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and communities.

## CONSERVATION AND LANDSCAPE HEALTH PROPOSED RULE COMMENTS

July 5, 2023

Secretary Deb Haaland  
Secretary, Department of Interior  
1600 Pennsylvania Avenue NW  
Washington, DC 20500

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

### **Re: Request for Comment on Conservation and Landscape Health, Proposed Rule (Document Number: 2023-06310)**

Dear Secretary Haaland and Director Stone-Manning,

We commend the Bureau of Land Management (BLM) for initiating a plan to strengthen the management of our public lands and prioritize the health and resilience of ecosystems by protecting intact landscapes, restoring degraded habitat, and encouraging sound management decisions based on science and data. The proposed Conservation and Landscape Health Rule is an essential measure for BLM to uphold its mission to “sustain the health, diversity, and productivity of America’s public lands for the use and enjoyment of present and future generations.”<sup>1</sup>

With a prolonged megadrought in the Western US (where the vast majority of BLM lands are),<sup>2</sup> the spread of invasive species, loss of functional water cycles, soil degradation, and the increasing frequency and intensity of wildfires, landscape restoration efforts are more essential than ever for the public and economic health of the West and the nation. These issues are exacerbated by climate change but are heavily shaped by land management.<sup>3 4 5</sup>

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<sup>1</sup> "Our Mission." Bureau of Land Management, [www.blm.gov/about](http://www.blm.gov/about).

<sup>2</sup> Williams, A P., et al. "Rapid Intensification of the Emerging Southwestern North American Megadrought in 2020–2021." *Nature Climate Change*, vol. 12, 2022, pp. 232-234, <https://doi.org/10.1038/s41558-022-01290-z>.

<sup>3</sup> Williams, A., & Carrillo, A. "Regenerative Rainmaking: How land management affects the soil and the sky," *Understanding Ag*, <https://understandingag.com/regenerative-rainmaking/>.

<sup>4</sup> Williams, A. "Nature's History Matters," *Understanding Ag*, <https://understandingag.com/natures-history-matters/>.

<sup>5</sup> Savory, A., & Butterfield, J. *Holistic Management: A Commonsense Revolution to Restore Our Environment*, 3rd edition, Island Press, 2016.

In particular, the urgent need and opportunity to focus efforts on **rebuilding soil health and ecosystem function** across BLM lands is key to fostering healthy, resilient landscapes and economic prosperity for all communities that interact with our public lands.

This rule has the potential to encourage responsible management of our public lands across all uses. However, **the current draft of the proposed rule does not, in our opinion, leverage the enormous potential conservation benefits associated with well-managed grazing as a key conservation and land restoration tool.** In addition to the potential conservation benefits, an explicit framing of this rule as **an unprecedented expansion of the invaluable partnership between American ranchers and the BLM** would go a long way towards acknowledging the importance and opportunity for a mutually beneficial future by working together.

Currently, there is a sense that the current rule will pit the benefits of conservation against ranchers' livelihoods and access to public lands. This is a lost opportunity.

Our comments elaborate on **how and why the Department of Interior (DOI) and the BLM might reframe the perceived conflict between conservation and ranching to acknowledge and incentivize the opportunity to use the best standards for well-managed grazing for landscape restoration in partnership with ranchers,** creating not only a win-win for the agency, ranchers, and national food security, but also a blueprint for the future of public-private partnerships in the pursuit of economically beneficial conservation.

**These comments include the following key sections:**

<a href="#">BLM Lands and Rangelands</a>	3
<a href="#">Overcoming Conflict: "It's Not the Cow, It's the How"</a>	3
<a href="#">Regenerative Grazing as a Conservation Tool</a>	4
<a href="#">Case Studies: Grazing for Conservation</a>	7
<a href="#">Considerations for the Proposed Conservation Leases</a>	12
<a href="#">1) Conservation Planning</a>	13
<a href="#">2) Access to Training for BLM Staff and Land Managers</a>	14
<a href="#">3) Strengthening Monitoring and Outcomes Verification</a>	15
<a href="#">4) Implement an Incentives-Based Approach</a>	17
<a href="#">Designation of Areas of Critical Environmental Concern (ACECs)</a>	17
<a href="#">Consistency of Rule with Multiple Use</a>	18
<a href="#">Conclusion</a>	18

## BLM Lands and Rangelands

The BLM manages 245 million acres of public land, more than any other federal agency.<sup>6</sup> This land is heavily concentrated in 11 western continental states and Alaska.<sup>7</sup> Much of this area is made up of rangelands, which represent some of the most diverse ecosystems on the planet, providing water, forage, and habitat to innumerable plants, animals, and microorganisms.<sup>8</sup>

As detailed in the Regenerative Grazing section below, rangelands, including grasslands, can benefit immensely from well-managed grazing. 155 million acres (over 63%) of BLM lands are in leased grazing allotments. These allotments are theoretically required to meet the BLM Rangeland Health Standards (also referred to as Land Health Standards, or LHS), which aim to ensure the quality and sustainability of waterways, habitats, soil, flora and fauna on the rangelands.<sup>9</sup> However, these leases are not producing the required results. According to LHS records for BLM assessments conducted between 1997-2019, 50% of assessed acres (or 54 million acres) failed to meet LHS.<sup>10</sup> According to Public Employees for Environmental Responsibility (PEER), “a significant portion of the assessed lands that are ‘meeting’ standards are actually only ‘making significant progress’ towards meeting the standards, not actually meeting them.”<sup>11</sup> Of the lands that failed to meet the LHS, 72% (or approximately 40 million acres) of cases are attributed to livestock ‘overgrazing’ as a significant factor. This varies by State, with 83% of assessed grazing allotments failing to meet LHS in Nevada, but only 2% in New Mexico.<sup>12</sup> Furthermore, BLM has yet to assess 41 million more acres.

### Overcoming Conflict: "It's Not the Cow, It's the How"<sup>13</sup>

The above statistics can often be interpreted as grazing in general causing the problem. However, they make no distinction between different grazing management approaches. **Cases of positive ecological results being achieved through grazing on public lands suggest that failing acres are an indication of inappropriate *management* rather than the presence of grazing animals** (see Case Studies below). While certain grazing management approaches

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<sup>6</sup> "What We Manage - National." Bureau of Land Management, [www.blm.gov/about/what-we-manage/national](http://www.blm.gov/about/what-we-manage/national).

<sup>7</sup> Congressional Research Service. "Federal Lands and Related Resources: Overview and Selected Issues for the 118th Congress." *CRS Reports*, 2023, <https://crsreports.congress.gov/product/pdf/R/R43429>.

<sup>8</sup> California FarmLink and TomKat Ranch Educational Foundation. "Guide to Regenerative Grazing Leases: Opportunities for Resilience." 2023, <https://drive.google.com/file/d/13BdLCn6rPENPgZSOofZRC1AZMNps6uQA8/view>.

<sup>9</sup> United States Congress. "Fundamentals of Rangeland Health." 60 FR 9969, 1995, <https://www.ecfr.gov/current/title-43/subtitle-B/chapter-II/subchapter-D/part-4100/subpart-4180>.

<sup>10</sup> Public Employees for Environmental Responsibility. "BLM Land Health Status." *peer.org*, 2020, <https://doi.org/https://peer.org/wp-content/uploads/2022/12/BLM-Land-Health-Data-Rpt-Nov-22.2.pdf>.

<sup>11</sup> Public Employees for Environmental Responsibility. "BLM Land Health Status."

<sup>12</sup> Public Employees for Environmental Responsibility. "BLM Land Health Status."

<sup>13</sup> Attributable to Russ Conser.

can lead to severe land degradation, well-managed grazing can not only reduce harm, but be a boon for conservation.<sup>14 15</sup>

This failure to distinguish is at the core of a longstanding conflict between some grazing and conservation stakeholders.<sup>16</sup> *If grazing is well-managed, there need not be any conflict with conservation.*<sup>17</sup>

BLM's elevation of conservation as a 'use', separate from grazing as another established use,<sup>18</sup> runs the risk of feeding into this conflict, unless adequate attention is paid to understanding and focusing on the conservation benefits of well-managed grazing, as well as the mechanisms by which inappropriate grazing can damage land.

Conventional grazing approaches have contributed to much degradation on BLM lands, and most grazing in the US today pays inadequate attention to ecological function, biodiversity, and has been responsible for damaging ecosystems; it is effectively degenerative. However, there is a tremendous opportunity for regenerative grazing management to be actively encouraged by BLM as a conservation tool, particularly given the rule's definition of conservation as including both protection and restoration activities.

## Regenerative Grazing as a Conservation Tool

Multiple definitions have been used to describe pasture and rangeland management practices that use appropriately-timed, high-density, short-duration grazing events between long periods of forage rest to allow full recovery and catalyze accelerated grass growth.<sup>19</sup> Here we use the term 'regenerative grazing' - most broadly, grazing that leads to land regeneration outcomes over time - understanding that context is essential and that overly prescriptive definitions may be detrimental. Much of the scientific literature refers to similar principles under various terms,

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<sup>14</sup> Thompson, L., Rowntree, J., Windisch, W., Waters, S.M., Shalloo, L. & Manzano, P. "Ecosystem Management Using Livestock: Embracing Diversity and Respecting Ecological Principles." *Animal Frontiers*, vol. 13, no. 2, 2023, pp. 28-34, <https://doi.org/10.1093/af/vfac094>.

<sup>15</sup> Leroy, F., F. Abraini, T. Beal, P. Dominguez-Salas, P. Gregorini, P. Manzano, J. Rowntree, and S. van Vliet. "Animal board invited review: animal source foods in healthy, sustainable, and ethical diets – An argument against drastic limitation of livestock in the food system." *Animal*. Vol. 13, no. 2, 2022. doi:10.1016/j.animal.2022.100457.

<sup>16</sup> Dagget, D. *Gardeners of Eden: Rediscovering Our Importance to Nature*. University of Nevada Press, 2005.

<sup>17</sup> Dagget, D. *Gardeners of Eden*.

<sup>18</sup> Under the BLM's enabling statute, the Federal Land Policy and Management Act of 1976 (FLPMA), BLM's mission is to "manage the public lands under principles of multiple use and sustained yield" (43 U.S.C. 1732(a)). The multiple-use mandate includes livestock grazing, energy and mineral development, recreation, timber production, watershed protection, and wildlife and fish habitat. The term "sustained yield" means "the achievement and maintenance in perpetuity of a high-level annual or regular periodic output of the various renewable resources of the public lands consistent with multiple use" (43 U.S.C. 1702(h)).

<sup>19</sup> Thompson et al., "Ecosystem Management Using Livestock."

including adaptive multi-paddock (AMP) grazing,<sup>20 21 22</sup> holistic planned grazing,<sup>23</sup> or management-intensive rotational grazing.<sup>24</sup> Distinct from continuous grazing/“set stocking” or traditional rotational grazing, which adheres to a calendar, regenerative grazing involves moving livestock in response to biological information gained from monitoring the land and animals, including ensuring plant recovery time.<sup>25 26</sup>

Regenerative grazing, when properly managed, provides outcomes consistent with BLM’s four LHS of watershed function, sustaining ecological processes, water quality, and wildlife habitat.<sup>27</sup> Regenerative graziers across the country, including in the brittle West\*, are restarting the cycles of nature, reversing degradation, rehydrating landscapes, improving the resilience and productivity of rangelands, and providing clean air and water, critical habitat, and life-sustaining food, fiber and employment.

*\*A Note on Context:* Much of the West, and the majority of BLM lands, are arid or semi-arid regions, receiving between 10-20 inches of rain per year.<sup>28</sup> Perhaps more importantly, in these regions, humidity is distributed unevenly during the year, making these environments relatively less resilient, or “brittle,” compared with more resilient, or “non-brittle,” environments that have year-round moisture.<sup>29</sup> In brittle environments, like the deserts or grasslands of the West, dead vegetation breaks down very slowly compared with non-brittle environments, which support high numbers of insects and microorganisms throughout the year. Landscapes in these different climates respond differently to the same influences. In brittle environments, active landscape management is needed to restore and maintain ecological function, while resting the land can be damaging (while, conversely, rest may restore land in non-brittle environments).<sup>30</sup>

The seasonally humid, or brittle, environments include most of the West’s grasslands. These grasslands evolved with large herds of wild grazing animals “whose behavior in the presence of pack-hunting predators had a dramatic effect on soils and soil life.”<sup>31</sup> The constant movement of animals in these environments meant they only grazed a portion of the plants before moving on,

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<sup>20</sup> Mosier S., Apfelbaum S., Byck P., Calderon F., Teague R., Thompson R., Francesca Cotrufo M., “Adaptive multi-paddock grazing enhances soil carbon and nitrogen stocks and stabilization through mineral association in southeastern U.S. grazing lands,” *Journal of Environmental Management*, vol. 288, 2021, 112409, ISSN 0301-4797, <https://doi.org/10.1016/j.jenvman.2021.112409>.

<sup>21</sup> Hillenbrand, M., Thompson, R., Wang, F., Apfelbaum, S., & Teague, R. “Impacts of holistic planned grazing with bison compared to continuous grazing with cattle in South Dakota shortgrass prairie.” *Agriculture, Ecosystems and Environment*, vol. 279, 2019, <https://doi.org/10.1016/j.agee.2019.02.005>.

<sup>22</sup> “Published research from the AMP Grazing Southeast US study.” *Carbon Cowboys*, <https://carboncowboys.org/amp-grazing-research>.

<sup>23</sup> Savory, A., & Butterfield, J. *Holistic Management*.

<sup>24</sup> Oates, L.G., Undersander, D.J., Gratton, C., Bell, M.M., & Jackson, R.D. “Management-Intensive Rotational Grazing Enhances Forage Production and Quality of Subhumid Cool-Season Pastures,” *Forage & Grazingland*, vol. 51, iss. 2, 2011, <https://doi.org/10.2135/cropsci2010.04.0216>.

<sup>25</sup> Gosnell H., Charnley S., & Stanley P. “Climate change mitigation as a co-benefit of regenerative ranching: insights from Australia and the United States,” *Interface Focus*, vol. 10, 2020, 20200027, <http://dx.doi.org/10.1098/rsfs.2020.0027>.

<sup>26</sup> Gosnell, H., Grimm, K. & Goldstein, B.E. “A half century of Holistic Management: what does the evidence reveal?” *Agriculture and Human Values*, vol. 37, 2020, 849–867, <https://doi.org/10.1007/s10460-020-10016-w>.

<sup>27</sup> United States Congress, “Fundamentals of Rangeland Health.”

<sup>28</sup> “Arid and Semi-arid Region Landforms.” National Park Service, [www.nps.gov/subjects/geology/arid-landforms.htm](http://www.nps.gov/subjects/geology/arid-landforms.htm).

<sup>29</sup> Savory, A., & Butterfield, J. *Holistic Management*.

<sup>30</sup> Savory, A., & Butterfield, J. *Holistic Management*.

<sup>31</sup> Savory, A., & Butterfield, J. *Holistic Management*.

stimulating plant growth and allowing recovery in relatively fragile environments. The trampling activity and nutrients deposited from their waste broke up compacted soil, stimulated the soil microbial community, allowed plants to take root, and increased water infiltration.<sup>32</sup> This relationship between ruminants and the evolution of grassland soils was essential to the geologic cooling of the past 40 million years — providing the conditions suitable for human evolution — and led to the expansion of carbon-rich soils of the grasslands.<sup>33 34</sup>

This history gives us a new understanding of ‘overgrazing.’ While it is often assumed that overgrazing is a function of numbers of animals, it has been established that overgrazing has less to do with the number of animals, and more with the amount of time plants and soils are exposed to the animals.<sup>35</sup> Specifically, overgrazing occurs when plants are exposed to animals for too long, causing damage and leaving insufficient recovery time. In this case, grazer stewardship makes the difference between land degradation and continued ecological function.

With this in mind, mimicking and enhancing these natural ecosystem processes is vital to maintaining ecosystem function and the biodiversity of grassland ecosystems, and forms the basis of regenerative grazing strategies today. As a stand-in for the herds of large migratory animals that once roamed the Western grasslands, which have greatly decreased,<sup>36</sup> graziers are using relatively large numbers of livestock, concentrated and moving as they naturally would in the presence of pack-hunting predators, to stimulate plant growth and allow full recovery, in order to restore degraded and desertifying lands, and to sustain their health and diversity.<sup>37</sup>

The indigenous peoples of North America have played a critical role in the holistic management of bison and other ruminant herds that generated the abundant soils and ecosystems of the recent past. The BLM has an opportunity to continue partnering with indigenous land stewards and Tribes to restore bison and other grazing animals,<sup>38</sup> and to incorporate traditional ecological knowledge (TEK) into soil management strategies and considerations of regenerative grazing, in order to improve ecological function and socio-economic outcomes.<sup>39</sup>

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<sup>32</sup> California Farmlink, "Guide to Regenerative Grazing Leases."

<sup>33</sup> Retallack, G. "Global Cooling by Grassland Soils of the Geological Past and Near Future," *Annual Review of Earth and Planetary Sciences*, vol. 41, pp. 69–86, 2013, <https://doi.org/10.1146/annurev-earth-050212-124001>.

<sup>34</sup> Thompson et al., "Ecosystem Management Using Livestock."

<sup>35</sup> Savory, A., & Butterfield, J. *Holistic Management*.

<sup>36</sup> Thompson et al., "Ecosystem Management Using Livestock."

<sup>37</sup> Thompson et al., "Ecosystem Management Using Livestock."

<sup>38</sup> Brown, M. "U.S. to Restore More Bison Herds on Tribal Lands by Tapping Indigenous Knowledge." *PBS*, 3 Mar. 2023.

<https://www.pbs.org/newshour/nation/u-s-to-restore-more-bison-herds-on-tribal-lands-by-tapping-indigenous-knowledge>.

<sup>39</sup> Shamon, H. et al. "The Potential of Bison Restoration as an Ecological Approach to Future Tribal Food Sovereignty on the Northern Great Plains," *Frontiers in Ecology and Evolution*, vol. 10, 2022, <https://doi.org/10.3389/fevo.2022.826282>.

## Case Studies: Grazing for Conservation

Across the West and the nation, leading graziers and conservation organizations alike are using regenerative grazing of livestock to heal degraded soil, restore wildlife habitat, replenish dried-up rivers, sequester carbon, and provide quality livelihoods.

Numerous studies and literature reviews<sup>40</sup> have shown that regenerative grazing management improves soil health;<sup>41</sup> increases nutrient cycling, soil microbial respiration efficiency,<sup>42</sup> and nutrient-holding capacity;<sup>43</sup> reduces surface water runoff, enhances water quality, and increases water infiltration and holding capacity;<sup>44 45 46 47</sup> increases soil carbon sequestration and soil organic carbon stocks;<sup>48 49 50 51 52 53</sup> increases vegetation composition, biomass, and available forage nutrition for livestock;<sup>54 55</sup> allows for higher livestock stocking levels;<sup>56</sup> and reduces external input requirements.<sup>57</sup>

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<sup>40</sup> Teague, W. R., Provenza, F., Norton, B., Steffens, T., Barnes, M., Kothmann, M. M., & Roath, R. "Benefits of multi-paddock grazing management on rangelands: Limitations of experimental grazing research and knowledge gaps." In H. G. Schroder (Ed.), *Grasslands: Ecology, Management, and Restoration*, 2008, pp. 41-80, Nova Science Publishers, NY.

<sup>41</sup> Johnson D.C., Teague R., Apfelbaum S., Thompson R., Byck P. "Adaptive multi-paddock grazing management's influence on soil food web community structure for: increasing pasture forage production, soil organic carbon, and reducing soil respiration rates in southeastern USA ranches," *PeerJ*, vol. 10, 2022, <https://doi.org/10.7717/peerj.13750>.

<sup>42</sup> Johnson, D.C. et al. "Adaptive multi-paddock grazing management's influence on soil food web community structure."

<sup>43</sup> Teague, W.R., Dowhower, S.L., Baker, S.A., Haile, N., DeLaune, P.B., & Conover, D.M. "Grazing management impacts on vegetation, soil biota and soil chemical, physical and hydrological properties in tall grass prairie," *Agriculture, Ecosystems & Environment*, 141(3-4), 310-322, 2011. <http://dx.doi.org/10.1016/j.agee.2011.03.009>.

<sup>44</sup> Apfelbaum, S.I., Thompson, R., Wang, F., Mosier, S., Teague, R., & Byck, P. "Vegetation, water infiltration, and soil carbon response to Adaptive Multi-Paddock and Conventional grazing in Southeastern USA ranches," *Journal of Environmental Management*, vol. 308, 2022, <https://doi.org/10.1016/j.jenvman.2022.114576>.

<sup>45</sup> Weber, K. T., & Gokhale, B. S. "Effect of grazing on soil-water content in semiarid rangelands of southeast Idaho," *Journal of Arid Environments*, 75(5), 464-470, 2011. <http://dx.doi.org/10.1016/j.jaridenv.2010.12.009>.

<sup>46</sup> Teague, W.R. et al. "Grazing management impacts on vegetation, soil biota and soil chemical, physical and hydrological properties in tall grass prairie."

<sup>47</sup> Park, J., Ale, S., Teague, W.R., & Jeong, J. "Evaluating the ranch and watershed scale impacts of using traditional and adaptive multi-paddock grazing on runoff, sediment and nutrient losses in North Texas, USA," *Agriculture, Ecosystems & Environment*, vol. 240, 2017, pp. 32-44, ISSN 0167-8809, <https://doi.org/10.1016/j.agee.2017.02.004>.

<sup>48</sup> Machmuller, M.B., Kramer, M.G., Cyle, T.K., Hill, N., Hancock, D. & Thompson, A. "Emerging land use practices rapidly increase soil organic matter." *Nature Communications*, vol. 6, 6995, 2015, doi: 10.1038/ncomms7995.

<sup>49</sup> Rowntree, J.E., Stanley, P.L., Maciel, I.C.F., Thorbecke, M., Rosenzweig, S.T., Hancock, D.W., Guzman, A., & Raven, M.R. "Ecosystem impacts and productive capacity of a multi-species pastured livestock system," *Frontiers in Sustainable Food Systems*, vol. 4:544984, 2015, doi: 10.3389/fsufs.2020.544984.

<sup>50</sup> Johnson, D.C. et al. "Adaptive multi-paddock grazing management's influence on soil food web community structure."

<sup>51</sup> Apfelbaum, S.I. et al. "Vegetation, water infiltration, and soil carbon response to Adaptive Multi-Paddock and Conventional grazing."

<sup>52</sup> Teague, W.R. et al. "Grazing management impacts on vegetation, soil biota and soil chemical, physical and hydrological properties in tall grass prairie."

<sup>53</sup> Thompson et al., "Ecosystem Management Using Livestock."

<sup>54</sup> Apfelbaum, S.I. et al. "Vegetation, water infiltration, and soil carbon response to Adaptive Multi-Paddock and Conventional grazing."

<sup>55</sup> Teague, W.R. et al. "Grazing management impacts on vegetation, soil biota and soil chemical, physical and hydrological properties in tall grass prairie."

<sup>56</sup> Apfelbaum, S.I. et al. "Vegetation, water infiltration, and soil carbon response to Adaptive Multi-Paddock and Conventional grazing."

<sup>57</sup> Thompson et al., "Ecosystem Management Using Livestock."

Case studies on public lands are confirming these findings. The “Profiles in Land and Management Series” features the work of innovative ranchers and land managers who are achieving economic and ecological benefits on public working lands:

- Lowry Ranch, Colorado: A former bombing range uses year-round adaptive planned grazing to fund Colorado’s public schools while promoting wildlife and increasing the health of the grasslands.<sup>58</sup>
- Sacramento River National Wildlife Refuge, California: A 12,000 acre wildlife refuge is using adaptive grazing to control weeds and reduce fire risk, and to promote native grass, wildflowers, and wildlife habitat in the heart of a major agricultural region.<sup>59</sup>
- Hollister Hills State Vehicular Recreation Area, California: 4x4s and ATVs meet cattle where the California Department of Parks & Recreation seeks to reduce fire risk at this multi-use park on the San Andreas fault. Adaptive planned grazing increases perennial grasses and listed species, keeps the neighbors happy, and saves the land management agency time and money.<sup>60</sup>
- 18 sites across Missouri: 15 years of combining prescribed burns and planned grazing provides a mosaic of grassland habitat options for wildlife.<sup>61</sup>
- Pueblo of Santa Ana, New Mexico: Planned adaptive livestock grazing and riparian and forest restoration support wildlife, healthy soil and vegetation communities, and resilient agriculture.<sup>62</sup>
- Wyoming Oilfield Restoration with BLM & Chevron, Wyoming: When nothing else worked to restore a heavily disturbed arid pipeline corridor & oilfields, 1500 mob-stocked goats removed weeds and established perennial grasslands and sage.<sup>63</sup>
- Buena Vista Wildlife Area, Wisconsin: Management-intensive grazing with daily moves of the herd to improve habitat for grassland birds, increase plant diversity, and promote grassland health. One of multiple sites across Wisconsin.<sup>64</sup>

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<sup>58</sup> Horner, G. "Colorado State Land Board, Lowry Ranch." *Profiles in Land and Management*, [regenerativeranching.org/wp-content/uploads/2020/02/Profile-Lowry-des05x.pdf](https://regenerativeranching.org/wp-content/uploads/2020/02/Profile-Lowry-des05x.pdf).

<sup>59</sup> Horner, G. "U.S. Fish and Wildlife Service, Sacramento River National Wildlife Refuge." *Profiles in Land and Management*, <https://regenerativeranching.org/wp-content/uploads/2020/02/Profile-Sacramento-des03b.pdf>.

<sup>60</sup> Horner, G. "California Department of Parks & Recreation, Hollister Hills State Vehicular Recreation Area." *Profiles in Land and Management*, <https://regenerativeranching.org/wp-content/uploads/2020/02/Profile-Hollister-des06.pdf>.

<sup>61</sup> Horner, G. "Missouri Department of Conservation, 18 sites across Missouri." *Profiles in Land and Management*, <https://regenerativeranching.org/wp-content/uploads/2020/02/Profile-Missouri-des05.pdf>.

<sup>62</sup> Horner, G. "Pueblo of Santa Ana." *Profiles in Land and Management*, <https://regenerativeranching.org/wp-content/uploads/2020/02/Profile-Pueblo-Santa-Ana-des03.pdf>.

<sup>63</sup> Horner, G. "Goat Green Wyoming Oilfield Restoration with BLM & Chevron." *Profiles in Land and Management*, <https://regenerativeranching.org/wp-content/uploads/2020/02/profile-Goat-Green-des02.pdf>.

<sup>64</sup> Horner, G. "Wisconsin Department of Natural Resources Buena Vista Wildlife Area." *Profiles in Land and Management*, <https://regenerativeranching.org/wp-content/uploads/2020/02/Profile-Buena-Vista-des05.pdf>.



### **Case Study: Alderspring Ranch, ID**

In Central Idaho, rancher Glenn Elzinga and his family use regenerative grazing techniques, living with and moving their cattle in bunched herds across unfenced rangeland on horseback - to restore and manage the over 46,000 acres of federal (US Forest Service and BLM) rangeland that makes up Alderspring Ranch.<sup>65</sup> For 150 years prior, this rangeland was exposed to continuous grazing, contributing to degraded riparian areas, 5-10 foot-deep headcuts, soil loss, dropped flood plains, and a declining Aspen population.<sup>66</sup> “Cattle were using the riparian areas extensively,” said Elzinga. “Now they are completely unused, unless there is an ecological reason for cattle to be there.”<sup>67</sup> Through careful monitoring, the Elzingas prevent overgrazing or damage to endangered species habitats, and focus on rebuilding soil and ecosystem health. Key results include:<sup>68 69</sup>

- Restored over 55 miles of severely degraded riparian areas (creeks, ponds, springs, streams, etc.). Increased riparian birdlife through building habitat diversity.
- Brought back beavers that had completely disappeared (from no beavers to 14 active colonies in 10 years).
- Restored and protected fish and wildlife habitat for at-risk species such as sage grouse, bighorn sheep, bull trout, chinook salmon and steelhead. For example, increased bull trout habitat as a result of grazing management increasing water volume and depth, and beavers storing more water upstream.
- Providing habitat for birds, fish, elk, deer, wolves, mountain lions, and other species to thrive on the rangeland.
- Regenerated aspen and willow tree populations through water table elevation.
- Maintaining peaceful coexistence with wild animals, including wolves, through human presence in “inherding” grazing paradigm (from \$30,000 annual cattle loss from predation, to no loss).
- Tripled soil organic matter in 10 years, from 2.5% to 7.75%, which contributes to biodiversity, stability, and sequestering carbon.
- Increased floodplain, doubling riparian vegetation and water-holding capability.

**The use of ruminants can also be an effective means of preventing and mitigating wildfires**, especially in places facing land abandonment, and can replace much more costly solutions like firefighting or mechanical vegetation removal.<sup>70</sup> Companies like Shepherdess Land & Livestock are using ruminants for wildfire management in California. The company's goats and sheep reduce fuel load for wildfires, enhance native habitat by eating invasive

<sup>65</sup> "Why Alderspring." *Alderspring Ranch*, [www.alderspring.com/why-alderspring/](http://www.alderspring.com/why-alderspring/).

<sup>66</sup> "GFE 2018 - Glenn Elzinga 'Ranch As Ecosystem'." *You Tube*, uploaded by Grassfed Exchange, 4 Jul. 2019, [www.youtube.com/watch?v=cGy1PlzjQnM](https://www.youtube.com/watch?v=cGy1PlzjQnM).

<sup>67</sup> Miller, M.L. "Can Ancient Herding Traditions Help Cattle Coexist with Wolves and Sage Grouse?" *The Nature Conservancy*, 21 Mar. 2017.

<https://blog.nature.org/2017/03/21/ancient-herding-traditions-cattle-coexist-wolves-sage-grouse/>.

<sup>68</sup> "Why Alderspring." *Alderspring Ranch*, [www.alderspring.com/why-alderspring/](http://www.alderspring.com/why-alderspring/).

<sup>69</sup> "GFE 2018 - Glenn Elzinga 'Ranch As Ecosystem'."

<sup>70</sup> Rouet-Leduc, J. et al, "Effects of large herbivores on fire regimes and wildfire mitigation," *Journal of Applied Ecology*, 2021. DOI: 10.1111/1365-2664.13972.

species, and promote soil health and watershed function.<sup>71</sup> “Our animals are ‘biological masticators’ that essentially chew up vegetation that has built up over time from lack of animal impact, or management, in areas deemed critical to fire prevention,” says Brittany Cole Bush, Founder of Shepherdess Land & Livestock. “As land stewards we can usher in practices that help restore the momentum of the Earth’s powerful ability to recover and adapt but it takes proactive tending to do so... Well-managed grazing can support the transition back to a healthy, functioning ecology that is fire safe and fire ready.”<sup>72</sup>

Regenerative grazing has also been used to conduct reclamation of mining sites. Dan Dagget, author of “Gardeners of Eden: Rediscovering Our Importance to Nature,” describes how seeding and hay bales were used to jumpstart the reclamation of a mining site which had essentially no life left in the soil following the use of acid to extract metal.<sup>73</sup>

These myriad benefits have been recognized and adopted by major conservation groups. The National Audubon Society created its Conservation Ranching program in response to steep declines in grassland bird populations. In this program, regenerative grazing is helping to restore and preserve wildlife habitat and species.<sup>74</sup> <sup>75</sup> Land managers have seen more diverse and abundant wildlife on some working ranches than in nearby national parks or preserves.<sup>76</sup>

“To me, Allan [Savory]’s results are spectacular. Despite recent drought, [Holistic Planned Grazing] has transformed this ranch from desert to rich grassland. Today, the grass holds the water, and streams that were dry for decades are flowing again ... it could be the best thing, the absolute best thing, conservation has ever discovered.” — *Conservation biologist Dr. M. Sanjayan, CEO of Conservation International and former lead scientist of The Nature Conservancy*

**The BLM Outcome-Based Grazing Authorizations (OBGAs) provide further examples to build on.** The OBGAs are a collaborative effort between the BLM and graziers aimed at increasing flexibility for graziers to monitor and make necessary and timely “grazing adjustments that would benefit the health of the rangeland for wildlife as well as its provision of forage for livestock,”<sup>77</sup> and help ranch managers move towards improved ecological and economic outcomes.

OBGAs follow the same grazing regulations and policies as other grazing permits, including requiring an understanding of ecological conditions, and a NEPA (National Environmental Policy

<sup>71</sup> “Grazing for Good, with Brittany Cole Bush,” *Soil Centric*,

<https://www.soilcentric.org/blogs/regeneration-in-action/grazing-for-good-our-interview-with-brittany-cole-bush>.

<sup>72</sup> “Grazing for Good.”

<sup>73</sup> “Savory Champions Exclusive Session with Author Dan Dagget.” *YouTube*, uploaded by Savory Institute, 31 Oct. 2017, [www.youtube.com/watch?v=nYnNDTPuQhU](http://www.youtube.com/watch?v=nYnNDTPuQhU).

<sup>74</sup> “What in the World Is Conservation Ranching?” *Audubon*, 2 Oct. 2017, [www.audubon.org/news/what-world-conservation-ranching](http://www.audubon.org/news/what-world-conservation-ranching).

<sup>75</sup> “How Your Purchasing Decisions Can save Our Most Endangered Ecosystem.” *YouTube*, uploaded by TEDx Talks, 8 Jan. 2020, [www.youtube.com/watch?v=jn\\_HMRyKQmw](http://www.youtube.com/watch?v=jn_HMRyKQmw).

<sup>76</sup> For example, Ariel Greenwood of Grass Nomads LLC, <http://www.arielgreenwood.com/>.

<sup>77</sup> “Outcome-based Grazing.” *Partnering to Conserve Sagebrush Rangelands*, [www.partnersinthesage.com/outcome-based-grazing](http://www.partnersinthesage.com/outcome-based-grazing).

Act) analysis of actions and impacts, with the only difference being that the flexibilities are covered in the NEPA analysis upfront, so that they can be implemented without further approval exactly when the need arises.<sup>78</sup> This approach is in line with adaptive grazing management.

Currently, the terms and conditions mandated in a ranch's BLM grazing permit often prohibit a ranch manager's ability to implement necessary adjustments that would benefit the health of the rangeland for wildlife as well as its provision of forage for livestock. For example, rather than specifying dates for moving between pastures or having strict on and off dates, management will focus on achieving end results for the goal of balancing forage and habitat resources for the greatest mutual gain.<sup>79</sup> Clay Pickard, Ranch Manager of Deep Creek Ranch in Hollister, Idaho, describes how their OBGA has allowed them to access their fields and time grazing according to plant growth, rather than on strict schedules (previously their permit required them to move from winter to spring fields on March 1st, but grass isn't growing by then, so they were leaving our winter fields that still had a lot of old feed to go onto our spring fields that hadn't got the chance to grow back yet - with detrimental ecological and economic consequences).<sup>80</sup> Decreasing the response time to changing field conditions is one of the primary goals of the demonstration project, and is part of creating the ability to implement grazing based on conservation performance and ecological outcomes rather than hardline metrics.

In 2018, BLM selected 11 demonstration projects<sup>81</sup> for the OBGA initiative. Three cases:<sup>82</sup>

- Little Snake Land and Livestock in Colorado introduced rotational grazing and seasonal pasture use limitations, using cattle to improve range conditions and foster healthy sagebrush habitat for sage-grouse.
- Horseshoe Ranch in Nevada uses cattle to target and manage invasive annual grasses such as cheatgrass while restoring deep-rooted perennials in order to create healthier wildlife habitat and a more resilient ranching operation. Decreasing invasive annual grass stubble height also creates natural fuel breaks.
- PH Livestock in Wyoming uses targeted grazing of crested wheatgrass, a non-native species commonly found across the West, to take pressure off native rangelands in spring and early summer months. In addition to getting rid of overgrown crested wheatgrass and improving range conditions on their over 300,000 acre ranch, the grazing practices added pounds per acre and improved the business' bottom line.

<sup>78</sup> "The Need for Flexibility: Exploring Innovation in a Public Land Grazing System." *Partnering to Conserve Sagebrush Rangelands*, <https://www.partnersinthesage.com/outcomebased-grazing-video>.

<sup>79</sup> "Outcome-based Grazing."

<sup>80</sup> "Deep Creek Ranch Hollister, Idaho: Q & A with Clay Pickard, Ranch Manager." *Partnering to Conserve Sagebrush Rangelands*, [static1.squarespace.com/static/5889438b893fc0576c2911de/t/5e6bce72953e3a388f1dfcfc/1584123508350/OGBA+profile%2C+Deep+Creek+Ranch.pdf](https://static1.squarespace.com/static/5889438b893fc0576c2911de/t/5e6bce72953e3a388f1dfcfc/1584123508350/OGBA+profile%2C+Deep+Creek+Ranch.pdf).

<sup>81</sup> "BLM Announces Outcome-based Grazing Projects for 2018," *Bureau of Land Management*, 23 Mar. 2018. <https://www.blm.gov/press-release/blm-announces-outcome-based-grazing-projects-2018>.

<sup>82</sup> Aceto, B. "Grazing for Outcomes." *ArcGIS*, 29 Nov. 2022.

<https://storymaps.arcgis.com/stories/c2690241a94647779b2b04b3e47306a9>.

## Regenerative grazing is being used to restore the remaining grasslands around the world:

- Las Damas Ranch: In the Mexican Chihuahuan Desert (250 miles south of El Paso, TX; averaging eight inches per year of rain in recent years), Alejandro Carrillo uses livestock as a tool to restore desert, regenerate his soils and increase biomass on his 30,000 acre ranch. Where 12 years ago he needed 200 acres to feed one cow per year, he now only needs 20 acres per cow, a 10-fold increase in carrying capacity.<sup>83</sup> Net revenue of the ranch has increased 350% with triple the cow numbers and a lower unit cost of production.<sup>84</sup> Soil water infiltration rates have also increased significantly, as Las Damas has a water infiltration rate of 18-20 inches per hour, while the neighboring ranch has an infiltration rate of only 2 inches per hour.<sup>85</sup> Additionally, Carrillo's ranch is actually getting more rain than neighboring ranches through fostering small water cycles.<sup>86</sup>
- In Canada, conservation groups such as Ducks Unlimited, Birds Canada and the Nature Conservancy of Canada are working with the cattle sector as a vital partner in restoring and conserving Canada's remaining grasslands.<sup>87 88</sup>
- In Australia, WWF-Australia works with innovative livestock managers to validate improved livestock and pasture management that reduces sediment in stormwater run-off from farms and improves water quality in the catchments feeding into the Great Barrier Reef lagoon, while also conserving habitat for wildlife on farmland.<sup>89</sup>

"There is no cost-effective way to regenerate many forms of degraded land without the use of animal impact." — *Will Harris, White Oak Pastures*

We encourage the agency to lean on these examples and on the scientific literature to educate stakeholders that it is not about whether grazing is permitted, but about the grazing management *approach* that matters, and to look at regenerative grazing management as a scientifically-grounded conservation approach to restore degraded lands.

## Considerations for the Proposed Conservation Leases

Through the proposed conservation leases, DOI and BLM have an opportunity to frame the rule as a call to action for ranchers to assist in the restoration of public lands, and to expand public-lands grazing as a key way to support ranchers in engaging in commercial and profitable enterprise, while simultaneously achieving conservation outcomes, including improved health of soil and water, increased biodiversity, and improved overall landscaped restoration and function.

<sup>83</sup> "GFE 2019 - Alejandro Carrillo (April 5th, 2019)." *YouTube*, uploaded by Grassfed Exchange, 4 Jul. 2019, [www.youtube.com/watch?v=ue6IW-a2OJs](https://www.youtube.com/watch?v=ue6IW-a2OJs).

<sup>84</sup> "Las Damas Ranch Case Study." Understanding Ag, [https://understandingag.com/case\\_studies/las-damas-ranch-case-study/](https://understandingag.com/case_studies/las-damas-ranch-case-study/).

<sup>85</sup> "Las Damas Ranch Case Study." Understanding Ag, [https://understandingag.com/case\\_studies/las-damas-ranch-case-study/](https://understandingag.com/case_studies/las-damas-ranch-case-study/).

<sup>86</sup> Williams, A., & Carrillo, A. "Regenerative Rainmaking."

<sup>87</sup> "Canadian Conservation groups rally behind beef sector." *Alberta Farmer Express*, June 16, 2020, <https://www.albertafarmexpress.ca/news/conservation-groups-rally-behind-beef-sector/>.

<sup>88</sup> "Guardians of the Grasslands." <http://www.guardiansofthegrasslands.ca/>.

<sup>89</sup> "Beef." *WWF Australia*. <https://wwf.org.au/what-we-do/food/beef/>.

In order to achieve this, the rule should clarify that conservation leases not only may allow, but should strongly prioritize regenerative grazing that improves conservation and restores ecosystems, while increasing economic opportunities for ranchers.

Explicitly including contextually-appropriate active landscape management, including the use of well-managed grazing, to achieve desired ecological outcomes, can help avoid confusion and objections that have resulted from a lack of clarity. This includes concern that the conservation leases would reduce land access for grazing.<sup>90</sup> Expressions of the lack of clarity include that BLM seems to indicate an understanding of a potential compatibility between conservation and grazing when it states “where land is already being grazed in a way that protects habitat, that use would be expected to continue and could be part of the activities supported by a conservation lease, allowing a rancher to be a partner in restoration efforts.”<sup>91</sup> However, in other statements such as “conservation leases are not intended to provide a mechanism for precluding other uses, such as grazing...,” BLM seems to imply that grazing is separate from conservation, even if the practice is not explicitly restricted.<sup>92</sup>

To ensure that grazing under the new conservation leases, as well as on existing allotments, consistently leads to improved land health outcomes, **1) new conservation leases involving grazing should specify regenerative goals/outcomes while existing leases should incorporate these principles; 2) DOI should expand access to leading knowledge, skills and training for both land stewards and agency staff; 3) monitoring and verification efforts should be strengthened; and 4) incentive-based approaches should be considered and implemented where appropriate.**

### 1) Conservation Planning

The BLM should incorporate regenerative goals and soil health principles into its Resource Management Plans (RMPs), as well as regionally-appropriate regenerative grazing considerations that include common best practice scenarios for various landscapes.

All new conservation leases including grazing should require the approval of a conservation management plan that addresses regenerative goals, including planning for factors such as initial and projected stocking rates, initial and projected frequency of rotations, adequate recovery times, and reviewing and adjusting plans to reflect needed changes based on experience, changing conditions, and assessed outcomes. Planning can draw on existing frameworks such as holistic management,<sup>93</sup> or the 6-3-4<sup>TM</sup> - a systemic regenerative approach that includes planned, purposeful and intentional application of the Six Principles of Soil Health

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<sup>90</sup> House Committee on Natural Resources. “Hearing Memo on Full Committee Legislative Hearing on H.R. 3397,” [https://naturalresources.house.gov/uploadedfiles/hearing\\_memo\\_fc\\_leg\\_hrg\\_on\\_hr\\_3397\\_06.15.23.pdf](https://naturalresources.house.gov/uploadedfiles/hearing_memo_fc_leg_hrg_on_hr_3397_06.15.23.pdf).

<sup>91</sup> Bureau of Land Management. “Frequently Asked Questions: Conservation Leasing in Proposed Public Lands Rule.” *BLM*, 11 May, 2023,

<https://www.blm.gov/sites/default/files/docs/2023-05/Conservation%20Leasing%20fact%20sheet%2005-11-23.pdf>.

<sup>92</sup> Bureau of Land Management. “Frequently Asked Questions.”

<sup>93</sup> Savory, A., & Butterfield, J. *Holistic Management*.

and the Three Rules of Adaptive Stewardship in order to optimize the Four Ecosystem Processes, and which can be implemented anywhere.<sup>94</sup>

Existing grazing lease holders should be given access to information and training (see below) for best practices of regenerative grazing, and be informed that future lease renewals will be considered on the the basis of monitored outcomes and the lessee implementing active steps (including developing a conservation plan specific to their context).

BLM could consider incorporating interagency support from USDA and cooperative agreements with third parties experienced in providing conservation technical assistance to ranchers (such as the Savory Institute, Holistic Management International, or the Audubon Society) to assist in the development of conservation plans (equivalent to a conservation activity plan or soil health management plan).

## 2) Access to Training for BLM Staff and Land Managers

Regenerative land management requires knowledge and skill. Research has found that the ability of regenerative grazing to effect these desirable results depends upon “the goals of the grazier, proper execution of good land stewardship skills, and application of the correct recovery period.”<sup>95</sup> There is a concern that there’s a lack of expertise among many ranchers to implement regenerative grazing on public lands, as well as a concern that BLM staff are inadequately trained to provide this expertise to graziers. Transforming the vast acreage of BLM land from degenerating to regenerating calls for a significant expansion of training.

We suggest a widespread training of BLM staff in soil health principles, regenerative grazing, and grazing for landscape restoration. It is essential that BLM consults with regenerative grazing and rangeland management experts in the process of finalizing and potentially implementing the rule. With this training, BLM can better understand and communicate about conservation as active land management using tools, including livestock, appropriately to restore land, and about the complementary benefits of conservation and grazing. This could be done through interagency collaboration with USDA, leveraging current agency efforts to conduct regenerative grazing and rangeland management workshops with experts such as Dr. Allen Williams and Alejandro Carrillo.

This information also needs to be shared widely with graziers. In order to expand training for graziers, BLM should invest in expanding the availability of technical assistance for all existing and new lease holders utilizing grazing. This can be done partly through agreements with external training organizations to address likely capacity issues as well as to supplement this with expertise from leading experts in the field. We also recommend that BLM develop a low-cost, high-impact series of regionally appropriate video-based training libraries, featuring ranchers who are currently leasing BLM land, and actively using regenerative grazing management practices, to deliver the knowledge in a trusted, peer-to-peer way.

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<sup>94</sup> Williams, A. “The 6-3-4™ explained,” *Understanding Ag*, <https://understandingag.com/the-6-3-4tm-explained/>.

<sup>95</sup> Weber, K. T., & Gokhale, B. S. “Effect of grazing on soil-water content in semiarid rangelands of southeast Idaho.”

Providing the budget for this training could be done through very minimal fees levied on mineral extraction or other uses of public lands. Additionally, funds given to BLM for water quality improvement and wildfire risk reduction can be considered for use to train BLM staff, as the direct impact of this training would affect both of those priorities directly (as seen with the Horseshoe Ranch, NV case study).<sup>96</sup>

### 3) *Strengthening Monitoring and Outcomes Verification*

In order for the rule's intentions to be successful, there must be sufficient oversight and monitoring of outcomes. However, there is concern that the BLM may not be able to uphold this new mandate and ensure that LHS are met across all lands and program areas, due to staffing and capacity issues. Currently, the LHS that apply to the 155 million acres of grazing allotments are a significant challenge, and there is a backlog that has resulted in about half of grazing permits renewals being approved without any analysis of rangeland health.<sup>97</sup> Nearly a third of the grazing acres have never been assessed, and of those that have been, half are failing to meet the LHS. With this proposed rule, the LHS would be extended to even more acres. Sufficient oversight will be necessary for this to succeed, and BLM staff or unbiased third parties must be engaged in the MRV process for consistency, rather than relying on the lessees themselves.

**BLM should significantly increase its monitoring capacity by continuing to adopt and expand new low-cost methods, such as drone technologies and remote sensing (satellite) imagery.** New, near real time remote sensing technologies for measurement, reporting and verification (MRV) are now being deployed at scale and BLM should investigate these options.<sup>98 99</sup> However, this should not replace on-the-ground assessments and determinations by qualified staff. Rather, it can provide much more targeted and effective use of limited on-the-ground resources and vastly expand the scope and scale of oversight. Utilizing remote sensing tools to support outcomes verification can also help overcome limitations of labor, and space- and time-confounding issues.

Bandwidth issues for reviewing management plans and verifying outcomes can be additionally supplemented through interagency support (e.g. from USDA) and cooperative agreements with organizations that provide outcomes verification. Cooperative agreements should include experienced private-sector partners through the engagement of mission aligned organizations, or where appropriate, state and local conservation districts, to assist with the monitoring. As described in the Incentives section below, allowing for carbon or ecosystem services credits to be generated from the lands could also expand monitoring capacity by leveraging the monitoring component already built into approved carbon credit programs.

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<sup>96</sup> Aceto, B. "Grazing for Outcomes."

<sup>97</sup> Streater, S. "BLM proposes seismic shift in lands management" *E&E News*, 30 Mar. 2023, <https://www.eenews.net/articles/blm-proposes-seismic-shift-in-lands-management/>.

<sup>98</sup> "Data Driven Precision Agriculture with Planet." *Planet*. <https://www.planet.com/markets/monitoring-for-precision-agriculture/>.

<sup>99</sup> "Monitoring on Demand." *Impact Observatory*. [https://www.impactobservatory.com/monitoring\\_on\\_demand/](https://www.impactobservatory.com/monitoring_on_demand/).

BLM should draw on established programs that excel in land health assessments and monitoring of outcomes consistent with the LHS framework, including:

- Savory Ecological Outcome Verification (EOV)<sup>100 101 102</sup>
- Audubon Conservation Ranching Program Protocols,<sup>103</sup> Bird Friendliness Index<sup>104 105</sup>
- Regenified 6-3-4 Verification Standard for Regenerative Agriculture<sup>106</sup>
- Regenerative Organic Certification<sup>107</sup>

These protocols have also been designed to overcome misunderstandings and potential confounding factors in the assessment of the potential benefits of regenerative grazing.<sup>108</sup> BLM should consider these factors and frameworks in establishing monitoring protocols, gleaning lessons learned, and ensuring key outcomes for regenerative grazing are being incorporated. Key considerations to incorporate for regenerative grazing include ground cover (and inversely, bare ground), biodiversity, and increased stocking rates. Lessees should avoid overgrazing, and include sufficient recovery time in their management plans if land has been, or becomes, overgrazed.

BLM should also expand and build on the results of its collaborative “Outcome-Based Grazing Authorizations” program, in order to help ranch managers monitor and respond to changing conditions while moving towards improved ecological and economic outcomes. The BLM should continue to consider the success of these projects when crafting guidance and best management practices for future grazing authorizations.

Ultimately, with improved monitoring and verification of outcomes, BLM can improve conservation and rangeland health outcomes on land under the existing grazing program and with the new proposed conservation leases, while preserving the livelihoods of our ranching community.

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<sup>100</sup> Newton, P., Civita, N., Frankel-Goldwater, L., Bartel, K., & Johns, C. “What Is Regenerative Agriculture? A Review of Scholar and Practitioner Definitions Based on Processes and Outcomes,” *Frontiers in Sustainable Food Systems*, 26 Oct, 2020, <https://www.frontiersin.org/articles/10.3389/fsufs.2020.577723/full>.

<sup>101</sup> “Ecological Outcome Verification.” *Savory Institute*. <https://savory.global/eov/>.

<sup>102</sup> “Chapter 1 EOVS Summary.” *Savory Institute*, 2021,

<https://savory.global/wp-content/uploads/2021/07/EOV-chapter-1-v3.pdf>.

<sup>103</sup> “Audubon Conservation Ranching: Program Protocols.” *Audubon Society*, Dec. 2019.

[https://nas-national-prod.s3.amazonaws.com/texas\\_oaks\\_and\\_prairies\\_protocol\\_template\\_dec\\_2019.pdf](https://nas-national-prod.s3.amazonaws.com/texas_oaks_and_prairies_protocol_template_dec_2019.pdf).

<sup>104</sup> Michel, N.L., Burkhalter, C., Wilsey, C.B., Holloran, M., Holloran, A., & Langham, G.M. “Metrics for conservation success: Using the “Bird-Friendliness Index” to evaluate grassland and arid land bird community resilience across the Northern Great Plains ecosystem.” *Diversity and Distributions*, vol. 26:12, 2020, <https://doi.org/10.1111/ddi.13163>.

<sup>105</sup> “Protocols for Bird-Friendly Habitat Management Certification.” *Audubon*, <https://www.audubon.org/news/protocols-bird-friendly-habitat-management-certification>.

<sup>106</sup> “6-3-4™ Verification Standard for Regenerative Agriculture.” *Regenified*, [https://regenified.com/hubfs/2023%20Regenified%206-3-4%20Verification%20Standard%203-29-2023%20\(1\).pdf](https://regenified.com/hubfs/2023%20Regenified%206-3-4%20Verification%20Standard%203-29-2023%20(1).pdf)

<sup>107</sup> “Framework for Regenerative Organic Certified®.” *Regenerative Organic Alliance*.

<https://regenorganic.org/wp-content/uploads/2023/03/Regenerative-Organic-Certified-Framework.pdf>.

<sup>108</sup> Teague, W.R., et al.’s “Benefits of multi-paddock grazing management on rangelands” chapter in the 2008 book, “Grasslands: Ecology, Management, and Restoration,” finds that misunderstandings exist in the management techniques needed to achieve these benefits and in the scientific protocols required to assess them.



#### 4) Implement an Incentives-Based Approach

Promoting regenerative grazing aims to provide a way for graziers to be both ecologically and economically sound. That said, there needs to be flexibility in supporting graziers at different stages of expertise and experience on their management journey. In addition to providing access to training and technical assistance, BLM can consider a tiered incentive structure with fee reductions in exchange for excellent results - for example, increased access and reduced fees for ranchers meeting (or exceeding) the conservation outcomes specified in the rule.

BLM can also expressly authorize the conservation leases to be eligible for the sale of carbon offset credits and other ecosystem services credits, as another form of incentive. BLM can then use approved third-party verifiers to not only verify credits, but provide additional LHS monitoring to increase capacity for monitoring and verification on leased grazing allotments. Studies have found that ecosystem service payments could facilitate the expansion of grass-based agriculture and grazing, thus this is a tested strategy for encouraging adoption.<sup>109</sup>

#### Designation of Areas of Critical Environmental Concern (ACECs)

We support the rule's proposed fast-tracking of the designation of ACECs. Although these recommendations emphasize the importance and potential of regenerative grazing, it is important to understand that grazing, like any conservation practice, is not appropriate in all contexts.

As it relates to ACECs, we recommend that BLM review these lands separately before endorsing grazing as an appropriate conservation management tool, and specify the appropriate level of training, experience or support from third-party partners that any grazing lessee would need in order to qualify. Additionally, leases should be carefully assessed and have conservation plans in place. This can be done after the designation is made, but no longer than a year after the designation, so that the designation itself is not held up.

We also recommend additional (more frequent) verification of outcomes on these ACEC lands to be done directly by BLM staff or by accredited third parties if grazing is found to be appropriate for remediation.

Unlike certain instances of mineral extraction, it is important to remember that grazing does not need to be something that needs to be mitigated, but can in fact be restorative in and of itself, while simultaneously providing livelihoods and strengthening rural communities.

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<sup>109</sup> Wang, T., Jin, H., Kreuter, U., & Teague, W.R. "Expanding grass-based agriculture on marginal land in the U.S. Great Plains: The role of management intensive grazing." *Land Use Policy*, vol. 104, 2021, 105155, ISSN 0264-8377, <https://doi.org/10.1016/j.landusepol.2020.105155>.

Where appropriate, the use of regenerative grazing as a conservation tool allows ACECs to remain 'multiple use' and address some of the concerns raised by those who might oppose the fast-tracking of these designations.<sup>110</sup>

## Consistency of Rule with Multiple Use

This proposal is consistent with BLM's multiple-use mandate. Multiple uses under BLM management include renewable energy development (solar, wind, other); conventional energy development (oil and gas, coal); livestock grazing; hardrock mining (gold, silver, other), timber harvesting; outdoor recreation (such as camping, hunting, rafting, and off-highway vehicle driving); conservation and wildlife areas.<sup>111</sup> Regenerative grazing is compatible with many of these uses.

For example, regenerative grazing management systems are consistent with public access because cattle are only in a certain area for a short time and don't return for a long time. Therefore, if regenerative grazing is authorized as a conservation use, it should generally be consistent with public land access uses, given the long rest periods, use of mobile fencing, etc. Again, it's less about the grazing itself and more about the management.

Grazing and renewable energy production can also be complementary. There are growing opportunities in agri-voltaics, which combines agricultural use, particularly grazing of livestock, with solar energy generation.<sup>112</sup> BLM can advance its multiple use mandate and encourage additional economic opportunities for land managers by exploring, and where appropriate, issuing leases that encourage regeneratively grazed agri-voltaics operations.

The more the multiple uses can be seen as compatible and complementary, the less of its time the BLM needs to spend on managing perceived conflicting uses.

## Conclusion

In conclusion, regenerative grazing management systems have been successfully used across a significant number of landscapes, and across vast geographic areas of the US and around the world, showing outstanding conservation outcomes, including on sensitive and marginal lands.

This should not be a question of whether or not regenerative grazing can be implemented as an effective tool for landscape restoration; **the question is whether or not this rule will prioritize leading the way for a new generation of partnership between DOI/BLM and the grazing community, in a way that supports a transition from conventional practices and meets**

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<sup>110</sup> House Committee on Natural Resources. "Hearing Memo."

<sup>111</sup> 43 U.S.C. 1702(c),

<https://www.govinfo.gov/content/pkg/USCODE-2021-title43/pdf/USCODE-2021-title43-chap35-subchapl-sec1702.pdf>.

<sup>112</sup> "Agrivoltaics: Coming Soon to a Farm Near You?" *U.S. Department of Agriculture Climate Hubs*.

<https://www.climatehubs.usda.gov/hubs/northeast/topic/agrivoltaics-coming-soon-farm-near-you>.

**the conservation targets set out, while ensuring our shared resources are not further degraded and can be restored to productivity for the benefit of all.**

The success of this proposal will require a significant investment in education, training and outreach, as well as an upleveling of monitoring outcomes and enforcement standards, in order to effectively and consistently create a level playing field for ranchers while simultaneously delivering on the promise of renewed public stewardship of our shared resources.

**We hope that by actively and visibly prioritizing regenerative grazing management systems as a primary tool for conservation restoration, US ranchers can be clearly identified as a trusted partner of BLM, ushering in a new generation of grazing stewardship.**

This will require a cultural shift, both inside the agency, which seeks to mitigate damage caused to public lands by poorly managed livestock operations, and in parts of the ranching community, that sees the potential for government overreach as an existential threat to their livelihood and way of live, when a rule like this one comes out. Ultimately, thoughtful design of the rule can help tackle relentless cycles of extreme drought, flood, and fire on BLM lands, which make up a momentous one-tenth of America's land base.<sup>113</sup>

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**Land Core** is a nonprofit organization with a mission to advance soil health policies and programs that create value for farmers, businesses and communities. We work to develop missing infrastructure and market-based incentives that will make the rapid adoption and scalability of soil health possible.

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<sup>113</sup> "What We Manage, National." *Bureau of Land Management*, <https://www.blm.gov/about/what-we-manage/national>.