

THE WILD AND FREE-ROAMING HORSES AND BURROS  
ACT OF 1971: CUSTODIANS OF THE HORSES AND  
BURROS OF NORTH AMERICA OR CAUTIONOARY TALE  
OF GROSS GOVERNMENTAL MISMANAGEMENT?

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INTRODUCTION

In early August 2018, a mother and foal made their way across the public lands of Wyoming.<sup>1</sup> But this was not a routine day of grazing and feeding for the pair; a helicopter would soon come into view just over the horizon and begin a roundup. Not all the horses could keep up with the frantic pace of a roundup, namely the foal born just a few days prior. The young foal struggled to keep pace with its herd and eventually stopped in the middle of the range, its body refusing to go further. His mother, also exhausted, returned to tend to her offspring. After a struggle, the foal and mother were roped and brought to a Bureau of Land Management (BLM) holding pen. However, the foal ultimately succumbed to the stress of the roundup and died the next day in its pen.<sup>2</sup> This tragic story of fight or flight is not new for the BLM – the foal was one of four that died within the first six days of the Wyoming roundup.<sup>3</sup>

Such events have prompted a nationwide debate about the BLM, the agency tasked with carrying out the Free Roaming Wild Horses and Burros Act. Activists such as Simone Netherlands, the founder and President of the horse advocacy organization Respect4Horses, claims that the BLM is neglecting its responsibilities under the law. Netherlands states the BLM is tasked with protecting horses, “and in fact, they are doing the exact opposite – they are exterminating them.”<sup>4</sup> Yet the Bureau sees its approach as necessary to maintain herd health and asserts that there are more wild horses

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<sup>1</sup>*Harrowing New Video Shows Ongoing Abuse at BLM Wild Horse Roundups*, AM. WILD HORSE CAMPAIGN (Aug. 13, 2018), <https://americanwildhorsecampaign.org/media/harrowing-new-videos-show-ongoing-abuse-blm-wild-horse-roundups> [https://perma.cc/J5TF-93BL].

<sup>2</sup> *Id.*

<sup>3</sup> *Id.*

<sup>4</sup> Kim Segal & John Zarrella, *Wild Horse Roundup Triggers Controversy*, CNN (Jan. 3, 2011), <http://edition.cnn.com/2011/US/01/03/wild.horses.government.roundup/> [https://perma.cc/5E7S-56V3].

and burros today than at the roundup program's inception in 1971.<sup>5</sup> At the heart of this ideological deadlock is the Wild and Free Roaming Horses and Burros Act, a law originally intended to provide stewardship and protection to wild horses and burros living on public rangelands. To fully understand the conflict between animal advocates and legislators, it is necessary to delve into the Act itself, examining not only its origins, but the Bureau's administration of the Act as well.

The purpose of this article is to provide a background on recent events surrounding a 2019 proposal for wild horse management that explicitly prohibits the sale of healthy wild horses and burros to slaughter.<sup>6</sup> However, the 2019 proposal also advocates for roundups in densely populated areas that cannot support populations of wild horses and burros.<sup>7</sup>

Part I of this article explores the tradeoffs and consequences of wild horse management programs by examining the Wild and Free Roaming Horses and Burros Act of 1971. Part II of this article discusses the background and purpose of the Act, Part III discusses the need to control population growth in order to combat overgrazing, and Part IV discusses fertility control solutions to the problem of overpopulation. Part V discusses the overview and conclusion of topics discussed in this paper.

## I. THE WILD AND FREE-ROAMING HORSES AND BURROS ACT

American culture is peppered with references to the famed American frontier: the wild west. The "wild west" has become central to the depiction and expression of American culture since the 19<sup>th</sup> century, and wild horses are quintessential to that famed western landscape. Wild horses have been a staple in American culture since their introduction to North America in 1519.<sup>8</sup> However, nearly 400 years after horses were introduced, their population in the United States began to decline.<sup>9</sup> In fact, free-roaming horses and burros were considered wildlife fair for public taking until the 1960s.<sup>10</sup> Due to a lack

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<sup>5</sup> *Id.*

<sup>6</sup> Scott Sonner, *Some Horse Advocates Buck at New Plan to Save Wild Mustangs*, AP NEWS (Apr. 15, 2019), <https://apnews.com/article/48b7fdb07a334ffcaa006b071ca09916> [<https://perma.cc/6L72-NF9Q>].

<sup>7</sup> *Id.*

<sup>8</sup> Jay Kirkpatrick & Patricia Fazio, *Wild Horses as Native North American Wildlife*, ANIMAL WELFARE INST., <https://awionline.org/content/wild-horses-native-north-american-wildlife> [<https://perma.cc/LMN7-36X9>].

<sup>9</sup> Emily R. Kilby, *The Demographics of the U.S. Equine Population*, in 4 STATE OF THE ANIMALS 175, 176 (Deborah J. Salem ed., 2007) [<https://perma.cc/8ALZ-VHNV>].

<sup>10</sup> *Id.*

of law governing wild horse management, methods of horse capture caught the attention of wildlife activists across the nation. In response, President Richard Nixon signed into law the Wild and Free Roaming Horses and Burros Act (“WFRHBA” or “Act”) of 1971.<sup>11</sup> The Act remains the primary legislative authority on the management of wild horses and burros.

#### *A. Purpose, Delegated Authority, and Procedures*

In 1971, Congress determined that wild and free roaming horses and burros were “living symbols of the historic and pioneer spirit of the west” deserving of protection in the form of federal legislation—the WFRHBA.<sup>12</sup> The primary purpose of the WFRHBA is to “provide for the necessary management, protection, and control of wild horses and burros on public lands.”<sup>13</sup>

The Secretaries of the Interior and Agriculture have the authority to jointly administer and enforce the WFRHBA.<sup>14</sup> The Secretary of the Interior has jurisdiction over public lands administered through the Bureau of Land Management (BLM), while the Secretary of Agriculture retains jurisdiction over public lands administered through the Forest Service.<sup>15</sup> The Secretary of the Interior (“Secretary”) has broad administrative power in carrying out the purpose of the WFRHBA.<sup>16</sup> In protecting and managing wild and free-roaming horses and burros, the Secretary may designate ranges as sanctuaries for their protection.<sup>17</sup> Concerning management, the Secretary is charged with maintaining a “thriving natural ecological balance” on public lands.<sup>18</sup> In achieving this balance, the Secretary must consult with biology and ecology scientists, some of whom are independent from Federal and State Agencies.<sup>19</sup> This finding is crucial in determining the appropriate management level of

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<sup>11</sup> Pub. L. No. 92-195, 85 Stat. 649 (1971) (codified as amended at 16 U.S.C. §§ 1331-1340) [hereinafter “WFRHBA” or “the Act”]. See *Wild Horses and Burros Program History*, BUREAU LAND MGMT., <https://www.blm.gov/programs/wild-horse-and-burro/about-the-program/program-history> [<https://perma.cc/S5CY-YCG4>].

<sup>12</sup> *Range Issues and Problems with the Wild Horses and Burros Act and its Implementation: Field Hearing Before the Subcomm. on Nat'l Parks & Pub. Land of the H. Comm. on Res.*, 105th Cong. 7 (1998) (statement of Hon. James Hansen, Chairman, S. Comm. on Nat'l Parks & Pub. Land).

<sup>13</sup> Bureau of Land Mgmt., *supra* note 11.

<sup>14</sup> 16 U.S.C. § 1333.

<sup>15</sup> 16 U.S.C. § 1332(a).

<sup>16</sup> 16 U.S.C. § 1333.

<sup>17</sup> 16 U.S.C. § 1333(a).

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

animals on public lands.<sup>20</sup> Moreover, these scientific studies must be carried out in accordance and consultation with the wildlife agency of the state in which the wild horses and burros are located.<sup>21</sup>

In addition to consulting with scientists, the Secretary may also consult members of a Joint Advisory Board established in § 1337 of the WFRHBA.<sup>22</sup> This Board is appointed by the Secretary of Interior and consists of not more than nine members, who are tasked with advising the Secretary on “any matter relating to wild free-roaming horses and burros and their management and protection.”<sup>23</sup> Members of the Board may not be employed by the Federal or State governments and must have “special knowledge about protection of horses and burros, management of wildlife, animal husbandry, or natural resources management.”<sup>24</sup> Board members also do not receive compensation for their position except for travel and expenditures connected with service to the position.<sup>25</sup>

The Act affords comprehensive consultation to the Secretary because the scientific studies are intended to aid them in making informed decisions regarding population control. For example, the Secretary can order old, sick, or lame animals to be humanely “destroyed” or removed when they determine that the environment can no longer support the animal population.<sup>26</sup> Humanely removing these animals is possible under 16 U.S.C. §1333. The Secretary has authority to remove all excess animals in order to achieve appropriate management levels to “restore a thriving natural ecological balance to the range, and protect the range from deterioration associated with overpopulation.”<sup>27</sup> The Secretary humanely captures and removes additional numbers of horses and burros that do not fall into the categories of either old, sick, or lame and places those horses for private maintenance and care.<sup>28</sup> However, critics of the practice question whether removed animals are actually treated humanely.

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<sup>20</sup> *Id.*

<sup>21</sup> 16 U.S.C. § 1333(b)(1).

<sup>22</sup> 16 U.S.C. § 1337.

<sup>23</sup> *Id.*

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> 16 U.S.C. § 1333(b)(2)(A).

<sup>27</sup> 16 U.S.C. § 1333(b)(2)(iv).

<sup>28</sup> 16 U.S.C. § 1333(b)(2)(B).

*B. Controversial WFRHBA Provisions*

One of the most widely contested facets of the WFRHBA is the Secretary of Interior's determinations regarding animal populations. The 1978 amendments to the WFRHBA require the BLM to "determine appropriate management levels for wild free-roaming horses and burros on [designated] public lands."<sup>29</sup> However, the WFRHBA is a small portion of BLM's total responsibilities—the Bureau manages more than 245 million acres of America's lands and more than 700 million acres of subsurface mineral estates.<sup>30</sup> In managing these public lands, the BLM is responsible for energy development, livestock grazing, mining, timber harvesting, and conserving natural resources.<sup>31</sup>

Despite the BLM's enormous management load, the WFRHBA tasks the BLM with stewardship of horses on public lands. The WFRHBA "makes BLM responsible for deciding how appropriate management levels (AMLs) of free-ranging horses and burros should be achieved . . . ."<sup>32</sup> The BLM has interpreted the AML determination as capping the population of wild horses to a number that is supported by the environment in the affected area.<sup>33</sup> To achieve these AMLs, the Bureau has used tactics such as removal of animals from the range, destruction of animals, and sterilization.<sup>34</sup>

However, until 2008, the BLM had not put forth formal guidance as to how AMLs should be established.<sup>35</sup> In response, the Bureau issued the Wild Horses and Burros Management Handbook.<sup>36</sup> This handbook detailed the BLM's recommended methods for establishing and reviewing AMLs.<sup>37</sup>

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<sup>29</sup> NAT'L RSCH. COUNS. OF THE NAT'L ACADS., USING SCIENCE TO IMPROVE THE BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD 223 (2013) (quoting the Wild Free-Roaming Horses and Burros Act of 1971, Pub. L. No. 92-195, 85 Stat. 649 (1971) (codified as amended at 16 U.S.C. §§ 1331-1340) (amended by the Public Rangelands Improvement Act of 1978, Pub. L. No. 95-514, 92 Stat. 1083 (1978) (codified at 43 U.S.C. § 1901))) [<https://perma.cc/4LW4-ZUAG>].

<sup>30</sup> *National History*, BUREAU OF LAND MGMT., <https://www.blm.gov/about/history/timeline> [<https://perma.cc/BVR8-NG6P>].

<sup>31</sup> *Id.*

<sup>32</sup> NAT'L RSCH. COUNS. OF THE NAT'L ACADS., *supra* note 29, at 223.

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at 224.

<sup>36</sup> BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, BLM HANDBOOK NO. H-4700-1, WILD HORSES AND BURROS MANAGEMENT HANDBOOK (Jun. 7, 2010) [<https://perma.cc/WD93-XXAZ>].

<sup>37</sup> *Id.*

AMLs are defined in the handbook as:

decision[s] [that] determine the number of WH&B [wild horses and burros] to be managed within an HMA [herd management area] or complex of HMAs. AML is expressed as a population range with an upper and lower limit. The AML upper limit is the number of WH&B which results in a TNEB [thriving natural ecological balance] and avoids a deterioration of the range. The AML lower limit is normally set at a number that allows the population to grow to the upper limit over a 4-5-year period, without any interim gathers to remove excess wild horses and burros.<sup>38</sup>

Additionally, the AML may be adjusted through site-specific environmental analysis as required by the National Environmental Policy Act of 1970 (NEPA).<sup>39</sup> These adjustments represent a multi-tiered process in determining AMLs.<sup>40</sup> Tier one assesses habitat factors, tier two evaluates the amount of sustainable forage, and tier three addresses concerns with genetic populations.<sup>41</sup>

Assessing these factors requires a thorough understanding of ecosystems and rangeland dynamics. Agencies, in turn, must support their determinations and conclusions with scientific evidence. However, according to the National Academy of Science (NAS), “[h]ow AMLs are established, monitored, and adjusted is not transparent to stakeholders, supported by scientific information, or amenable to adaptation with new information . . . .”<sup>42</sup> For example, over the past two decades scientists have developed techniques to assess ecosystem dynamics that utilize a wide variety of models capable of simulating environmental responses to both climate change and the presence of herbivores such as horses.<sup>43</sup> However, the Bureau does not use these techniques in making AML determinations that respond to vegetation and ecosystem concerns.<sup>44</sup> In fact, the Committee could “not identify a science-based rationale used by the BLM to allocate forage and habitat resources to various uses within the constraints of protecting rangeland health and listed species . . . .”<sup>45</sup>

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<sup>38</sup> *Id.* at 67.

<sup>39</sup> *Id.* at 10.

<sup>40</sup> *Id.* at 67.

<sup>41</sup> *Id.*

<sup>42</sup> NAT’L RSCH. COUNS. OF THE NAT’L ACADS., USING SCIENCE TO IMPROVE THE BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD 12 (2013).

<sup>43</sup> *Id.*

<sup>44</sup> *Id.*

<sup>45</sup> *Id.* at 303.

This lack of scientific backing causes a negative public perception of the BLM. Though science would not alter every negative perception of the BLM, the Bureau's reputation would likely improve if it used science to "explain and defend its management actions."<sup>46</sup> Additionally, the BLM should consider making its scientific studies available to the public and allowing public participation in decision-making to increase the public's confidence in and perception of the Bureau.<sup>47</sup>

### 1. Techniques to Achieve AML: The Fight or Flight Response

In addition to considering the appropriate management levels of horses, the Act also contemplates how to carry out these objectives. The Act mandates that animals should be "destroyed in the most humane manner possible" or "humanely captured."<sup>48</sup> However, the Act itself allows the Secretary to use "motor vehicles, fixed-winged aircraft, or helicopters, or contract for such use, in furtherance of the management of the National Park System" in the transportation of captured animals.<sup>49</sup> Many activists argue that the use of such heavy machinery in the attempt to corral feral animals is inhumane due in part to the fact that horses have survived as prey animals for thousands of years.<sup>50</sup>

The prey instinct inherent in wild horses has allowed them to survive and thrive in environments in which natural predators include cougars, wolves, and bears.<sup>51</sup> Thus, due to their natural instinct as prey animals, horses easily "spook."<sup>52</sup> "Spooking" and "shying", refer to a flight response.<sup>53</sup> A horse's flight response can be easily triggered; anything that moves suddenly or emits an unexpected or unnatural noise can cause the animal to bolt.<sup>54</sup> Activists argue that this uncontrolled flight response can lead to catastrophic results during helicopter roundups. As recently as 2018, spooked horses have been

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<sup>46</sup> *Id.* at 304.

<sup>47</sup> *Id.* at 305.

<sup>48</sup> 16 U.S.C. § 1333(b)(2)(A)-(B).

<sup>49</sup> 16 U.S.C. § 1338a.

<sup>50</sup> Carey A. Williams, Ph.D., *The Basics of Equine Behavior*, RUTGERS N.J. AGRIC. EXPERIMENT STATION (Jul. 22, 2004), [https://esc.rutgers.edu/fact\\_sheet/the-basics-of-equine-behavior/](https://esc.rutgers.edu/fact_sheet/the-basics-of-equine-behavior/) [<https://perma.cc/9MPR-AN9Q>].

<sup>51</sup> *Id.*

<sup>52</sup> U.S. FOREST SERV. TECH. & DEV. PROGRAM, U.S. DEP'T OF AGRIC., 0723-2816-MTDC, EQUESTRIAN DESIGN GUIDEBOOK FOR TRAILS, TRAILHEADS, AND CAMPGROUNDS (2007) [<https://perma.cc/VN5B-6WNC>].

<sup>53</sup> *Id.*

<sup>54</sup> *Id.*

euthanized due to injuries sustained during aerial roundups.<sup>55</sup>

In addition to being touted as an inhumane practice, helicopter roundups and removals may be inadvertently propelling population growth. In 2013, the National Academies of Science reported that the continued removal of horses actually “facilitates high population growth.”<sup>56</sup> Roundups hold population levels below the density needed to deplete resources to the point of slowing reproduction rates.<sup>57</sup> In essence, if the population increased to the point that less food was available for all horses, fewer mares would become pregnant, horses would compete for food and resources, and the population would decrease as a result.<sup>58</sup> However, BLM roundups remove animals before the population reaches the level needed to spur this naturally selective decrease in population density.

## 2. Population Control and the Sterilization Problem

Another oft-cited controversial consequence of WFRHBA’s AML provision is the BLM’s attempt to control the fertility of wild horses and burros. In 2018, as a result of an environmental assessment in Warm Springs, Colorado, the BLM proposed to surgically spay female horses present on public lands by removing their ovaries.<sup>59</sup> Some activists claimed that the proposed sterilization plan opposed the Act’s original purpose of maintaining “healthy herds on healthy rangelands.”<sup>60</sup> Others have argued that this procedure is barbaric and, in addition to being painful, presents a high risk of complications.<sup>61</sup>

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<sup>55</sup> *Four Wild Horses Euthanized After Being Spooked in Helicopter Round-Up*, AM. WILD HORSE CAMP. (Aug. 13, 2018), <https://americanwildhorsecampaign.org/media/four-wild-horses-are-euthanized-after-they-were-spooked-helicopter-was-trying-round-them-and> [<https://perma.cc/R2LX-V5KP>].

<sup>56</sup> NAT’L RSCH. COUNS. OF THE NAT’L ACADS., *USING SCIENCE TO IMPROVE THE BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD* 5 (2013)

<sup>57</sup> *Id.*

<sup>58</sup> *Id.*

<sup>59</sup> E-mail from Brieanah Schwartz, Gov’t Rels. & Pol’y Couns., Am. Wild Horse Campaign, to Lisa Grant, Bureau of Land Mgmt., Burn Dist. Off. (Jul. 30, 2018) [<https://perma.cc/FZ46-388F>].

<sup>60</sup> *Wild Horse Advocates Pan Sterilization Plan*, AM. WILD HORSE CAMP., <https://americanwildhorsecampaign.org/media/wild-horse-advocates-pan-sterilization-plan> [<https://perma.cc/5PEX-4988>].

<sup>61</sup> Kristen Kovatch, *CSU Withdraws Partnership from BLM Ovariectomy Plan*, HORSE NATION (Aug. 13, 2018), <http://www.horsenation.com/2018/08/13/csu-withdraws-partnership-from-blm-ovariectomy-plan/> [<https://perma.cc/XK3B-PSMR>].

Veterinarians perform ovariectomies by inserting their arm into the mare's abdominal cavity through an incision in the vaginal wall.<sup>62</sup> The veterinarian then twists, severs, and forcibly removes the ovaries from the animal.<sup>63</sup> Such an invasive procedure also comes with inherent risks to the animal's health and can result in life-threatening complications.<sup>64</sup>

In addition to complications, ovariectomies can cause irreversible social instability to wild herds.<sup>65</sup> Ovariectomized horses bodies' cease producing the hormone progesterone.<sup>66</sup> A lack of progesterone causes mares to perpetually present as if they are in heat and ready for breeding.<sup>67</sup> In herd social dynamics, the stallion's job is to impregnate as many mares as possible when they are available for breeding within his herd.<sup>68</sup> The inability to achieve this biological objective could throw the herd into a state of imbalance, resulting in the potential for increased breeding injuries for both mare and stallion.<sup>69</sup> Further, there is a high potential for post-operative mares to be ostracized by their herd entirely.<sup>70</sup> Thus, although sterilization would solve the problem of uncontrolled population growth, it is met not only with great opposition by animal rights activists, but also with objectively steep costs to the natural way of life for wild horses. In fact, the National Academy of Science declared the procedure was "inadvisable due to health risks."<sup>71</sup>

In response to the BLM's 2018 ovariectomy proposal, the Cloud Fund, American Wild Horse Campaign, Animal Welfare Institute, and Carol Walker--wildlife photographer and Director of Field Documentation for Wild Horse--filed a complaint in the District Court of Portland, Oregon.<sup>72</sup> The complaint focused on the BLM's stringent limitations on public viewings of ovariectomies.<sup>73</sup> Specifically, the complaint alleged that the BLM's non-viewing policy infringed on the First Amendment rights of persons

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<sup>62</sup> *Mare Ovariectomy Experiments*, AM. WILD HORSE CAMPAIGN, <https://americanwildhorsecampaign.org/mare-ovariectomy-experiments> [<https://perma.cc/4XME-E95J>].

<sup>63</sup> *Id.*

<sup>64</sup> *Id.*

<sup>65</sup> E-mail from Brieanah Schwartz to Lisa Grant, *supra* note 59, at 15-16.

<sup>66</sup> *Id.*

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

<sup>70</sup> *Id.*

<sup>71</sup> *Mare Ovariectomy Experiments*, *supra* note 62.

<sup>72</sup> Complaint at 4, Kathrens et al v. Zinke et al, No. 3:18-CV-01691 (D. Or. Sept. 21, 2018) [<https://perma.cc/G3Q4-GUED>].

<sup>73</sup> *Id.* at 3.

conducting information for “important newsgathering and information dissemination functions.”<sup>74</sup>

On November 2, 2018, a judge of the U.S. District Court for the District of Oregon issued a preliminary injunction on the First Amendment Claims.<sup>75</sup> This action halted the experiments, eventually leading the BLM to discontinue their efforts in implementing the program.<sup>76</sup> However, this was not the Bureau’s first attempt at implementing an ovariectomy birth control program; the BLM attempted to implement the same program in 2016.<sup>77</sup> Ultimately, the BLM cancelled the program due to backlash. The decision to discontinue the program centered around the fact that the plaintiff’s success in litigation would cause BLM staff and research partners’ risk by allowing others to view the procedure and to confine them to a small space.<sup>78</sup>

The BLM’s perceived obsession with such highly controversial procedures has influenced perception of the BLM’s intentions in managing wild horses. However, following recent BLM behavior, it is necessary to ask whether the agency actions are merely perceived to be “bad acts” or are “bad acts in actuality.” Following the failed 2016 program, activists have accused the BLM of selling ten female horses to a pro-slaughter group, Protect the Harvest, to spay the horses as a result of the original program being cancelled.<sup>79</sup> Activists also call for the BLM to cease using the terms “spaying” or “neutering” in referring to ovariectomy.<sup>80</sup> Critics claim that the BLM uses these terms in order to normalize the procedure to the public because most people are familiar with the noninvasive spay and neutering procedures performed on domesticated dogs and cats.<sup>81</sup> Activist groups

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<sup>74</sup> *Id.* at 5.

<sup>75</sup> *Spay Experiments: What Our Preliminary Injunction Means*, AM. WILD HORSE CAMPAIGN (Nov. 5, 2018), <https://americanwildhorsecampaign.org/media/spay-experiments-what-our-preliminary-injunction-means> [<https://perma.cc/H2TY-6TQE>].

<sup>76</sup> *Id.*

<sup>77</sup> Yesenia Robles, *BLM Pulls Plans to Sterilize Wild Horses in Oregon*, DENVER POST (Sept. 9, 2016) <https://www.denverpost.com/2016/09/09/blm-horses-sterilization-plan-stopped/> [<https://perma.cc/3PB2-D27P>].

<sup>78</sup> Steven Dubois, *BLM Drops Plan to Surgically Sterilize Wild Horses*, AM. WILD HORSE CAMPAIGN (Sept. 9, 2016), <https://americanwildhorsecampaign.org/media/blm-drops-plan-surgically-sterilize-wild-horses> [<https://perma.cc/U4K7-SRCQ>].

<sup>79</sup> *BLM Colludes with Livestock Industry Lobbying Group to Surgically Sterilize Wild Mares*, AM. WILD HORSE CAMPAIGN (Sept. 2017), <https://americanwildhorsecampaign.org/media/blm-colludes-livestock-industry-lobbying-group-surgically-sterilize-wild-mares> [<https://perma.cc/ALJ9-WYS9>].

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

contend that these terms are inaccurate because wild horses are not afforded the same follow-up care, restricted movement, or pain relief as domesticated animals.<sup>82</sup>

Overall, it is difficult to reason why the BLM goes to such great lengths to promote a seemingly extreme and publicly unpopular protocol, unless that protocol actually served the BLM in a beneficial manner. Further, experts agree that the overpopulation problem should be addressed in a calculated and scientific manner that considers the welfare of horses among a variety of factors.<sup>83</sup> Thus, although the BLM is facing a population crisis, ovarioectomy as a population control tactic should not be used on America's wild horses.

### III. THE PITFALLS OF OVERPOPULATION

With continuing controversy surrounding the WFRHBA, many have questioned the necessity of continued population management. Criticism of the Act in its terms of humane treatment of animals in captivity, though valid, masks greater ecological consequences of overpopulation.<sup>84</sup> This section does not pose the question of whether management is appropriate, but rather asks how to achieve successful rangeland management.

#### A. *Consequences of Overgrazing*

The current estimated population of wild and free-roaming horses and burros is approximately 95,000 animals.<sup>85</sup> This figure means that horses and burros currently exceed the AML mandated by the Secretary by over 65,000 animals.<sup>86</sup> This staggering excess causes dire consequences to a habitat, making it unable to support the current population. Overgrazing is particularly alarming in terms of wild horses, due to the fact that “[h]orses consume more forage per unit of body weight than do ruminants.”<sup>87</sup> Furthermore, the consequences of overgrazing are amplified in areas such as

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<sup>82</sup> *Id.*

<sup>83</sup> See NAT'L RSCH. COUNS. OF THE NAT'L ACADS., USING SCIENCE TO IMPROVE THE BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD 306 (2013)

<sup>84</sup> Ben Masters, *Wild Horses: The Consequences of Doing Nothing*, NAT'L GEOGRAPHIC (Feb. 7, 2017), <https://www.nationalgeographic.com/adventure/features/environment/wild-horses-part-two/> [<https://perma.cc/463C-QKSP>].

<sup>85</sup> Population current as of March 2020. BUREAU OF LAND MGMT., WILD HORSE AND BURRO POPULATION ESTIMATES 26 (Mar. 1, 2020) [<https://perma.cc/VE2L-848X>].

<sup>86</sup> *Id.*

<sup>87</sup> NAT'L RSCH. COUNS. OF THE NAT'L ACADS., *supra* note 83, at 235.

America's western rangelands, where ecological mismanagement and the effects of overpopulation can be severe.<sup>88</sup>

Wild horses contribute to overgrazing simply because of their high population numbers. Typically, the BLM manages the timing, duration, and intensity of grazing for not only wild horses but also livestock animals.<sup>89</sup> Grazing management is imperative for the health and regeneration of the rangeland. In previous years, the BLM controlled population levels by rounding up excess animals.<sup>90</sup> However, the BLM's budget is consumed with supporting already captured horses, and the BLM has consequently decreased the number of roundups conducted in recent years.<sup>91</sup> As a result, wild horse populations in certain areas have skyrocketed to ten times the AML mandated by the Secretary.<sup>92</sup>

Due to unchecked population increases, wild horses are allowed to graze on public lands every day of the year.<sup>93</sup> This grazing inherently changes the ecological makeup of the rangeland and, "[e]ventually, that landscape reaches a threshold where native high-forage-value plants lose the ability to compete with unpalatable, undesirable, or nonnative species."<sup>94</sup> For example, a lower threshold of native plants could potentially allow invasive plants, such as cheatgrass, to spread rapidly.<sup>95</sup> Cheatgrass is particularly damaging to the rangeland ecosystem because of its ability to alter the "normal fire pattern in vegetated areas when its populations become dense and dominant."<sup>96</sup>

However, it is important to note that scientists primarily study cattle when evaluating the effects of rangeland grazing.<sup>97</sup> In fact, researchers studying the wild horses and burro program agree that further scientific data regarding

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<sup>88</sup> See Masters, *supra* note 84.

<sup>89</sup> *Id.*

<sup>90</sup> *Id.*

<sup>91</sup> *Id.*

<sup>92</sup> *Id.*

<sup>93</sup> *Id.*

<sup>94</sup> *Id.*

<sup>95</sup> *Id.*

<sup>96</sup> U.S. FOREST SERV. SW. REGION, U.S. DEP'T OF AGRIC., TP-R3-16-04, FIELD GUIDE FOR MANAGING CHEATGRASS IN THE SOUTHWEST 1 (Jun. 2017) [<https://perma.cc/SX2V-3LK2>].

<sup>97</sup> Vickery Eckhoff, *BLM and USFS Livestock Grazing Stats: Examining Key Data in the Debate Over Wild Horses on Western Public Lands*, DAILY PITCHFORK at 3 (Nov. 11, 2015) [<https://perma.cc/EFZ8-HJ88>].

grazing patterns and climate change will improve wild horse and burro management.<sup>98</sup> Further, cattle and horses have distinctly different grazing patterns, making it nearly impossible to conduct a one-size-fits-all type of study.<sup>99</sup> For example, horses often travel great distances to obtain food and water. As a result of this lengthy travel, horses generally spend less time at watering holes and springs than other livestock animals.<sup>100</sup> Ultimately, “although feral horses have inhabited western North America since the end of the 16th century, relatively little synecological research has been conducted to quantitatively characterize how they interact with ecosystem components.”<sup>101</sup>

The rangeland itself is not the only aspect of the western ecosystem potentially at stake. Experts caution that the overpopulation problem will eventually catch up to wild horses. Bad winters, extended droughts, or lack of foraging materials have the potential to equalize the population.<sup>102</sup> This form of “natural regulation” could cause wild horses and other big game animals, such as mule, deer, and elk, to begin starving by the tens of thousands.<sup>103</sup>

#### *B. Current AML Practices: The Adoption and Sale Conundrum*

Though it is apparent that population control is necessary, the BLM has continually struggled to properly constrain the wild horse and burro population to appropriate management levels. This is partially due to the overwhelming number of horses contained in permanent off-range corral adoption and purchase centers. As of 2017, there were 45,000 horses in government holding pens.<sup>104</sup> To care and provide for this colossal number of horses costs the federal government fifty million dollars annually.<sup>105</sup>

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<sup>98</sup> *Id.*

<sup>99</sup> *Discuss the Livestock Dynamics on Pastures and Grazing*, OR. STATE UNIV. <https://forages.oregonstate.edu/nfgc/eo/onlineforagecurriculum/instructormaterials/availabletopics/grazing/livestock> [<https://perma.cc/2MBX-JFCU>].

<sup>100</sup> Erik A. Beever & Peter F. Brussard, *Examining Ecological Consequences of Feral Horse Grazing Using Exclosures*, 60 W. N. AM. NATURALIST 236, 236 (2000) [<https://perma.cc/B2UF-GJUU>].

<sup>101</sup> *Id.*

<sup>102</sup> Ben Masters, *Wild Horses: The Consequences of Doing Nothing*, NAT'L GEOGRAPHIC (Feb. 7, 2017), <https://www.nationalgeographic.com/adventure/features/environment/wild-horses-part-two/> [<https://perma.cc/463C-QKSP>].

<sup>103</sup> *Id.*

<sup>104</sup> *Id.*

<sup>105</sup> *Id.*

These high costs partially stem from the implementation of the BLM's adoption and sale program. The Secretary is authorized to sell excess animals, with some limitations, under 16 U.S.C. § 1331(e) of WFRHBA.<sup>106</sup> To date, the BLM "has placed more than 240,000 wild horses and burros into private care."<sup>107</sup> In fact, the BLM offers incentives to the public as an effort to increase adoptions. This incentive program allows qualified adopters to receive \$500 within sixty days of adoption, and an additional \$500 within sixty days of receiving title for the animal.<sup>108</sup>

In the program, adopters are required to complete an application that proves their capabilities of providing a suitable and humane environment for animals.<sup>109</sup> However, due to low numbers of adoption, Congress passed a sales-authority law (also known as the Burns Amendment) stating that "any excess horse (and burro), or the remains of any excess horse shall be sold if the horse is more than 10 years of age or if the horse has been offered unsuccessfully for adoption at least three times."<sup>110</sup> At the inception of the Burns Amendment, any horse or burro could be sold without limitation at auction houses or livestock sale facilities until areas reach appropriate management levels.<sup>111</sup> However, the BLM placed limitations on the sale procedure in 2005 that "required buyers to provide 'good homes and humane care' to prevent horses from being sent to slaughter."<sup>112</sup>

Yet, in recent years, the BLM has failed to follow these sales practices. In 2012, the Department of the Interior issued a report detailing the BLM's failure to manage the sale of wild horses and burros. This resulted in the sale of approximately 1700 wild horses to a kill buyer, Tom Davis, who in turn sold the horses to slaughterhouses in Mexico.<sup>113</sup> Davis purchased horses from the BLM by the truck.<sup>114</sup> According to Davis, each truckload contained

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<sup>106</sup> 16 U.S.C. §1331(e).

<sup>107</sup> *Adoption and Sales*, BUREAU OF LAND MGMT., <https://www.blm.gov/programs/wild-horse-and-burro/adoption-and-sales> [https://perma.cc/DF35-DKRT]

<sup>108</sup> *Bureau of Land Management Offers New Incentives To Encourage More Adoptions of Wild Horses and Burros*, BUREAU OF LAND MGMT. (Mar. 12, 2019), <https://www.blm.gov/press-release/bureau-land-management-offers-new-incentives-encourage-more-adoptions-wild-horses-and> [https://perma.cc/D4TF-CVJE].

<sup>109</sup> *Id.*

<sup>110</sup> OFFICE OF INSPECTOR GEN., U.S. DEP'T OF THE INTERIOR, INVESTIGATIVE REPORT OF BUREAU OF LAND MANAGEMENT WILD HORSE BUYER 2 (Oct. 23, 2015) [https://perma.cc/A5Q3-JC8X].

<sup>111</sup> *Id.*

<sup>112</sup> *Id.*

<sup>113</sup> *Id.*

<sup>114</sup> *Id.*

approximately 35 horses.<sup>115</sup> He further argued that “in selling so many loads of horses, the BLM had to know the horses would end up at a slaughterhouse.”<sup>116</sup>

Whether a gross oversight, or something more sinister, events such as the sale of BLM horses to slaughter shed light on a grossly underfunded program with few options. Not only is the BLM failing to maintain an ecological balance, as directed by statute, but the horses and burros under management are also not being sold in accordance with policy. Furthermore, although limitations on horse sales attempt to ensure humane treatment, it is worth noting that these limitations operate contrary to the purpose of legislation: to limit or destroy horses in excess of AMLs.<sup>117</sup>

### *C. Wild Horses: A Piece of “Americana” or Feral?*

Since 2012, the BLM strengthened its adoption and sale policies to mitigate the risks of horses being unknowingly sold into slaughter. Currently, the BLM requires approval from the Assistant Director to sell more than four horses to an individual within a six-month period.<sup>118</sup> Though sale procedures have improved, problems still exist within the concept of adopting wild horses for public use.

The adoption incentive program offers \$1,000 to those interested in adopting a horse. However, critics say this plan “leave[s] the door open for people with dollar signs in their eyes [who] know nothing about horse training.”<sup>119</sup> In fact, the wild horse adoption program is riddled with negative experiences of wild horse ownership. The wild horse temperament is one unlike any other horse; even knowledgeable horse owners may still need the

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<sup>115</sup> *Id.* at 3.

<sup>116</sup> *Id.*

<sup>117</sup> BLM officials stated that operating contrary to implemented legislation by limiting sales and not destroying horses has contributed to an unmanageable number of horses. The WH&B senior advisor reasoned, however, that selling without limitation or destroying horses would be “political suicide,” and Congress does not want to deal with those issues. A WH&B division chief said that although BLM has attempted to manage the wild horse and burro population for years, BLM has been unsuccessful, and the same issues continue to occur without resolution. The division chief believed that these problems were due in part to “political pressures.” *Id.* at 5.

<sup>118</sup> *Id.* at 10.

<sup>119</sup> Nicole Rivard, *The True Cost of Wild Horse Adoption*, FRIENDS OF ANIMALS <https://friendsofanimals.org/news/the-true-cost-of-wild-horse-adoption/> [<https://perma.cc/5CGU-Q6V8>].

help of a trainer to gentle and socialize the animals.<sup>120</sup> Even if owners clear the hurdle of providing adequate socialization to make wild horses “pets,” there is an immense cost burden of maintaining a wild horse. Though adopted mustangs have current vaccinations, owners spend upwards of “\$50 every eight to ten weeks to have their feet professionally trimmed.”<sup>121</sup> The shoeing bill is hardly the most expensive cost of owning a horse, with horses eating 1.5 to 2.5% of their body weight each day in hay and grain.<sup>122</sup> Food costs alone are approximately one-third of the total cost of ownership, averaging more than \$1,000 each year.<sup>123</sup>

If adoption is not the answer to an ever-growing problem, what is the best cause of action to ameliorate the number of horses living in government holding pens? Some experts say euthanasia is the only alternative. Ben Masters, member of the BLM Advisory Board and longtime wild horse advocate, is steadfast in his opinions that wild horses must remain in the wild, stating: “we need every tool available including euthanasia, to get the wild horse population back to living entirely where they belong: in the wild.”<sup>124</sup>

Other experts agree that wild horses must remain in the wild but disagree that euthanasia is the only alternative. Rather, these experts say inadequate land delegation is to blame. In addition to managing the wild horse and burro program, the BLM also issues grazing allotments to private ranchers.<sup>125</sup> Many critics doubt that the BLM can effectively balance both the interests of private cattle farmers and the interests of wild horses. In fact, both sides of the aisle are unhappy in this showdown between ranchers and wild horses.<sup>126</sup> Ranchers claim that wild horses are “nothing more than feral animals, and if the government is not going to do anything about them then they should remove

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<sup>120</sup> Aubrey Pavia, *Adopt a Wild Horse*, EQUISEARCH (Sept. 27, 2017), <https://www.equisearch.com/articles/wild-horse-adoption> [<https://perma.cc/LNB6-GNST>].

<sup>121</sup> Christine Hauser, *Want to Adopt a Wild Horse? The Government Will Pay You \$1,000*, N.Y. TIMES (Mar. 26, 2019), <https://www.nytimes.com/2019/03/26/us/mustang-burro-adoption.html> [<https://perma.cc/N4YD-JX8Y>].

<sup>122</sup> Laura Williams, *Annual Cost of Owning a Horse and Six Alternatives to Buying*, MONEY CRASHERS, <https://www.moneycrashers.com/cost-owning-horse-alternatives-buying/> [<https://perma.cc/GE98-3CU6>].

<sup>123</sup> *Id.*

<sup>124</sup> Ryan Bell, *Is the West's Wild Horse Population Crisis So Bad Only Euthanasia Can Fix It?*, NAT'L GEOGRAPHIC (Sept. 12, 2016), <https://www.nationalgeographic.com/adventure/features/environment/wild-horses-euthanasia/> [<https://perma.cc/2S37-D6EY>].

<sup>125</sup> James McWilliams, *Western Cattlemen Square Off Against 60,000 Mustangs*, PAC. STANDARD (Jun. 14, 2017), <https://psmag.com/environment/western-cattlemen-square-off-against-60000-mustangs> [<https://perma.cc/H6BC-4YFF>].

<sup>126</sup> *Id.*

the Act from the books.”<sup>127</sup> Yet activists feel as though the government works to manage the wild horses and burros program in favor of ranching livestock.<sup>128</sup>

Though it is hard to filter between the echoing voices on both sides demanding a higher quantity of finite resources, the numbers don’t lie. Cattle outnumber wild horses and burros by only 37:1 and are allocated approximately 97% of public lands foraging material.<sup>129</sup> Further, these public acres supply “less than 3 percent of the forage used by the nation’s livestock industry.”<sup>130</sup> However, some say that this should not be a battle of horses versus cattle. Rangeland deterioration occurs in some areas due to horses and in some areas due to cattle; both instances of deterioration are negative for the health of the rangeland and the ecosystem it supports.<sup>131</sup> Moreover, critics question the validity of a plan giving a larger allotment of land to the BLM given the gross mismanagement of public lands in recent days.<sup>132</sup>

#### IV. POTENTIAL SOLUTIONS

An abundance of problems faces the BLM in its implementation of WFRHBA; however, potential solutions to these problems are not as clear. This section of the paper proposes possible solutions to combat the uncontrolled population growth of wild horses in the western United States.

##### A. *Equine Birth Control: The PZP Vaccination*

The PZP immunocontraceptive vaccine is used to fool the equine body into developing antibodies that attach to a mare’s eggs.<sup>133</sup> When antibodies bind to the egg, sperm are prevented from entering, thus providing a form of birth control.<sup>134</sup> The PZP vaccine can be over 90% effective in horses and only costs \$24 per dose.<sup>135</sup> For PZP to be effective, the animal must receive

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<sup>127</sup> *Id.*

<sup>128</sup> *Id.*

<sup>129</sup> Vickery Eckhoff, *BLM and USFS Livestock Grazing Stats: Examining Key Data in the Debate Over Wild Horses on Western Public Lands*, DAILY PITCHFORK 3 (Nov. 11, 2015) [<https://perma.cc/EFZ8-HJ88>].

<sup>130</sup> *Id.* at 15.

<sup>131</sup> Ryan Bell, *supra* note 124.

<sup>132</sup> *Id.*

<sup>133</sup> Ben Masters, *Can Fertility Control Keep Wild Horse Herds in Check?*, NAT’L GEOGRAPHIC (Feb. 8, 2017), <https://www.nationalgeographic.com/adventure/features/environment/wild-horses-part-three/> [<https://perma.cc/YRW2-Z9VR>].

<sup>134</sup> *Id.*

<sup>135</sup> *Id.*

two doses and an annual booster each subsequent year.<sup>136</sup> Additionally, the vaccine does not have an effect on a mare's hormonal system.<sup>137</sup> By maintaining the hormonal system of the horse, wild horses preserve their natural behaviors and way of life.<sup>138</sup> Furthermore, vaccinated females tend to show better body condition than non-vaccinated females.<sup>139</sup> This is because non-reproductive females do not face the physical demands of pregnancy and lactation.<sup>140</sup> In addition to its effectiveness, the vaccine does not harm an already pregnant mare, fetus, or nursing foal in any way.<sup>141</sup>

However, despite the positive effects of PZP, the BLM has been historically hesitant to implement PZP programs. The BLM contends that for PZP to remain effective, mares would need to be continuously located, identified, and darted.<sup>142</sup> Further, the BLM argues that this is "logistically infeasible" given the vast expanse of herd management areas.<sup>143</sup> Although it may be difficult to administer widespread PZP immunocontraceptives, PZP has proven effective when used with smaller herds.

In fact, after staff turnovers and the possibility of roundups on the horizon, the BLM approved a PZP program in Spring Creek Basin, Colorado.<sup>144</sup> Since the approval of this program, the BLM has not conducted a roundup in Spring Creek Basin.<sup>145</sup> The AML for Spring Basin Creek are between thirty-five and sixty-five horses.<sup>146</sup> In 2011, the population of wild horses at Spring Basin Creek was approximately eighty-two horses.<sup>147</sup> The last roundup in Spring Creek Basin was conducted in 2011, resulting in the

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<sup>136</sup> *Id.*

<sup>137</sup> *Fertility Control*, AM. WILD HORSE CAMPAIGN, <https://americanwildhorsecampaign.org/media/pzp-fertility-control> [<https://perma.cc/C6ZF-AJLD>].

<sup>138</sup> *Id.*

<sup>139</sup> NAT'L RSCH. COUNS. OF THE NAT'L ACADS., USING SCIENCE TO IMPROVE THE BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD 96 (2013)

<sup>140</sup> *Id.*

<sup>141</sup> Kathryn Wilder, *PZP: Where Hope, Science, and Mustangs Meet*, HIGH COUNTRY NEWS (Jan. 5, 2016), <https://www.hcn.org/articles/pzp-where-hope-science-and-mustangs-meet> [<https://perma.cc/TZ3R-2K4V>].

<sup>142</sup> BUREAU OF LAND MGMT. BURN DIST. OFFICE, U.S. DEP'T OF THE INTERIOR, DOI-BLM-ORWA-B050-2018-0016-EA, SPAY FEASIBILITY AND ON-RANGE BEHAVIORAL OUTCOMES ASSESSMENT AND WARM SPRINGS HMA POPULATION MANAGEMENT PLAN 15 (Jun. 29, 2018) [<https://perma.cc/DZ6E-HBPT>].

<sup>143</sup> *Id.*

<sup>144</sup> Masters, *supra* note 133.

<sup>145</sup> Wilder, *supra* note 141.

<sup>146</sup> *Id.*

<sup>147</sup> *Id.*

capture of approximately forty horses.<sup>148</sup> However, since the implementation of a successful PZP program, horses have stayed below the AML and, as a consequence, out of the clutches of BLM roundups.

The PZP vaccine has also proven its effectiveness in controlling free-roaming horse populations in other areas of the country. PZP is used to control the population of the famous swimming ponies of Assateague Island. The PZP Assateague program, currently thirty-three years old, has not only controlled the population to an extent where roundups are no longer needed, but also increased the lifespan of the Assateague ponies.<sup>149</sup> Following the implementation of the PZP program, the mean lifespan increased from 6.47 years in untreated mares to 19.94 years in mares treated for three years or more with PZP.<sup>150</sup>

Furthermore, the implementation of a PZP program has the potential to save taxpayers millions of dollars each year. In Wyoming, a PZP plan facilitated a herd reaching zero-population growth in just three years.<sup>151</sup> As a result, taxpayers in the area saved approximately seven million dollars.<sup>152</sup> Similarly, a herd management area in Idaho recently implemented a PZP program resulting in savings of \$350,000 for taxpayers.<sup>153</sup>

### *B. Negative Consequences of PZP*

Though PZP has proved to be a viable option in effectively and humanely controlling population levels, there is a potential for fertility control to cause genetic side effects.<sup>154</sup> Immunocontraceptives are not 100% effective.<sup>155</sup> Some experts have suggested that by unintentionally using the vaccine on animals that do not respond to immunocontraception, these horses could still reproduce and create a population that is genetically resistant to immunocontraception.<sup>156</sup>

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<sup>148</sup> Wilder, *supra* note 141.

<sup>149</sup> Masters, *supra* note 133.

<sup>150</sup> NAT'L RSCH. COUNS. OF THE NAT'L ACADS., USING SCIENCE TO IMPROVE THE BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD 124 (2013)

<sup>151</sup> Wilder, *supra* note 141.

<sup>152</sup> *Id.*

<sup>153</sup> *Id.*

<sup>154</sup> NAT'L RSCH. COUNS. OF THE NAT'L ACADS., *supra* note 150, at 124.

<sup>155</sup> *Id.*

<sup>156</sup> *Id.*

However, a more concerning side effect of immunocontraception, or any contraception for that matter, is the potential for a lack of genetic diversity among wild horse herds. Maintaining genetic diversity is necessary for herds to survive environmental changes.<sup>157</sup> However, a lack of research exists regarding genetic data of wild horse populations.<sup>158</sup> Specifically, data has not recorded the occurrence of diseases or clinical signs of potential genetic diseases affecting wild horse herds.<sup>159</sup> Without recording occurrences of genetic disease, it is virtually impossible to determine the effects of contraception on herd genetic diversity. A possible solution for this problem is the implementation of routine blood and hair collections during roundups.<sup>160</sup>

### C. The “Do-Nothing” Approach

Failing to address the roots of overpopulation will result in disastrous effects. However, there is scientific evidence that wild horse populations will self-limit when populations rise to unsustainable numbers.<sup>161</sup> Self-limitation would decrease population via shortages of food and water, causing animals to die from starvation, disease, or poor body condition.<sup>162</sup>

This form of self-limitation has been observed in areas of Nevada. In the summer of 2015, horses began starving due to overpopulation west of Las Vegas, Nevada.<sup>163</sup> Forage conditions in the area were so scant that horses began eating Joshua trees.<sup>164</sup> In this area, the appropriate management level was set between forty-seven to sixty-six wild horses and twenty to thirty-five burros. During 2015, the number of horses and burros exceeded 500 animals.<sup>165</sup> The poor body condition of these horses prompted public outcry from the residents of Nevada, a scenario which is likely to occur if the BLM chooses to adopt a broad “do nothing” approach in regard to population control.<sup>166</sup> Following public uproar, the horses were gathered and put up for

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<sup>157</sup> *Id.* at 125.

<sup>158</sup> *Id.* at 169.

<sup>159</sup> *Id.* at 171.

<sup>160</sup> *Id.* at 172.

<sup>161</sup> *See id.* at 87.

<sup>162</sup> *Id.* at 88.

<sup>163</sup> Ben Masters, *Feral Horses – The Effects of Doing Nothing*, NEV. AGRIC. EXPERIMENT STATION, <http://naes.unr.edu/news/story.aspx?StoryID=845> [https://perma.cc/82UZ-GE6A].

<sup>164</sup> *Id.*

<sup>165</sup> *Id.*

<sup>166</sup> *Id.*

adoption.<sup>167</sup> Though some may classify the horses as being rescued from starving conditions, it is likely that these animals will ultimately spend their lives in a holding pen; begging the question as to whether the horses were rescued or sentenced to a life of permanent confinement.

#### CONCLUSION

In conclusion, the Wild and Free-Roaming Horses and Burros Act of 1971 has developed from a revered piece of legislation, intended to protect our nation's wild horses and burros, to the cornerstone of a grossly mismanaged government program. The BLM's implementation of the Act is riddled with strife, mismanagement, improper determinations, and a lack of resources. Ultimately, it is the environment and the horses that live on rangelands that suffer from the BLM's misguided actions. However, a complete overhaul of the BLM is not necessary to effect lasting change. In successfully deploying a vaccine program, the BLM could drastically reduce the number of wild horses existing on the rangeland in a humane and sustainable manner.

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<sup>167</sup> *Id.*