

Data Submitted (UTC 11): 3/14/2020 7:00:00 AM

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Title:

Comments: Please see attached comment letter from the Arizona Deer Association. Also, attached are 11 documents referenced in our letter. Thank you, John Kolezar

Dear U.S. Forest Service, NEPA team specialists for the Heber Wild Horse Territory Management Plan,

We appreciate the opportunity to submit comments and support the proposed action to develop a Heber Wild Horse Territory (HWHT) Management Plan (Plan). The Plan must ensure the herd is managed to maintain a self-sustaining population of healthy animals within the designated territory, in a thriving natural ecological balance with other uses and the productive capacity of their habitat. This includes achieving the desired conditions to have forage and cover available to prey species and big game species to maintain healthy populations, vigorous desirable forage species, functioning riparian habitats and satisfactory soil and watershed conditions.

However, there are significant issues not fully considered or lacking in the proposed action that may cause social or economic harm and place rural communities, local governments, hunters, outdoor recreationists, grazing permittees, and private land inholdings within the Apache-Sitgreaves National Forests at risk. There are also issues not considered that may cause harm to localized wildlife and other species. These issues are provided in the following comments, supported by pertinent references or additional information submitted electronically as attachments with this comment letter via the internet Cara.ecosystem-management.org public comment weblink noted above.

Interrelated and Interconnected Reasonable and Prudent Measures, Terms and Conditions:

Reasonable and prudent measures, terms and conditions, as outlined in Section 7 ESA consultation for threatened, endangered, or proposed (TEP) species in established U.S. Fish and Wildlife Service (USFWS) Biological Opinions (BO) and Forest Decision documents for prior federal actions that are interrelated and interconnected, should be considered in the proposed action analysis.

For example, a primary reasonable and prudent measure within the May 13, 2015 BO, 02EAAZ00-2013-F- 0363, Land Management Plan (LMP) for the Apache-Sitgreaves National Forests (Forest), mandates the Forest

- * minimize or eliminate adverse effects to TEP species, with protection of occupied breeding sites and critical habitat during authorized activities under the LMP. This includes species specific terms and conditions, monitoring and annual reporting.

- * The exclusion of livestock to protect occupied breeding sites during certain times of the year is also included and non-discretionary.

- * For several TEP species, livestock access is excluded or limited by exclosures, pasture management and rough terrain.

- * Further, based on the BO, guidelines within the LMP have the potential to help protect or restore riparian habitat and the adjacent uplands that contribute to riparian conditions which would benefit various species and their habitat.

- * Protection and restoration would be addressed by:

- * stocking in balance with available forage to meet the needs of wildlife (guideline 136);

- * proper timing of grazing relative to plant growth (guideline 133);

- * requiring habitat improvement (guideline 32), and;

* managing for the special concerns within riparian areas which are critical areas for livestock grazing management (guideline 132).

Furthermore, in all the Forests (livestock) allotment management plans measures are included to maintain healthy levels of forage and are recognized within the BO determinations.

Additionally, during drought conditions, livestock grazing adjustments are required, forest wide. Therefore, continued forage use on riparian and upland vegetation, such as by unmanaged feral or free-roaming horses, can result in long-term significant adverse effects, including where there is suitable breeding habitat that is not permitted to develop. For these reasons,

* at a minimum, the same non-discretionary measures and terms and conditions described above should be considered and analyzed for the feral or free roaming horses (grazing ungulates) within and outside the HWHT that may be authorized to remain after a gather is accomplished.

* This is important when evaluating native, TEP species, and species of concern viability within their historic range, which is critical to maintain.

* Species viability is further discussed in these two documents:

<https://www.fs.fed.us/emc/nfma/includes/cosreport/Committee%20of%20Scientists%20Report.htm> (Committee of Scientists Report, Chapter 3, pages 37-39, provides extensive discussion about species viability. See Appendix A)

https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb5130670.pdf (White paper on managing for species viability, 37 pages. See attached - USDAFS_WhitePaperonSpeciesViability-stelprdb5130670 (1).pdf)

Correspondingly, please see below:

USFWS reasoning for their determination for protected species such as the New Mexico Jumping Mouse, in Biological Opinion AESO/SE May 13, 2015, 02EAAZ00-2013-F-0363, Page 149 includes, but is not limited to, the following standards and guidelines in the LMP.

* Page 14, Livestock grazing (both authorized and unauthorized), in addition to feral horses and elk herbivory, can affect jumping mouse habitat when it eliminates or reduces herbaceous plants or alters the riparian plant species composition and structure.

* While most mouse sites are protected from livestock, they can still be affected by feral horses and elk.

* Other un-surveyed sites with suitable habitat, where occupancy is unknown, may be affected by livestock, elk and feral horses.

* Page 17 and 18, Standard 3- limit impacts from activities such as control of invasive weeds within habitats needed by the jumping mouse. Standard 3 will help limit impacts from activities like invasive plant species control by maintaining or moving plant composition towards a moderate to high level of similarity to the site's vegetation potential.

* Page 158, DC 83: Floodplains and adjacent upland areas provide diverse habitat components (e.g., vegetation, debris, logs) as necessary for migration, hibernation, and brumation (extended inactivity) specific to the needs of riparian-obligate species (e.g., New Mexico meadow jumping mouse, Arizona montane vole (*Microtus montanus arizonensis*), narrow-headed gartersnake).

* Page 158 and 160, DC 54 and 278: Herbivory [Livestock grazing] is in balance with available forage (i.e., grazing and browsing by authorized livestock, wild horses, and wildlife do not exceed available forage production within established use levels).

* Page 163, GL 71 and 76: Cool and/or dense vegetation cover should be provided for species needing these

habitat components (e.g., Goodding's onion (*Allium goodingii*), black bear, White Mountains chipmunk (*Tamias* sp.), western yellow-billed cuckoo). [The needs of localized species should be considered and provided for during project activities to ensure their limited or specialized habitats are not lost or degraded (e.g., New Mexico meadow jumping mouse, Bebb willow, White Mountain paintbrush (*Castilleja sulphurea*)].

* Page 164, GL 136: Forage, browse, and cover needs of wildlife, authorized livestock, and wild horses should be managed in balance with available forage.

Hence, it is important to recognize and therefore include in your analysis, that overgrazing by unmanaged feral or free-roaming horses, such as those within and outside the HWHT, can significantly affect TEP species, be degrading to habitat, and create the potential for invasive weeds and loss of site potential.

Forage Use, Effects to Ecological Balance and Watershed, Effects on Localized Species, Impacts to Soils and Streambanks and Riparian Areas:

Therefore, within your HWHT management plan, at a minimum you should include management and monitoring of the horses forage use, effects from their distribution across the landscape to ecological balance and the watershed, effects on localized species, impacts to soils and streambanks and riparian areas, at a detailed level equal to other species analyzed for Forest management.

Ecosystem Impacts by Hindgut Fermenters with top and lower jaw incisors:

Of importance in your analysis of effects to the environment, the way a horse grazes and chews forage are very different compared to other animals. This is evident when evaluating the residual forage or lack of across Forest rangelands occupied by the feral or free-roaming horses.

Ruminant animals (cattle, deer, elk, pronghorn, and sheep) have incisors on the bottom jaw and a dental pad on the top jaw.

Hindgut fermenters such as horses have incisors on the top and bottom jaws. Grass consumption by horses typically equals or exceeds (82% vs. 74% grass) that of beef cattle and is greater than elk (47%), domestic sheep (42%), pronghorn (8%) and mule deer (6%).

Cattle leave residual vegetation when grazing (commonly 2" above the soil) and they only graze approx. 8 hours or less per day, because they ruminate for about 12 hours, and sleep or rest the remaining time. The residual vegetation left after cattle grazing (and other animals with upper dental pads and no upper incisors, such as elk and deer) commonly leaves a grass plants' apical meristems or "growing tip," thus, triggering new cell growth at the tips of roots and shoots, thereby sustaining plant resilience and continued growth.

Horses don't ruminate like cattle, deer, elk, and pronghorn, therefore graze much longer. Also, with incisors on the top and bottom jaws, a horse can bite grasses off down to the dirt.

These are all critical factors that must be examined when considering allowing unmanaged horse grazing on public lands, which has occurred with hundreds of feral or free-roaming horses on the Forest that are unauthorized or undocumented and not monitored, causing significant effects to Forest natural resources and localized wildlife.

Please review this additional information:

<http://www.uwyo.edu/esm/faculty-and-staff/scasta/pdfs/b-1260.pdf> (Dietary Composition and Conflicts of Livestock and Wildlife on Rangeland, University of Wyoming Extension, B-1260, Nov. 2014, 10 pages. See attached - DietaryCompositionandConflictsUnivWyomingExt-b-1260.pdf).

<https://forages.oregonstate.edu/regrowth/how-does-grass-regrow/animal-habits/chewing> (Oregon State University, Forage Information System, Grass Growth and Regrowth for Improved Management, Animal Habits, Chewing. 3 pages. See Appendix A - Chewing _ Forage Information System _ Oregon State University.pdf).

The figure above is on Page 2 of <http://www.uwyo.edu/esm/faculty-and-staff/scasta/pdfs/b-1260.pdf> Attached: [DietaryCompositionandConflictsUnivWyomingExt-b-1260.pdf](#)

Natural forage consumers - localized managed baseline species wildlife, deer and elk with upper jaw dental pad with no top front teeth. Sketch at left above: <https://www.exploringnature.org/db/view/White-tailed-Deer-Skull-Diagram-and-Labeling> . Sketch at right above: Elk skull showing ivory tooth at canine location. Sketch from image on <https://www.skullsunlimited.com/>

Water Availability:

We also appreciate you considering water availability in your draft proposed action. A loss of 10% of body water is fatal to most livestock, including horses.

It is well documented in State, federal, and local weather records the territory and surrounding national forest system lands in the two Ranger Districts of concern will have years with drought, therefore, years of limited to no natural drinking water available in many locations.

This is complicated by the lack of management for the feral or free-roaming horses in the area, who will often graze or bed down near a stock water pond until it dries up and also force (charge and run off) localized wildlife and cattle away from those waters. This can be a deterrent and cause disruption in established habits of survival for localized wildlife, and the cattle whose owners have built and maintain the stock ponds to water their cattle and who maintain those ponds for wildlife.

Cattle and wildlife such as elk and deer who may use the same locations, are "managed" consumers of Forest resources, and the feral or free-roaming horses in this area have had no management. The possible future management of these horses also draws concerns based on federal budgets and limited staffing. These factors must be considered in developing a management plan and appropriate management levels (AML).

Additionally, it is important to consider water intake for horses can range from 4 - 20+ gallons per day, depending on age or class, stage of production, lactation, environmental temperatures, activity, and body size. Animals eating native range forage versus a digestible grain require more water. The water content of forage also determines water needs.

With one horse requiring an estimated 15 gallons per day of water, 450 gallons would be needed for a month, and 5,475 gallons over a 365-day period. With 104 horses that would require 46,800 gallons per month, or 569,400 (15x104x365) gallons of water over a 365-day period. With a 20 or more gallon per day need for one horse, which may be more common for more active feral and free-roaming horses grazing forage plants that have less moisture, 600 gallons would be needed for a month, and 7,300 gallons over a 365-day period. With 104 horses needing 20 gallons per day, that would require 62,400 gallons per month, or 759,200 (20x104x365) gallons of water over a 365-day period.

Stock ponds or dirt stock watering ponds, of which there are 23 throughout the territory based on your proposed action map, and based on your initial determinations, apparently do not provide the water necessary to sustain localized wildlife populations of deer and elk (as well as other wildlife), permitted cattle, and the current feral or free-roaming horses (within the territory). Thus, the Forests proposal to build seven more stock ponds.

Stock ponds commonly authorized on National Forest System lands, if requiring a dam, do not have a dam

higher than 10 feet. Pit tanks (pit ponds) where a dam may not be needed are commonly 5-6 feet deep in the center. It is important to note these man-made water sources are not 5-6 feet deep across the entire pond, rather the depth is sloped from shallow on the outer edges down to the ~6-foot depth in the center. Thus, compared to a swimming pool whose depth drops vertical at the edge of the pool, a stock pond with purposeful slopes removes approx. 45% of the vertical holding capacity comparatively. This is important to note as many calculations for water capacity and water availability of man-made ponds do not take into account the intentional slope of a dirt stock pond on National Forest System lands.

In addition, certain site conditions must be considered to have a successful stock pond that provides year-round or even seasonal water (e.g., porosity or soil, clay soil, height above fractured geologic features or parent materials in the soil, effects of surrounding topography). Also, you must take into account that evaporation and seepage cause significant losses of any available water.

There are limestone formations throughout Arizona including in the Sitgreaves forest, which often force shallow built stock ponds to keep pond clay layers above the fractured limestone.

Additionally, access to stock ponds should be controlled to maintain the integrity of the structure and water quality, therefore, all stock ponds are not available all the time.

Importantly, your analysis must consider the water needs of localized wildlife and permitted cattle.

If the 23 stock ponds (considering evaporation and seepage) were an average 1/2-acre with 6 ft. average depth in the center, this offers 3 acre/feet, but an approximate 45% deduction must be accounted for with the slopes in dirt stock ponds (based on information obtained from livestock permittees who have dedicated many years of building stock ponds on National Forest Systems lands). With 325,829 gallons in 1-acre foot, with 3 acre/feet less 45% volume to account for slopes, one stock pond has the potential to hold 537,617 gallons of water.

However, when each pond actually contains usable water (obtained only from rainfall or snowmelt), the rate of loss, and the frequency and amount of replenishment are important factors to determine true availability. In natural settings on forest lands, sediments often fill in stock ponds, drought or drying up from use without replenishment causes deep cracks and fissures in the clay layer that holds the water, ash flows post wildfires or prescribed fires often damage stock pond integrity and use. Therefore, regular maintenance of the ponds and management of their use must be accomplished to ensure water holding capability and water quality.

Thus, 23 or an additional 7 stock ponds may sound like more than sufficient available waters, but the number of possible stock ponds is a moot point without considering the factors involved in the construction, maintenance, use, and natural impacts, to ensure available quality drinking waters for animals. These are all factors that must be analyzed, for each individual stock pond, when considering potential available waters. Also, the existing stock ponds must be evaluated to determine whether they are still functional and can hold water.

Elk and Deer Water Needs:

All wildlife localized to the areas impacted by the feral and free-roaming horses need water to survive.

Here we provide one example showing Elk and Deer water requirements. Water requirements generally vary with available food sources, climactic conditions and the animal's physiological state.

* Elk (*Cervus elaphus*) drink about 6-8 gallons of water a day. (Steve Clark, Executive Director of the Arizona Elk Society). One elk requiring an average of 7 gallons of water per day, would need 210 gallons per month, and 2,555 gallons for a 365-day period.

* Mule deer (*Odocoileus hemionus*), consume approx. 0.5 gallons of water per 100 pounds of body weight per

day. Therefore, an average size animal would need to drink 1.5 gallons per day (NRCS Wildlife Habitat Management Institute, Mule Deer #28). One Mule deer weighing an average of 300 pounds of body weight, requiring 1.5 gallons of water per day, would need 45 gallons per month, and 547.5 gallons for a 365-day period.

With an estimated number of approximately 200 elk and 200 Mule deer in the area within or near the territory, these animals would require 511,000 gallons of water for elk, and 109,500 gallons of water for Muledeer for a 365-day period. Actual numbers of wildlife in the area must be obtained from the Arizona Game and Fish Department.

This information is critical to include in your analysis of the territory. Please also contact our State wildlife managers for additional data on habitat monitoring.

Please review this additional information:

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_010100.pdf (NRCS Wildlife Habitat Management Institute. See attached - MuleDeer-nrcs143_010100.pdf)

<https://www.fs.fed.us/database/feis/animals/mammal/odhe/all.html> (FEIS database. See attached - Odocoileus hemionus.pdf)

https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_010000.pdf (NRCS Wildlife Habitat Management Institute. See attached - AmericanElk-nrcs143_010000.pdf)

<https://www.fs.fed.us/database/feis/animals/mammal/ceel/all.html> (FEIS database. See attached - Cervus elaphus.pdf)

<https://www.ag.ndsu.edu/pubs/ansci/livestoc/as1763.pdf> (Livestock Water Requirements, NDSU publication, 4 pages. See attached - NDSU_LivestockWaterRequirements_as1763.pdf)

https://www.fs.fed.us/pnw/pubs/pnw_gtr250.pdf (Specification for Structural Range Improvements, USDA FS, PNW-GTR-250, 1990, 126 pages. See attached - pnw_gtr250 (1).pdf)

Impacts to localized Big Game animals, Elk and Deer:

The HWHT Management Plan must consider the decline of elk and deer populations, how this impacts big game opportunity for hunters, and how disturbance or negative impacts such as from exponential population growth of unmanaged horses affects the established State management of elk and deer populations (42 USC [sect] 4331, 40CFR1508.14) This includes the impacts to wildlife reproductive behavior, foraging behavior, defensive behavior, communication behavior, territorial behavior, dispersal and social behavior patterns. The elk and deer populations continue to decline in this area, and the number of elk and deer tags have been influenced by the large excess number of horses across thousands of acres on the Sitgreaves Forest. Arizona Game and Fish Department surveys indicate a decrease in elk and deer populations south of highway 260, as can be seen in the figure below (courtesy Arizona Game and Fish Department).

Best Available Science, Including Study of All areas where Free-roaming Horse Occur:

It is also crucial the analysis for this territory management plan include evaluation of the best available science and information studying all areas where free-roaming horses occur, analyze the adverse impacts, and required management to protect native wildlife and natural resources on public lands or National Forest System lands.

For example, this would include information provided by the USFWS such as their summary regarding Feral Horse and Burro Management at the Sheldon National Wildlife Refuge (as well as other locations). This summary provides the image and information below. One example of information that must be evaluated as part of your analysis of the best available science.

Water sources such as springs and streams on Sheldon NWR are being impacted by horses. This springhead above Catnip Reservoir is severely impacted by horse grazing, causing loss of riparian vegetation such as willows and other plants that provide cover and shade for fish and other water organisms. The Lahontan cutthroat trout, and endangered species, relied on this spring for reproduction and is being negatively impacted by this loss of habitat.

Please review this additional information:<https://www.fws.gov/refuge/sheldon/https://www.fws.gov/sheldonthartmtn/pdf/Feral%20Horse.pdf>
(See attached -USFWS-gov-sheldonthartmtn-Feral Horse.pdf)

Petition to list a Distinct Population Segment of North American Wild Horses on All U.S. Federal Public Lands under the Endangered Species Act, FWS-R8-ES-2015-0049 (2015):

In 2014, there was a requested action to list a Distinct Population Segment (DPS) of North American Wild Horses. However, there was no substantial scientific or commercial information indicating that the requested action may be warranted. Therefore, status reviews for the horses were not initiated.

On June 17 of that year, the USFWS received a petition from Friends of Animals and The Cloud Foundation, requesting that the DPS of North American wild horses on all U.S. federal public lands be listed as an endangered or threatened species under the Act. In an October 3, 2014, letter to the petitioner, the USFWS responded that they reviewed the information presented in the petition and did not find that the petition warranted an emergency listing. This finding addresses the petition:

Based on USFWS review of the petition and sources cited in the petition, they found that the petition did not provide substantial information indicating the petitioned entity may qualify as a DPS and, therefore, a listable entity under section 3(16) of the Act. The petition did not present substantial information supporting the characterization of North American wild horses on all U.S. Federal public lands as a DPS, because the discreteness criteria were not met. Therefore, this population is not a valid listable entity under section 3(16) of the Act, and the USFWS are not initiating a status review in response to the petition. Their justification for this finding can be found as an appendix at <http://www.regulations.gov> under Docket No. FWS-R8-ES-2015-0049 under the "Supporting Documents" section.

This finding is important to consider as you move forward in your analysis.

Please review this additional information:

https://www.fws.gov/news/ShowNews.cfm?ref=blm-fws-agreement-enhances-management-of-wild-and-feral-horses-and-burros&_ID=1345 (BLM, FWS Agreement. See Appendix A - News Releases - U.S. Fish and Wildlife Service.pdf)

https://www.fws.gov/refuges/RefugeUpdate/SepOct_2013/ferel_horses.html (Feral Horses: a Conundrum of Epic Proportions. (See Appendix A - Refuge Update 2013, National Wildlife Refuge System.pdf)

<https://ecos.fws.gov/ecp0/profile/speciesProfile?slid=9571> (USFWS Species profile for Horses. See Appendix A

- Species Profile for Horse (*Equus caballus*).pdf)

<https://www.govinfo.gov/content/pkg/FR-2015-07-01/pdf/2015-16001.pdf#page=1> (Federal Register, 90-day findings on petitions. See attached - 2015-16001.pdf)

Higher level of legal requirements:

The loss of TEP habitat or other significant environmental impacts (including adverse impacts to state managed wildlife) would raise your analysis to a higher level of legal requirements, including the need to consider significant impacts, a more comprehensive analysis and "hard look" at cumulative impacts with all existing and reasonably foreseeable future actions in the area, providing an Environmental Impact Statement. This rather than remaining at the Environmental Assessment and Finding of No Significant Impact (FONSI) level as defined in regulation and policy under the National Environmental Policy Act (NEPA).

Stipulation and Joint Motion, considerations and recommendations based on available information:

The 2007 Stipulation and Joint Motion, Case No. CV-05-2754-PHX-FJM (see attached), terms and conditions included the recognition that the Heber Wild Horse Territory still exists and has not yet been dissolved. Consider, based on the information you have provided in your Proposed Action thus far, that the conditions may exist for the HWHT to be deemed inactive.

Your analysis should provide enough evidence to make a determination of active or inactive based on the evidence and according to the law.

We agree, the development of a written HWHT Management Strategy must be completed prior to consideration of any gathering or removing of the horses in the territory or the Black Mesa or Lakeside Ranger Districts

Following a Decision on the HWHT Management Plan we recommend you schedule an immediate gather, or as soon as possible, of all horses to make determinations of ownership, placing them in temporary holding corrals within the familiar area from which they would be captured, following the procedures you have outlined in Appendix E, or something similar as decided in the final HWHT Management Plan.

Further, with the 2007 Stipulation stating the Forest will continue to coordinate with the White Mountain Apache Tribe for repair and maintenance of the boundary fence. Your proposed action should be more specific on how you will accomplish this important task. This boundary fence is paramount to any consideration of protecting genetic integrity of any horses protected under the Wild Free-Roaming Horses and Burros Act of 1971, as amended, and critical to avoid adverse impacts to natural resources from current and any future unauthorized grazing of White Mountain Apache Tribe feral horses.

Please review this additional information:

<https://heberhorsecollaborative.asu.edu/> In 2007, the Forest Service entered into a Stipulation Agreement to develop a written HWHT Management Strategy (Plan). (See attached - stipulation agreement Heber horsesfseprd487549.pdf)

Adaptive Management and LMP requirements, Excess Animals, Fencing, Population Inventory and Gather, and Harm or Hazardous Conditions:

Using Adaptive Management, the territory management plan should also include how the LMP will be amended after monitoring and in-depth analysis is completed, as must be prescribed in the territory management plan.

This includes considering potential changes to the horse population objective AML, and where rangelands are monitored based on horse use. In addition, the territory management plan should also describe that a new plan will be evaluated with any changes in law, regulation or policy, also requiring an amendment to the LMP.

The territory management plan should state that a timely gather of excess animals (horses) from the Forest, including those outside the territory will occur within 30-days following the final Decision document of the territory management plan. This timing and process is not unlike Forest Service roundups of unauthorized cattle, making

it a reasonable request.

This would ensure the horse AML is achieved and unauthorized forage use by excess animals does not cause further or permanent degradation and loss of natural resources (P.L. 92-195; 16 USC 30 [sect]1332 (f) "excess animals" means wild free-roaming horses and burros (1) which have been removed from an area by the Secretary pursuant to application law or, (2) which must be removed from an area in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area.)

To avoid continued adverse effects to natural resources from the current excess horses within and outside the territory, where the territory boundary is not fenced, it should be fenced to control the horse population within the territory to protect natural resources and genetic diversity and implement management as mandated in the Wild Free-Roaming Horses and Burros Act and associated edicts.

Further, with an AML already determined as defined in your proposed action, prior to implementing the territory management plan, the established territory boundary should have completed and repaired fencing to be able to manage the horses as is required by law. This includes focusing on the White Mountain Apache Reservation fence boundary with the Forest, as a high priority since there are multiple issues of ingress and egress and lack of regular maintenance.

Additionally, the current (2020) estimate of horses within and outside the territory should be verified through population inventory (direct count), followed by consecutive gather to remove excess horses within and outside the territory.

Gathering of the excess horses must be done to avoid adverse effects to natural resources and prevent harm to the horses, localized wildlife, and prevent harm or hazardous conditions to the public.

Fencing and Management, Avoiding adverse effects of the action upon the quality of the human environment:

It is noted in the proposed action the territory northern boundary is against private lands bounded by the community of Heber, with houses, roads, and fences, and with boundary against state highway 260. Avoiding or minimizing adverse effects of the action upon the quality of the human environment is also critical in the development of a proposal under NEPA (40CFR1500.2). "Human environment" shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment ([sect]1508.14).

Fencing for public safety should be considered a high priority.

It would be beneficial to establish a perimeter fence along major public motorized roads in the territory as well as outside the territory where horses currently occupy National Forest System lands as described in the proposed action.

Further, highway 260 does not have fencing that prevents the horses from crossing the highway and onto National Forest System lands within Arizona Game and Fish Department hunt units 4A and 4B. The Forest Lakes community in the same area has had multiple instances of horses grazing in their neighborhoods. The horses have also been observed as far north as Wildcat Canyon (Any flight surveys of horses outside the territory must include these areas).

We recommend fencing along the 51 Road, south from Heber to the 300 Road, then west until the 300 Road reaches Highway 260 at the Black Canyon lake turnoff to prevent the horses from entering the highway and private lands in the area.

It is important to note as part of the analysis in developing the proposed action (and any alternatives to the proposed action), the degree to which the effects on the quality of the human environment are likely to be highly controversial and should be considered (40CFR1508.27). Further, the "effects" must certainly be evaluated during the environmental assessment process, but also be considered during the initial analysis to develop the proposed action.

And, with the agency knowledge required to perform a NEPA analysis, the knowledge of direct and indirect or cumulative effects should be part of the initial analysis that considers ecological, aesthetic, historic, cultural, economic, social, or health effects ([sect]1508.8).

Baseline information and Existing conditions:

The proposed action in conjunction with the purpose and need development prior to public comment should include discussion of existing and desired conditions, resource needs, and formation of objectives. Also, details of how the baseline information for the territory was evaluated and accomplished and when it began should be a part of that pre-NEPA frontloading, along with meeting National Forest Management Act, NFMA, requirements. Additional baseline information should be provided during the proposal development, with further data collection during analysis.

Within the proposed action, it states several current sources of information are available which show the existing condition in the territory. Yet, that information was not fully disclosed and should be.

In the analysis process leading up to the development of a proposed action the identification of desired conditions, existing conditions, and resource management needs are important steps (Forest Service directives).

Desired conditions are discussed numerous times throughout the document, existing conditions are not.

To be able to determine the resource management needs and possible practices the analysis must compare desired conditions with existing conditions.

Existing conditions are critical to understand in developing a proposed action and disclose to the public to make an informed and substantive comment on the proposed action.

The Interior Board of Land Appeals (IBLA) defines Appropriate Management Level (AML) as the 'optimum' number of wild horses or burro which results in a thriving natural ecological balance and avoids deterioration of the range (109 IBLA 119).

The proposed action has disclosed an estimated number of horses within and outside the territory. But, does not provide the critical information of existing conditions (i.e., ecological status of the vegetation, composition and arrangement of plant communities, status and function of riparian areas and wetlands, stream bank and stream channel characteristics, wildlife and fish habitat characteristics, cultural resource protection, soil protection and water quality).

Existing conditions should be specific and quantified.

This includes the lack of available and accessible water for wildlife where the horses linger and trail around water sources (i.e., developed stock waters, or natural water collection surface cavity). As stated earlier, the behavioral patterns of the horses observed has been to dominate water sources until they dry up, especially during the summer months. This drives off other wildlife.

We appreciate you considering at least seven water developments, and recommend you complete a more in-depth analysis of the limited available waters within the territory to provide for drinking, and importantly for

horse/herd distribution management to avoid overgrazing and soil degradation.

Western Governors Association Policy:

As reiterated in the Western Governors Association (WGA) policy, the U.S Fish and Wildlife Service has recognized that wild horse and burro populations in excess of AMLs can degrade habitat, and in the context of the Endangered Species Act, has identified this situation as a localized threat in some areas to the viability of certain protected species.

Wild horse and burro populations above AML thresholds can also have harmful impacts on other wildlife species, habitat and riparian areas, rangeland ecosystem function as well as negative consequences for permitted domestic livestock grazing and local governments and States that experience federal regulatory decisions influenced by habitat impacts of wild horses and burros (See Appendix A, WGA Policy Resolution 2018-01).

Appropriate Management Levels (AML), Past and Current Management Failures:

Based on the statements in the proposed action, the AML for the territory is 50 to 104 horses. The estimated horse population surveys between 2012 and 2017 ranged from 9 to 51 within the territory and 177 to 420 outside the territory clearly demonstrate exponential growth of unmanaged horses in the area, that is likely much higher now (three years later).

Further, the agency has demonstrated the inability to meet direction regarding the mandates of the Wild Horse and Burro Act to manage the horses on National Forest System lands within the Apache Sitgreaves National Forests since the mid-1970s.

And, that according to the agency's documents, the original 7 horses on the territory had all died and did not reproduce, so the current horses in the area are likely all feral, unauthorized animals from the neighboring White Mountain Apache Reservation.

These issues further demonstrate the critical importance of disclosing the existing conditions in the proposed action, not just the desired conditions or needs for infrastructure, for the public to provide fully informed substantive comments and understand resource management needs.

Transparency and use of Scientific Information:

The National Research Council's report "Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward," that is certainly applicable to National Forest System lands, emphasizes transparency to stakeholders, and the use of scientific information. The proposed action fails to provide full transparency to stakeholders by only mentioning a report and determination that discusses AMLs that was apparently done in 2018 and is not readily available on the provided website link, which states when accessed: 'content could not be located' <https://www.fs.usda.gov/detail/asnf/landmanagement/resourcemanagement/?cid=fseprd534313>. Again, this report has information that should be at least be summarized in the proposed action, purpose and need, for the public to make informed substantive comments.

Need for a Wild Horse Specialist:

To implement successful management of the HWHT and horses within the territory and outside the territory, the Forest must employ a Wild Horse Specialist as defined by the Department of Interior and include additional specialized training based on the needs of the territory horses, including an understanding of genetics.

White Mountain Apache Reservation:

Also, we recommend you change the phrase "Fort Apache Indian Reservation" and "Fort Apache Reservation" in

your proposed action and any further documentation or analysis or correspondence to "White Mountain Apache Reservation." (see <https://itcaonline.com/member-tribes/white-mountain-apache-tribe/>)

Considerations about the Management of Wild or Unauthorized Domestic Horses:

We support your proposal to use thresholds that should include monitoring and appropriate management of horses occupying areas outside of the territory; the methods to remove excess animals; the population management techniques; the comprehensive animal welfare standards; the ecosystem health monitoring to be done; the stray horse monitoring to be done; Horse movements, patterns, connectivity, and distribution monitoring to be done; Horse population numbers and health monitoring to be done; the adaptive management and monitoring matrix; and the design criteria and best management practices.

However, the methods and techniques described in the proposed action appendices are intended to apply to wild horses, and based on the agencies own documents, the horses that are currently occupying the landscape within and outside the territory are from the White Mountain Apache Reservation, which based on our understanding constitutes domestic private ownership.

Based on available Forest documents, it appears the HWHT no longer contains wild horses, and could be deemed inactive (as are several other territories). The documentation of those already inactive territories should be included in your analysis.

Thank you for your consideration of our comments. Please contact us if you have any questions.

Attachments:

Appendix A

1 - USDAFS_WhitePaperonSpeciesViability-stelprdb5130670(1).pdf

2 - 2015-16001.pdf

3 - pnw_gtr250.pdf

4 - NDSU_LivestockWaterRequirements_as1763.pdf

5 - USFWS-gov-sheldonthartmtn-Feral Horse.pdf

6 - DietaryCompositionandConflictsUnivWyomingExt-b-1260.pdf

7 - AmericanElk-nrcs143_010000.pdf

8 - Cervus elaphus.pdf

9 - MuleDeer-nrcs143_010100.pdf

10- Odocoileus hemionus.pdf

11 - stipulation agreement Heber horsesfseprd487549.pdf