Data Submitted (UTC 11): 2/26/2020 7:00:00 AM
First name: Julie
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Organization:
Title:
Comments: February 26, 2020

Dear Mr. Best,

My name is Julie DeBus-Levy and I am a resident of Gila County, a horse owner and a frequent visitor of the Apache-Sitgreaves National Forest for the explicit purpose of viewing and photographing the Heber wild horses. I am respectfully requesting a number of studies be done during the Environmental Analysis process to determine facts necessary to implement the most appropriate and effective Heber Wild Horse Management Plan.

To begin, it is reasonable to extrapolate that the removal of any wild horses from the Apache-Sitgreaves National Forest (ASNF) will affect the enjoyment of human visitors to the forest. I felt that the US Forest Service (USFS) has failed to properly consider that impact on the public or the impact of those removals on the sustainability of this wild horse herd and the overall health of the ecosystem of the ASNF in their Draft Plan.

As written, it appears that the Draft Plan could result in the immediate removal of as many as 90% of the wild free-roaming horses in this herd (and possibly 100% over a period of time) when the horses are found outside of the official Heber Wild Horse Territory (HWHT) boundaries. The Draft Plan sets the Appropriate Management Level (AML) at 50-104 horses for the HWHT on page 15, although according to the USFS's own survey data (page 8), approximately 90% of the Heber herd has been known to roam outside of the official 19,700 acre HWHT boundaries on the adjacent forest lands; which are 616,000 acres in the Black Mesa District. The HWHT has never been fenced to assure that horses remain within the official territorial boundaries and there is no mention of any plan to construct a perimeter fence to insure they stay within those boundaries in the future. On page 18 of the Draft Plan, note that one of the thresholds for removal of horses is "Horses are occupying areas outside of the HWHT not designated for their long-term maintenance. (Emphasis added). If implemented this threshold would actually violate the Code of Federal Register (CFR) Section 222.25 which provides protection for wild free-roaming horses even if they were to move or migrate off of protected territories onto lands of other ownership or jurisdiction, so I propose this threshold be removed from the Plan. See CFR Section 222.25 language at this link: https://www.govinfo.gov/content/pkg/CFR-2010-title36-vol2/pdf/CFR-2010-title36-vol2-sec222-25.pdf

Removal of this large percentage of horses from the current herd will cause a direct and detrimental impact on the genetic diversity and long-term viability, health and well being of remaining horses and cause trauma, distress and possible death to any horses that are removed. Furthermore, the loss of 90% of the herd (or even a smaller percentage) will be harmful to me personally as I enjoy spending a great deal of my time in the Apache-Sitgreaves National Forest observing the variety of wild horse families within this herd and sharing those images with others.

It is reasonable to think that reducing populations of any wildlife species from their natural habitat will upset the natural ecological balance of those ecosystems. In this case, with the AML being set at a very low number (50-104 horses), it can reasonably be extrapolated that such a reduction in the number of wild horses will result in deterioration of the range health as wild horses are known to contribute to a healthy ecosystem. Please review this 2015 study conducted by Wildlife Ecologist Craig C. Downer, all of the information is important and relevant, but especially the section Summation of Impact Intensities, Wild Horse vs Human with Discussion:https://thewildhorseconspiracy.org/2015/12/30/report-on-salt-river-ecosystem-tonto-national-forest-arizona-with-focus-on-wild-horses/. Furthermore, here is another paper by Wildlife Ecologist Craig C. Downer, points #5, #7, #8, and #15 are particularly important, though the entire paper is as well:

https://static1.squarespace.com/static/59f8c99ff09ca4e7c237d467/t/5a0f394d53450aa13b0d29df/1510947219/Craig+Downer+article.pdf. Lastly, please watch this 24-minute video by the same Wildlife Ecologist - Craig C. Downer, which features the many positive contributions that wild horses and burros make to ecosystems and effectively disproves many unfounded statements made about wild horses: https://www.youtube.com/watch?v=sM3VEdGrfAM.

Additionally, it is highly likely that the Heber-Overgaard Community and the Arizona State Treasury will suffer economic losses due to loss of tourism dollars spent by fellow nature enthusiasts, photographers and the general public who I frequently observe delighting in observations of wild horses roaming freely on the public lands.

Please study the impacts of the proposed Draft Plan carefully. My good friend started an Instagram page only ~3 years ago (Arizona.wild.horses) and already has over 13,000 followers from all over the world, many of whom have disclosed to her that they plan their vacations to visit Arizona's wild horse herds thanks to the interest generated by her Instagram page.

Cumulative impacts of the Draft Plan are also a strong concern as many people (including myself) have become increasingly aware of the cruel and inhumane actions used by the BLM during helicopter roundups of wild horses (and burros) over the last 20 years. These actions are likely to impact any actions taken by the USFS as they enter into wild horse management here in Arizona (if helicopter roundups are utilized in the same manner).

Please study and consider:

* What is the science-based rationale used to allocate forage and habitat resources to various uses within the constraints of protecting rangeland health and various species given the multiple-use land manade?

Proposal: Establish a regulation that brings grazing regulations into conformance with the 1971 Wild Free-Roaming Horses and Burros Act and devote forage within herd areas principally but not necessarily exclusively to wild horses and burros. To satisfy this requirement, livestock grazing within herd areas should not exceed 45% of all forage allocations and wild horses and burros should be at least 55% or more of all forage allocations. I strongly oppose any regulations that would increase livestock grazing in any herd areas. I strongly urge strengthening regulations to protect rangeland health - for example, if an allotment has not met minimal rangeland health standards for two of the last four years, the associated grazing permit should not be renewed and should be temporarily suspended until the range meets or exceeds rangeland health standards for all areas of the grazing allotment.

* What is the current precise number of free-roaming wild horses residing in the Apache-Sitgreaves National Forest (ASNF) including the Heber Wild Horse Territory (HWHT)?

Considerations: In light of the recent deaths of at least 36 horses in the Black Mesa District since the shootings began in October 2018, the current number is important to determine before implementation of any management plan.

* How are the Appropriate Management Levels (AMLs) for wild horses established, monitored, and adjusted; are these amenable to adaptation with receipt of new information and environmental and/or social change?

Considerations: AMLs are a focal point of controversy between the BLM and the public, so it seems very important that the USFS does it due diligence to this right to avoid similar conflicts with the public. The National Academy of Science Report, Using Science to Improve the BLM Wild Horse and Burro Program - A Way Forward (2013) has an entire chapter 7 (pages 195-237) that is important to consider: https://www.nap.edu/read/13511/chapter/9.

* Has any scientific study concluded that an AML of 50-104 horses provides genetic diversity sufficient for a healthy and self-sustaining herd over the long run? Please disclose that study if it exists. If not, a study should be conducted prior to implementation of a management plan.

Considerations: Renowned equine geneticist, Dr. E. Gus Cothran, has long stated that "populations must be maintained at 150-200 animals in order to preserve genetic viability", per this news release: https://www.thecloudfoundation.org/press-releases/2018/8/6/world-famous-mustang-herd-under-attack?rq=genetic%20viability. Dr Cothran has further stated - in order to remain genetically viable, herds should be approximately 180-300 reproducing animals in size - referring to this quote, "In other words, to be sustainable over the long term, a healthy herd should have 180-300 individuals" on page 298 of The Wild Horse Dilemma: Conflicts and Controversies of the Atlantic Coast Herds at this link:

https://books.google.com/bookd?id=Vf38CwAAQBAJ&pg=PA298&dq=eg+cothran+wild+herd+diversity&source=bi&ots=ldwhEWNXpP&sig=ACfU3U2OCWFttv0OxFgArVLXRqlj7hiJMg&hl=en&sa=X&ved=2ahUKEwiXkcfLtePnAhXEYMAKHT5CB1cQ6AEwBnoECAkQAQ#v=onepage&q=eg%20cothran%20wild%20herd%20diversity&f=false.

The National Academy of Sciences Report from 2013 cites Dr. Cothran's work as a helpful tool for BLM management of herds. "The Cothran studies are excellent tools for BLM to use in managing herds to reduce the incidence of inbreeding[hellip]"

In chapter 5 of the report: https://www.nap.edu/read/13511/chapter/7#144, it is highly relevant to consider the section titled THE RELEVANCE OF GENETIC DIVERSITY TO LONG-TERM POPULATION HEALTH (page 145) as well as MANAGEMENT ACTIONS TO ACHIEVE OPTIMAL GENETIC DIVERSITY (page 161) https://www.nap.edu/read/13511/chapter/7?term=Cothran#161, however, the entire chapter 5 (pages 143-174) is important and should be considered for adjusting the AML of the Heber herd to one that assures genetic viability.

Additionally, "One-hundred and twenty breeding animals was kind of the agreed upon number several years ago", Cothran said, (referring to the Pryor Mountain herd of Montana and Wyoming). "In the short term, the Pryor mustang herd won't be hurt by a reduction from 188 animals to around 130", he said. "The concern in keeping only 120 horses on the range" Cothran said, "is the threat of a potential die-off that could reduce the herd even further, reducing the herd's genetic diversity". Those statements are found in this article: https://billingsgazette.com/news/state-and-regional/noted-geneticist-gives-his-two-bits-on-significance-of-pryor/article_e5644e8a-9da0-11de-9b07-001cc4c03286.html

Furthermore, according to the BLM's own guidelines regarding genetic baseline sampling & variability outlined here: https://www.blm.gov/policy/im-2009-0622, "A population that is maintained at less than 100-120 adult animals may begin to lose variation fairly quickly."

Proposal: Change the AML for the Heber herd to set point in the range of 150-300 horses, which is the recommended number of animals to maintain a genetically viable herd, per Dr. E. Gus Cothran, equine geneticist, which complies with spirit of the 1971 Wild Free-Roaming Horses and Burros Act, enacted by Congress to protect these herds from extinction.

Proposal: A participatory adaptive-management process for the setting and adjustment of AMLs, might involve testing the effects of different herd levels on wildlife habitat. Target the objective of meeting the stipulation of the Wild Free-Roaming Horses and Burros Act of 1971 (as amended) to protect wildlife. Stakeholders - including scientists, the public, and managers - could decide on an AML to be tested; examine the outcomes of monitoring (or even participate together in monitoring) and, on the basis of results, propose adjustments of the AML. Adaptive management can provide much-needed transparency for USFS's management of free-roaming horses. Please consider chapter 8 (pages 239-264) of the National Academy of Science Report:

https://www.nap.edu/read/13511/chapter/10#250/

* What are the current migration patterns of the existing Heber herd and what is the likelihood that 50-104 horses will stay within the boundaries of their designated 19,700 unfenced areas?
* What are the environmental impacts of reducing a population of wild horses to the overall health of the Apache-Sitgreaves National Forest ecosystem, especially since other studies show that wild horses contribute positively to overall forest health?

Considerations: Please review this previously referenced article by the Serengeti Foundation showing the positive benefits of horses contributing to the restoration of damaged rangeland: https://serengetifoundation.com/horseposer/ as well as these previously referenced studies by Craig C. Downer, wildlife ecologist found here: https://static1.squarespace.com/statis/59f8c99ff09ca4e7c237d467/t/5a0f394d53450aa13b0d29df/1510947149219/Craig+Downer+article.pdf and https://thewildhorseconspiracy.org/2015/12/30/report-on-salt-river-ecosystem-tonto-national-forest-arizona-with-focus-on-wild-horses/ and this previously referenced video found here: https://www.youtube.com/watch?v=sM3VEdGrfAM.

* What are the environmental impacts of fencing in the 19,700 acres of the HWHT and allowing up to 104 wild horses and an undisclosed number of cattle to graze upon the grazing allotments (identified by pasture fencing on the map on page 10 of the Draft Plan) within that defined acreage?
* Considerations: Please review this previously referenced article by the Serengeti Foundation showing the positive benefits of horses contributing to the restoration of damaged rangeland: https://serengetifoundation.com/horsepower/ as well as these previously referenced studies by Craig C. Downer, wildlife ecologist found here: https://static1.squarespace.com/statis/59f8c99ff09ca4e7c237d467/t/5a0f394d53450aa13b0d29df/1510947149219/Craig+Downer+article.pdf and https://thewildhorseconspiracy.org/2015/12/30/report-on-salt-river-ecosystem-tonto-national-forest-arizona-with-focus-on-wild-horses/ and this previously referenced video found here: https://www.youtube.com/watch?v=sM3VEdGrfAM.
* How many cattle are permitted to graze annually on the 19,700 acres designated as the HWHT? What impact does this livestock have on the rangeland health of the HWHT?

Considerations: Please review this information that shows cattle outnumber wild horses by a ratio of 28:1 on western public lands as of the most recent BLM data available (2018). http://dailypitchfork.org/?p=1417. Be sure to click on the Cattle vs. Wild Horses 2002-2018_fact sheet near the bottom of the page. Please consider cause-and-effect results: the number of cattle grazing in herd areas has a direct cause-and-effect relationship to the number of horses allowed to live on those public lands. Increasing cattle grazing, seasonally, year-round or for any purpose, reduces forage available for wild horses and burros.

Furthermore, please review this previously referenced article by the Serengeti Foundation showing the positive benefits of horses contributing to the restoration of damaged rangeland: https://serengetifoundation.com/horsepower/ as well as these previously referenced studies by Craig C. Downer, wildlife ecologist found here: https://static1.squarespace.com/statis/59f8c99ff09ca4e7c237d467/t/5a0f394d53450aa13b0d29df/1510947149219/Craig+Downer+article.pdf and https://thewildhorseconspiracy.org/2015/12/30/report-on-salt-river-ecosystem-tonto-national-forest-arizona-with-focus-on-wild-horses/ and this previously referenced video found here: https://www.youtube.com/watch?v=sM3VEdGrfAM.

* How many cattle are permitted to graze annually on the 616,000 acres of the Black Mesa District of the Apache-Sitgreaves National Forest? What impact do those cattle have on the Apache-Sitgreaves National Forest ecosystem?

Considerations: Please review this information that shows cattle outnumber wild horses by a ratio of 28:1 on western public lands as of the most recent BLM data available (2018). http://dailypitchfork.org/?p=1417. Be sure to click on the Cattle vs. Wild Horses 2002-2018_fact sheet near the bottom of the page. Please consider cause-and-effect results: the number of cattle grazing in herd areas has a direct cause-and-effect relationship to the number of horses allowed to live on those public lands. Increasing cattle grazing, seasonally, year-round or for any purpose, reduces forage available for wild horses and burros.

Furthermore, please review this previously referenced article by the Serengeti Foundation showing the positive benefits of horses contributing to the restoration of damaged rangeland: https://serengetifoundation.com/horsepower/ as well as these previously referenced studies by Craig C. Downer, wildlife ecologist found here: https://static1.squarespace.com/statis/59f8c99ff09ca4e7c237d467/t/5a0f394d53450aa13b0d29df/1510947149219/Craig+Downer+article.pdf and https://thewildhorseconspiracy.org/2015/12/30/report-on-salt-river-ecosystem-tonto-national-forest-arizona-with-focus-on-wild-horses/ and this previously referenced video found here: https://www.youtube.com/watch?v=sM3VEdGrfAM.

* What are the water and forage consumptions of all permitted cattle and all wildlife species in the ASNF? Please provide evidence of these studies. If none exist, please conduct this study.

Considerations: Please review and consider the water consumption and forage intake comparisons between horse and cattle provided at this link: https://www.hanaeleh.org/horses-versus-cattle-truth-behind-grazing-rights/

* What specific "management actions would be taken" if data shows that the wild horse herd is not maintaining genetic diversity as described in Tier 3 on page 15 of the Draft Plan and Monitor for Inbreeding on page 17 of the Draft Plan? What are the risks and costs associated with these actions?
* Will the population growth rate of wild horses be increased by removal through compensatory population growth control from decreased competition for forage?

Considerations: Please consider cause-and-effect results to understand the impact of the removal of any horses from the ASNF prior to the implementation of the Heber wild horse management plan.

* Are free-roaming horse populations allegedly growing at high rates because their numbers are held below levels affected by food limitation and density dependence?

Consideration: Please consider cause-and-effect results to understand the impact of the removal of any horses from the ASNF prior to the implementation of the Heber wild horse management plan.

* What is the public perception of visually traumatic and expensive helicopter roundups and how will that impact the USFS's reputation as managers of these public lands?

Considerations: Please review this 10-minute video for evidence that many in the public view helicopter roundups very negatively. https://youtube.com/watch?v=W516KFrhRs. It is reasonable to anticipate that the public outcry will be loud and strong if any wild horses are seen being driven into barbed wire fences, stampeded by helicopters over long distances in a lathered body condition and/or foals being exhausted trying to keep up with their dams. In fact, helicopter roundups are generally viewed as cruel and inhumane by many people, even when no additional trauma occurs. Please view these additional links as evidence of that. https://americanwildhorsecampaign.org/reality-roundups-1https://www.youtube.com/watch?v=N1VEqeQFoKM

* In the short-term, more intensive management of free-roaming horses will likely be expensive. However, addressing these issues immediately with a long-term view is likely a more affordable option that continuing to remove horses to long-term holding facilities. What is the cost of administer PZP birth control to a properly

recommended herd size of approximately 200 horses per year? What are the costs and risks to administer the other possible fertility control treatments listed in Appendix D (pages 42-43) of the Draft Plan and what are the societal perceptions and acceptance of spay and gelding procedures on free roaming wild horses?

Considerations: The possibility that prolonged bleeding or peritoneal infection may follow the spaying of mares makes it inadvisable for field application. The sterilization experiments proposed by the BLM for other wild horse herds have been met with strong negative reactions by wild horse advocates and veterinarians; as these stakeholders seek only humane management techniques for our wild horse herds. Please read this statement: https://www.thecloudfoundation.org/current-events/2019/6/10/the-case-against-ovariectomy and watch these short videos for evidence of that:
https://www.youtube.com/watch?v=j6fJ8Ks8ciQhttps://www.youtube.com/watch?v=oH-YUfgnsVk. Can this procedure be ruled out as a fertility control option for the Heber herd? Please review pages 98-99 of the National Academy of Sciences 2013 Report: Using Science to Improve the BLM Wild Horse and Burro Program - A Way Forward. https://www.nap.edu/read/13511/chapter/6.

Furthermore, some or total loss of sec drive would be likely in castrated stallions, and this is counter to the often-stated public interest in maintaining natural behaviors in free-roaming horses. A potential disadvantage of both surgical and chemical castration is loss of testosterone and consequent reduction in or complete loss of male-type behaviors necessary for maintenance of social organization, band integrity and expression of a natural behavior repertoire amongst wild horses. Can these procedures be ruled out as possible fertility control treatments for the Heber herd? Please review page 122 of the National Academy of Sciences 2013 Report: Using Science to Improve the BLM Wild Horse and Burro Program - A Way Forward.
https://www.nap.edu/read/13511/chapter/6.

* On the basis of peer-reviewed literature and direct communication with scientists who are studying fertility control in horses and burros, what are the recommended most promising methods of fertility control?

Considerations: Please review pages 99-112 of the National Academy of Sciences 2013 Report; Using Science to Improve the BLM Wild Horse and Burro Program - A Way Forward: https://www.nap.edu/read/13511/chapter/6 for an in-depth study of Porcine Zone Pellucida (PZP) Vaccine. And also review pages 129-142, IDENTIFYING THE MOST PROMISING FERTILITY CONTROL METHODS. Additionally, the first link below provides a good reference to the Assateague Island herd where studies on PZP fertility control were initiated in 1995. Please review all of these sources of data carefully as they are highly relevant to achieving human management on the range:
https://static1.squarespace.com/static/59f8c99ff09ca4e7c237d467/t/5a0f0b5c085229254e4019f0/1510935389144/AchievingReproductiveGoalsContraception2008.pdf and https://www.horsenation.com/2015/07/17/the-vaccine-that-could-save-the-range-pzp-and-mustangs/ and this:
https://static1.squarespace.com/static/59f8c99ff09ca4e7c237d467/t/5a0f0a64e2c483fdf3df4c84/1510935140937/immunocontraceptive-reproductive-control-utilizing-pzp-in-e280a6.pdf.

Proposal: Eliminate all surgical sterilization options and chemical castration for stallions from the fertility control options and utilize dartable PZP as the primary method of fertility control for the Heber herd. PZP is known to be safe, effective and inexpensive and is widely considered to be the most humane method for population control amongst wild horse herds.

* What are the recommended altered male-to-female sex ratios mentioned in Appendix B (page 25) and what is the science-based rationale for such an action? Is there a study that can be cited that assures this practice won't adversely alter social interactions or herd dynamics. If not, will such a study be conducted prior to implementation of a management plan?
* What are the recommended altered herd age distribution classes mentioned in Appendix B (page 25) and what is the science-based rationale for such an action? Is there a study that can be cited that assures this practice

won't adversely alter social interactions or herd dynamics? If not, will such a study be conducted prior to implementation of a management plan?

Considerations: Please review pages 94-96 of the National Academy of Sciences 2013 Report: Using Science to improve the BLM Wild Horse and Burro Program - A Way Forward. https://www.nap.edu/read/13511/chapter/6.

* Why are "management actions to maintain or increase genetic diversity" considered to be necessary in Appendix B (page 25) of the Draft Plan if the recommended AML is truly appropriate for sustaining a healthy herd over the long term? What specifically are these proposed management actions?
* What is the cost for removal of 200 wild horses from the range and incarceration in long-term government holding pens for the remainder of their lives if adoptive homes are not available? Will the public find those costs reasonable and/or appropriate considering other humane management options exist to keep horses on their home range?
* What are the estimated impacts caused by a loss to tourism to the Heber-Overgaard communities and the State of Arizona if/when the Heber wild horse population is substantially reduced?

Considerations: The Heber herd is extremely popular with wild horse advocates, photographers and tourists. These horses provide an economic benefit through tourism dollars, both locally in the Heber-Overgaard communities, Navajo Country and the entire state of Arizona. These horses are a federally protected wild species, credited with symbolizing the historic pioneer spirit of the West; "That Congress finds and declares that wild free-roaming horses and burros are living symbols of the historic and pioneer spirit of the West; that they contribute to the diversity of life forms within the Nation and enrich the lives of the American people[hellip]" from the Wild Free-Roaming Horses and Burros Act of 1971.

In summary, as a stakeholder who has undertaken an exhaustive effort to research issues relating to wild horse herd management, I find that the BLM has already spent many years utilizing failed management practices over the wild horse herds as evidenced in the video, Wild Horses: No Home on the Range by The New York Times:https://www.youtube.come/watch?v=W516KFSrhRs and the BLM has already been provided a humane, feasible, cost-effective path forward in wild horse and burro management with a report by the National Academy of Science published in 2013: Using Science to Improve the BLM WILD HORSE AND BURRO PROGRAM: A WAY FORWARD found at this link: https://www.nap.edu/read/13511/chapter/1 or the brief version of it summarized here: http://dels.nas.edu/resources/static-assets/materials-based-on-reports/reports-in-brief/wild-horses-report-brief-final.pdf. I request that all of the key findings from this report be considered and all feasible and humane practices suggested in this report be incorporated into the final plan for the USFS management of the Heber wild horse herd.

Human management on the range is possible and is a responsible way forward, utilizing PZP fertility control as the method of employed to humanely manage the size of the Heber herd. PZP is known to be safe, effective and inexpensive to administer. Simone Netherland from the Salt River Wild Horses Management Group in Arizona (email in original) has offered to train local Heber-Overgaard area volunteers and/or USFS personnel to become certified to dart mares with PZP fertility control to assist the USFS in humanely managing the Heber wild horse herd and maintaining an AML that assures genetic viability, at around 150-300 horses as suggested by renowned equine geneticist, Dr. E. Gus Cothran. I believe a cost-effective, well-implemented population control plan for eh Heber herd is far less expensive and much more humane than a roundup (especially if helicopters are used), which will incur associated holding costs for up to 200 wild horses for an indefinite period of time.

Humane management of this wild herd on the range is anticipated to result in the least amount of conflict with the public and other stakeholders and assures the long-term sustainability of a genetically viable Heber wild horse population while maintaining a healthy ecological balance in the froest and reducing the costs of the management program over the long-term.

Thank you in advance for your careful and thoughtful consideration of these comments, questions and proposals during the NEPA scoping process for the Draft Plan for management of the Heber wild horse herd.