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"They have all their needs met here. Except their freedom."-Fran Ackley, BLM Wild Horse and Burro Program Manager for Colorado¹

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^{1.} Dan Frosch, Wild Horses Are Running Out of Room Off the Range, N.Y. TIMES (Dec. 14, 2012), http://www.nytimes.com/2012/12/15/us/wild-horses-are-running-out-of-room-off-the-range.html.

I. INTRODUCTION

The future of America's wild horses is a topic of fierce debate from the western states to the nation's courtrooms. Yet, the federal agencies charged with managing both the wild horse and burro herds and grazing allotments — the Bureau of Land Management (BLM) and, secondarily, the U.S Forest Service — have failed to develop a comprehensive, evidence-based strategy for livestock grazing and wild horse preservation within the mandates of the Wild and Free-Roaming Horses and Burros Act (the Wild Horses Act or WFHBA).²

This essay examines the fate of wild horses and burros on the public lands in the context of the statutes and regulations governing their management, as well as federal grazing law as it impacts wild horses and burros. Agency policy towards wild horses and burros is influenced by various stakeholders in public land resource management, and agency actions have often failed to follow the intent, and sometimes the plain language of the WFHBA. Wild horse management decisions are found in agency land use planning documents.3 However, because these plans are not considered "final agency actions," they are not subject to legal challenge.4 Instead, each proposed wild horse gather must be challenged individually; however, the BLM argues that only the method of removal is subject to judicial review and not the underlying decisions being implemented.⁵ This has led to seemingly unending litigation and has created a patchwork of inconsistent results and uncertainty for all interested parties.

^{2. 16} U.S.C. §§ 1331-1340 (2017).

^{4.} See Fund for Animals v. BLM, 460 F.3d 13, 21 (D.C. Cir. 2006) ("[A] land use plan is generally a statement of priorities; it guides and constrains actions, but does not . . . prescribe them.") (quoting Norton v. S. Utah Wilderness Alliance, 542 U.S. 55, 71 (2004)) (omission in original).

^{5.} See, e.g., U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT, DOI-BLM-CO-N05-2015-0023, WEST DOUGLAS HERD AREA WILD HOSRSE GATHER, FINAL ENVIRONMENTAL ASSESSMENT, app. G, No. 63-65 (2015) ("The current AML . . . was established to maintain a healthy wild horse herd while maintaining a thriving natural ecological balance and multipleuse relationship. Adjustment of the AML is outside of the scope of this EA.").

Against this backdrop, this essay concludes by offering a set of proposals to improve the management of the iconic wild horses and burros of the American West.

II. WILD HORSES AND BURROS ON THE PUBLIC LANDS

In the century preceding passage of the Wild Horses Act, wild horses throughout the country were routinely rounded up by the thousands and removed from their historic ranges for commercial use and exploitation.⁶ America's wild horses once numbered in the millions, but their numbers are believed to have dwindled to a mere 17,000 by the late 1960s and early 1970s.⁷

In 1971, Congress enacted the Wild and Free-Roaming Horses and Burros Act "to insure the preservation and protection of the few remaining wild free-roaming horses and burros in order to enhance and enrich the dreams and enjoyment of future generations of Americans."8 The WFHBA was a response to public outcry over the uncontrolled harassment and slaughter of wild horses, which Congress recognized as the "living symbols of the historic and pioneer spirit of the West."9

The WFHBA mandates that wild horses are to be "protected from capture, branding, harassment, or death; and to accomplish this they are to be considered in the area where presently found,

^{6.} Mountain States Legal Found. v. Hodel, 799 F.2d 1423, 1425 (10th Cir. 1987) ("According to congressional findings, these 'living symbols of the historic and pioneer spirit of the West' had been cruelly slain, used for target practice, and harassed for sport. Congress also found that the wild horses and burros had been exploited by commercial hunters who sold them to slaughterhouse for the production of pet food and fertilizer." (citing S. Rep. No. 92-242 (1971), reprinted in 1971 U.S.C.C.A.N. 2149, 2149).

^{7.} Animal Welfare Institute, Overview of the Management of Wild Horses and Burros 117 (2012) [hereinafter AWI]; See also Velma B. Johnston, The Fight to Save a Memory, 50 Texas L. Rev. 1055, 1056 n.1 (1972) (noting "throughout the West, [wild horse] numbers, which had been assessed in the millions, were reduced to an estimated 14, 810 to 29,620 in the 1950s.").

 $^{8. \}quad \text{H.R. Rep. No. 92-681 (1971) (Conf. Rep.), } reprinted in 1971 \text{ U.S.C.C.A.N. 2159,} \\ 2161.$

^{9. 16} U.S.C. § 1331 (2017).

as an integral part of the natural system of public lands." ¹⁰ The statutory language "where presently found" refers to the areas of the public lands occupied by wild horses in 1971 when the law was enacted. ¹¹ Fifteen years later, the Bureau of Land Management adopted regulations that designated these lands as "herd areas," defined as "the geographic area identified as having been used by a herd as its habitat in 1971." ¹²

The Act directs the Secretaries of the Interior (for BLM lands) and the Secretary of Agriculture (for Forest Service lands) to "manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands." The Act also requires that "[a]ll management activities shall be at the minimal feasible level ... in order to protect the natural ecological balance of all wildlife species which inhabit such lands, particularly endangered wildlife species." ¹⁴

The Wild Horses Act authorized and directed the Secretaries "to protect and manage wild free-roaming horses and burros as components of the public lands." In carrying out this mandate, the Secretary "may designate and maintain specific ranges on public lands as sanctuaries for their protection and preservation" following consultation with the appropriate state wildlife agencies and the advisory board established by the Act. 16 The WFHBA defines "range" as "the amount of land necessary to sustain an existing herd or herds of wild free-roaming horses and burros, which

^{10.} *Id*.

^{11.} *Id*.

^{12.} Protection, Management, and Control of Wild Free-Roaming Horses, 43 C.F.R. \S 4700.0-5(d) (2016).

^{13 16} U.S.C. § 13339(a) (2017).

^{14. 16} U.S.C. § 1333(a) (2017).

^{15.} Id.

^{16.} *Id.*; 16 U.S.C. § 1337 (2017) (authorizing the Secretaries "to appoint a joint advisory board of not more than nine members to advise them on any matter relating to wild free-roaming horses and burros and their management and protection.").

does not exceed their known territorial limits and is devoted principally but not necessarily exclusively to their welfare in keeping with the multiple-use management concept for the public lands."¹⁷

Pursuant to the Act, BLM can designate areas of wild horse habitat as "sanctuaries," where wild horses and burros have precedence over other uses (although not to their complete exclusion), including other wildlife and domestic livestock. ¹⁸ However, only three wild horse or burro ranges have been so designated: Pryor Mountain Wild Horse Range along the Montana–Wyoming border, created in 1968; Little Book Cliffs Wild Horse Range in Colorado; and Marietta Wild Burro Range in Nevada, established after the passage of the WFHBA. ¹⁹

Five years after taking action to protect and preserve America's wild horses and burros, Congress enacted the Federal Land Policy Management Act (FLPMA), establishing requirements for managing millions of acres of federal public lands. FLPMA directed that those lands be managed "on the basis of multiple use and sustained yield unless otherwise specified by law." Congress declared that public lands be:

[U]tilized in the combination that will best meet the present and future needs of the American people . . . that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values.²²

^{17. 16} U.S.C. § 1332(c) (2017).

^{18. 16} U.S.C. § 1333(a).

^{19.} AWI, *supra* note 7, at 118.

^{20. 43} U.S.C. §§ 1701–1787 (2017).

^{21. 43} U.S.C. § 1701(a)(7)(2017).

^{22. 43} U.S.C. § 1702(c) (2017).

Under FLMPA, BLM must develop and update land use plans that "use and observe the principles of multiples use and sustained yield set forth in this and other applicable law." Notably, Congress directed that FLPMA "shall... be construed as supplemental to and not in derogation of the purposes for which public lands are administered under other provisions of law." Therefore, land use plans that concern wild horse ranges and historic habitat must not only be developed in accordance with FLPMA, but must also give special consideration to wild horses and burros as an integral part of those public lands. ²⁵

Yet management of the nation's wild horses and burros by the BLM and the Forest Service has been a source of controversy for a number of reasons, including a significant loss of historical habitat, continuing roundups and removal, the elimination of entire herds, and the growing number of horses and burros in long-term holding facilities.²⁶

When Congress enacted the WFHBA, wild horses and burros occupied 53.8 million acres of the public lands, 42.4 million of which were administered by BLM.²⁷ Those lands were designated at herd areas or HAs,²⁸ where Congress determined that wild horses and burros would be protected and managed as "an integral part of the natural system of public lands."²⁹ In its 2012 study of wild horse and burro management practices for the National Academy of Sciences, the Animal Welfare Institute (AWI) found that it was unclear how and when surveys of the wild horse and burro populations were conducted or whether the areas designated as herd areas adequately encompassed all of their seasonal ranges

^{23. 43} U.S.C. § 1712(c)(1) (2017).

^{24. 43} U.S.C. § 1701(b) (2017).

^{25. 16} U.S.C. § 1331 (2017).

^{26.} AWI, supra note 7, at 134.

^{27.} U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., Wild Horse and Burro Program Data (last updated Mar. 1, 2016), https://www.blm.gov/programs/wild-horse-and-burro/about-the-program/program-data [hereinafter Program Data].

^{28. 43} C.F.R. § 4700.0-5 (d) (2016).

^{29. 16} U.S.C. § 1331 (2017).

such as to provide sufficient habitat to meet their needs.³⁰ The study noted that,

At that time, very few studies had been undertaken to understand wild horse and/or burro biology, ecology, behaviors, or habitat needs. It is probable, therefore, that the efforts made to establish wild horse and burro range were ill-informed as to the biological and ecological needs of the species.³¹

In fact, Congress was quite cognizant of the limited understanding of wild horse and burro behavior and needs at the time. In reporting out the final version of the WFHBA, the Joint Committee of Congress took note of "the apparent lack of adequate knowledge regarding many of the habits of [wild horses and burrosl."³²

Since passage of the WFHBA, wild horses and burros have lost much of their range. Today, they are restricted to Herd Management Areas (HMAs), subsets of their recognized Herd Areas, where the BLM has decided to manage them.³³ These 177 HMAs comprise only 31.6 million acres, including 26.9 million acres managed by BLM – 22.2 million acres less than those designated by Congress as wild horse habitat in 1971.³⁴ That equates to a loss of over 41 percent of rangeland in the past half century for these "living symbols of the historic and pioneer spirit of the West."³⁵

In 2008, the Government Accountability Office (GAO) was asked to review "how and why" so much of this historic range had

^{30.} AWI, supra note 7, at 110.

^{31.} *Id*.

^{32.} H.R. Rep. No. 92-681 (1971), reprinted in 1971 U.S.C.C.A.N. 2159, 2160.

^{33. 43} C.F.R. § 4710.3-1 (2017).

^{34.} Program Data, *supra* note 27; *see also* AWI, *supra* note 7, at 143 ("These HMAs comprise 26,905,179 and 4,729,183 acres of BLM and other lands, respectively, for a total of 31,634,362 acres available to wild horses and/or burros.").

^{35.} U.S. GOV'T ACCOUNTABILITY OFFICE, EFFECTIVE LONG-TERM OPTIONS NEEDED TO MANAGE UNADOPTABLE WILD HORSES 1 (2008), http://www.gao.gov/assets/290/282664.pdf.

been lost.³⁶ The GAO sidestepped this critical issue, because BLM was already "compiling a history of acreage determinations" to be completed by March 2009.³⁷ However, the agency has yet to publish a detailed, evidence-based account of its decisions to eliminate wild horse and burro habitat. A 2012 review of available data by the AWI found that BLM had produced no scientific evidence to support site-by-site analysis of its decisions, nor any data to substantiate the closure of specific herd areas.³⁸ Instead, according to the AWI study, BLM

provided only a broad-scale summary of the number of acres closed to wild horses and burros and the alleged justification for such decisions; a two-page table containing the state-by-state information; and a set of maps identifying, for each HA, the reason for the decision to zero-out the herds (e.g., checkerboard private-public land ownership patterns, lack of critical resources, legal opinions, and conflict with other resource values).³⁹

Much of the public land lost to wild horses and burros since 1971 is due to the creation of HMAs as subsets of HAs, and the consequent removal of all wild horses and burros from habitat outside designated HMAs.⁴⁰ But BLM has also abolished entire HAs without designating any portion of them as HMAs, and then zeroed out *entire* herds of wild horses.⁴¹ As absurd as it sounds, the agency has decided to carry out its statutory duty to "manage" some wild horse herds by eliminating them all together.⁴²

^{36.} Id. at 5-6.

^{37.} Id. at 6.

^{38.} AWI, supra note 7, at 134.

^{39.} Id.

^{40.} See generally Program Data, supra note 27.

^{41.} See, e.g., DEP'T OF THE INTERIOR BLM, CO-WRFO-05-083-DR/FONSI, DECISION RECORD/FINDING OF NO SIGNIFICANT IMPACT WEST DOUGLAS HERD AREA AMENDMENT TO THE WHITE RIVER RESOURCE MANAGEMENT PLAN (2005)(n file with author).

^{42.} See, e.g., id. at 2.

As the U.S. District Court for the District of Columbia has noted,

BLM's directive is "to protect and manage wild free-roaming horses and burros as components of the public lands...." 16 U.S.C. § 1333(a) (emphasis added). Congress did not authorize BLM to "manage" the wild horses by corralling them for private maintenance or long-term care as non-wild free-roaming animals off of the public lands. Upon removal for private adoption and/or long-term care, the [] Herd would forever cease to be "wild free roaming" horses "as components of the public lands" contrary to Congress's intent to protect the horses from capture.⁴³

There were an estimated 55,311 wild horses and 11,716 wild burros living on BLM-managed lands as of March 1, 2016.⁴⁴ This figure is based on an estimated 15% population growth over the 2015 estimate of 55,311 horses and 11,716 burros in 2015.⁴⁵ It should be noted, however, that these BLM figures are *estimates*, rather than the result of a comprehensive census of the wild horse and burro population.⁴⁶ An additional 5776 horses and 707 burros were estimated to inhabit U.S. Forest Service lands as of February 2014, the most recent data available on the USFS website.⁴⁷

BLM employs Appropriate Management Levels (AMLs) to set the acceptable number of wild horses and/or burros that it will

^{43.} Colorado Wild Horse and Burro Coal. v. Salazar, 639 F. Supp. 2d 87, 96 (D.D.C. 2009).

^{44.} Program Data, supra note 27.

^{45.} Id.

^{46.} AWI, *supra* note 7, at 40–41. ("In many cases, the BLM relies on the growth rate calculated based on aerial surveys of the herd, despite the potential deficiencies in the survey methodology.").

^{47.} U.S. FOREST SERV., US FOREST SERVICE WILD HORSE AND BURRO TERRITORIES (2014), https://www.fs.fed.us/wild-horse-burro/documents/territories/USFSWildHorseBurroTerritories2014.pdf.

manage in a given HMA.⁴⁸ An AML is a population range with an upper and lower limit, within which the BLM has determined to manage wild horses and burros for the long term.⁴⁹ AMLs are to be established to maintain a "thriving ecological balance,"⁵⁰ a term that is not defined in the WFHBA, FLPMA or federal regulations.⁵¹ According to the BLM Wild Horse and Burro Management Handbook (BLM Handbook), the agency must conduct a NEPA-compliant "interdisciplinary and site-specific environmental analysis and decision process (NEPA) with public involvement" in order to establish or alter the AML for an HMA.⁵²

When establishing AML, the analysis shall include an indepth evaluation of intensive monitoring data or land health assessment. Intensive monitoring data shall include studies of grazing utilization, range ecological condition and trend, actual use, and climate (weather) data. Population inventory, use patterns and animal distribution should also be considered. A minimum of three to five years of data is preferred. Progress toward attainment of other site-specific and landscape-level management objectives should also be considered. ⁵³

BLM typically establishes AMLs for wild horse and burro herds in its Herd Management Area Plans (HMAPs), rather than in the broader land use plans that are developed in accordance

^{48. 43} C.F.R. § 4710.3-1 (2017).

^{49.} U.S. DEP'T OF INTERIOR, BUREAU OF LAND MGMT, WILD HORSES AND BURROS MANAGEMENT HANDBOOK 17 (2010) [hereinafter BLM HANDBOOK].

^{50.} Id. at 47.

^{51.} The WFHBA directs the Secretaries of the Interior and Agriculture to manage wild horses and burros on the public lands in a manner that achieves a thriving natural ecological balance, 16 U.S.C. § 1333 (2012), but the Act does not define the term. *See also*, AWI, *supra* note 7, at 112 ("TNEB is not defined in statute, regulation, or policy. As such, it is unclear what effort, if any, is made or what methods or measures are used to determine if the TNEB is actually being harmed by the number of wild horses and burros on the range.").

^{52.} BLM HANDBOOK, supra note 49, at 18 (emphasis added).

⁵³ *Id.* at 18

with FLPMA mandates.⁵⁴ Although stated procedure is to establish AMLs in HMAPs with public input, the agency does not appear to comply with its own guidelines. HMAPs are not published on the BLM website, and AWI further found that rangeland monitoring data that forms the basis of AML determinations cannot be readily accessed on the website.⁵⁵ Although the BLM Handbook also provides for AMLs to be adjusted in individual, site-specific gather plans,⁵⁶ BLM does not utilize this alternative vehicle, most likely because, as final agency actions implementing land use decisions, they are subject to judicial review.⁵⁷

In sum, BLM demonstrates a complete lack of transparency—and a failure to comply with its own guidelines—in determining what numbers of wild horses and burros it will manage in HMAs. As AWI found in its extensive review of BLM documents relating to the agency's wild horse and burro program,

Though the BLM indicates that AMLs can be reset in HMAPs or roundup plans, AWI is unaware of the existence of an HMAP and has never seen BLM adjust an AML as the result of a roundup plan. Similarly, in at least two RMPs that AWI has reviewed, the AMLs for the relevant HMAs have either not been reevaluated or were retained without change. In neither case did the BLM disclose the data it is required to gather or engage in the analysis mandated pursuant to the AML process articulated in the BLM Handbook.⁵⁸

^{54.} Id. at 10.

^{55.} AWI, *supra* note 7, at 2, 25–26.

^{56.} BLM HANDBOOK, supra note 49, at 46-47.

^{57.} BLM routinely argues that AMLs are outside the scope of gather plans. See, e.g., DOI-BLM-CO-N05-2015-0023, supra note 5, at app. G; see also, AWI, supra note 7, at 99 (AWI has reviewed many roundup EAs, but has never reviewed one that included an analysis of AML. Indeed, when the public criticizes the EA for failing to consider an adjustment in AML, the BLM reports that such a determination is beyond the scope of the roundup EA.).

^{58.} AWI, *supra* note 7, at 111.

Without access to the data that BLM purportedly used to establish current AMLs, AWI could not conduct a "scientific analysis to determine if the BLM's use and interpretation of the data is defensible." ⁵⁹ Similarly, in its rigorous 2013 study of BLM's wild horse and burro program, the National Research Council concluded that BLM's decision making process for establishing AMLs and allocating forage lacked transparency and did not follow scientifically defensible data and methods. ⁶⁰

Studies have also found that target population levels are set too low to maintain the long term viability of herds within the HMAs. The BLM recognizes that genetic diversity is essential to maintaining the health of wild horse herds. ⁶¹ Citing a 2009 study by wild horse geneticist Dr. Gus Cothran, the BLM Handbook recommends that herds be managed with a total population of 150-200 horses to sustain a minimum population size of 50 effective breeding animals in order to maintain an acceptable level of genetic diversity. ⁶² In an earlier study published in 2000, Cothran concluded that "the majority of wild equid populations managed by the BLM are kept at population sizes that are small enough for the

In its past review of several draft Resource Management Plans, AWI found evidence that past AMLs were renewed without any novel analysis, that the BLM deferred analysis of AMLs due to a lack of up-to-date rangeland inventory data, and that BLM indicated that AML was set in a separate analysis (which was not available online for review for this report). While the BLM may have complied with this AML setting process in other LUPs or RMPs, AWI cannot provide an example where this has been done. Regardless of what decision-making process the BLM may use to set or adjust AMLs, its own Handbook specifies that the results of the AML multi-tiered analysis are to be disclosed in an HMA (AML) Evaluation Report subject to public review, NEPA analysis (including another opportunity for public input), and ultimately a final decision. AWI has never seen an Evaluation Report, let alone been offered an opportunity to comment on such a review.

Id. at 99.

59. Id. at 95.

62. Id.

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^{60.} NAT'L RESEARCH COUNCIL, USING SCIENCE TO IMPROVE THE BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD 225–227 (2013)[Hereinafter NRC].

^{61.} BLM Handbook, supra note 49, at 21–22. The Handbook also notes that a recommended minimum breeding herd size for burros has yet to be established. *Id.* at 22.

loss of genetic variation to be a real concern" and that it was "critical" for BLM to consider genetic diversity and viability in wild horse management plans. ⁶³ Nonetheless, an analysis of BLM's HMA data for February 2012 found that it manages the majority of wild horse (and burro) herds below the minimum population necessary to ensure genetic viability and herd health, with *high* AML set below the minimum of 150 animals. ⁶⁴ Based on the BLM's own guidelines, the agency is managing most wild horse herds with no regard for the genetic health necessary to the long term preservation of these herds.

To maintain AMLs, BLM and the Forest Service conduct multiple gathers every year, in which they permanently remove wild horses and burros from their range. The size of these round-ups varies, but some involve the removal of large numbers of animals. For example, in 2010, BLM conducted a gather operation in the Twin Peaks HMA that permanently removed 1639 of 2303 wild horses – 71 percent of the total wild horse population – and 160 of 282 wild burros – 67 percent of the wild burro population. 65

From 2012 through 2015, BLM rounded up and permanently removed a total of 18,107 wild horses and burros from the public lands. 66 The agency planned to remove another 3,608 from their range in fiscal year 2016; as of August 23, 2016 (the most recent update on the BLM website), they had succeeded in removing 2,452, with at least thirteen gathers yet to be conducted before October 1, 2016. 67 For fiscal year 2017, BLM's stated goals are to round up 6,183 wild horses and burros and permanently remove

^{63.} AWI, supra note 7, at 27.

^{64.} *Id.* at 28.

 $^{\,}$ 65. In Def. of Animals v. U.S. Dep't of the Interior, 751 F.3d 1054, 1059–61 (9th Cir. 2014).

^{66.} Quick Facts, supra note 40.

^{67.} Tentative Wild Horse and Burro Removal and Fertility Control Treatment Schedule, U.S. DEP'T OF INTERIOR, BUREAU OF LAND MGMT. (Aug. 23, 2016), (BLM has removed this data from its website since March 1, 2017) (on file with author).

3,618; as of January 18, 2017, 1,975 of the 3,618 had been removed.⁶⁸ The Forest Service intends to remove an additional 370 wild horses in fiscal year 2017, 200 of which it are claims have strayed onto private property outside Devils Garden, California; 54 horses had been removed as of January 18, 2017.⁶⁹

According to BLM data, as of August 2016, a total of 45,661 wild horses and burros were being maintained in "off-range corrals and pastures," following their removal from the public lands. ⁷⁰ However, as the numbers of horses and burro in long term holding fluctuates, and BLM's wild horse population figures are *estimates* and not always accurate, ⁷¹ it is quite possible that there are now more wild horses and burros in BLM long-term holding facilities than remain on their historical range. ⁷²

III. LIVESTOCK GRAZING IN WILD HORSE AND BURRO HABITAT

Livestock grazing is permitted on 155 million of the 245 million acres of public lands managed by BLM.⁷³ In the western states,

70. Quick Facts, supra note 40.

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The adequacy of the methods used to determine wild horse and burro herd sizes is questionable and has led to significant distrust of the agency's estimates. While direct aerial counts can be done in open areas, they likely are not feasible in heavily forested areas. The potential of double-counting or missing animals entirely is also of concern. Similarly, the BLM's assessment of population growth rates by determining the changes in herd sizes through aerial surveys and extrapolating that rate over time is replete with potential error.

AWI, supra note 7, at 135.

 $^{68. \}begin{tabular}{l} \it Wild Horse and Burro \it Management \it Actions \it Schedules for Fiscal \it Year \it 2017, U.S. \\ \it DEP'T OF INTERIOR, BUREAU OF LAND MGMT. (Jan. 18, 2017) https://www.blm.gov/basic/programs-wild-horse-and-burro-herd-management-gathers-and-removals-gather-schedule. \\ \end{tabular}$

^{69.} Id.

^{72.} See, e.g., id. at 1 ("Indeed, as of August 2012, there are more horses in short- and long-term holding (or maintenance and contract facilities) (47,523) than are estimated to exist in the wild (37,294).").

^{73.} Rangelands and Grazing: Livestock Grazing, DEP'T OF INTERIOR, BUREAU OF LAND MGMT.), https://www.blm.gov/wo/st/en/prog/grazing.htm (last visited Apr. 21. 2017) [hereinafter BLM LIVESTOCK GRAZING].

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approximately 80 percent of BLM-administered lands are authorized for livestock grazing. An additional 95 million acres of Forest Service lands are open to livestock grazing, primarily in the western regions of the United States. Together, these public lands supply less than 3 percent of the total forage for livestock raised in the United States.

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There are nearly 18,000 livestock grazing permits and leases in effect on more than 21,000 allotments on BLM-administered lands, 77 with a total of 12,365,877 active animal unit months (AUMs) as of January 8, 2016.78 In fiscal year 2015, 5,897 permittees held grazing permits on Forest Service lands, 79 for a total of 6,956,772 AUMs.80 One AUM is defined as the amount of forage necessary to sustain one cow and her calf, one horse, or five sheep

^{74.} See Christine Glaser, Costs and Consequences: The Real Price of Livestock Grazing on America's Public Lands, Center for Biological Diversity 9 (2015) ("Livestock grazing is the prevailing use of BLM lands, with 137.7 million acres, or 79 percent out of 174.5 million acres of BLM land in the West authorized for livestock grazing in 2004. (GAO 2005, 15) Acres grazed differ from year to year, and were especially low in 2004 because of the drought. (GAO 2015, 14)") [hereinafter CBD]; see also U.S. Gov't Accountability Office, Livestock Grazing: Federal Expenditures and Receipts Vary, Depending on the Agency and the Purpose of the Fee Charged 15 (2005), http://www.gao.gov/assets/250/248043.pdf.

^{75.} See U.S. DEP'T OF AGRIC., U.S. FOREST SERV., GRAZING STATISTICAL SUMMARY iii, 96–97 (2016) [hereinafter USFS GRAZING STATISTICAL SUMMARY].

^{76.} Vickery Eckhoff, Livestock Grazing Stats: Examining Key Data in the Debate Over Wild Horses on Western Public Lands, The Dailly PITCHFORK (Nov. 2015), http://dailypitchfork.org/wp-content/uploads/2015/11/BLM_USFS-grazing-analysis_2014_Daily-Pitchfork.pdf [hereinafter Livestock Grazing Stats]; see also National Public Lands Grazing Campaign, Economic Facts of Public Lands Grazing, http://www.publiclandsranching.org (last visited Mar. 1, 2016) [hereinafter NPLGC] ("Percentage of total feed for livestock (cattle and sheep) in the United States supplied from federal lands: 2%").

^{77.} BLM LIVESTOCK GRAZING, supra note 73.

^{78.} U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., PUBLIC LAND STATISTICS 90 (2015), https://www.blm.gov/public_land_statistics/pls15/pls2015.pdf.

^{79.} USFS GRAZING STATISTICAL SUMMARY, *supra* note 75, at iii (the U.S. Forest Service reports the number of commercial livestock grazing permittees, not the number of permits issued. Some permittees may hold more than one grazing permit.).

or goats for one month.⁸¹ According to the Center for Biological Diversity's analysis of BLM and Forest Service records, between fiscal year 2002 and 2013, BLM administered an average of 15,870 permits and leases for an average of 8,359,496 authorized AUMs.⁸² Authorized AUMs for BLM and Forest Service lands combined averaged 14,639,848 between fiscal year 2002 and 2012, with a high of 15,819,413 AUMs in 2010.⁸³

Because some livestock operators hold multiple grazing permits, the Center for Biological Diversity estimates that there are fewer than 21,540 permittees all together.⁸⁴ The grazing permit program therefore benefits less than 2.7 percent of the nation's approximately 800,000 cattle producers.⁸⁵ Even in the eleven western states where livestock allotments are concentrated, only 22 percent of livestock operators hold grazing permits on federal lands.⁸⁶

The Taylor Grazing Act was enacted in 1934 to "promote the highest use of the public lands," and to manage livestock grazing in an effort to stop the continued degradation of the public rangelands.⁸⁷ The Act authorized the issuance of grazing permits and the collection of grazing fees.⁸⁸ However, by 1962, over 83 percent of the public grasslands remained in fair or poor condition.⁸⁹ Congress responded to the continuing deterioration of the public lands

^{81.} BLM LIVESTOCK GRAZING, supra note 73.

^{82.} CBD, *supra* note 74, at 12.

^{83.} *Id.* at 13. Recent years have witnessed much publicity over unauthorized grazing and refusals to remit grazing fees owed under permit or lease. A GAO study found that BLM and Forest Service officials do not record most incidents, so it is impossible to know the true frequency and extent of unauthorized grazing; however, according to agency field staff, unauthorized grazing can result in severe range degradation. *See* U.S. GOV'T ACCOUNTABILITY OFFICE, UNAUTHORIZED GRAZING: ACTIONS NEEDED TO IMPROVE TRACKING AND DETERRENCE EFFORTS 12 (2016), http://www.gao.gov/assets/680/678292.pdf.

^{84.} CBD, *supra* note 74, at 6.

^{85.} Id.

^{86.} NPLGC, supra note 76.

^{87. 43} U.S.C. § 315 (2017).

^{88. 43} U.S.C. §§ 315, 315b (2017).

 $^{89. \}quad$ Public Lands Council v. Babbitt, 529 U.S. $728,\,737$ (2000) (citing Dept. of Interior Ann. Rep. 62 (1962)).

with the passage of FLPMA in 1978, directing that "regulations and plans for the protection of public land areas of critical environmental concern be promptly developed." This followed passage of the 1974 Forest and Rangeland Renewable Resources Planning Act, mandating the assessment and management of renewal resources on Forest Service lands and the development of forest use plans with public participation. FLPMA also directed that half of all grazing fees collected by BLM and the Forest Service be designated as Range Betterment Funds to be used for range rehabilitation, protection, and improvements. Plant is a service of the protection of the protection of the protection of public land areas of critical environments and plant is a service of the protection of the protection of public land areas of critical environments and plant is a service of the protection of public land areas of critical environments.

The Forest Service has charged grazing fees for private live-stock since 1906, and BLM since 1936. In 1978, the Public Rangelands Improvement Act (PRIA) established a standard formula for setting grazing fees on both BLM and Forest Service lands in Arizona, California, Colorado, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Utah, Washington, and Wyoming. The PRIA fee is computed using a 1966 base value of \$1.23 per AUM. The grazing fee cannot fall below \$1.35, and it cannot be adjusted up or down by more than 25 percent of the previous year's fee. The PRIA fee was increased to \$1.69/AUM in 2015, the first time it was raised since

^{90. 43} U.S.C. § 1701(a)(11) (2017).

^{91.} See 16 U.S.C § 1600 (2017).

^{92.} See 43 U.S.C. § 1751(b)(1) (2017).

^{93.} CAROL HARDY VINCENT, CONG. RESEARCH SERV., GRAZING FEES: OVERVIEW AND ISSUES 1 (2012) [hereinafter VINCENT].

^{94. 43} U.S.C. §§1901, 1905 (2017); VINCENT, supra note 93, at 1.

^{95.} Rangelands and Grazing: Livestock Grazing Fees and Distribution, DEP'T OF INTERIOR, BUREAU OF LAND MGMT.), https://www.blm.gov/programs/natural-resources/rangelands-and-grazing/livestock-grazing/fees-and-distribution (last visited Apr. 21, 2017). [hereinafter BLM LIVESTOCK FEES].

2007.97 For 2016, the fee was set at \$2.11 per AUM, an increase of just under 25 percent over 2015.98

In 2014, BLM reported \$12.1 million in grazing receipts and the Forest Service reported \$5 million. 99 BLM collected \$14.5 million in fees in 2015. 100 Final figures were not available for the Forest Service, but the agency estimated its fiscal 2015 receipts at just under \$5.7 million (and its fiscal 2016 receipts at \$5.6 million). 101 According to a study by the Center for Biological Diversity (CBD), the total inflation-adjusted grazing fees collected by BLM and the Forest Service declined between 2002 and 2014. 102 In addition, their analysis found that "BLM and USFS grazing fees [] increasingly diverge from rates charged by private landowners as well as other federal and state agencies." 103 CBD calculated that combined BLM and Forest Service grazing receipts between 2002 and 2012 were worth about \$261 million per year at market rates. 104

The Congressional Research Service found that the PRIA fee is generally lower than fees charged by other federal departments and agencies, such as the National Park Service, Fish and Wildlife Service, Department of Defense, and Department of Energy. ¹⁰⁵ They are also lower than grazing fees on state and private lands. ¹⁰⁶

^{97.} BLM and Forest Service Announce 2015 Grazing Fee, DEP'T OF INTERIOR, BUREAU OF LAND MGMT. (Jan. 30, 2015), (on file with author); see also Nebraska National Forest and Grasslands, NEBRASKA RURAL RADIO ASSOCIATION, http://kneb.com/agricultural/forest-service-and-blm-announce-2015-grazing-fee/ (last visited May 3, 2017).

^{98.} BLM LIVESTOCK FEES, supra note 95.

^{99.} Livestock Grazing Stats, supra note 76, at 9-10.

^{100.} BLM LIVESTOCK FEES, supra note 95.

^{101.} U.S. DEP'T OF AGRIC., FISCAL YEAR 2016 BUDGET OVERVIEW D-1 (2015), https://fs.fed.us/sites/default/files/media/2015/07/fy2016-budget-overview-update.pdf.

^{102.} CBD, *supra* note 74, at 15.

^{103.} Id. at 8.

^{104.} Id. at 19.

^{105.} VINCENT, *supra* note 93, at 1 ("A 2005 study by the Government Accountability Office (GAO) found that other federal agencies charged \$0.29 to \$112.50 per AUM in 2004.").

^{106.} *Id.* ("[I]n 2004, state fees ranged from \$1.35 to \$80 per AUM and private fees ranged from \$8 to \$23 per AUM.") *See also* CBD, *supra* note 74, at 24 ("Several grazing fee studies and surveys have been conducted over the years, demonstrating that rates for private

The GAO reported that the commercial value of livestock forage in the western states in 2016 ranged from \$9 to \$39 per AUM.¹⁰⁷

In 2013, PRIA grazing fees fell to a low of 6.72 percent of the fees charged for grazing livestock on non-irrigated private grazing lands in the West.¹⁰⁸ That percentage declined steadily from 23.79 percent in 1981, when PRIA fees were first instituted, as the gap between PRIA and private grazing fees grew.¹⁰⁹ (Increases in the PRIA fee in 2015 and again in 2016 may reduce the disparity, depending on the market rate for grazing.)¹¹⁰

The BLM and Forest Service livestock programs operate at a loss, generating less in grazing fees each year than it costs to manage the programs. The percentage of receipts to federal appropriations for management of the livestock grazing programs fell from 18 percent in 2002 to 13 percent in 2014. The GAO found that federal agencies' combined grazing fee receipts for 2004 were less than one-sixth of what the agencies spent on administering their grazing programs. 113

grazing lands in the western states are generally higher, and sometimes considerably higher, than fees based on the PRIA formula. Fees charged for state grazing lands also tend to be higher than PRIA rates, though they generally are lower than private rates. Livestock operators also generally pay rates that are higher than PRIA rates on federal lands administered by other federal agencies, including National Park Service or U.S. Fish and Wildlife Service.").

^{107.} U.S. GOV'T ACCOUNTABILITY OFFICE, supra note 83, at 8.

^{108.} CBD, *supra* note 74, at 24, 31.

^{109.} Id.

^{110.} See generally BLM LIVESTOCK FEES , supra note 95.. Forest Service receipts for 2015 were not available.

^{111.} See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, supra note 83, at 30-31; BLM FACT SHEET, supra note 73; VINCENT, supra note 93, at 2.

^{112.} CBD, supra note 74, at 30.

^{113.} U.S. GOV'T ACCOUNTABILITY OFFICE, supra note 83, at 30–31. This is the total figure for ten federal agencies that administer grazing permits and leases. The BLM and Forest Service collected 83 percent of all federal grazing receipts for FY 2004.

Of the \$79 million allocated for its rangeland management program in fiscal year 2015, BLM spent \$36.2 million, or 46 percent, on livestock grazing administration, 2.5 times as much as the program generated in grazing fees.¹¹⁴ The BLM collected \$14.5 million in livestock grazing fees in 2015.115 The Congressional Research Service has calculated that combined BLM and Forest Service appropriations for grazing management in fiscal year 2009 were \$121.4 million, while combined grazing fee receipts were only \$17.1 million, a deficit of \$104.3 million. 116 In 2014, that difference increased to \$125 million. 117 According to the Center for Biological Diversity analysis, this difference—the direct taxpayer subsidy of the BLM and Forest Service livestock grazing programs—exceeded \$120 million annually for 2003 to 2014.118 An earlier study by the Center estimated that total federal expenditures that benefit livestock grazing or compensate for the impacts of that grazing on the public lands, directly or indirectly, could be \$500 million a year. 119

Over 250 million acres of BLM and Forest Service administered lands are open to livestock grazing, compared with only 31.6

^{114.} BLM LIVESTOCK FEES, supra note 95.

^{115.} *Id*.

^{116.} VINCENT, *supra* note 93, at 2. (This CRS report states, "For FY2009, BLM has estimated appropriations for grazing management at \$49.3 million, while receipts were \$11.9 million. The FS has estimated FY2009 appropriations for grazing management at \$72.1 million, with receipts estimated at \$5.2 million." As calculated, \$.49.3 million + \$72.1 million = \$121.4 million in appropriations for grazing management and \$11.9 million + \$5.2 million = \$17.1 million in grazing receipts.)

^{117.} CBD, *supra* note 74, at 1.

^{118.} *Id.* at 17.

^{119.} Karyn Moskowitz & Chuck Romaniello, Assessing the Full Cost of the Federal Grazing Program, CTR. FOR BIOLOGICAL DIVERSITY 1 (Oct. 2002), http://www.biologicaldiversity.org/swcbd/Programs/grazing/Assessing_the_full_cost.pdf ("Considering the many other indirect costs borne by state and local government agencies, individuals and private institutions due to resource damage and impaired opportunities for recreation and other non-commercial land uses, the full cost to the U.S. public could approach \$1 billion annually."); see also, NPLGC Information Packet: Fiscal Costs or Public Lands Livestock Grazing, NATIONAL PUBLIC LANDS GRAZING CAMPAIGN (NPLGC), http://publiclandsranching.org (last visited Feb. 6, 2017) (other estimates of direct and indirect costs are \$500 million and \$460 million per year).

million acres available to wild horses and burros, a ratio of $8:1.^{120}$ In 2014, there were 37 head of livestock for each wild horse on BLM and Forest Service western rangelands, with 97 percent of forage allocated to private livestock and 3 percent to wild horses and burros. 121

In 2011, the authorized livestock AUMs in the ten western states where wild horses and burros are found were 287 times the AUMs used by a combined population of 33,805 wild horses and burros. In his analysis of forage consumption on BLM managed lands, wildlife ecologist Craig Downer found that livestock utilized 6,835,458 AUMs in fiscal year 2005. It is compared to 381,120 AUMs consumed by wild horses and burros, just 5.3 percent of the total 7,216,578 AUMs. It is year 2014, there were 8,322,058 livestock AUMs authorized on BLM lands in ten western states, increased to 8,626,462 in 2015. It is For Forest Service lands, Downer's calculations showed an even greater gap in forage usage, where fewer than 3000 wild horses and burros consumed 32,592 AUMs annually, less than half of one percent of the 6.6 million AUMs consumed by livestock each year.

Forage allocation on the remaining public lands where wild horses and burros are now managed underscores this disparity.

^{120.} See, e.g., BLM LIVESTOCK GRAZING, supra note 73; USFS GRAZING STATISTICAL SUMMARY, supra note 75; Program Data, supra note 27.

^{121.} Livestock Grazing Stats, supra note 76, at 15.

^{122.} AWI, supra note 7, at 145-46.

^{123.} Craig Downer, A Wildlife Ecologist's Perspective, AMERICAN WILDHORSE PRESERVATION (Oct. 12, 2008), https://americanwildhorsecampaign.org/wildlife-ecologists-perspective-0. Downer suggested that this figure likely dropped to 1-2 percent forage for wild horses and burros, once big game were also factored into total forage utilization.

^{124.} Id.

^{125.~} U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., PUBLIC LAND STATISTICS 2015 87 (2015), https://www.blm.gov/public_land_statistics/pls15/pls2015.pdf.

^{126.} Downer, supra note 123.

Wild horses and burros share 29.4 million acres with private livestock.¹²⁷ A review of BLM's estimated wild horse and burro populations and authorized livestock on those lands in 2012 found the total distribution of animals to include 1.8 percent wild horses, 0.4 percent wild burros, and 97.8 percent livestock.¹²⁸

Approximately 669 grazing allotments for 4,565,308 livestock are located within or partly within the boundaries of the remaining HMAs where wild horses and burros are still managed. An analysis of data from BLM's Rangeland Administration database in September 2012 showed that 1,302,259 of those livestock were permitted to graze inside wild horse and burro HMAs, with an authorized 1,626,450 AUMs with those HMAs. By comparison, the high AML for wild horses and burros for all HMAs was 26,545, which equates to 25,083 AUMs or 299,562 AUMs for the year.

BLM has a history of blaming wild horses and burros for the majority of range deterioration in herd areas and HMAs, even where livestock greatly outnumber the horses and burros. In a 1994 peer reviewed article in Conservation Biology, Thomas L. Fleischner¹³² found that livestock grazing on the public lands has "profound ecological costs" and, further, that "studies have confirmed that native ecosystems pay a steep price for the presence of livestock." According to Fleishner, "the best historic evidence seems to support the idea that livestock grazing, interacting with

^{127.} Livestock Grazing Stats, supra note 76, at 15.

^{128.} AWI, supra note 7, at 148 ("[B]ased on the BLM data . . . , 1,302,259 livestock are authorized to graze within HMAs occupied by an estimated 24,264 wild horses and 5,017 wild burros as of February 2012.").

^{129.} Id. at 132. Those livestock had a permitted 4,286,252 AUMs in 2012. Id.

^{130.} Id.

^{131.} Id. at 147.

^{132.} Fleischner currently serves as Director, Natural History Institute and Professor of Environmental Studies, Prescott College, Prescott, AZ.

^{133.} Thomas L. Fleischner, Ecological Costs of Livestock Grazing in Western North America, 8 Conservation Biology 3, 630 (1994).

fluctuations in climatic cycles, has been a primary factor in altering ecosystems of the Southwest."¹³⁴

BLM's own data demonstrates that commercial livestock grazing has left much of the Sagebrush West in degraded conditions. ¹³⁵ In the period 2013 to 2015, 40 million acres—one-third of the land assessed—did not meet BLM's Standards for Rangeland Health. ¹³⁶ Over 70 percent of that failure is the result of livestock grazing; however, the full impact of livestock on the range is unknown, because 59 million of the 150 million acres of rangelands in thirteen western states were not assessed. ¹³⁷ BLM admits that "no appropriate action has been taken to ensure significant progress toward meeting the standard" for millions of overgrazed acres. ¹³⁸

Despite scientific evidence of the ecological damage inflicted by livestock, BLM chooses to attribute the bulk of range degradation to wild horses. The agency's 2013 report on factors influencing conservation of the Greater Sage Grouse, then under consideration for listing as endangered, attributed twice as much damage to the ground-dwelling bird's habitat to wild horses rather than to livestock. However, an appraisal of BLM's methodology by Public Employees for Environmental Responsibility (PEER) found that wild horses were blamed for habitat damage based solely on their

^{134.} Id. at 637.

^{135.} Livestock Land Abuse Rampant on Public Range, Pub. EMPS. FOR ENVIL. RESP. (Oct. 6, 2016), http://www.peer.org/news/news-releases/livestock-land-abuse-rampant-on-public-range.html.

^{136.} Id.

^{137.} Id.

^{138.} Id.

^{139.} BLM Weighs Wild Horse Impact Much More Heavily Than Cattle, Pub. EMPS. FOR ENVTL. RESP. (Sept. 16, 2014), http://www.peer.org/news/news-releases/blm-weighs-wild-horse-impact-much-more-heavily-than-cattle.html.

presence in an HMA in sage grouse habitat, rather than any evidence of their direct impact. In contrast, habitat damage was attributed to livestock only when the grazing allotments failed BLM's Land Health Status (LHS) standard. HEER concluded,

If the agency used the same approach for calculating the area of influence of livestock within BLM grazing allotments on sage grouse habitat as it did for wild horses and burros, the area of influence for livestock would be roughly 14 times that given in the report and more than six times that of wild horses and burros. 142

BLM also excluded livestock grazing from Rapid Ecoregional Assessments conducted for six western regions in 2010–2011. Despite protests from scientists involved in the assessments, BLM refused to allow them to consider livestock as a "change agent" to be studied, citing "anxiety from 'stakeholders,' fear of litigation and . . . lack of available data on grazing impacts." 144

Nonetheless, the dispute over the allocation of forage between wild horses and burros and private livestock in herd areas has sparked continuing litigation. Wild horse advocates have sued BLM and the Forest Service in an attempt to halt wild horse removals, reductions in AMLs, the loss of large areas of wild horse habitat, and the elimination of entire herds. These efforts have met with limited success due to judicial deference to agency decision-making, even when the methodology behind the decisions was

^{140.} Id.

^{141.} *Id*.

^{142.} Id.

^{143.} Grazing Punted from Federal Study of Land Changes in West, Pub. EMPS. For ENVTL. RESP. (Nov. 30, 2011), http://www.peer.org/news/news-releases/grazing-punted-from-federal-study-of-land-changes-in-west.html; see also Pub. EMPS. For ENVTL. RESP., COMPLAINT OF SCIENTIFIC AND SCHOLARLY MISCONDUCT: INTENTIONAL EXCLUSION OF LIVESTOCK GRAZING AS A DISTURBANCE FACTOR FROM THE RAPID ECOREGIONAL ASSESSMENTS BY THE BUREAU OF LAND MANAGEMENT, filed with THE OFFICE OF THE EXECUTIVE SECRETARIAT AND REGULATORY AFFAIRS, U.S. DEPARTMENT OF INTERIOR (2011), http://www.peer.org/assets/docs/blm/11_30_11_Scientific_Misconduct_Complaint.pdf.

^{144.} Grazing Punted from Federal Study of Land Changes in the West, Pub. EMPS. FOR ENVTL. RESP. (Nov. 30, 2011), http://www.peer.org/news/news-releases/grazing-punted-from-federal-study-of-land-changes-in-west.html.

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questionable. For the most part, the resource management plans, in which the agencies designate areas where they will (and will not) manage for wild horses and burros and establish or adjust AMLs, are not subject to judicial review because they are considered planning documents, not final agency actions. 145 That leaves wild horse advocates to challenge individual removals, but courts routinely deny motions for preliminary injunctions or temporary restraining orders to halt gathers and removals, then dismiss the complaint as moot once the roundup has been completed.

In recent years, courts have frequently refused to intervene to prevent the removal of wild horses and burros from the range—sometimes in staggering numbers:

- August 2009 roundup and removal of wild horses from the Pryor Mountain Wild Horse Range (a designated wild horse range) was within BLM's discretion.¹⁴⁶
- Recognized BLM's "significant discretion" in setting AMLs, allowing July 2011 round up of all 2,198 and permanent removal of 1,726 (79 percent) of wild horses in three HMAs and one wild horse territory in Nevada. 147 Denied challenge to resetting of AMLs, deferring to BLM conclusion that horses were responsible for condition of the range. 148
- Permanent removal of approximately 1,639 wild horses, 71 percent of population, and 160 burros, 67 percent of population, from Twin Peaks HMA in

^{145.} See, e.g., Fund for Animals, Inc. v. BLM, 460 F.3d 13, 21 (D.C. Cir. 2006).

^{146.} Cloud Found., Inc. v. Salazar, 999 F. Supp. 2d 117, 125 (D.D.C. 2013).

^{147.} Cloud Found. v. BLM, 802 F. Supp. 2d 1192, 1196, 1200 (D. Nev. 2011).

 $^{148.\;}$ Cloud Found. v. BLM, No. 3:11-cv-00459-HDM-VPC, 2013 WL 1249814, at *14–16 (D. Nev. Mar. 26, 2013).

August and September of 2010 was within BLM's discretion. 149

- Denied emergency TRO to preserve status quo and prevent BLM from transporting horses removed from Spring Creek HMA in Colorado in September 2011 out of short term holding.¹⁵⁰
- Allowed 2013 round up and removal of 39 wild horses from Owyhee HMA in Nevada to proceed, directing BLM to gather and transport the horses "in a humane fashion." ¹⁵¹
- Allowed BLM to rely on 2008 and 2010 EAs for January 2015 round up and removal of 100 wild horses from the Sulphur HMA in Utah, because BLM was using the same methods as used in previous removals and was planning to remove fewer horses in this instance.¹⁵²
- Denied challenge to 2015 round up and removal of wild horses to meet new, lower AML for Pryor Mountain Wild Horse Range.¹⁵³

On some occasions, the courts have gone so far as to permit BLM to eliminate entire wild horse herds, despite the mandates of the WFHBA:

 Denied challenge to October 2010 removal of entire North Piceance Wild Horse Herd, holding that BLM can zero out wild horses from a recognized herd area and choose to only manage wild horses

^{149.} In Def. of Animals v. U.S. Dep't of the Interior, 751 F.3d 1054, 1061–65 (9th Cir. 2014), affg 909 F. Supp. 2d 1178 (E.D. Cal. 2012).

 $^{150.\,}$ Kleinert v. Salazar, No. 11-cv-02428-CMA-BNB, 2011 WL 4382614, at *3 (D. Colo. Sept. 19, 2011).

 $^{151.\;\;}$ Leigh v. Salazar, No. 3:13-cv-00006-MMD-VPC, 2013 WL 140595, at *3 (D. Nev. Jan. 10, 2013).

^{152.} Friends of Animals v. BLM, No. 2:15-cv-00118-CW, 2015 WL 803169, at *4–5 (D. Utah Feb. 25, 2015).

^{153.} Tillett v. BLM, No. CV-15-48-BLG-SPW-CSO, 2016 WL 1312014, at *8–11 (D. Mont. Apr. 4, 2016).

in a separate designated HMA in the same Resource Area. 154

 Denied challenge to July 2015 decision to zero out West Douglas Wild Horse Herd, holding that nothing in the WFHBA forbids BLM from declaring an entire Herd Area unsuitable for management of wild horses and declaring an entire herd of wild horses to be "excess" and subject to immediate removal.¹⁵⁵

But the wild horses have also enjoyed a few successes in the courts:

- Prohibited BLM from removing 2,432 of an estimated 3,040 wild horses (80 percent) from the Calico Mountains Complex in Nevada, because the planned transport of the horses to long term holding facilities in states where wild horses have not historically been found violated the WFHBA and, further that, "[l]ong-term maintenance of thousands of horses in holding pens constitutes intensive management that was not contemplated by Congress when the Wild Horse Act was passed." 156
- Enjoined February 2015 roundup and removal in Nevada's Pine Nut HMA, where BLM relied on a 2010 EA that was to be used for only 2–3 years, and the "proposed roundup far exceed[ed] the intensity and scope of what was proposed under the 2010 EA." ¹⁵⁷

^{154.} Habitat for Horses v. Salazar, 745 F. Supp. 2d 438, 451–53 (S.D.N.Y. 2010).

^{155.} Colo. Wild Horse & Burro Coal., Inc. v. Jewell, 130 F. Supp. 3d 205, 213 (D.D.C. 2015).

^{156.} In Def. of Animals v. Salazar, 675 F. Supp. 2d 89, 92, 99–100 (D.D.C. 2009).

 $^{157.\;\;}$ Friends of Animals v. BLM, No. 3:15-CV-0057-LRH-WGC, 2015 WL 555980, at *3 (D. Nev. Feb. 11, 2015).

BLM could not rely on an 2009 AML for determination of "excess" in an August 2015 removal decision, where it had committed to recalculate the AML within five years in a published record of decision.¹⁵⁸

In October 2016, the Tenth Circuit Court of Appeals twice ruled in favor of wild horse advocates. 159 In Wyoming v. U.S. Department of the Interior, the Court upheld the district court's dismissal of a suit seeking to force BLM to manage an overpopulation of wild horses on federal lands within the state, holding that the agency had no statutory duty to remove horses that exceeded the high AML established for an HMA.¹⁶⁰ The court cited the plain language of the WFHBA that directs BLM to maintain a current inventory of wild horses and burros on the public lands in order "to. . . make determinations as to whether and where an overpopulation exists and whether action should be taken to remove excess animals . . . ," noting that the Act "quite clearly affords the BLM with discretion to decide whether or not to remove excess animals."161 In reversing a lower court ruling, the Court in American Wild Horse Preservation Campaign v. Jewell barred BLM from removing wild horses from three HMAs in the "Checkerboard" area in southwestern Wyoming to satisfy a consent decree with livestock permittees. 162 The Court found that removing wild horses from public lands merely to keep them from straying onto private lands in an area where private livestock roam freely between private land and permitted allotments violated the mandates of the WFHBA.163

Yet another appellate court victory for wild horses may be on the horizon. In January 2017, the D.C. Circuit Court of Appeals

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^{158.} Friends of Animals v. Sparks, No. CV 15-59-BLG-SPW, 2016 WL 4082631, at *5–7 (D. Mont. July 29, 2016).

 $^{159.\;}$ Wyoming v. U.S. Dep't of the Interior, 839 F.3d 938, 945 (10th Cir. 2016); Am. Wild Horse Pres. Campaign v. Jewell, 847 F.3d 1174 (10 Cir. 2016).

^{160.} Wyoming v. U.S. Dep't of the Interior, 839 F.3d at 945.

^{161.} Id. at 944.

^{162.} Jewell, 847 F.3d at 1174.

^{163.} *Id*.

heard arguments in an appeal from *American Wild Horse Preservation Campaign v. Vilsack*, in which the district court upheld a 2013 forest management plan reducing the size of the Devil's Garden Wild Horse Territory located within the Modoc National Forest in California. ¹⁶⁴ The three-member panel expressed skepticism about the Forest Service's decision, suggesting that wild horse advocates may be in line for another victory. ¹⁶⁵

Despite a few notable successes by wild horse advocacy groups, BLM continues to remove wild horses and burros from the range at high rates. Courts frequently defer to the agency's judgment in setting AMLs, estimating populations, and attributing blame for range degradation. Further, there are so many roundups each year that these organizations and their members cannot bear the legal costs of challenging them all.

The number of gathers conducted each year varies, but in fiscal year 2015, BLM conducted a total of 36 separate removal operations, permanently removing anywhere from 4 to 667 animals in each. ¹⁶⁶ According to BLM, a total 325,362 wild horses and burros have been removed from their historic habitat since 1971. ¹⁶⁷ Adoptions have not kept pace, and the gap has grown in recent years. A total of 244,472 wild horses and burros were adopted between 1971 and 2015, however, only 46 percent of the horses and 75 percent of the burros taken off the public lands between 2007 and 2015 were adopted. ¹⁶⁸

Am. Wild Horse Pres. Campaign v. Vilsack, 133 F. Supp. 3d 200, 205 (D.D.C. 2015).

^{165.} Michael Doyle, Wild horses get favorable hearing in battle with California ranchers over sanctuary, STAR-TELEGRAM (Jan. 11, 2017), http://www.star-telegram.com/news/nation-world/national/article125890144.html.

^{166.} Completed FY 2015 Gathers, U.S. DEP'T OF INTERIOR, BUREAU OF LAND MGMT., (BLM has removed this data from its website since March 1, 2017) (on file with author)...

^{167.~} U.S. Dep't of the Interior, Bureau of Land Mgmt., BLM Wild Horse and Burro Removal, Adoption, Population, AML Table (1971-2006) [hereinafter 1971-2006 Table]; https://www.wildhorseandburro.blm.gov/statistics/PopRemAdopStats71-05.pdf (last visited April 20, 2017; copy on file with author); Program Data, supra note 27.

^{168. 1971-2006} Table, supra note 167; Program Data, supra note 27.

Since December 2004, under the Burns Amendment to the WFHBA, BLM has offered for sale all horses and burros that are more than 10 years old or have been unsuccessfully offered for adoption at least three times. 169 Sales data is only available on BLM's website for 2012 through 2015, when a total of 452 horses and 369 burros were sold. 170 Although the legislation authorized the sale of these animals "without limitation," since 2005 it has been BLM's policy not to sell any horses for slaughter, 171 limiting the number of horses sold and requiring buyers to certify that they will provide the animals with "good homes and humane care." 172 Unfortunately, BLM has not always adhered to its own policies. Between 2008 and 2012, BLM sold over 1700 horses to Tom Davis, a known proponent of wild horse slaughter. 173 BLM officials ignored multiple complaints that Davis, a Colorado rancher and livestock hauler, was illegally sending the horses to slaughter.¹⁷⁴ The agency failed to verify the information in Davis's purchase applications, run any background checks, or conduct inspections, yet continued to sell him horses in unprecedented numbers. 175 An investigation by the Department of the Interior Inspector General

^{169. 16} U.S.C. § 1333(e)(1) (2017).

^{170.} $Program\ Data$, , supra note 27. BLM does not include sales figures in their Wild Horse and Burro Removal, Adoption, Population, AML Tables, cited supra, for adoption statistics.

^{171.} Wild Horse and Burro Sales Program, U.S. DEP'T OF THE INTERIOR, BUREAU OF LAND MGMT., https://edit.blm.gov/programs/wild-horse-and-burro/adoption-and-sales/sales-program (last visited Apr. 20, 2017).

^{172.} DEP'T OF THE INTERIOR, OFFICE OF INSPECTOR GEN. INVESTIGATIVE REPORT OF BUREAU OF LAND MANAGEMENT WILD HORSE BUYER 2 (Oct. 23, 2015), https://www.doioig.gov/sites/doioig.gov/files/WildHorseBuyer_Public.pdf.

^{173.} Dave Philipps, All the Missing Horses: What Happened to the Wild Horses Tom Davis Bought From the Gov't?, PROPUBLICA (Sep. 28, 2012), https://www.propublica.org/article/missing-what-happened-to-wild-horses-tom-davis-bought-from-the-govt.

¹⁷⁴ Id.

^{175.} DEP'T OF THE INTERIOR, OFFICE OF INSPECTOR GEN. , supra note 172, at 5–6.

confirmed—based on documentary evidence, interviews, and Davis's own confession—that Davis sold nearly all the BLM horses to a "kill buyer" who shipped them to Mexican slaughterhouses. 176

In September 2016, the National Wild Horse and Burro Advisory Board recommended that BLM change its policy to lift sales restrictions, offering all horses and burros in short and long term holding deemed "unadoptable" for sale without any limitations, pursuant to its sales authority granted by the Burns Amendment.¹⁷⁷ The Advisory Board also recommended euthanizing those horses and burros that could not be sold.¹⁷⁸ The recommendations were rejected following a public backlash, ¹⁷⁹ and BLM moved quickly to add a statement to its Wild Horse and Burro website stating that the agency "does not and will not euthanize healthy animals" and "will continue to care for and seek good homes for animals that have been removed from the range."¹⁸⁰

While public opinion does not support the euthanasia or slaughter of healthy wild horses taken off range areas, BLM lacks the resources to care for all the horses and burros that it has rounded up and transferred to long-term facilities—or those that it will add to long term holding with gathers planned for 2017. The estimated cost of maintaining one horse in long-term holding was \$1.27 per day in 2008. 181 According to the BLM, spending for short and long-term holding consumes an increasing percentage of its

^{176.} *Id.* at 3–6. Despite Davis' confession and evidence uncovered by the IG, the U.S. Attorney for the District of Colorado and the Conejos County Colorado District Attorney both declined prosecution. *Id.* at 1.

^{177.} Bureau of Land Mgmt., Nat'l Wild Horse and Burro Advisory Bd. Meeting, Elko NV (2016), (BLM has removed this data from its website since March 1, 2017) (on file with author).

^{178.} *Id*.

^{179.} Brandon Loomis, *BLM: We do not 'and will not euthanize' wild horses*, THE ARIZ. REPUBLIC, (Sept. 16, 2016, 2:45 PM), http://www.azcentral.com/story/news/local/arizona-investigations/2016/09/16/blm-will-not-euthanize-wild-horses/90514698/.

^{180.} *Id.* (BLM appears to have removed this public statement from its website sometime between March 1 and April 6, 2017).

^{181.} AWI, supra note 7, at 115 (citing GAO figures).

Wild Horse and Burro Program Budget. ¹⁸² For fiscal 2015, those costs were \$49.382 million or 65.7 percent of total program expenditures, compared with \$43 million for off-range holding in fiscal 2012. ¹⁸³ In its study, the National Research Council concluded, "it is clear that the status quo of continually removing free-ranging horses and then maintaining them in long-term holding facilities, with no foreseeable end in sight, is both economically unsustainable and discordant with public expectations." ¹⁸⁴

There is little dispute among wild horse advocates, BLM, the Advisory Board, or other interested parties that the present program of removing large numbers of wild horses and burros from the range and shipping them to long term holding is unsustainable. BLM acknowledges that it cannot continue to provide adequate care without an infusion of resources. 185 However, as the AWI has noted, increased funding for off-range holding will not solve the problem, and "the BLM must stop making the problem worse by constantly adding horses to these facilities or opening new facilities to address the continual stream of horses being removed from public lands." 186

We need a new approach to wild horse and burro management.

IV. PROPOSALS

Several organizations and individuals have put forth recommendations that could help reduce the conflict between livestock and wild horses and burros on public lands. Though none alone will resolve the problem, in combination they present a potential path to a viable solution.

^{182.} Quick Facts, supra note 40.

^{183.} *Id*.

^{184.} NRC, supra note 60, at p. vii.

^{185.} Factsheet on Challenges Facing the BLM in its Management of Wild Horses and Burros, DEP'T OF INTERIOR, BUREAU OF LAND MGMT. (Sept. 29, 2009), https://www.blm.gov/wo/st/en/prog/wild_horse_and_burro/wh_b_information_center/blm_statements/new_factsheet.html.

^{186.} AWI, *supra* note 7, at 107.

A. Develop a comprehensive plan for managing wild horses and burros

BLM is required by law to consider wild horses and burros comparably with other resource values in formulating land use plans. The Animal Welfare Institute has proposed the development of a programmatic Environment Impact Statement (EIS) for the Wild Horse and Burro Management Program with public input, as the first step towards explaining and evaluating the management of wild horses and burros across their entire geographic range, similar to that used by the U.S. Fish and Wildlife Service for migratory waterfowl management. 187 This aligns with the National Research Council's recommendations for research on public opinion and values concerning wild horses and burros that "would give BLM managers insight and possibly help them find more ways to bring polarized groups into a deliberative process."188 Development of a programmatic EIS would address criticisms of BLM's inadequate methodologies and lack of scientific foundation for decisions concerning wild horse and burro management.

B. Increase grazing fees

As discussed above, fees for grazing livestock on BLM and Forest Service lands are significantly lower than comparable private grazing fees, or even those charged by other federal departments. Furthermore, these below market fees subsidize a very small percentage of livestock operators. Yet grazing fee reform has stalled in Congress for decades. In 1993, Congress rejected an administration proposal for a new base fee of \$3.96 per AUM that would be adjusted to reflect private grazing fees in the western states, 189 and two decades later also declined to amend PRIA to match fees for grazing on federal lands to those charged by the state for grazing on its lands. 190

^{187.} Id. at 109.

^{188.} NRC, *supra* note 60, at 242.

^{189.} VINCENT, supra note 93, at 5.

^{190.} Id. at 5-6.

Amending PRIA to increase livestock grazing fees gradually would provide additional funds for the Range Betterment Fund and other range restoration projects, while reducing taxpayer subsidies for the administration of the livestock program. Congress could re-direct appropriations to the maintenance of the wild horses and burros now in long-term holding. Grazing fees could also be tiered to competition for resources in specific allotments, charging a premium for grazing in HMAs, wildlife and threatened species habitat, watershed conservation areas, etc.

C. Retire grazing permits

Reducing the number of livestock grazing on public lands would reduce forage competition with wild horses and burros. The National Public Lands Grazing Campaign has compiled a list of successful livestock removals from federal lands. 191 These include:

- 20,000 acres in the Owyhee River Canyon, Idaho;
- 76 river miles and 22,265 acres along the Blitzen River, Oregon;
- 186 miles of river and tributaries and 60,000 acres along the Owyhee River, Oregon;
- 30,125 acres in the Warner Wetlands, Oregon;
- 825,000 acres in the Hart Mountain National Antelope Refuge, Oregon and Sheldon National Antelope Refuge, Nevada;
- 97,071 acres in the Steens Mountain, Oregon;
- 41,000 acres in the Salmon River Breaks Allotment, Idaho;
- 4,719 acres in the Lower Campbell Blue Grazing Allotment, Arizona:
- 498, 662 acres closed to livestock grazing; grazing seasonally restricted on additional 438,431 acres in the California Desert Conservation Area;

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^{191.} See Livestock Removal Successes, NAT'L PUB. LAND GRAZING CAMPAIGN, http://publiclandsranching.org (last visited Mar. 1, 2017).

- 244,008 acres of Peninsula Ranges Bighorn Sheep Critical Habitat, California;
- 330 river miles along the Gila River Basin, in Arizona and New Mexico;
- 245,782 acres in Hells Canyon National Recreation Area, located in Oregon and Idaho. 192

The majority of these closures were the result of litigation by environmental and conservation organizations, a lengthy, contentious, and expensive process, with unpredictable outcomes. A more sensible approach is to close grazing allotments through voluntary retirement of permits and leases. Although several bills have been introduced to authorize such initiatives, comprehensive permit retirement legislation has yet to be enacted. 193 Nonetheless, Congress has acted to protect specific areas from further damage by livestock. In 1999, under an amendment to the law establishing Great Basin National Park, three permittees voluntarily relinquished their livestock grazing permits on a total of 101,000 National Park, BLM, and Forest Service acres within the Park and part of the adjacent Mt. Moriah Wilderness Area, with \$90.61/AUM in compensation by conservation foundations. 194 In addition, the Omnibus Public Land Management Act of 2009 created a voluntary grazing lease donation and land exchange program for the Cascade-Siskiyou National Monument in Oregon and in wilderness areas in Idaho that would permanently end livestock grazing on allotments covered by the donated grazing leases. 195

^{192.} Id.

^{193.} See VINCENT, supra note 93, at 7. H.R. 3432, 114th Cong. (2015) would allow the Secretaries of the Interior and Agriculture to accept up to 100 permit waivers per year and end livestock grazing on those lands. H.R. 163, H.R. 1414, 113th Cong. (2013), and H.R. 3334, 112th Cong. (2011) would end grazing on allotments through the voluntary donation of permits by permittees. Under S. 138 the Secretary of the Interior could acquire grazing permits and permanently retire them under specific conditions.

^{194.} NAT'L PUB. LAND GRAZING CAMPAIGN , supra note 191.

^{195.} Omnibus Public Land Mgmt. Act of 2009, Pub. L. No. 111-11, 123 Stat. 1029–30; VINCENT, supra note 93, at 7.

The Multiple-Use Conflict Resolution Act (MUCRA) (H.R. 3166), introduced in the 109th Congress, would allow the federal government to compensate grazing permittees and leasees \$175 per AUM to voluntarily waive their permits/leases and permanently retire livestock grazing on the associated allotments. ¹⁹⁶ A \$100 million authorization could retire 571,429 livestock AUMs on the public lands. ¹⁹⁷ The \$175/AUM would generously compensate livestock permittees, considering the average AUM on federal public lands has a sale (not rental) value of \$35–\$75. ¹⁹⁸ If initial appropriations are insufficient to fund all applications under the Act, priority should be given to retiring permits for allotments within active HMAs, followed by allotments within herd areas where the wild horse and burro populations have been zeroed out.

The legislation is supported by the National Public Lands Grazing Campaign (NPLGC), which estimates that the voluntary program would have an annual six percent return on taxpayer investment and pay for itself in as little as seventeen years, given the current annual subsidy for the federal livestock grazing program. PPLCG likens the proposed program to federally authorized and funded buyouts, such as those for Northeast Bottom Fishing Permits, West Coast Fishing Fleet, Tobacco Quotas (\$9.6 billion), and Peanut Quotas (\$4 billion).

Another avenue has been the conversion of grazing permits to conservation permits. With the cooperation of the agency managing the land, ranchers give up their permits in return for compensation by third parties, such as environmental groups and wild

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^{196.} H.R. 3166, 109th Cong. (2005), https://www.congress.gov/109/bills/hr3166/BILLS-109hr3166ih.pdf.

^{197.} NPLGC Information Packet, NATIONAL PUBLIC LANDS GRAZING CAMPAIGN, http://publiclandsranching.org/htmlres/PDF/FS_Overview_Benefits.PDF (last visited Mar. 1, 2017).

^{198.} Id.

^{199.} See id.

^{200.} Other Government Buyout Programs, NATIONAL PUBLIC LANDS GRAZING CAMPAIGN, http://publiclandsranching.org/htmlres/PDF/FS_Other_Govt_Buyouts.PDF (last visited Mar. 1, 2017).

horse advocates.²⁰¹ Conservation permittees are then able to advocate for amendments to land use plans that convert/restore live-stock allotments to other uses.²⁰²

Third party buyouts have already succeeded in removing live-stock from some lands; however, these arrangements pose risks because the permit retirements are not permanent.²⁰³ For the most part, current law prohibits BLM and the Forest Service from permanently retiring grazing permits on the lands they administer.²⁰⁴ Permits for specific grazing allotments can only be cancelled in the rare instance when the agency identifies a specific reason to eliminate grazing and amends its resource management plans to reflect the change.²⁰⁵ Instead, the relevant resource management plan or allotment is amended to reallocate the forage associated with the permit to other uses (e.g., wildlife, wild horses, watershed conservation, etc.) for a period of 10–15 years, sometimes less.²⁰⁶ However, the agency can reopen the land to livestock at any time by issuing a new amendment to the plan or by order of the departmental secretary in a new administration.²⁰⁷

MUCRA offers a better solution than third party buyouts for several reasons: livestock permittees would receive a consistent amount per AUM; non-profits would not need to negotiate with individual and could use their resources for other programs; permittees' compensation would exceed market value and any payments they could otherwise receive from conservation groups (which are prohibited under the rules for tax exempt organizations from using funds to enrich private parties by paying more than the appraised

^{201.} VINCENT, supra note 93, at 7.

^{202.} Id.; Downer, supra note 123.

^{203.} NATIONAL PUBLIC LANDS GRAZING CAMPAIGN, HOW TO RETIRE YOUR FEDERAL GRAZING PERMIT OR LEASE FOR COMPENSATION 3 (2005), http://publiclandsranching.org/htmlres/PDF/FS_Rancher_Primer.pdf (last visited Mar. 1, 2017).

^{204.} Id.

^{205.} Id.

^{206.} Id.

^{207.} Id.

value of a permit); parties could rely on the permanence of forage reallocations; and federal agencies could reduce the resources used to administer and defend livestock grazing programs.²⁰⁸

D. Reintroduce horses to empty HAs and increase AMLs in HMAs

The Animal Welfare Institute, among others, has recommended that wild horses and burros be reintroduced to parts of their historic habitat from which they have been removed. ²⁰⁹ BLM should conduct a detailed assessment of all HAs where it no longer manages wild horses and burros to determine the suitability of reestablishing herds in those areas. ²¹⁰ A voluntary grazing permit retirement program would reduce or eliminate forage competition with livestock, making it feasible to return wild horses and burros to much of the range that has been taken from them since the passage of the WFHBA in 1971. ²¹¹

In 2008, Craig Downer compiled a list of zeroed out HAs and of HMAs whose populations must be increased to maintain genetic viability, recommending that wild horses and burros be reintroduced or increased in each state in the following numbers:

- Arizona: 540 wild burros, 35 wild horses, proportionally among 8 HAs according to area size, AML, species designation, and habitat factors such as water and forage;
- California: 303 wild burros into 2 herd areas and 2005 wild horses into 13 HAs;
- Colorado: 659 wild horses into 7 HAs/HMAs;
- Idaho: 81 wild horses into 4 HAs/HMAs:
- Montana: 294 wild horses into 6 HAs:
- Nevada: 5,200+ wild horses into 31 HAs/HMAs;
- New Mexico: 166 wild horses into 3 HAs/HMAs;

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 $^{208. \}quad \textit{See id}.$

^{209.} See AWI, supra note 7, at 108, 134.

^{210.} Id. at 108.

^{211.} *Id*.

HORSES AND LIVESTOCK GRAZING ON THE PUBLIC LANDS

- Oregon: 2,240 wild horses and 10 wild burros into 28 HAs/HMAs;
- Utah: 1,085 wild horses and 17 wild burros into 18 HAs/HMAs:
- Wyoming: 7,425 wild horses into 29 HAs/HMAs (22 of which have been zeroed out)²¹²

These HAs and HMAs could accommodate a significant portion of the wild horses and burros now in long-term holding, and Downer's list does not even include those areas of wild horse habitat where AMLs have been further reduced since 2008, or additional HAs where wild horses have been eliminated, such as both North Piceance and West Douglas in Colorado.

A problem so many years in the making will not be resolved quickly, but the goal is attainable. A combination of improved management practices, increased and tiered grazing fees, and compensated voluntary retirement of grazing permits and leases can reduce competition for forage and restore habitat that has been lost to America's wild horses and burros. Time is running out, but it is not too late "to enhance and enrich the dreams and enjoyment of future generations of Americans" 213 by preserving the freedom of these "living symbols of the historic and pioneer spirit of the West."214

^{212.} Downer, supra note 123.

^{213.} H.R. Rep. No. 92-681, at 2161 (1971).

^{214. 16} U.S.C. § 1331 (2016).