this rule, BLM will need to prioritize staff positions working to protect land health and biodiversity, and shift assets away from resource extraction staff like fossil fuel leasing and mining.

Staff shortages and resource constraints are affecting staff morale. In 2021, BLM was ranked in the bottom quarter of all federal agencies in the annual Best Places to Work Survey conducted by Office of Personnel Management's Best Places to Work Survey, with BLM respondents identifying work-life balance and agency performance issues as needing improvement.

A staffing analysis for this rule would allow BLM to better address human resource needs raised by this proposed rule, prioritize conservation programs that provide the most value to the taxpayers and the environment, and, if implemented, improve staff morale.

The BLM risks any credibility with regard to this rule without a candid review of the estimated needs and current capacity of the agency to administer the various activities promised in this rule. This review must be undertaken and publicly reviewed prior to adoption of the rule.

## B. Accountability

Unfortunately, the best laid plans and well-meaning regulations are subject to failure if the agency officials tasked with implementation refuse to or are incapable of carrying them out. One need look no further than the failed implementation of the Fundamentals of Rangeland Health adopted into regulation nearly 30 years ago. As we have discussed at length in this letter, the failure of the grazing program to identify and change poor management practices and thus ecological outcomes exists at multiple levels. However, one aspect of this issue that we have not discussed in detail is the simple refusal of BLM managers, especially at the local level, to carry out policies that will have negative impacts on the livelihood of public lands ranchers. We are highly cognizant of the fear that some BLM personnel experience regarding their funding, employment, and personal safety if they advocate for changes to grazing practices. We are also aware of many cases where local managers view themselves as in the employ of local ranchers and grazing permittees rather than federal employees responsible to the American public who actually own the land. Whatever the cause, however, the solution rests with national level BLM officials who need to establish consistent policy and practice within the agency AND support local managers when they are threatened, intimidated or bullied for trying to do their job.



We offer several recommendations<sup>63</sup> which may or may not be considered as a part of this proposed rule, but are essential if the BLM truly wants to realize the goals of restoration and conservation which will otherwise be hollow and nearly wholly unattainable.

### 1. Annual Performance Evaluations

Rather than focus on the accomplishment of administrative tasks, annual performance goals should be based on resource trends and conditions under the general authority and control of the officer. Performance would be tied to how well resource challenges are addressed on the ground and the efforts made to reverse downward trends, rather than inaction that leads to continued stagnation or decline. Even in the face of climate related stressors such as drought that may impact resources, BLM staff can and must control authorized uses such as grazing that adds to those stressors on BLM managed lands and be held accountable if they fail to do so..

### 2. Independent Audits

Independent audits are an essential component of real accountability for BLM management of public lands. Outside auditors with no connection to BLM should be assigned randomly chosen decisions and actions by managers to investigate whether they followed the relevant law, science, and were in the public interest. BLM employees and the public should also be able to anonymously recommend manager decisions and actions that should be audited. Audit reports should be made available to the public through a searchable online database. Audits must be mandatory for all conservation leasing decisions and especially those that will be used for compensatory mitigation.

### 3. NEPA ID Teams

The BLM currently does not have enough sufficiently trained professional staff to conduct proper assessments of public lands and make credible decisions about management changes. The BLM must address this problem first by recognizing that the data and information currently being collected is inadequate and suspect in terms of quality. Until such time as the BLM can hire enough qualified staff in disciplines such as botany, hydrology, soil science, landscape ecology, and climate change, it must look to other agencies for support including USGS.

### 4. Honest NEPA Documents

The BLM currently has a big problem with overpromising in its NEPA documents. This typically includes monitoring schedules that are seldom kept, adaptive management that is seldom adapted, and follow up evaluations and NEPA that lag far behind schedule. This is especially true for livestock grazing authorizations in relation to new RMP direction. In most cases for livestock grazing, any new action in an RMP is delayed until site-specific NEPA occurs. Unfortunately, completion of NEPA for grazing permit renewals is rarely if ever done by most field offices and is usually inadequate if it is. The BLM can hold itself accountable in this regard by imposing interim standards and protections until site-specific NEPA is completed with a presumption that protections will remain unless justified by quantitative analysis backed up by professional judgment.

## **Conclusion**

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<sup>63</sup> These recommendations are largely based on a 2020 letter to Sec. or Interior Haaland from Richard Spotts which is submitted as an attachment.

Through this proposed rulemaking, the BLM has embarked on a long overdue and much needed journey to realize the goals and intentions of FLMPA and our foundational environmental laws. No set of laws can foresee all circumstances and certainly in light of climate change and the biodiversity crisis, there is still a lot of work to be done in Congress to address these issues. However, it is remarkable that we already have laws on the books, created half a century ago, that could have helped stem the tide from some the worst impacts that we now see playing out on public lands, if only they were implemented with honesty, integrity and the will to carry them out.

The proposed rule offered by the BLM is not a bad start but it suffers from several significant flaws and limitations that we have laid out in this letter and that we are sure you are hearing about in other comment letters. The rule also seems blind to the past failures of the BLM to implement policy and regulations that were also intended to change the playing field in recognition of the poor and degraded state of many millions of acres of federal public land managed by the BLM. We sincerely hope that you will take our comments into consideration as you work to finalize this rule and take the necessary steps to fix and strengthen it.

We look forward to following up with you about the concerns we have raised and the suggestions we have made.

Sincerely,

Josh Osher  
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Western Watersheds Project

Sara Husby  
Executive Director  
Great Old Broads for Wilderness

Chandra Rosenthal  
Rocky Mountain Director  
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