



Ochoco Wild Horse
in Riparian Area,
outside Territory.

“Fargo”

1998 - 2020

OCHOCO WILD HORSE HERD MANAGEMENT PLAN

OBJECTIONS

Central Oregon Wild Horse Coalition

Regional Forester (Reviewing Officer)
Pacific Northwest Regional Office
Attn: 1570 Objections
1220 SW Third Avenue
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OCHOCO WILD HORSE MANAGEMENT PLAN
Objections submitted by Central Oregon Wild Horse Coalition

December 31, 2020

Summary of Objections

1. The Central Oregon Wild Horse Coalition's cardinal Objection to the Ochoco National Forest's proposed Wild Horse Management Plan is the AML of 12-57. Even if managed to the high end of the AML, and if successful translocations of outside breeding stock occur, this is simply not a sustainable number. The Ochoco Mountain environment is fraught with high risk factors such as extreme winters, fire, and the unknown quantity of climate change. Even if the basis for the AML of winter forage availability could be validated through the analysis in this EA, we believe other, less radical, solutions exist than the dangerously-low number of horses proposed for the Big Summit Herd.
2. A consequence of the proposed AML will be a non-recoverable loss of genetic diversity. Alternative 2 prescribes the translocation of outside mares into the Big Summit Herd. Our objections to this include the absence of full genetic analysis, first to measure the success of the 2010 translocations through a meaningful study of the current genetic situation throughout the entire herd, *prior* to determining next steps; then to assure both heterozygosity and allelic richness are considered according to 2013 NAS guidance for small herds, and in-depth study of other species conservation programs. We object to the disregard for Effective Population Size reduction, when the minimum number is 50 breeding adults, and the proposed AML cannot possibly meet this standard even if some breeding adults successfully introduce new DNA. We object to the dilution and potential replacement of original Big Summit genetics which provide adaptations to the Ochoco Mountain environment.
3. We do not find appropriate correlation in this EA between past, current, or projected wild horse numbers and alleged resource damage. Data are weak, with undisclosed monitoring locations and protocols, and specialists' reports are largely conjectural and presumptive. Studies cited are not site-specific, even by admission of the Ochoco National Forest, and are therefore misleading and noncontributory to the body of analysis resulting in the proposed action.
4. We object to the Ochoco National Forest's unwillingness to mitigate actual or perceived resource damage by less-severe means than removing wild horses. Even if alleged damage could definitively be attributed to wild horses, other measures could be taken, such as hardwood planting, exclosures, woody debris placement, or streambank stabilization. Doing so would meet the standard of "Minimal Feasible Level Management" required under the Wild Free Roaming Horses and Burros Act. We do not consider such planning components to be "outside the scope" of this analysis, as this analysis is meant to guide wild horse management, including habitat concerns, well into the future.

5. We object to the Ochoco National Forest's unwillingness to reduce or redirect livestock use in the Territory, as the Forest Supervisor is authorized to do, considering the Big Summit Territory is not "habitat" for transient livestock as it is for wild horses. According to the Ochoco National Forest's own calculations, forage allocated to sheep has increased by 287,245-312,245 lbs. annually, depending on how current use is determined. That difference would sustain at least 30 wild horses for one year. We do not feel this is "outside the scope" of this analysis, as this analysis is meant to guide wild horse management, including forage requirements, well into the future. This EA stipulates amendments to the 1989 Ochoco Forest Plan to include *"(Replace with) Conduct livestock management on the Big Summit Wild Horse Territory to ensure that resource conditions meet management goals and standards. Wild horses will be managed so that the AML can be achieved. Horses above the high AML are considered excess."* This amendment places livestock management squarely within "the scope".
6. The assumptions of Wild Horse Winter Range total area are not supported by scientific evidence of actual use. Ground censusing in winter is virtually impossible, as has been established by past attempts. The Ochoco National Forest should have conducted aerial inventories utilizing infrared technology; or at a minimum, should have considered information provided by qualified public, to more accurately determine the full area of use on which the AML of 12-57 is founded.
7. The Big Summit Territory boundary should reflect knowledge of horse residence in 1971, as was clearly expressed in the 1975 Ochoco Wild Horse Management Plan. It is not "too late" to correct administrative errors or intentional (but fully documented) deviation from the direction provided in the Wild Free-Roaming Horses and Burros Act. The Ochoco National Forest recently disclosed that 40 horses were captured between 1971 and 1975, which invalidates both the numbers and locations stated in the 1975 Plan on which the former AML and boundary were based.
8. We object to the Decision made on the basis of this Environmental Assessment. The analysis in this Environmental Assessment should now result in an Environmental Impact Statement, as we originally stated. The EIS should consider mitigative measures which this EA dismisses as being "outside the scope of this analysis and the decision to be made". Our specific objections to this Decision are found at pages 64-71 of these Objections.
9. All Central Oregon Wild Horse Coalition previous comments to the Scoping Letter and Draft Environmental Assessment are to be considered in full force in addition to these Objections.

Purpose and Need/Range of Alternatives

Comment: *What is also absent from this EA is any meaningful suggestion of mitigative measures when the horses may be actually and definitively shown to create resource damage. [4]*

According to the Conference language, and the context within the Wild Free-Roaming Horses and Burros Act, reducing horse numbers when provable damage can be alleviated through other means is consistent with Minimal Feasible Level Management. Whether this means traditional fencing of vulnerable resources, or some other measure, this strategy should evolve from a much deeper understanding of the interrelationships between the wild horses and their natural habitat. [4]

Consideration: *The decision to be made in this project is described in the EA p. 14. This project will not preclude the Forest from undertaking riparian restoration activities*

(1) Our Objection: The issue being brought to the forefront here is very much within the scope of this Ochoco Wild Horse Management Plan revision. The decision sub-categories neatly listed on EA p. 14 are predicated on how many horses should exist within the Big Summit Territory while achieving or maintaining a certain level of resource health. But, the Ochoco National Forest (ONF) has determined AML without considering alternative methods of protecting resources. The ONF has determined AML without definitively and scientifically proving that a certain number of wild horses precisely equates to a certain extent of resource degradation. The relationship between wild horse numbers and natural resource health is the summation of the Purpose and Need/Range of Alternatives of this entire project; yet the ONF has failed to consider mitigation such as large woody debris placement, exclosures, and plantings, and has failed to prove the absolute attribution of alleged resource damage to the wild horses. That these factors did not rise to the level of “things the Forest Supervisor will determine” does not speak well of the project in its entirety. Once the ONF begins implementation of this revised plan, any “riparian restoration activities” will be of no consequence to a wild horse herd whose AML was determined apart from consideration of other mitigative measures. This is self-evident.

At EA p. 95, Cumulative Effects (related to wildlife) we see examples of the mitigative measures taken to assure permitted livestock can better interface with wildlife habitat: *“Activities outlined in the various allotment management plans, both within the Territory (i.e. Big Summit, Reservoir) and within the cumulative effects boundary (i.e. Bear Creek, Marks creek), should allow for improved management of livestock and less impact on riparian habitats. Range improvements, including riparian restoration, habitat protection, water developments, and fence reconstruction would occur within existing allotments. These activities are expected to improve the current condition of the riparian and adjacent meadow habitats, and potentially improve the connectivity of riparian habitats within the project areas where it overlaps.”*

Some years ago, while on a tour with Heart of Oregon and ONF Wild Horse Staff and which included the Cram Creek area, we discussed the possibility of the youth crew doing a restoration project. That particular reach of Cram Creek is in abysmal condition still today, and yet the only restorative action prescribed is to reduce wild horse numbers to an unsustainable and unhealthy AML.

Comment: *We stated that "The Big Summit Herd MUST be managed to at least the minimum viable number of 50 breeding adults, or 150-200 total animals, depending on use of fertility control and other +factors." This was a Minimum Viable Population recommendation, and not expressed by Dr. Cothran or by us as an "AML", nor were we suggesting the herd total of 150- 200 should be the AML. The number of 150-200 is an estimate of the total number in a herd where there are 50 breeding adults. In the Big Summit herd, since younger and older herd members are especially vulnerable in a Territory having harsh winters a high likelihood of predation, the herd total could be less than 150. [4]*

Consideration: *Alternative 3 was developed to respond to scoping comments that reflected a desire to see an alternative with a minimum of 150 wild horses and in reference to “viable” herd size of at least 150. EA p. 6-7.*

(2) Our Objection: With this comment, to offer more clarity, we attempted to state that our primary concern was to ensure a Minimum Viable Population of 50 breeding adults; NOT to necessarily demand an Alternative of 150-200. We conceded that the demographic statistics of the Big Summit herd need to be examined over time to determine the Minimum Viable Population, or Effective Population (Ne). The ONF dismissed our point instead of framing it in the context of the proposed AML of 12-57, which would certainly NOT ensure an Effective Population of 50, nor would the current (Alternative 1) AML of 55-65. That fact is indisputable. Regardless of the introduction of outside mares, an Effective Population is an Effective Population, and the minimum number is 50 breeding adults. Regardless of how our comment was interpreted, the ONF has failed to demonstrate that their proposed AML is equivalent to a Minimum Viable Population/Effective Population of 50 breeding adults; when the planned numbers are 40-50. The translocation of outside mares MAY increase Observed Heterozygosity, or it may not, but does nothing to meet this basic standard which is widely recognized by equine genetic experts.

Existing Conditions

Comment: Black bear, cougar, wolf, and disturbed humans are all documented within the Territory. Evidence of human predation has been confirmed in some cases and is highly probable in many others. Predation on foals can be assumed, though traces of small horse remains, with soft bones and low body mass, are not likely to be found. [4]

Comment: It is the time to acknowledge the horse numbers persisting on the Forest into 1971, in spite of unlawful horse-chasers" and other brutal forms of past population control. [4]

Consideration: The Forest Service keeps an inventory of the wild horse herd but does not and cannot document all instances of mortality in the wild horse herd. The EA acknowledges that black bears and cougars are present, but that there are few personal observations of black bear or cougar kills on wild horses in the Territory. EA p. 27. The EA also acknowledges that, in addition to deer and elk, horses have the potential to serve as opportunistic prey for wolves, particularly at higher horse densities as well as during foaling season. EA p. 82 In addition, Table 4 in the EA (p. 29) shows the history of capture and removals of horses acknowledging that it does not include the known deaths showing that this has occurred over time but is impossible to manage for. A footnote to Table 4 in the EA states that the table does not include known or unknown deaths including shootings, euthanasia, accidents, acts of mercy. Etc.

(3) Our Objection: If any part of the 1975 Ochoco Wild and Free Roaming Horse Management Plan, p. 1, can be relied upon to provide an accurate historical or scientific foundation for management in 2020, here is what its writers said regarding factors which kept the wild horse population in check:

"The horses established their territories on and around Round Mountain, and have since that time been kept at approximately 60 head by local horse chasers, natural deaths and predators."

Any plan for management of a wildlife population must include projections of attrition. Managers, one would think, might also observe trends which would cause undue or unnatural suffering to the animals, such as human predation. While "horse chasers" have been subdued to

a great extent, the weaponry deployed and the apparent enjoyment experienced by horse killers are factors which remain somewhat predictable. Too, anecdotal accounts and known presence of apex predators must be considered. With formerly-used lethal control measures curtailed, added to wolf introduction, predator numbers are, of course, increasing.

Other known deaths, regardless of cause, should also be considered, as they are not likely to end. In the course of agency wild horse management, a certain statistical range can be established for known wild horse deaths. We are less concerned about these statistics appearing on a table in an EA than we are about the impacts of “other deaths” on a herd of 12-57.

The second comment to which the ONF responded relates to a different issue – the truthful account of horse numbers and their actual range in 1971 – and will be addressed later in our Objections.

Comment: Non-specific, but nonetheless condemnatory, statements such as (page 4) "Horses have been documented frequently in riparian areas and some studies have shown that horses consume or otherwise impact riparian shrubs decreasing the shrubs' height or impacting shrub presence" does not separate horse and cattle impacts. [4]

Consideration: No cattle have been authorized or permitted within the Big Summit Territory since establishment of the Ochoco National Forest (EA p. 68). The management of sheep within the Territory is described on p. 72. The Forest Service acknowledges other ongoing uses of the Territory as well as legacy impacts from past management practices (EA p. 36, 42, 46, 70, 80). Though other uses of the Forest can and do impact resources, the focus of this EA is on the proposed management of the wild horse herd and how management can address the purpose and need outlined on page 3 of the EA and reduce impacts that are due to the horses' year-round use and concentrated use in riparian areas.

(4) Our Objection: First, the Forest Service has misrepresented our original comment. We referenced a passage from the EA p. 4, but then cited the USGS 2017 report as follows:

“This sort of circumstantial "evidence" pervades this EA, and is called out by the USGS in the July 2017 GAO report, Animal Welfare: Information on the U.S. Horse Population:

According to USGS officials and documentation, research that evaluates and separates cattle and wildlife impacts from wild horse impacts has not been conducted, and studies on horse grazing effects are needed. And, BLM and USFS monitor vegetation on public rangeland but do not assign causes to changes in or damage to vegetation. According to BLM documentation, BLM is implementing its Assessment, Identification, and Monitoring (AIM) strategy to track environmental condition of BLM lands and establish a baseline for further analysis.”

We are aware that the Big Summit Wild Horse Territory is shared with sheep, not cattle. The ONF added “does not separate horse and cattle impacts” to our comment. We are also aware of the EA’s narrative regarding sheep management, and of the mention of both legacy and current impacts from other uses. Our concerns are that impacts attributed to wild horses are neither definitively identified as being caused by wild horses, nor are those impacts measured to the degree that an accurate assessment of the optimal number of horses allowed in the Territory can be made. This concern is echoed by the passage from the USGS Report, and a reasonable person

can extrapolate from the text a determination that ‘cattle’ could be interchangeable with ‘sheep’ in this context.

Comment: The EA does not attribute resource conditions to grazing, historic abuse, and modern forest management practices. [4]

Consideration: See EA p. 36, 41 for discussion of various factors leading to the current conditions in upland and riparian areas within the Territory. Wild horses are contributing to the declined riparian conditions, as riparian areas have been repeatedly over-utilized.

(5) Our Objection: We are uncertain where this comment was located in our submission of 86 pages. Whether these were our exact words, or another Commenter’s, our stance is that although there are frequent references in the EA to past management practices having contributed to the present conditions found in the Big Summit Wild Horse Territory, there is little grace shown to the horses today as compared to the massive destruction of the past by many destructive forces. With little to no provable attribution to the wild horses for observed resource degradation, the only solution offered by the ONF to restoration challenges is to reduce horse populations to untenable, non-recoverable levels.

Comment: Winter Range is absolutely not limited to 4942 acres. All the projections, calculations, and citations in this EA cannot occlude the obvious: 1) the current wild horse population survived some of the worst winters on record 2) the ONF has not proven and cannot prove that the entire censused wild horse population has ever resided within the 4942-acre designated winter range or that no horses ever wintered outside the designated winter range during winters of above-average snowfall 3) the ONF requested the Central Oregon Wild Horse Coalition identify areas where horses had been sighted during winter and received that documentation. We provided a map of personal and credible winter sightings, which was mentioned only in passing in this EA and in the context of being unuseful 4) the formula used in calculating winter range was glaringly inaccurate, inconsistent with BLM Handbook procedures, and suspiciously skewed against wild horses. [4, 22]

Consideration: The 4,942 acres of mapped wild horse winter range is an estimate necessary for forage calculations and is not intended to represent the only places that a horse will ever occupy or cross during an above average snowfall winter. Language has been added to the EA to clarify this point. While the Central Oregon Wild Horse Coalition (COWHC) did provide a map for horses and horse trails sighted during the winters of 2016, 2017 and 2018, only two of those winters represented above average snowfall and the map provided did not differentiate which sightings occurred on which years. Since this information is necessary to make a winter range determination (EA pp. 31-32, 62, 195-198) The Ochoco National Forest requested this additional information from leadership of the COWHC in an email dated September 10, 2018 but never received a response.

(6) Our Objection: Prior to stating, in the public record, that the ONF did not receive a response from the Central Oregon Wild Horse Coalition regarding additional information on the winter use map, the ONF should re-check Spam files or should have considered following up with another request. Our records show that we did, indeed, respond in an email. More importantly, the ONF should have conducted its own winter flyovers. The agency was free to use simple aerial sight identification, or to utilize the same infrared technology used to conduct their

summer census in 2017. Instead, random ground sightings were used to prove absolutely nothing.

The public is also led to believe that the 4942-acre designated winter range is more than “an estimate” of horse usage, as the acres calculated were pivotal in determining AML. If the ONF did not intend for the assigned winter range to represent the area where 100% of the wild horse population resided in “winters of above-average snowfall”, then they should not have used the figure to determine 100% of the future wild horse population.

Following is a screen-print of the email sent by the Central Oregon Wild Horse Coalition to the ONF:

From: wildhorse.ccnr.pac@gmail.com

Sent: Mon 9/10/2018 4:15 PM

Cc: [M G](#)

Subject: Fw: Follow-up for Friday's winter range information

From: wildhorse.ccnr.pac@gmail.com

Sent: Mon 9/10/2018 4:15 PM

Subject: Re: Follow-up for Friday's winter range information

Hi Tory,

I would be happy to bring my small GPS in for you to try to download the wild horse sightings from. However, my aviation GPS has all my wildlife GPS points from my flights in Alaska and Canada. With that being said, I am not willing to take the chance of losing the information or something happening to my equipment as it is an expensive instrument. I can give you a list of the points with the years if that would work for you.

Just let me know.

Thanks,

Mel

From: Kurtz, Tory L -FS <tlkurtz@fs.fed.us>

Sent: Monday, September 10, 2018 12:59 PM

To: Gayle Hunt (gdhunt4@gmail.com) <gdhunt4@gmail.com>; circlegranch@live.com <circlegranch@live.com>

Subject: Follow-up for Friday's winter range information

Hi Gayle & Mel!

Thank you both so much for taking time to come in and provide your data and discussions on winter range for the wild horses, I really appreciate it! Just to follow-up, like I was sharing, the most helpful

data for me would be to get the GPS points that you collected from the flights and to have them separated out by years and whether it was horses or trails. I understand Mel that you have that data and would be happy to help you download it off your GPS anytime. If at all possible, it would be great to get this additional info this week and I can make myself available to work around your schedule.

Let me know if you have any questions and if there is a good time this week for you.

Thank you!

Tory Kurtz

Rangeland Management Specialist

Comment: *The ONF fails to mention that Douthit Spring, though heavily used by horses, is adjacent to a dispersed campsite which is anything but "natural" with meat hanging poles, a trashy fire ring, and two pieces of vintage columnar basalt furniture, all in area denuded of vegetation and rutted with tire tracks. Campers have traditionally run ATVs through Douthit Creek and left the stream primed for bank erosion, sedimentation, and temperature increase. Horses have been observed licking the top surface of one of the imported boulders, indicating the presence of human-placed salt blocks at some point, which is consistent with the excavated tree root system shown in one of the ONF's photos of "wild horse resource damage". This cavity is identical to evidence of salt blocks placed for livestock, which then dissolve into the soil and invite further digging by wildlife. [4]*

The ONF considers the Douthit Spring condition, regardless of adjacent human-caused and actual resource damage, a heavy to severe impact. Had the ONF used the formula prescribed in the BLM Handbook (page 71), the actual acreage of the heavy or severe impact would only be one component in the equation which determines overall utilization, and this must be documented for at least three years. To merely point to specific areas of extreme use does not establish a basis for determining "there are too many horses." It is also incumbent on the ONF to ascertain the extent to which the mud hole may be contributing to downward trends in riparian condition. At the Douthit Spring site, water from the spring eventually flows into Douthit Creek, which dead-ends at a pond on private land less than a mile downstream. A tributary originating at Monument Spring, compromised by ONF vegetation treatments, not by wild horses, was dammed up by public at the intersection of the 2300-200 and 220 roads, and the dam was never deconstructed. There are no data evident in this EA which document the quality of outflow from Douthit Spring, whether current or historic, or actual impacts on Red Band Trout or Columbia Spotted Frog habitat. [4]

Consideration: *Riparian conditions were not based upon a single site but were based upon data and evaluations of several sites within the Territory (EA pp. 113-116). While the Forest Service is not bound by the direction and policy described in the BLM Wild Horse and Burro Handbook, under the first tier of the BLM's AML establishment and adjustment process the limited habitat available for wild horse use on either the summer or winter range is considered (EA pp. 193-194, BLM Handbook p. 67).*

(7) Our Objection: **We are aware of the ONF's "evaluations of several sites within the Territory". Though there is no apparent direct attribution to wild horses in the explanations of**

“unsatisfactory” conditions under “Resource Elements” 2 and 3, it is evident that under the prescribed scoring protocols as shown, upland and riparian vegetation conditions are rated as “unsatisfactory”. More accurately, conditions were shown to be unsatisfactory; no data are more current than 2016. Regarding Proper Functioning Condition, EA p. 105 states “It is recognized that the data are not entirely reflective of current management (last 3-5 years). For some of the stream systems there is data from the early 1990s and 2000s which has been compared to recently collected data (2009-2016). Using this, assessments of current conditions and trends in habitat are assumed to be reflective of management action effectiveness. Evaluation of streams with only recent data was compared to RMOs to determine habitat condition as long term trends could not be determined. Extrapolations will be made from currently collected data across the entire project, since data was not collected on every stream.

This analysis acknowledges that inherent variability and observer error exists in the measurement of the various aquatic parameters collected under the individual stream survey methodologies. This analysis assumes that in general, the error/variability in the measurement of each of the aquatic parameters is 5%. Therefore, no determination of consistency of an individual parameter to a specific standard or guide should be inferred if the measured value was within 5% of the standard. For example, the standard of stream shade for a specific site is 89%, if shade on the site was measured at 76% we would not be able to state with confidence that the standard is not being met because it falls within the 5% error/variability. Similarly, no determination of trend was applied to the comparison of more than one measure if the values were within 5%. For example, if stream shade was measured at 68% in 1995, and re-measured in 2006 at 71%, we would not be able to state with confidence that an upward trend exists.”

And yet, the future of this wild horse herd depends on riparian data.

But, if the metrics shown on EA pages 33-40 are meant only to establish habitat condition for the purpose of winter range forage calculation, and not attribution of damage to wild horses and specifically to the current number of wild horses, this statement from EA p. 40 leads the reader to a different conclusion:

“Currently the riparian areas inside the wild horse winter range are in unsatisfactory condition and do not meet the forage goal of the LRMP (Figure 19).” Figure 19 shows wild horses utilizing the infamous “mud hole” at Douthit Spring.

The EA p. 41 continues: “At current wild horse numbers, riparian areas within the wild horse winter range (and elsewhere) are showing consistent exceedance of the LRMP utilization rate standards and guidelines.” It is statements such as this which drill into the reader that there are data somewhere which show direct correlation between current wild horse numbers and the unsatisfactory condition of their range. The final sentence on EA p. 41 states ***“... there are still springs and creeks in the Territory that range from heavy through light use, for example, both Douthit spring (Figure 19) and Cram creek (Figure 20) currently display heavy use.”***

Again, to illustrate wild horse degradation of riparian areas within the wild horse winter range, Figure 25, EA p. 63, looks like another view of Douthit. We can’t be certain this is Douthit Spring, as it is not labeled and the locations of winter range Designated Monitoring Areas are not

disclosed. If this type of location is indeed associated with the DMAs, then it violates Multiple Indicator Monitoring guidance and this EA:

“– The DMA is located outside of a livestock concentration area. DMAs should not be located at water gaps or locations intended for livestock concentration or in areas where riparian vegetation and streambank impacts are the result of site-specific conditions (such as along fences where livestock grazing use is not representative of the riparian area). These local areas of concentration may be monitored to address highly localized issues if necessary (in which case, they would be described as critical DMAs as defined in the next section).”

– The DMA is free from the influence of compounding activities. DMAs should not be located in areas compounded by activities that make it difficult to establish cause-and-effect relationships. For example, an area used heavily by both recreationists and livestock would not make a good DMA to determine the effects of livestock grazing on stream conditions.”

So, assuming the mud hole at Douthit Spring is NOT associated with any DMA, then we question why “utilization” is being measured in 2017 and 2018 at sites other than (“in addition to the DMAs” per EA p. 114) formal Data Monitoring Areas. Is Douthit Spring one of the “in addition to” sites? If so, then the ONF truly deviates from the AML establishment guidance provided in Tier 2 of the BLM Wild Horse and Burro Management Handbook; areas of ‘extreme’ use are not to be factored into habitat assessment for the purpose of developing AML. Too, the informal data collection resulting in the utilization figures referenced in EA p. 45 (and elsewhere) does not constitute scientific analysis of the wild horses’ interaction with their environment. As we also stated in our comments, use of a specific area can be driven by a number of environmental factors, other than population size, and none of which were considered in this EA.

Concerning the BLM Wild Horse and Burro Management Handbook, we realize the Forest Service is not bound to BLM policy. However, the ONF states, EA p. 56: *“This AML was based on the process described in the BLM Handbook 4700-1 for wild horses (see AML analysis) and was calculated based on the most limiting factor of winter range forage availability during winters of above average snowfall inside the Big Summit Territory.”* The issue here is simple; very little of the ONF’s AML analysis follows the BLM policy, so any reference to its guidance is disingenuous.

Comment: As shown further in our comments, livestock forage allocations have indeed increased since 1975, and apparently the proof of over-utilization by horses is that (page 148 Wild Horse report) “The cross-section data is the most important relative to grazing because it measures the vegetation on the meadows w(h)ere utilization occurs most by horses.” But, the species attribution evidence remains elusive. What is also missing from this “analysis” is any suggestion of alternative explanations for greater wild horse use of certain springs (if there is indeed greater wild horse use), other than horse numbers, e.g. increased predator pressure or search for minerals. [4]

Consideration: “In 1975 when the Ochoco Wild & Free Roaming Horse Management Plan was written, the Canyon Creek and the Reservoir pastures were each permitted for 1,100 ewe/lamb pairs between June 16 and September 30 as it is permitted now.” (EA p. 70). While on page 214 the EA states, “[p]rior to winter in October of 2017 and September of 2018, in addition to the DMAs, utilization data was collected on three riparian sites in the wild horse winter range. On October 26, 2017, utilization rates ranged from 71-80% on these sites with high evidence of horse use. On

September 27, 2018, utilization rates at these same three sites ranged from 58-77% with high evidence of horse use, the sheep did not graze in this area in 2018. Both years, utilization exceeded LRMP utilization standards and both years horse numbers were above the proposed AML.”

(8) Our Objection: The 1975 Plan refers to “Head” of sheep; the 1989 LRMP refers to a number of “sheep”; this EA refers to ewe/lamb pairs, even though commercial ewes are expected to give birth to twins or triplets. That there is confusion as to the “unit of issue” may be completely immaterial, or we could take each of the terms at face value and infer that there is a change in numbers of sheep grazing within the Big Summit Wild Horse Territory now as compared to 1975. Regardless, our Comment/Objection #11, below, calculates the difference in forage allocation from 1975 to the present. The increase of forage is based on ONF numbers; not our speculation as to actual numbers of sheep, then and now.

We also object here, and throughout our response to this proposed action, to the ONF’s repeated implications that any precise relationship can be established between current wild horse numbers and alleged resource damage. Again, the locations of DMAs and thus their relevance to wild horse influence are unknown to us. According to this EA p. 212, *“These DMAs are set up to measure permitted livestock grazing in the Territory but also measures horse use (Burton, 2004).* Here is the only reference we find in the Multiple Indicator Monitoring Handbook cited which may relate to this issue:

“Short-term indicator data may be collected in a different season than the trend data; however, short-term data should be collected when it is appropriate, typically immediately following livestock use. Data may be collected prior to livestock grazing so that other uses, e.g., wildlife, wild horse, or recreation impacts, may be estimated. If the management prescription requires a certain amount of residual vegetation remaining to protect streambanks during high winter or spring flows, monitoring should be done after the growing season has ended and livestock have been removed from the area.”

If data were collected, outside the permitted livestock grazing season, which might represent wild horse and wildlife use, we do not find it in this EA. We do find that DMAs contributed utilization data for the years 2017 and 2018, during which the livestock permittee elected to rest one band. We do not find utilization data for 2019. We are also unable to ascertain from Table 16, EA p. 213 or Table 22, EA p. 71, whether the Reservoir 1 DMA is located within the Territory. It was previously stated in the EA that, absent physical barriers, wild horses can access the entire sheep allotment, but the EA fails to provide an estimate of how many wild horses may have been present at either or both Reservoir DMAs. This lack of specificity is of particular importance as the ONF states, EA p. 55, *“The last 10 years of stubble height measurements in the DMAs inside the winter range were all above twelve inches which show light utilization by sheep in the winter range.”* How was it determined that sheep utilization was “light” at the same time as the DMAs showed the areas to be in unsatisfactory condition with implications of wild horse responsibility for the utilization? It should also be noted that, in this same passage, the factor of sheep absence in 2018 resulted in a comparative sheep utilization number of 13%. It also begs the question of how the sheep were removed from (some portion of) the allotment in 2017, but were in Wild Horse winter range in 2017 to provide a utilization figure with which to compare 2018 sheep utilization.

Critical utilization data for the purpose of informing AML are inconsistent, random, and unsubstantiated. If those data do exist, then they need to be much more transparent and understandable to the average citizen, since the wild horses belong to average citizens.

Comment: *ONF also contradicts itself to say "There is no discernible relationship between total herd size and the number of horses outside the Territory" and then "Personal observations seem to indicate increased numbers has resulted in increased pressure on horses to attempt to move further outside the Territory." [4]*

Consideration: *Appendix B in the EA (pgs. 201-202) discusses cover and space as part of Tier 1 and includes several examples of past inventories and captures looking for any relationships between the two which is noted there are not any. There is also mention of fences known to be in poor condition which could have influenced the situation. So while there is no best available science of space, there is personal observations of horses getting further away from the Territory as numbers have increased.*

(9) Our Objection: We question how *“personal observations of horses getting further away from the Territory as numbers have increased”* are valid if provided by unnamed contemporary persons, but the affidavit of a former Big Summit District Ranger showing horse presence essentially all across the former Big Summit District in the mid-late 1960s is not valid. According to the 1975 Wild Horse Plan, the wild horse population had been kept to around 60 since the recognition of wild horse presence in approximately the 1920s. There are numerous contradictions with early numbers; how did the writers of the 1975 plan know there had been an 8% annual increase in horse numbers since the Wild Free-Roaming Horses and Burros Act of 1971, if the first attempt at population census occurred to inform the 1975 Plan; why does the 1975 Plan establish a response protocol to the horses’ habit of straying outside the Territory, if the horse numbers were around 60 at the time; why does the 1975 Plan mention that a band had expanded into the Coyle Creek area, and several stallions ventured away to form their own “domains” if the number censused in 1975 was 61. This number, incidentally, included the horses known to be outside the Territory boundary. Any reasonable person would conclude that until quite recently, we did not know with any appreciable degree of accuracy, how many horses resided within or outside the current Big Summit Territory. Mr. Don James felt there were about 100 horses at the time he served as Big Summit District Ranger, and as previously stated, they were well outside the current Territory. (see Appendix A)

This indisputable ambiguity causes many problems for foundational assumptions about current wild horse carrying capacity. When this EA states, p.80, that *“In addition to increased numbers, distribution of horses is expanding to areas not previously utilized by this species including areas outside of the Territory”* the entire EA lacks any credibility. Even in recent history, wild horses have been in every quadrant of the former Big Summit Ranger District. We willingly acknowledge that our first years of managing the annual census left much to be desired. Our strategy of positioning rider groups throughout areas known to be used by the horses, for three consecutive days in order to compare notes, photograph, and document evidence of horses on the move, replaced the old method of a few riders moving across the Territory. But the implementation had a tall learning curve. It took many years to develop the expert ridership which we enjoy today. We admit this, and yet, critical trends relating to resource standards are being established based on our early counts, and from decades of anecdotal estimates from various sources.

As we stated, wild horses migrate. They migrate whether there are few horses or great numbers of horses, and sightings outside the arbitrary lines of a Territory boundary should not influence decisions regarding AML.

Comment: *Measuring riparian forage utilization at pinpoint locations where horses seek life-sustaining elements within that micro-environment, is not only outside the AML development guidance in the BLM Handbook, it makes as much sense as measuring grass at livestock watering troughs. [4]*

Consideration: *Utilization is measured at Designated Monitoring Areas (DMAs) following the guidance of Burton which states that DMAs should be areas of higher use that can represent the entire pasture (EA p. 212). The BLM's AML development guidance does not reflect Forest Service policy and does not provide guidance for how to measure riparian forage utilization; however, the AML calculations of Alternative 2 are affected by the existing conditions of riparian areas per Forest Plan allowable use factors and the determination that riparian areas are in unsatisfactory condition. Due to the unsatisfactory condition, the amount of riparian forage allocated to wildlife, wild horses, and livestock is capped at 30% (rather than 40% if the conditions were satisfactory). EA pp. 44-46, and EA Appendix B pp. 196, 206-211.*

(10) Our Objection: **As we have already discussed in Objection 7 (above), Burton's guidance and this EA, p.18, discourage DMAs located at areas such as "crossings or main water sites". We have also stated that we do not know where ONF's DMAs are located. What we do know, however, is that the 1989 Ochocho LRMP charts for allowable utilization do NOT state that wild horses are to be included in the total use. Unless that is addressed at some other tier of land management standards, that is an assumption on the part of the ONF and is not disclosed to citizens in this EA. Further, although Table 4-30 Riparian Forage Utilization (LRMP p. 141) does state, in fine print, that use by permitted livestock and big game are to be combined, it does not make this statement for Table 4-31 Primary Range (except riparian) forage utilization. Therefore, the ONF is without guidance as to a standard for non-riparian, upland utilization for wild horses, or big game.**

Comment: *The statement that "livestock numbers have remained the same since 1975" is patently false. According to the 1975 Wild Horse EA, a total of 2200 HEAD of sheep are permitted on all 27,300 acres of the Big Summit Territory. The total lbs. of allocated forage is 1,523,875. Calculations to arrive at the current forage allocated to sheep could be computed on a straight multiplication of .3 AUMs x 2200 x 26 lbs. x 107 days, which would equal 1,836,120 lbs., OR 160,875 lbs. of riparian forage consumed by 1100 sheep for 19 days = 8467.10 lbs. per day x 2 = 2200 x 107 days = 1,811,120 lbs. Either way, the difference between the 1975 and 2020 forage consumption by permitted sheep would sustain 30-32 horses year-round; of course, ignoring the 21% dietary overlap which is absent in any of the forage allocations and comparisons in this EA. [4]*

Consideration: *The EA (p.55) cites a study that indicates a dietary overlap of 21% between sheep and wild horses during the summertime. The Appropriate Management Level Analysis (Appendix B) calculated summer forage and determined ample summer forage further supporting the limiting factor of winter forage, during a time when sheep are not concurrently grazing. The number of livestock has not changed. The 1976 Term Grazing Permit for Canyon Creek and Reservoir allotments shows 1100 for each band. While the class of livestock (i.e. ewe/lamb pairs) was not defined on the permit other*

records of ewes and lambs were running on the allotments under that authorization. While the method of calculating forage needs could have changed over time, the method described in the Draft EA is in alignment with current agency practice.

(11) Our Objection: Though we have already discussed the ambiguity of permitted sheep numbers, it is no small matter that the forage allocated to sheep in 1975 is substantively less than is allocated today. ONF may call this a differing method of calculating forage needs, or there may have been a math error in the 1975 Plan. Without resolving this difference, however, the ONF cannot state with conviction that no changes in permitted livestock have occurred; perhaps not in numbers, but through some metric which equates to more forage allocated to sheep in the present day, the pounds don't compute.

Comment: The one vector which cannot introduce new populations of invasive plants is the wild horse. They live and die on the Forest. Still, the ONF states in this section that wild horses are responsible for invasive plant introductions. [4]

Consideration: The EA acknowledges that the existence, introduction, and spread of invasive plants are difficult to quantify and attribute specifically to any one vector on the landscape (EA p. 147); however, wild horses, along with wildlife, sheep, vehicles, recreators, and other vectors do contribute to the spread of invasive plants. EA p. 148.

(12) Our Objection: We had stated, simply, that wild horses cannot *introduce* invasive plants. They can spread them. They cannot introduce them, because the wild horses exist entirely on the Forest.

Comment: This EA also fails to identify the boundaries of the Affected Environment, other than to confine physical Effects to the Big Summit Wild Horse Territory with exceptions such as horses allegedly driving elk to private lands. [4]

Consideration: The area considered for environmental effects is usually the Big Summit Territory because that is where wild horses are authorized to be present. The boundary of effects analysis is may vary by resource.

(13) Our Objection: The Effects analyzed in this EA are to be Effects to the Human Environment. The Human Environment transcends the physical space wherein the project is planned. Since this proposed action was initiated under the former NEPA Rule, the Human Environment can be significantly affected beyond those physical confines. A number of humans care deeply about the wild horses of the Ochoco National Forest, as evidenced in the large number of comments received, most of which were strongly in favor of the horses' humane treatment and existence into the future. These humans cannot live in the Ochoco National Forest with the wild horses, but must exist in a world separate from the ecological concerns within the horses' habitat. The ONF, by virtue of its selection of Alternative 2, will cause harm to, and the probable demise of the Big Summit herd, and yet the indirect effects of that outcome on the human environment are not considered in this EA.

Calculation of Appropriate Management Level

Comment: This EA states that ONF wild horse staff relied on the BLM's 2010 Wild Horse and Burro Management Handbook (BLM Handbook 4700-1) to guide the determination of AML; but only selected tidbits of the BLM guidance were used. In the instance of the ONF's EA, the 3-5 years of actual utilization data required to establish forage sufficiency for the current number of horses is not evident. Instead, the ONF decided to estimate forage production capacity... there are pages of further analysis in the form of stocking and utilization charts, and various statements, none of which fit within the formulas prescribed in BLM Handbook 4700-1.

[4] If any of this data has merit, it lacks transparency as to how metrics were described and applied and what other factors were considered. For example, it is unclear how an assignment of a 30% limit on summer forage utilization equates to Minimum Feasible Level Management. [4]

Consideration: Appendix B of the EA, Appropriate Management Level Analysis (pp. 192-216) covers the step by step process of determining forage availability. In addition, the EA (pp. 43-45) also shows the process for determining forage availability and discusses the forage allocation ties to minimum feasible management. While the Forest Service is not bound by the direction and policy described in the BLM Wild Horse and Burro Handbook, under the first tier of the BLM's AML establishment and adjustment process the limited habitat available for wild horse use on either the summer or winter range is considered (EA p. 194, BLM Handbook p. 67) as is the general process of determining the amount of sustainable forage available for WH&B use (EA p. 203-214, BLM Handbook p. 67). The consideration and determination to use this approach was reviewed and documented in consultation with Area Ecologist Greg Riegel and scientific consultant Marty Vavra.

(14) Our Objection: In previous Objections, we have concurred that the Forest Service is not bound by BLM policy concerning the development of AML, although the ONF has alluded to following that guidance (EA pages 15, 56, 192, 200, 201). Materially, the ONF has extracted certain aspects of the BLM guidance and cobbled a few charts and graphs together to create the appearance of a process. We do not question the longstanding reputations in the fields of ecology and research of Greg Riegel and Marty Vavra, but we are left wondering why the ONF chose to ignore the precepts of the BLM approach, and why they did not capitalize on the fact that the Big Summit horse population may be in that rare state of self-regulation due to environmental factors other than forage availability. This could have been a phenomenal opportunity for objective research and focused analysis on wild horses within a moist, montane environment.

Comment: It is unfortunate that BLM and Forest Service both narrow down the habitat needs of wild horses and burros to the "four essentials" of forage, water, cover, and space. A wild horse needs these essential amenities, but also - salt, minerals, medicinal plants, insect control, wind breaks and wind currents, predator protection, mud and dust, companionship of their choice, freedom, and countless other things whose necessity the horses cannot express nor can we fathom. [4]

Consideration: The essential habitat components for wild horses are analyzed in the EA. Recognition of these essential habitat components is not intended to imply that there are no other necessary factors that wild horse habitat provides.

(15) Our Objections: We are aware this EA makes an attempt at analyzing the four essential habitat components. We are also aware that the ONF did not necessarily intend to imply that there are no other necessary factors that wild horse habitat provides. At issue here is not

whether the ONF fulfilled minimum requirements to show evidence of analysis, or even to conform to the low standards adopted by agencies in terms of fully considering impact on and by wild horses. Our Objection is that the ONF has not analyzed effects to the extent that sound decisions can be made. It DOES matter, for example, that wild horses will seek subsurface minerals and will travel to and congregate where those minerals are found. It DOES matter that as climatic norms shift, wild horses may amass in new areas where winds are less likely to deplete horses' late-winter fat stores. It DOES matter that plant communities must also adjust to a changing environment, and the horses may need to travel farther to locate medicinal plants. Such factors may have more influence on the wild horse behaviors than population levels; or forage, water, cover, and space.

Comment: The 2013 NAS report makes the following observations about BLM's (by extension, Forest Service) approach to AMLs: *FINDING: How AMLs are established, monitored, and adjusted is not transparent to stakeholders, supported by scientific information, or amenable to adaptation with new information and environmental and social change.* [4]

Consideration: Appendix B of the EA (pp. 192-216) covers the step by step process used to calculate the AML. In addition, several public meetings were held with stakeholders to go over topics involved in the AML Analysis (EA pp. 175-176).

(16) Our Objection: We are aware of the ONF's AML development process. We are also aware of the ONF's public meetings held in conjunction with the Wild Horse Management planning process (although we did discover that the Central Oregon Wild Horse Coalition had been intentionally excluded from an entire series of scheduled "invited stakeholder" meetings. Following our FOIA request and assertion that this action may have violated FACA rules, the process then morphed into the "Sounding Board" sessions).

Our Objection pertains to the cited excerpt from the 2013 NAS report (p. 11), since, in the instance of this EA, AML establishment is not "*supported by scientific information, or amenable to adaptation with new information and environmental and social change.*" We will continue to address the broad-scale deficiencies in scientific data supporting this decision, but there is also a substantive issue with the poor potential for future "*adaptation with new information and environmental and social change*". This entire EA assumes Alternative 2, mandating an AML of 12-57 wild horses, will resolve past, present, and future resource conditions which, by its own admission, were largely the result of former practices such as logging, overgrazing by livestock, road building, and vegetation management. This decision will amend the ONF LRMP accordingly, to lock in the AML of 12-57. There is no allowance for changing conditions, even if the drastically-reduced wild horse numbers were to result in sudden reconstruction of 100-year-old stream bank failures and excellent transect readings at the next 10-year interval. There is certainly no allowance for increasing AML when mitigative measures heal riparian degradation, or when other improvements create more upland forage, or when the livestock permittee agrees to a voluntary permit buyout, or when ODFW agrees to cut its elk Management Objective back to historic levels. This EA should have been an EIS, and the EIS should be an innovative, solution-based, living document which reflects the intended fluidity of AML to consider the clear direction of the Wild Free-Roaming Horses and Burros Act; to manage wild horses and other wildlife in a Thriving Natural Ecological Balance. That single standard should determine, from

season to season, year to year, the adjustments necessary to be in that elusive state; not an inflexible, arbitrary number.

Determining Wild Horse Winter Range

Comment: *The premise on which the preferred alternative is founded, that the Big Summit Herd's winter range amounts to only 4,942 acres, is utterly ridiculous. All the calculations, supposed studies of slope and habitat preference, random sightings, and inconclusive surveys do not add up basis for reducing a viable herd to a number which assures certain and swift extinction. (reference enclosures including map submitted to District, and District request for information.) The information provided was dismissed and excluded from determining winter range. [4]*

The burden of proof of the suppositions regarding the horse's strict use of exactly 4,942 acres during winter is placed squarely on the Forest Service. Methodology questioned as to whether it's verified the entire population could be or had ever been located within the winter range, or that no horses were located outside the winter range. There is no easy way to verify 100% presence or 100% absence. [4]

The 2017 winter survey, whatever it consisted of, appeared to be neither definitive nor comprehensive; just random sightings. Our winter sighting map was not represented to be a complete winter count, but a sample of widely-distributed occupancy. It showed unequivocally that horses find, and follow historic patterns of, thermal pockets, leeward snow accumulations, microclimates, and perhaps specific available vegetation - all well beyond their appointed winter range. [4]

Since 2002, regardless of the toll of the winter before, the June census has never reflected a survival of only 57 horses. [4]

Consideration: *The method of determining the winter range of the Big Summit Territory is described in Appendix B pp. 194-197. The identification of the wild horse winter range is based on winters with above-average snowfall. In the EA (p. 31), we acknowledge that habitat use depends on the severity of the winter and is variable, but what is consistent is that the defined wild horse winter range shows consistent presence of wild horses during the winter regardless of the severity of snowfall. In the EA (p. 197), we discuss the request of data from the public about winter range and wild horse winter use and how usable data we received from the public aligned with the wild horse winter range determination. In the project folder, copies of letters sent to members of the public that expressed knowledge of wild horse winter use can be found as well as information received. Most of the information received was not usable because it was either information outside of the Territory, information from average or below average snowfall winters, or opinions or other sources of data without actual data point information. In addition, as the EA on pages 40 and 41 explains, survival is not the determinant of adequate forage, but the ability to generally meet riparian utilization standards as set in the LRMP. Standards have been regularly exceeded in the wild horse winter range with recent horse numbers (EA pp. 41, 45, 53, 62, 71-72, 214).*

(17) Our Objection: *Essentially, the ONF hypothesized what the wild horses' winter range should be, based on off-site studies and positive sightings, then collected random sightings to support the hypothesis. At this juncture, we must reiterate that on request from the ONF, we produced a map of winter sightings. Due to the ONF's presumptions of both poor data quality and lack of responsiveness on our part, the ONF rejected our sighting map. Of course we would concur that*

a large percentage of the herd can be documented as spending winters within their presumed winter range. If the purpose for determining where the Big Summit Wild Horse herd resides during winter were to merely establish trends for the sake of establishing trends, we could agree. However, the purpose of winter range determination in this EA is to calculate the number of wild horses allowed to exist on the Ochoco National Forest, now and into the future. This stated objective adds considerable weight to the necessity of accurate data as opposed to studies and suppositions.

Too, along with the sighting map, we provided two additional documents. One was a transcript of a recent NPR segment on established migration patterns for moose and wild sheep. The study showed that generations of historic use of migration routes cannot be obliterated and then suddenly reinstated; it could take as many as 90 years for wildlife to re-establish old pathways or to create new ones. This may be relevant in the case of Ochoco horses whose ancestral travel routes were to and from points outside Forest boundaries, and obviously migration between points within the Forest boundary will not suddenly change because of a Management Plan. The other document was from a lifelong resident of Crook County who noted, over the course of many years, areas where he knew the wild horses to spend winters. Many of these areas were “outside the Territory”. That should not render his contribution useless, but should instead inform ONF staff that regardless of population size and off-site studies of where wild horses *should* winter, wild horses travel to preferred areas.

Using the ONF’s formula for the allocation of forage within winter range, we arrived at some alternative numbers.

We first eliminated sheep forage needs from the table, for two reasons. First, if forage consumed by sheep in early June is assumed to have no regrowth between June and December, then sheep should be excluded from grazing on the ONF. That degree of use, multiplied over the entire allotment, must be considered detrimental to the forage needs of all wildlife. Second, the ONF has the option of excluding sheep from grazing in the winter range. It is NOT outside the scope of this EA to consider such mitigative measures. Also, the ONF states that dietary overlap is considered in these tables, but we see no explanation of that in the figures shown.

We then considered a realistic dispersal of horses during “winters of above average snowfall”. Based on aerial sightings during such winters, we will assume that a total population of 150 might be represented by 100 horses within the winter range. Of these 100 horses, it can be assumed that perhaps 25 will consume less than 27.5 lbs. of forage per day. In Federal wild horse management, horses under the age of 1 year are not counted in the total population at all, so for this purpose we will assign consumption of 15 lbs. per day to 25 of the 100 horses located within the assigned winter range. These adjustments would amount to a total of 329,062 lbs. forage needed for wild horses in the winter range. Added to the needs of deer and elk, this would total 496,346 lbs. When divided by the total calculated forage of 1,240,533 lbs., this results in utilization of approximately 40%. However, since the total number of riparian acres within the winter range is 215, only 4.3% of the utilization must meet the ONF LRMP’s 30% limitation. As we stated in Objection 10, above, we do not find reference to wild horses’ forage utilization being included in Table 4-30 (riparian) in the LRMP, and we do not find big game or wild horses listed in the species included in the livestock utilization standards in Table 4-31 (non-riparian). Therefore, approximately 96% of winter range utilization is not held to the 30% utilization

standard. Too, when deer and elk are absent during “winters of above-average snowfall”, then wild horses would utilize less than 27% of available forage.

More importantly, while these figures may provide a modicum of guidance for estimating or anticipating utilization, and therefore appropriate wild horse population levels, the ONF is still missing the most critical aspect of the implications of their 12-57 AML; it’s not the number of lbs. of available forage, it’s the number of snowflakes. In extreme winters, horses will die. Even if managed to the high end of AML, some winters may result in near 100% mortality, between starvation and predation. Extreme and persistent snow depths will simply render all forage unavailable, regardless of wild horse population size.

And the ONF’s answer to this: Under “Comments Considered but not Addressed in Alternatives or Analysis, EA p.10;

THE WILD HORSES IN THE BIG SUMMIT TERRITORY ARE CONSIDERED AS PART OF THE METAPOPOPULATION OF ALL WILD HORSES IN THE UNITED STATES THEREFORE, LOSS OF HORSES IN ONE TERRITORY DOES NOT CONSTITUTE LOSS OF A POPULATION (NATIONAL ACADEMY OF SCIENCES 2013).”

If there could be any doubt remaining as to the ONF’s attitude toward these wild horses, or their ultimate sense of responsibility for the horses’ welfare, or their commitment to the precepts of the Wild Free-Roaming Horses and Burros Act, or their respect for the overwhelming positive public sentiment toward these horses, this statement should confirm the ONF’s entrenched position. It is pervasive throughout this EA, but no more evident than is expressed here.

Comment: Management action can increase available winter forage for Federally-protected wild horses; sheep grazing plans, slash treatment, spring prescribed burns as opposed to fall burns, and enforcement of travel rules intended to protect all wildlife. [4]

Consideration: In the EA (p. 203) the wild horse winter range habitat type is broken into riparian areas and transitory range, of which, 4,727 acres are transitory range. Transitory range is defined as forested lands that are suitable for grazing for a limited time following a complete or partial forest removal (p. 203). In other words, the range is always transitioning from less forage to more overstory canopy cover with an inverse relationship. Unless the entire 4,727 acres was completely or partially (at least less than 40% canopy cover) removed every year, the winter forage availability would always be changing. The EA (p. 8) states that the scope of analysis and decision to be made does not involve the determination of whether livestock grazing should take place in the Big Summit Territory or how many livestock should be permitted.

(18) Our Comment: The ONF response to our comment does not address our concerns. We have personally observed inordinate, massive amounts of untreated slash in the wild horses’ winter range, which in large part overlaps big game winter range. When this was brought to the attention of the ONF, the response has been either nonexistent or statements to effect that “the slash will melt into the ground in a few years”. The ONF was unaware of or unconcerned about their own tinder-box situation, and the issue remained unresolved until general public made the same complaint. Of course, a high volume of untreated thinning slash creates contiguous areas of dry fuel, increasing the rate and intensity of wildfire spread. But the slash also precludes the

growth of forage, having a particularly negative effect in winter range for wild horses as well as big game. Much of this slash still prevents growth of and access to winter forage. We understand that down woody material is a natural component of a functioning ecosystem AND that it is necessary to remove overstory as well as reduce timber density for the sake of healthy stands; we simply ask that material resulting from treatment projects be viewed from a winter forage perspective in the broad forest planning process. This is also true with the timing of projects, as we witnessed in the summer of 2019. The ONF was unwilling to consider spring burning along Rd. 22 in the Canyon 66 Unit, and this did, in fact, result in lower quantities of available winter forage. These are reasonable requests. The ONF's repeated mantra of viable solutions being "outside the scope of this analysis" is tiresome. This Ochoco Wild Horse Management Plan is essentially the first ever to be written to meet the requirements of the Wild Free-Roaming Horses and Burros Act, in the sense that the Forest Service has had nearly 50 years in which to *objectively observe and scientifically analyze* interactions of the wild horse herd with its environment. The magnitude of this decision is great. But so are the opportunities. It seems incredulous that the ONF is unwilling to examine ALL factors impacting the wild horses, not merely the resources that may be impacted by the wild horses, and therefore should seek to integrate every possible holistic solution. We view this as a failure not only of the ONF, but of the agency, since we realize this mindset pervades all levels of management, to meet its responsibilities to protect, manage, and control the wild horses which reside on their rightful home range.

Comment: The EA states (page 194) that "winter weather conditions can have effects on horse population dynamics..." and "This situation, as found on the Big Summit Territory, creates a temporally density-dependent population where horses are limited to the food-limited carrying capacity in seasonally cold environments, with snow cover." (attributed to the 2013 NRC Report) As the Central Oregon Wild Horse Coalition has maintained, there may be degrees of irrelevancy between the wild horse population and the number of horses lost to winter. This is what the NRC Report actually states:

Density-Independent mortality was documented by Berger (1983a) in the Granite Range of Nevada. Two horse groups perished as a result of severe winter snowstorms. High-altitude, snow-induced mortality may be common. He concluded that unpredictably heavy snow accumulation is a principal mortality agent in the Granite Range, as it may be elsewhere in the Great Basin. Berger (1983a) referred to the winter of 1977, when an estimated 300 horses (50 percent of the population) died in the Buffalo Hills near the Granite Range. Berger (1986) reported a pattern of low mortality in most years but markedly higher mortality in occasional years of bad weather. In Wyoming's Red Desert, abortions and stillbirths after a severe winter reduced natality by one-third (Boyd, 1979). Reduction in Equilibrial Tendencies by Density Independence In climatically variable environments, the importance of density-INdependence population dynamics increases. (emphasis added) [4]

A certain number of horses will die as a result of extreme winter conditions. A number of horses will die as a result of average winter conditions, but this is factored into a fairly stable population which is censused at approximately 125-150 each summer. That includes a certain amount of winter kill, likely due to temperatures and predation as much as any other variable. It's the extreme winters that are destined to result in atypical mortality which is independent of available forage in the mystical winter range. And this is exactly why it is imperative that the ONF abandon its determined, unsupported preference for Alternative 2, or any alternative which does not provide for both genetic viability and fundamental numbers resiliency. [4]

Consideration: The following quote from NAS (2013) p.71-72 will be added to the body of the EA: “In climatically variable environments, the importance of density-independent population dynamics increases. The implication of strong density independence is that, in Climatically variable environments, herbivore populations should not be expected to reach a steady state in which population density is in stable equilibrium with forage production. Climatic variations include severe winters and droughts. When the coefficient of variation of annual rainfall, and presumably food availability, exceeds 30 percent, population size is less likely to be determined by mean food-limited carrying capacity (Caughley, 1987; see also the section “Understanding Ecosystem Dynamics” in Chapter 7). Saether (1997) also theorized that lags in the responses of populations to environmental variations, in the absence of predation, will make a stable equilibrium between ungulates and their food resources unlikely. As a result, horse populations may not necessarily decline rapidly during moderate droughts despite reductions in plant growth, and the grazing pressure, expressed as a percentage offtake, may periodically increase above average values. Ellis and Swift (1988) proposed that plant-herbivore systems in climatically variable environments are unlikely to be equilibrial and that traditional concepts of food-limited carrying capacity have relatively little value in predicting herbivore population sizes and dynamics in such environments. They proposed that a herbivore population in an environment subject to periodic droughts is periodically reduced to a low level independently of density. The population then recovers slowly until the next drought causes another reduction. As a result, the population is kept below food-limited carrying capacity—it is unable to use available food resources fully because of low density. That idea was supported by a model of zebra population dynamics (Georgiadis et al., 2003) that provided realistic predictions for 2 decades (Georgiadis et al., 2007). The model captured the fundamental mechanism of rapid population decline during dry periods and slow increase during wet periods. The greater the variability in rainfall, the greater the proportion of time that the population spends below carrying capacity. The Ellis and Swift (1988) study generated controversy: some interpreted it to suggest that plant-herbivore systems would be generally nonequilibrium and herbivore populations would naturally be held below food-limited carrying capacity and thus below sizes that would cause overgrazing and degradation. The conclusions of Ellis and Swift, however, were limited to environments that had a high degree of climatic variability, and the implication was that such systems have nonequilibrium tendencies, not that they are absolutely nonequilibrium. Illius and O’Connor (1999, 2000) showed that herbivore populations in drought-prone environments would be “disequilibrium,” still in quasiequilibrium with critical food supplies during dry periods. Thus, plant resources should appear to be lightly used during wet periods, and on the average a small fraction of plant growth should be used. Illius and O’Connor recognized the importance of key resource areas on the landscape, such as natural dry-season grazing reserves that define the dry-season bottlenecks and thus limit herbivore populations to a particular density. **Density dependence therefore exists, but it is temporally variable inasmuch as food-limited carrying capacity varies with precipitation and, in seasonally cold environments, with snow cover.**” [emphasis added]

The preferred Alternative provides for genetic variability by monitoring horse genetics through sampling captured horses and working with genetic experts to trans-locate individuals with appropriate genetics (EA p. 58). Alternative 3 analyzes the effects of a 150-200 animals without importing individuals to increase genetic variability.

(19) Our Objection: With this Objection we are re-stating our comment to show the context for the ONF’s response. For reasons unknown to us, the ONF chose to exclude the first part of the excerpt from the 2013 NAS report. The ONF, instead, begins their citation mid-sentence, and

without full context. In a sense, this is exactly what we did in our original comment, but it was for the purpose of clarity, considering the text following our citation relates to studies of equine habitats which experience drought cycles. The issue in the ONF is not (yet) drought, but the inevitable snowfalls which are either so deep as to make forage access and navigation virtually impossible, or that are so persistent that the animals' energy expenditure versus intake becomes a negative pursuit. It shouldn't require intensive research to suggest that wildlife die in heavy or prolonged snow depths, and they die regardless of the forage buried underneath.

*“Density-independent mortality was documented by Berger (1983a) in the Granite Range of Nevada. Two horse groups perished as a result of severe winter snowstorms. High-altitude, snow-induced mortality may be common. He concluded that unpredictably heavy snow accumulation is a principal mortality agent in the Granite Range, as it may be elsewhere in the Great Basin. Berger (1983a) referred to the winter of 1977, when an estimated 300 horses (50 percent of the population) died in the Buffalo Hills near the Granite Range. Berger (1986) reported a pattern of low mortality in most years but markedly higher mortality in occasional years of bad weather. In Wyoming’s Red Desert, abortions and stillbirths after a severe winter reduced natality by one-third (Boyd, 1979). Reduction in Equilibrial Tendencies by Density Independence In climatically variable environments, the importance of density-independent population dynamics increases. The implication of strong density independence is that, * in climatically variable environments...”* 2013 NAS Report, p. 71

* start of ONF citation, above

In reading the Determination of Appropriate Management Level section of this EA, p. 194,195, where this citation is found, we strongly suspect that the ONF didn't read the cited passage carefully, and therefore missed the entire point. Yes, there is such a thing as density dependence, but our quote (and part of the ONF's quote) from the NAS Report speaks to density Independence. That is what occurs during extreme winters in locations such as the Granite Range as described by Berger; and in the Ochoco Mountains.

Further, the ONF response to the genetic viability portion of our statement, above (*It's the extreme winters that are destined to result in atypical mortality which is independent of available forage in the mystical winter range. And this is exactly why it is imperative that the ONF abandon its determined, unsupported preference for Alternative 2, or any alternative which does not provide for both genetic viability and fundamental numbers resiliency.*) is resoundingly empty, as a wild horse herd which dies off under extreme weather conditions is equally dead whether it is genetically diverse or not.

Determining Forage Needs and Allowable Use of Forage

Comment: Regarding Table 18 -Riparian areas are present on 215 acres of the 4,942-acre designated wild horse winter range, yet all forage utilization is held to the 30% Forest Plan standard. [4]

Consideration: The amount of allowable forage use is based on resource management level, range condition, and community type. This is described in the EA p. 43 and Appendix B. For riparian communities in unsatisfactory condition, the allowable use of forage for wildlife, wild horses and livestock is zero to 30% of the forage.

(20) Our Objection: As we discussed in our Objection 17, above, the ONF failed to disclose statutory evidence that wild horses are included in the allowable use equation which is limited to 30% utilization in Riparian communities. It should also be noted, there is no sound basis for correlation between “Minimal Feasible Level Management” of wild horses and the management level of permitted livestock.

Comment: Regarding Table 18 - Sheep aren't present in winter. Later in the document this is explained; apparently the number represents the 19 days sheep are permitted to graze, in early June, within the designated winter range. Then, the forage evidently did not recover by the following winter. If this is the case, and observations of sheep trampling more forage than they consume abound, then the ONF should consider terminating the grazing permit. Even so, forage consumed in the month of June is not recorded for any other species in Figure 18. [4]

Consideration: The EA recognizes that sheep grazing occurs in the wild horse winter range and that the potential for regrowth can occur as observations indicate it generally has across many areas on the Ochoco National Forest. However, the degree of regrowth is not well documented, is highly variable based on annual climatic conditions, and is not readily available in applicable science. Therefore, in order to be conservative, regrowth of forage allocated for use by sheep, even though it is consumed in the summer, was not factored into the analysis in order to mimic drought years when no regrowth might occur.

(21) Our Objection: While we do appreciate consideration of the full and realistic potential impacts on available winter forage for wild horses, we must ask that the ONF also consider that more research is needed on the impacts of sheep grazing to increasingly at-risk environments. It may be appropriate to take a ‘hard look’ at the continued allowance of sheep grazing on the Ochoco National Forest. Any Forest visitor can identify the recent passage of sheep herds across meadows and especially, on more fragile cut-bank soils and in sparsely-vegetated areas. Their recent presence is often marked by swaths of trampled vegetation. To be clear, we are not citing the following as the scientific equivalent of impacts between sheep in Scotland and the Ochoco National Forest; we are merely asking that the ONF objectively consider that there could indeed be significant impacts; beyond the amount of forage consumed. The following study was limited to three large ungulate species, none of which were wild horses, and other small animals. Still, some comparative value may be extracted:

Quantifying the grazing impacts associated with different herbivores on rangelands, Albon, Brewer, O’Brien, Nolan, Cope, 2007 (see Appendix C)

Summary p. 1 “Overall the presence of sheep was associated with the largest increase (7/11 areas) in grazing and trampling impact of all herbivores. Cattle had the second largest impact but generally this was restricted to fewer areas and habitats than sheep. In contrast, impacts associated with wild herbivores tended to be small and only significant locally.”

Of course, the Central Oregon Wild Horse Coalition also realizes this will be considered “outside the scope of this EA’s analysis”.

Cover and Space

Comment: *The ONF does not know where these horses are at a given time, therefore they do not possess sufficient data to ascertain whether adequate space exists within the Territory. [4]*

Consideration: *The EA acknowledges that exact space requirements are unknown (p. 200). Analysis of the Big Summit Territory and the Ochoco wild horses does not provide a clear answer as to whether cover and space are inadequate (see pp. 200-203). For this reason, cover and space were not factored into the analysis of AML.*

(22) Our Objection: **Cover and space may not have been factored into the analysis of AML, but mention of population levels contributing to the presence of horses outside the Territory are numerous, starting with the June 2017 Scoping Letter: “The annual census from 2013-2016 ranged from 110 horses to 152 horses, with an average of 126 wild horses. That herd size has resulted in animals moving outside of the Territory on and off Forest System lands, in search of habitat essentials like space.”**

Comment: *The ONF vacillates continually between hard statements that population levels drive outbound migration, and that no such correlation has been documented. The associated graphics don't support the correlation, nor does our personal experience spanning two decades. The ONF states (page 200) "An indicator that the Territory does not have sufficient cover and space for the number of horses is a recurring pattern of horses moving outside the Territory. Such egress is evident in the Big Summit Territory and requires constant management to move horses back into areas where their occupancy is authorized." We are not aware of the ONF's constant management in this regard. It is important to note that nearly all of these relocations/removals occurred when horse numbers were substantially lower than current levels.[4]*

Consideration: *The EA has presented the best information available about spatial movement of the wild horses as recommended by the National Research Council. Table 4 of Appendix B (EA p. 202) does note whether or not the population was within or above the current AML when the captures occurred. The EA also states that, “[b]oundary fences surrounding the Territory were known to be compromised in that time period as well as a lack of management actions to immediately get horses moved back into the Territory. This complicates any evidence of a pattern, therefore, there is not a clear correlation between the number of horses counted for and the amount seen outside of the Territory (Graph 1).”*

(23) Our Objection: **As discussed in our Objection 22, above, as well as this comment, the ONF has stated unequivocally in numerous passages that increasing horse numbers are driving horses out of the Territory. This has little to do with National Research Council “recommendations” and everything to do with the ONF’s contradictory narrative. “Consideration”, above, does not resolve the conflicting statements in this EA. Neither does limited recorded history of this herd support any correlation between population size and location of horses. In addition to the reference from the scoping letter, cited in our Objection 22, above, here are more examples of the ONF stating or implying that increased wild horse numbers cause horses to leave the Territory: 1) EA p. 21 “The high end of this AML is close to the low end of the Alternative 3 AML; therefore effect would be similar at least in the short term, particularly in terms of exceeding season forage availability and off territory movement of horses.” 2) EA p. 31 “Although there is no discernible relation between total herd size and the number of horses outside the Territory, personal observations seem to indicate increased numbers has resulted in increased pressure on horses to**

attempt to move further outside of the Territory. Horses have been counted outside of the Territory every year although there is no way to determine how many horses are missed either inside or outside the Territory each year.” 3) EA p. 64 “While there is currently no evidence, other than an apparent plateau in population growth, that shows an increase in horses in poor body condition or high numbers of horses dying in the Big Summit Territory, horses are moving further outside the Territory and measured forage utilization rates within the wild horse winter range and observed utilization rates throughout the Territory are very high.” 4) EA p. 64 “A herd size of 150-200 would require a higher intensity of management including capturing and removing horses in poor body condition and capture and transport of horses outside the territory back into the territory.” 5) EA p. 66 “In addition, lack of available forage in preferred habitats and limited space for harem occupancy is expected to result in increased horse movement outside of the Territory boundaries into adjacent National Forest System lands and onto adjacent private lands.” 6) EA p. 193 “Of the four essential components (forage, water, cover and space), the most limiting factor is winter range forage. Because of a recurring pattern of wild horses moving outside the Territory, cover and space were also considered as a limiting factors.” 7) EA p.201 “An indication that the Territory does not have sufficient cover and space for the number of horses is a recurring pattern of horses moving outside of the Territory. Such egress is evident in the Big Summit Territory and requires constant management to move horses back in to areas where their occupancy is authorized.” 8) EA p. 203 “Currently there is not clear scientific literature on the space needs for wild horses (National Research Council, 2013) therefore, we recognized there is a repeated pattern of horses moving outside of the Big Summit Territory and as the numbers have increased, horses have moved further away from the Territory, however, no adjustments to the AML will be made based on cover and space because there is no clear process described in the literature for how to make such a determination.”

In terms of the chart from EA p. 202, there is little detail ‘captured’ in relation to the actual gather situations. For example, the gather in 2002 totaled 23 horses. The 2001 census found 70 horses; but it is important to note that the 20 horses residing in the Coyle Creek area comprising most of the 2002 capture were first seen as a band of 5, many years earlier, and they had multiplied in place. In other words, the fact that the population had expanded to 70 horses did not push 20 horses into Coyle Creek; they had been there many years, beginning during a period when the population was *thought to be* within the 1975 AML.

Comment: The ill-conceived AML proposed in the Preferred Alternative will result in certain and immediate extinction of the Big Summit Herd, as it does not allow for the herd size resiliency necessary to assure surviving members following any catastrophe or predators. [4, 24, 48]

Consideration: In the EA, (p. 58) there is information regarding the intent to manage the AML for Alternative 2. It states that it is not intended to manage at the low AML of 12 but rather maintain the high AML of or slightly below 57 with annual or bi-annual gathers. Alternative 3 does look at a higher AML of 150-200 and the effects associated with that. The analysis of this alternative states, “since the wild horses in the Big Summit Territory are displaying genetic depression and associated low levels of heterozygosity, having an MVP of 50 or more individuals would not be expected to improve the observed heterozygosity to above the recommended critical level of 0.66 (USDI, BLM, 2010). In a letter dated July 16, 2009, Cothran states that enlarging a population’s size does not increase the population’s genetic variation, it only slows the rate of loss of existing variation (Cothran, 2009).” (EA p. 65).

(24) Our Objection: Since there is much left to discuss under the heading of the Big Summit genetic situation, we will limit this Objection to the subject of our comment, above, to which the ONF responded with genetic speak.

It needs to be stated that no one trusts the ONF to NOT remove horses to the low end of the proposed AML of 12-57; once this AML is approved, the voice of the people is silenced. However, as we have tried to articulate repeatedly, even at a population of 57, a single catastrophic event would eliminate the Big Summit Herd. As we stated succinctly in our Objection 17, above, it is clear the ONF recognizes the potential for this outcome, and is unconcerned “because we will still have lots of wild horses elsewhere”. As we stated in our Objection 17, above, we will repeat. Not only did the ONF expose its contempt for the wild horses in the following statement: “*The wild horses in the Big Summit Territory are considered as part of the metapopulation of all wild horses in the united states therefore, loss of horses in one territory does not constitute loss of a population (National Academy of Sciences 2013)*”, we can’t seem to locate this reference in the 2013 NAS Report. We will discuss the concept of “metapopulation” at greater length later in this document, but at this time we will simply highlight the ONF statement as being an example of flagrant untruth. First, the 2013 NAS Report was commissioned by the BLM, and there is very little mention of the Forest Service and the report would not refer to a Forest Service Wild Horse Territory. But neither did the report state, in the entirety of its discussion of metapopulations, that if mismanagement of a Territory or a Herd Management Area resulted in the extirpation of an entire herd that the effect of its loss would be negligible because there are lots more wild horses in the metapopulation.

The second untruth found in the ONF’s Consideration here is “*The analysis of this alternative states, ‘since the wild horses in the Big Summit Territory are displaying genetic depression’...*” While it is true that the analysis does state this, it is untrue that the wild horses in the Big Summit Territory are displaying genetic depression. That is a gross assumption. For many years we have requested that the ONF join with us in studying certain physical defects which have recurred with enough frequency to be concerning. Instead of bringing this to a level of substantive research, as the implications could potentially be applicable to wildlife populations and even human users of the Forest, the ONF is apparently calling these anomalies evidence of genetic depression. This has NOT been studied and it is therefore significantly irresponsible to conclude this and present that conclusion as fact.

Population Control Methods

Comment: *The ONF's willingness to consider helicopter-assisted gathers is unacceptable. Regardless of any significant loss of timber cover, the terrain of the Territory would present real and glaringly obvious danger. This only punctuates the deficit of knowledge of wild horses and concern for their welfare which stains this entire EA. [4]*

Consideration: The EA points out that the primary method would be bait-trapping. Best management practices are outlined in Appendix C and the effects are disclosed on pages 46-49.

(25) Our Objection: We are aware of what the EA points out regarding the primary method of capture. We are also aware that if this proposed action includes the use of helicopter-assisted

gathers, then helicopter-assisted gathers could conceivably be employed at some time in the future, and this is unacceptable in the terrain of the Ochoco Mountains, tree cover or not.

Comment: *According to Dr. Cothran's analysis & your own admission, the BST herd is below the critical level of heterogeneity (H_o) with results of 0.653 & 0.583. Any figure below 0.66 is at critical risk. [4]*

Consideration: Alternative 2 includes managing for an acceptable level of genetic variability. EA p. 16. In addition, on page 65 the EA points out that, "[I]n a letter dated July 16, 2009, Cothran states that enlarging a population's size does not increase the population's genetic variation, it only slows the rate of loss of existing variation (Cothran, 2009)." The EA (p. 57) points out, "[t]he National Research Council recommends that groups of HMAs (Territories) constitute a single population and manage them by using natural or assisted migration (translocation) whenever necessary to maintain or supplement genetic diversity (National Research Council, 2013).

(26) Our Objection: This is not our comment.

Genetic Health of the Wild Horse Herd

Comment: *Whether or not Dr. Cothran stated in 2009 that increasing population numbers won't increase genetic variation, it certainly won't hurt. Decreasing the herd size certainly will hurt. Compared to a total herd size of 57, or even 65, allowing the herd to remain roughly at the current population level would assure more random matings and an unknown rate of ongoing mutations commensurate with more horses. [4]*

Consideration: *Personal communications with Dr. Cothran (9/13/2017, project folder) summarizes Dr. Cothran's recommendation to manage an AML that the Territory resources can support and translocate animals for maintaining genetic health. Dr. Cothran's specific recommendation for the Big Summit Territory is "...for managing the genetics of our herd based upon existing information is to maintain the herd at the maximum level provided by the resources in the territory, and introduce a new mare to the population every two to four years." This is why we are proposing in Alternative 2 to maintain at or around the high AML (EA p.58).*

(27) Our Objection: The Central Oregon Wild Horse Coalition does not find a transcript of the 9/13/2017 personal communication with Dr. Cothran in the supporting documents available to the public. We also do not find a transcript of the 3/12/2018 personal communication with Dr. Cothran, or the letter from Dr. Cothran dated July 16, 2009 regarding population size and genetic health. If we had access to this material, it would allow us to ascertain exactly what Dr. Cothran had stated. For example, where the 2009 letter is cited (Wild Horse Report, p. 50), we could determine whether Dr. Cothran was referring to Minimum Viable Population, Effective Population, or Censused Population, when he allegedly stated "Enlarging a population's size does not increase the population's genetic variation, it only slows the rate of loss of existing variation." Without this information, we can only cite studies showing new data on the subject of genetic diversity and population size, but cannot discern whether these are inconsistent with the recommendations of Dr. Cothran. We are certain, however, that in a 2010 conversation between then-COWHC Board member Kate Bearsley and Dr. Cothran, when asked if the censused Big

Summit population of 78 was at risk, Dr. Cothran replied to the effect that, at 78 they could survive, but ONLY if not even a single horse were to be removed.

Also, and very importantly, the ONF has not examined the current genetic situation within the existing Big Summit population, since translocating two mares from the South Steens HMA in 2010. Without current data, the ONF flounders in speculation with the future of this herd in the balance.

Comment: *The statement made by the ONF (page 65) "However, since the wild horses in the Big Summit Territory are displaying genetic depression and associated levels of heterozygosity, having an MVP of 50 or more breeding individuals would not be expected to improve the observed heterozygosity to above the recommended level of 0.66." is inaccurate. The definition of genetic depression requires that a loss of "fitness" is apparent; provably attributable to a significant decline in genetic diversity. While the 2019 report (Desphande et al) cites "communication with USDA/FS personnel" to document the manifestation of the Big Summit Herd's genetic condition: "Inbreeding seems to already be impacting these horses, as they appear more susceptible to diseases and have more physical deformities. Additionally, the herd suffers from high infant morbidity and mortality (USDA-FS)" there has been no study of this correlation. This constitutes the highest levels of conjecture and misrepresentation; within a document where such affronts to real science are already prevalent to the point of redundancy. [4]*

Consideration: In order to maintain the accuracy of the statement, the EA on page 65 of has been changed to state, "However, since some factors such as low levels of heterozygosity, indicate the wild horses in the Big Summit Territory may be displaying genetic depression, having an MVP of 50 or more individuals would not be expected to improve the observed heterozygosity to above the recommended critical level of 0.66 (USDI, BLM, 2010)." The BLM Handbook indicates that observed heterozygosity values of less than 0.66 indicate critical risk. This question was asked of Dr. Cothran in a personal communication (3/12/2018, project folder) and while Dr. Cothran stated that there are many conditions that determine ideal values, the number of 0.66 was a critical number chosen based on statistics only. There are only two genetic studies that exist on the Big Summit Territory (EA p. 33) therefore, the monitoring recommendations (EA p. 58) will be followed to provide the best management practices for genetic health for this herd.

(28) Our Objection: Although we are encouraged to see that the verbiage at EA p. 65 was changed to state "...wild horses in the Big Summit Territory MAY be displaying genetic depression...", there are other references to the current state of genetic depression: 1) EA p. 54 "Because Alternative 1 does not include any management tools to address genetic health, genetic depression is expected to continue to occur and the fitness of the herd is expected to continue to decline." 2) EA p. 65 "and the fitness of the herd is expected to continue to decrease as well".

Comment: *We had previously provided Dr. DeEtta Mills with a diary of physical issues affecting the Big Summit Herd. We do not know if these were the examples provided to Desphande. We certainly do not know what evidence was provided by the ONF to substantiate the comment that "they appear more susceptible to disease." That is simply false. [4]*

The anomalies described MAY be related to genetic decline; or they MAY represent genetic predisposition to environmental factors; or they MAY be entirely environmental; or they MAY be caused by something completely different. [4]

Consideration: *There are only two genetic studies that exist on the Big Summit Territory that are specific to the genetic variability of the animals tested (EA p. 33). Any other conclusions would be speculation. A word search of the EA did not yield a result for “susceptible”, nor did the word search for “disease” locate any reference that is related to the ONF stating, “they appear more susceptible to disease.”*

(29) Our Objection: *If the ONF were to read our comment in its entirety, it would be more clear that we were questioning how Ms. Desphande came to conclusions such as “they appear more susceptible to disease”. Desphande cites communication with USFS staff. We were merely attempting to ascertain the origin of the speculation in her study. We did not imply that this EA discussed the matter of the Big Summit Herd being more susceptible to disease.*

Comment: *We do not find any discussion in this EA of allelic variability; the other measure of genetic health. Although the studies cited may offer some mention of this, it is simply not factored into the conclusions drawn by the ONF in this EA. ...Because loss of alleles leads to a reduction in heterozygosity, evaluation of the robustness of predictions should always consider two measures, allelic richness and heterozygosity, because they give you different snapshots of genetic health. Yet allelic richness was not even assessed for the herd because adequate sample sizes could not be attained. Really? This is an important omission, because there is no way to assess how allelically diverse the population might actually be.... [4]*

Consideration: *The EA (p.33) states that the 2011 report indicated that the values related to allelic diversity are not reliable due to the smaller sample size but H_o is below the critical level and this measurement is not influenced by sample size. Dr. Cothran also reiterated in a personal conversation (9/13/2017, project folder) that what we are confident, based on these samples, that genetic variability is limited. The BLM Handbook recommends managing for an observed heterozygosity of at least 0.66, this is what the Big Summit wild horse herd will be managed for.*

(30) Our Objection: *Aside from our previous statements that the ONF absolutely should have conducted fresh analysis on the current state of genetic diversity in the Big Summit Herd, we find it dismaying that the ONF failed to consider comments from Dr. Ross MacPhee, Curator & Professor Mammalogy/Vertebrate Zoology & Gilder Graduate School, American Museum of Natural History regarding the importance of allelic richness in determining and maintaining overall genetic diversity. We realize BLM is the lead Wild Horse and Burro agency, and much of its research and experience is applicable to the Forest Service. But as the ONF stated regarding its latitude to ignore AML determination direction in the BLM Wild Horse and Burro Handbook, it is also free to consider broader research and additional guidance regarding the genetic health of the Big Summit Herd. Several studies focusing on the relationship of population size and genetic diversity of which we are aware could be helpful in expanding the ONF’s view of the critical factor of genetic diversity in this isolated herd. We are hardly scholars of genetic science, and we rely heavily on the narrative and discussion associated with studies to glean anything from the results. Too, the Forest Service has access to much more published research in all scientific fields due to the limitations placed on access to non-academics. Even so, we are aware*

of studies that begin to explain non-conventional views of genetic health. These papers are enclosed in the appendices, and we recommend the ONF review them in their entirety rather than as excerpted statements.

“Does population size affect genetic diversity? A test with sympatric lizard species” Hague & Routman 2015. (see Appendix B)

To be clear, we are aware that lizards are not wild horses. This study shows the expected correlation between population size and genetic diversity, but also highlights the complexity of the equation and the variables impacting it; such as Genetic Draft as opposed to Genetic Drift. For example, the study states (p. 15) *“A population’s genetic variation at a particular locus is dictated by its effective population size and the gene’s mutation rate.”*

“Boosting genetic diversity may save vanishing animal populations. But it may also backfire” Pennisi, 2019 (see Appendix B)

We are aware that guppies, scrub jays, and foxes are not wild horses. This short article looks at the benefits of new blood, but cautions that in one study group of guppies, (p.2) *“the rapid infusion of new fish almost completely eliminated pure residents.”* In the scrub jay study, outside populations were less-diverse than the resident population, and although diversity was achieved based on the infusion, when newcomer influx declined, the residing population failed to maintain diversity. In the Island Fox study, Santa Catalina foxes were known to have a high incidence of cancer affecting the ears. Genetic rescue was contemplated but researchers found that because of more variation throughout the genome, they actually had an advantage over the cancer gene, and were also genetically adapted to the hot, dry climate as compared to foxes from cooler, wetter surrounding islands.

“Effects of Population Control Strategies on Retention of Genetic Diversity in National Park Service Bison” Gross & Wang; report submitted to Yellowstone Research Group USGS-BRD Department of Biology Montana State University, Bozeman, MT 2005. (see Appendix B)

We are aware that bison are not wild horses. Since the massive herds of American Bison were all but exterminated, reconstruction of pure, non-hybrid strains of bison comprised a total residual population of approximately 1000 animals. These bison were distributed across multiple National Parks and managers were faced with the classic challenge of maintaining genetic viability while keeping populations commensurate with finite habitat carrying capacity. This study combines real-time evidence with an extensive modeling program to help in anticipating genetic impacts of various management strategies. (p. 3) *“Over the 200-year period of the simulations, herd size accounted for more variation in retention of H_o and loss of alleles than any other factor.”* The simulations also indicated that variations on how population control strategies were implemented would likely have an influence on the rate of loss of genetic variation in small bison populations.

The study also speaks to the value of allelic diversity: (p. 11) *“High allelic diversity will virtually always be correlated with the occurrence of many alleles that have a low frequency in the population. These rare alleles are unlikely to contribute substantially to short-term population responses to selection, but they can be a very important limit to the response to selection over many*

generations (James 1971), Allendorf 1986). Allelic diversity is thus considered important to the long-term survival of a species, especially where there may be substantial environmental changes, range expansions, or (re)introduction into new sites.” The study recommends translocation between herds, but it is unknown whether the practice has been implemented or if opinions within the Park Service have adjusted to research such as Pennisi’s (above), especially considering occurrences of deleterious maladies such as brucellosis.

It should also be noted, importantly, that the American Bison Herd is indeed a metapopulation, as each of the members derives from known survivors of the former herds. By contrast, the American Mustang is the product of ancient, yet-to-be identified donor populations; Tribal herds not associated with Spanish conquest; Spanish stock; working horses moving Westward with early European settlers; and additions of contemporary “breeds”, all in disparate combinations. Wide variation between herds and individuals exist phenotypically and genotypically, and only limited numbers of the Mustang genome have been adequately analyzed. Too, a “small” bison herd, in this study, is considered to be 200 animals.

“Patterns of genetic variations in US federal bison herds” Halbert & Derr (2008)
(see Appendix B)

In light of the ONF’s translocation quick-fix to the genetic disaster which will ensue when the Ochoco Herd is managed to the proposed AML of 12-57, this study is extremely relevant. Again, full disclosure, we are aware that bison are not wild horses. However, in the view of agencies and naturalists, bison are infinitely more important than wild horses, and therefore have enjoyed thoughtful and intensive study to help ensure their future. Managers of any species will benefit from the bison studies.

The purpose of this study was to prepare agencies for the practical application of theoretical population genetics; the principles contemplated in the 2005 study (above) were next being subjected to full analysis of specific herds in terms of future translocation and germplasm conservation. (p. 4964) *“Most US federal bison have been managed in closed herds over the past 40 – 100 years, but management of these bison as a single metapopulation has been recently considered (Halbert et al. 2007) as a means to prevent the erosion of genetic diversity (Margan et al. 1998). Clearly, a broad range of issues should be considered before any decision to emulate migration among wildlife populations, including the genetic, environmental, demographic, and health consequences of such manipulation.”*

Of course, heterozygosity was only one of the measures of different herds’ genetic identity and health for the purpose of developing profiles of appropriate donor and migrant groups. Observed heterozygosity, expected heterozygosity, allele frequency, and allele richness, as well as known history and environmental factors, all provided information to begin to form a future translocation and germplasm conservation strategy. Of particular note, one of the initial objectives was to determine most likely divisions of the metapopulation; (p. 4969) different herds clustered into two different sub-populations, with 1268 and 1111 individuals respectively.

Though bison apparently have responded to the known bottleneck event of the late 19th century in better fashion than other mammals, the study mentions that (p. 4970) *“While it has long been presumed that bottleneck events will lead to reduced genetic diversity (Nei et al. 1975), many*

exceptions have been noted (Amos & Balmford 2001).” and in the case of bison (p. 4971) “The census size of the bison population rapidly increased following the bottleneck (Corder 1975), which limited the potential for genetic drift and inbreeding (Nei et al. 1975). Rapid population growth has been linked to the maintenance of high levels of genetic diversity following bottleneck events (Zenger et al. 2003), while slow population growth likely contributed to the loss of genetic variation in other cases (Williams et al 2002).” Census population size does matter.

A warning about the proposed low population size is also given as the study sought to explain low diversity in a certain herd; (p. 4972) “For example, while the SUH herd was derived from several sources (Table 1), the herd has low levels of diversity (Table 2) compared with other herds founded with similar numbers of individuals and fewer sources (FN, WC), most likely due to the continuous maintenance of the SUH herd with a small number of bison (C. Dixon, personal communication).”

Another concern regarding the BLM and Forest Service trend toward using translocation, under the banner of “metapopulation”, to justify unviably-low AMLs, is that wild herds have been unnaturally selected to feed the adoption market. Adopters like color and size, which are not necessarily traits suited well to long-term success in an increasingly uncertain natural environment, and this practice has almost certainly led to a narrowing of the once-diverse wild horse genome. This worked in the negative as well, before and since the Wild Free-Roaming Horses and Burros Act, as settlers and “sportsmen” actively eliminated “undesirable” phenotypes from the wild horse landscape. This same circumstance is addressed in this study; (p. 4973) “The comparison of these two herds is indicative of the importance of culling strategies on the maintenance of genetic variation; both herds were founded around the same time (WC in 1916, FN in 1913) and have been maintained with similar census sizes (Table 1), but in this study we detected substantially higher levels of genetic variation in WC bison (Table 2). This finding is somewhat surprising considering that the WC herd has been a closed population for over 90 years while the FN herd received several supplementations through the 1950s (Halbert et al. 2007). The observed levels of diversity in these herds most likely reflect differences in management strategies. For instance, FN bison were artificially selected for size and conformation over a period of at least 20 years, which may have concomitantly reduced genetic diversity (Coltman 2008).”

At this point in the study, it is also concluded that (p. 4973) “classical calculations of effective population sizes among these herds are not feasible at this time (Lande & Barrowclough 1987), which would further emphasize that the ONF cannot assume that translocation will allow reduction in the generally-accepted, bare-minimum effective population size of 50 breeding adults. Reducing the AML to 12-57, even if managed to 45-50, would not begin to approach the 50-breeding-adult-minimum standard.

As stated previously, wild horse management agencies, and indeed the anointed scribes of the 2013 NAS report, do not have the body of information necessary to proclaim the wild horse herds of 10 Western states to be a “metapopulation”, especially when contrasted with the amount of research amassed in this study of a much smaller American bison population. Yet the authors of this study still find fault with past “supplementation” and freely express caution in regard to future translocation. Their findings are offered to managers of other species, since it is common knowledge that there is little knowledge. (p. 4973) “With the continuous expansion of human populations and disruption of wildlife migration patterns, supplementation of existing wildlife populations has become an increasingly important conservation tool. However, the success of

supplementations is rarely followed and reported (Fischer & Lindenmayer 2000). Bison represent a valuable case study in this regard, as multiple simultaneous experiments in population supplementation were performed and recorded over the past century. Based on the results of this study, translocation of bison among US federal herds has resulted in mixed levels of success...” The study continues to discuss variables with must be considered when determining when, how, and even IF translocation should be accomplished.

In the end, it appears the researchers arrive at the conclusion that bison herds are not in critical need of translocation; (p. 4975) “In fact, given the current body of scientific evidence, the management of the US federal bison herds as a metapopulation is not warranted.” But, considering the identification and preservation of a living germplasm bank are critical objectives, the study affirms that (p. 4975) “In fact, the identification of the genetic relationships among these herds exemplifies the importance of maintaining multiple small populations from a single source to counteract the effects of drift (Margan et al. 1998); without the replication of the FN lineage in the TRN and TRS herds, an estimated 5% of the allelic diversity of this lineage would be unrecoverable today since no other exclusive sources of FN germplasm are known.”

This is what we have said from the outset; the “rescue” translocation of 2010 was perhaps advisable, but loss of the specific DNA of the Ochoco Herd through constant, careless introduction of outside stock and needlessly low population numbers is unacceptable.

We would be remiss to exclude genetic guidance from the frequently-cited 2013 NAS Report. Comparing the intensity and breadth of existing studies on BLM-managed wild horse herds to those conducted on US federal bison herds, though there has been significant study, most of which has been attributed to Dr. Gus Cothran, the body of knowledge is still lacking. Too, Forest Service wild horse herds are likely to fall outside averages and norms, simply due to differing environments. While many, if not most Forest Service herds are jointly managed by both agencies, the Forest Service component persists because there is a habitat component of forest; generally more moist with variable vegetation types. The Big Summit Herd resides, with the exception of a very small dry scabflat area, entirely within a distinct forest ecosystem. This invites significant snowfall, potential for standing water/insect disease vectors, and a number of other large ungulates which in turn invite predator species. Adaptation is key.

In addition to the much larger view presented as to what is meant by “metapopulation”, the NAS report is also clear about the importance of allele variability as well as observed heterozygosity.

From NAS Chapter 5, p. 143:

At the population level, genetic diversity can be measured as the mean number of variants of a gene (alleles) or as the proportion of individuals that have different variants of a gene (heterozygosity). Theoretical and empirical studies have demonstrated substantial fitness costs associated with the loss of genetic diversity in both free-ranging and captive populations (Lacy, 1997; Saccheri et al., 1998; Crnokrak and Roff, 1999; Slate et al., 2000; Brook et al., 2002; Keller and Waller, 2002; Spielman et al., 2004). In small populations or populations that suffer size bottlenecks, allelic diversity is lost relatively quickly through random genetic drift, but heterozygosity is less affected. In small populations that are isolated, inbreeding is inevitable and occurs within only a few

generations. Whereas inbreeding does not change allele frequencies, it results in a change in the proportion of individuals that carry two alleles at a locus that are identical by descent and decreases heterozygosity. Thus, it is important to measure and monitor allelic diversity, observed and expected heterozygosity (H_o and H_e), and coefficients of inbreeding (F_{is}) in managed populations. (emphasis added)

Though this EA no longer states that the Big Summit Herd is experiencing genetic depression, the implication lingers that they probably are or may soon be. The NAS report describes several manifestations of inbreeding depression, and the EA, p. 65, echos these concerns. Considering that one concern expressed by the ONF is loss of fitness which could lead to “low birth rates, increased mortality and a decreased ability to adapt to environmental change”, the current population would probably serve as evidence that this is not happening. We have cataloged the anomalies observed in the Big Summit Herd for the last two decades, and it is assumed by most that these occurrences must certainly be attributable to inbreeding, or at least some genetic issue. While this could be true, it has yet to be proven. The litany of known genetically-based issues, as described in the NAS report, are not evident in the Big Summit Herd. It is equally possible that the bone structure problems we continue to observe are environmentally-caused. This issue is important to the future of this herd, and yet the only study attempted was initiated by the Central Oregon Wild Horse Coalition, and was later truncated due to a shuffling of corporate ownership of the veterinary team’s sponsors. The ONF has a responsibility to investigate this issue, especially as it envisions a dangerously-low AML.

It is also important to note the fallibility of NAS Report, particularly where old paradigms persist which receive little scientific analysis because they are not considered critical to the management of wild horses and burros. NAS p. 145 states “*With regard to herd ancestry, the results were consistent with the hypothesis that herds originated from escaped or released domestic horses.*” Not surprisingly, we take issue with this.

Using a singular breed to illustrate the fallacy of this “hypothesis”, the American Quarter Horse Association traces origins of the breed to include Mustangs at the earliest point, and more recently as settlers and their horses moved westward: “*It wasn’t long before the Colonial farmers down in the Carolinas and Virginia began to trade for a faster horse that was being bred by the Chickasaw Indians. These quick Indian ponies were Spanish Barbs, brought into Florida by early Spanish explorers and colonists.*” and “*The final ingredient in the genetic formula that produced the Quarter Horse was to be found west of the Mississippi River. It was the Mustang, a free-roaming, far-ranging wild descendant of the Barb, introduced into the American Southwest by Spanish explorers, missionaries and settlers. These were the horses that made the Plains Indian into the toughest mounted warrior the world had ever seen.*” Of course, we also believe the Chickasaw Horse and the Plains Indians’ Mustang were not exclusively the product of European settlement, but for the sake of this discussion, it is clear the Quarter Horse is of Mustang lineage. Therefore, even if additional Quarter Horses were never reintroduced into wild herds, the DNA would still point to Quarter Horse influence.

Too, we find the NAS Report to lack objectivity, though it stems from pre-existing bias, when it concedes to certain herds essentially having more cultural value; NAS p. 151 “*Phenotypic similarities and historical records have suggested that several HMAs have high concentrations of old Spanish blood and thus may be assigned high priority for conservation.*” This is entirely

subjective, and devalues the historical significance of other herds. In truth, agencies are rapidly eliminating evidence of human and equine history, only to salvage those bearing the markers of a dark historical period for both Indigenous People and the flora and fauna originating on the North American continent. Cultural anonymity plagues the Big Summit Herd, for now, yet this does not make them less important.

The NAS Report has provided valuable insight, and some practical direction. But nowhere is it found that Effective Population Size is absolute, impervious to influences, or that it should be subjected to preventable reductions. Fertility control impacts Effective Population, as does skewing gender ratios (NAS p. 161). Translocation also influences Effective Population Size; (NAS p. 168) *“Which type of translocation is best to use will depend on a variety of factors, many of which can be tested with a modeling approach in the planning phase (see Chapter 6). Population size, fertility-control methods, and the effects of translocation on N_e , will need to be considered.”* The NAS report is aware of the relationship between translocation and Effective Population Size, but provides no further insight. It should be assumed, without evidence to the contrary, that translocation does NOT equate to any excuse to reduce the Effective Population Size to the unknown quantity within an AML of 12-57, when the minimum of 50 breeding adults is thought to be the lowest acceptable number.

The NAS Report also perpetuates one of the greatest omissions of the translocation practice; how are recommended numbers of translocated individuals and the intervals of introduction altered by size of the target herd? This is not answered in the text. Obviously, the recommended translocation of 10 individuals ever 10 years would not apply to a herd of 45 horses, though it might be appropriate for a herd of 300 horses. This factor is absent.

The NAS Report, however, seems confident that the interval of introduction should be “per generation”, or approximately 10 years. In this EA, p. 270, the ONF responds to a commenter as follows: *“Singer and Aegnefuss (2000) notes that IF 50 effective breeding animals is the goal then the total population would need to be 139-185. However, the author also notes, “Management could greatly alter this relationship by: (a) altering breeding sex ratios to increase N_e through removals, (b) increasing generation length through removal scenarios (which reduces the rate of loss of genetic resources, or (c) introducing breeding animals periodically from other genetically similar herds to maintain genetic resources. Only one to two breeding animals per generation (= about every 10 years in wild horses) would maintain the genetic resources in small populations of about 100 animals, thus obviating the need for larger populations in all cases.”* Two contradictions are evident between this response and the one immediately following. First, Singer and Aegnefuss state that introduction of breeding animals from other herds would *“...maintain the genetic resources in small populations of about 100 animals...”*. An AML of 12-57 is not 100 animals. Secondly, the true intent of the ONF is clear in the next response; “Dr. Cothran’s specific recommendation for the Big Summit Territory is *“...for managing the genetics of our herd based upon existing information is to maintain the herd at the maximum level provided by the resources in the territory, and introduce a new mare to the population every two to four years.”* The translocation of outside mares at two-to-four-year intervals is not recommended by the NAS Report, nor is it proposed in any other study of which we are aware, regardless of species. This clearly rises above the level of genetic restoration, and enters a realm of complete dilution or replacement of the Big Summit Herd.

Additionally, we have cautioned the ONF of the risks of outbreeding depression. The NAS Report speaks to this on p. 167, and considers “different environments” to be a risk factor. Since this Report was commissioned by BLM, not jointly with the Forest Service, it is not unreasonable for the NAS report to point out that among BLM HMAs, the environmental differences may not be significant. But as we mentioned previously, differences between BLM and Forest Service wild horse areas could indeed be substantive enough to result in problematic translocations in this regard.

Lastly, the NAS Report concludes with sound advice to the ONF: (NAS p. 169) “In small, isolated herds, inbreeding is inevitable and will occur within only a few generations. It is important to measure and monitor allelic diversity, observed and expected heterozygosity (H_o and H_e), and coefficients of inbreeding to detect the loss of diversity before the reduction in fitness that has been observed in many inbred populations becomes a problem.” (emphasis added)

(NAS p. 170) “It is true that the existence of a few genetic markers may indicate Spanish origins, but the remainder of the genome may not; rather, it may reflect horses that are well adapted to local conditions. If the latter is the case, isolation of the herd to maintain purity may be mistaken and may lead to unnecessary loss of genetic diversity. The committee recommends that BLM examine in more depth the genetic constitution of these herds and share the findings with the public so that informed decisions about the sustainability of the populations can be made.”

In other words, these decisions need to be informed; not unilaterally, myopically, and irrevocably made in a vacuum of biased Agency staff.

Comment: The guidance for importing horses into new herds is weak, providing virtually nothing to date in regard to the ratio of imported horses to herd size being translocated to. Imported horses can be rejected, and can suffer for lack of adaptedness to the new environment. The success of these actions is not scientifically documented and especially, is not documented for the translocation of two South Steens mares to the Big Summit Territory. This points to the larger issue; the ONF does not have current data on the genetic condition of the Big Summit Herd, and therefore cannot propose future management actions which could cause further deterioration of the present situation. It is relevant here to point out that, contrary to what is stated in this EA regarding Dr. Mills' success in ultimately showing fecal sampling to be valuable in genetic study, she was indeed successful in doing so. Dr. Mills was able to isolate equine DNA from that of other organisms found in horse fecal matter due to their digestive processes. Though fecal sampling may not presently be useful in censusing populations, it has been proven to yield genetic material which potentially could provide the updated genetic diversity profile sought for the Big Summit Herd. [4]

Consideration: Personal communications with Dr. Cothran (9/13/2017, project folder) summarizes Dr. Cothran's recommendation to manage an AML that the Territory resources can support and translocate animals for maintaining genetic health. Dr. Cothran's specific recommendation for the Big Summit Territory is “...for managing the genetics of our herd based upon existing information is to maintain the herd at the maximum level provided by the resources in the territory, and introduce a new mare to the population every two to four years.” This is why we are proposing in Alternative 2 to maintain at or around the high AML (EA p. 58).

(31) Our Objection: The ONF has not addressed our comment adequately. Again, we do not question the professional opinion of Dr. Cothran; we do question the implication that the ONF's existing information is current enough to inform these critical decisions. 10-year-old, very limited, DNA test results do not necessarily represent the current situation. As we state in the comment following this one, the samples were taken largely from family bands, except for a number of "nooning tree" hair samples which may have provided some level of more random sampling. If samples were taken from adopted horses caught from the Coyle Creek area, those horses represented a phenotype which was removed from the ONF at that capture; black/blue roan sabino paint, which means the family reproduced apart from the majority of the herd and took those genetics out of the herd at capture. We are merely suggesting that the data provided for the two studies may not be representative, and the ONF freely admits there was no consideration given to allelic diversity. Most importantly, the studies were conducted prior to the addition of the two South Steens mares, which, according to the ONF and Dr. Cothran, should have appreciably improved the genetic diversity of the Big Summit Herd. It seems entirely irresponsible of the ONF to have sought guidance from a single equine genetics specialist, without providing current information to that expert. It could still be accomplished, and must be, prior to a final decision that amounts to the existential future of this herd.

Comment: The ONF must also consider that the 2019 Report (Desphande et al) suggests that sampling may be more opportunistic than statistical; when horse bands are sampled there is obvious familial relatedness which could skew observed heterozygosity. [4]

Consideration: The focus of genetic management for the Big Summit wild horse herd will be to manage for an observed heterozygosity of at least 0.66. Under Alternative 2 this would be done in consultation with genetic experts, through monitoring and the translocation of animals from genetically similar herds (EA p. 16).

(32) Our Objection: The ONF's "consideration" remains essentially the same regardless of the comment. Again, Desphande indicates that family bands may contribute genetic material which has a higher likelihood of showing close familial relationship, therefore skewing the assessment of the broader herd. Further, while we hope the ONF will consider translocating mares, if they must translocate, from herds which are both genetically and geographically similar. Whether or not it was intentional, we find statements in this EA which speak to both factors. We would add, there must also be a standard for minimum heterozygosity and allele richness in the horses translocated into the Big Summit Herd, and herds showing significant phenotypical variance from the Big Summit Herd should be avoided.

These are ancient genetics, and these horses are uniquely-adapted to the Ochoco Mountain environment. The ONF needs to abandon the old origin story, however convenient. [4]

It is time to recognize the genetic evidence of this herd's actual heritage, and to protect it while more analysis is completed to fully understand the unique attributes of the MtDNA hoofprint; only two founding matrilineal branches represented; Lusitano and Andalusian predominance; evidence of Konik heritage which links to the extinct Tarpan. [4]

Consideration: The focus of genetic management for the Big Summit wild horse herd will be to manage for an observed heterozygosity of at least 0.66. Under Alternative 2 this would be done in

consultation with genetic experts, through monitoring and the translocation of animals from genetically similar herds (EA p. 16).

(33) Our Comment: We are aware that the ONF is self-limiting the genetic aspect of managing the Big Summit Herd to the recommended heterozygosity of 0.66. And that is our objection. The proposed AML would not only result in the elimination of this herd, but would effectively require the ONF to constantly infuse the herd with outside genetics which will ultimately change the entire genetic profile of this unique herd; for as long as it survives.

Comments: In the 1990s the origins of the Big Summit Herd were hazy, at best. Common belief was in the typical lore of local individuals losing or releasing horses to the wild, sometimes to be kept approachable by tying tires to the lead mares' legs, or by lacing her nostrils shut with barbed wire. Whether any or all of these accounts are factual, the origin story loses some credibility by factors of survival, acceptance of domestic horses, and the fact that farm/ranch horses were often the product of regional wild horse capture and training brokers. Too, as the Wild Free-Roaming Horses and Burros Act took shape, these same locals reclaimed the most desirable (domestic) horses from the Big Summit Herd. Mitochondrial DNA study since the 1990s fails to affirm predominant domestic breeds in the Big Summit lineage.

Consideration: The goal for AML management under Alternative 2 is to maintain at or around the high AML, not get to low AML (EA p. 16, 46, 58). Also on pages 57- 58 of the EA, the preferred Alternative 2 summarizes how this alternative proposed to manage genetic health. Alternative 2 includes translocation of animals from genetically similar herd into the Big Summit herd as recommended by genetic experts and also summarizes the recommendations of the National Research Council which includes translocation. Lastly, Cothran (2009 and personal communications) states that enlarging a population's size does not increase the population's genetic variation (p. 65) which is already below the recommended level of variation.

(34) Our Objection: This response has nothing whatsoever to do with our comment. Our comment was about the origin of the Big Summit Herd, and the persistent lore dispensed by the ONF that the horses were the result of released ranch horses, just like every other herd in the Western United States. The 1975 Ochoco Wild Horse Plan was far from factual in many respects, as any reader would quickly realize. And yet, the ONF elected to perpetuate its farcical origin story irrespective of recorded Native American use of horses on Big Summit Prairie before European settlement, and of genetic analysis which clearly shows common threads to Iberian and Asian breeds, and very little alignment with other HMAs.

Comment: In light of Dr. Mills' et al finding that the Big Summit horses show evidence of Konik lineage, not inherited from the recently-cultivated Polish breed but more likely from shared Tarpan beginnings, following is an excerpt from one of several studies of rewilding programs featuring wild horses; Konik Polski horses as a means of biodiversity maintenance in post-agriculture and forest areas: an overview of Polish experiences: "Presented overview confirms that the idea of introducing horses into wastelands and forest habitats was generally purposeful. The ability to cope with local wildlife in different natural environments without provoking any harm to highly valued plant species was confirmed by all persons that introduced them into wastelands for plant and animal biodiversity maintenance. As expected, grazing increased observed plant, invertebrate and bird biodiversity and all

programs of free-roaming year- round maintenance of Konik polski herds are continued, even after main sources of funding have expired.” [4]

Consideration: *The paper referenced represents several case studies of abandoned agricultural and forested lands in Poland which have anthropogenic character and where historically, farm animals such as cattle, horses, sheep, pigs, goats and geese were pastured. These ecological systems bear little similarity to the ecological systems represented in the Draft EA project area. This would account for the failure of the ecological systems in the project area to respond to impacts from horse grazing in a manner similar to those reported in this paper.*

(35) Our Objection: We read the ONF’s response to our comment with disbelief; that instead of considering our comment with the objectivity we would hope the Forest Service would apply to any novel natural resource concept, the ONF blazes a pathway to show its irrelevance. With this level of close-mindedness, it is easy to imagine how five years of the ONF’s development of this Wild Horse Management Plan resulted in the one-dimensional, predictable, biased, and utterly draconian Plan to which we now object.

Our reason for including this comment was two-fold. First, the Konik evidence should be of interest to the stewards of the Big Summit Herd. It should inspire further investigation into not only factual origins for the sake of factual origins, but may inform the adaptedness of this herd to the Ochoco environment and potential value as living heritage perhaps dating to Pleistocene times. But also, the discussion of Polish rewilding was, of course, not intended to create an equivalency between Poland and Prineville. We included this to illustrate the general concept of successful rewilding elsewhere in the world, and that the remnant of Tarpan heritage living in the Konik breed drives the inherent qualification of the Konik to be commonly used as the keystone species in rewilding efforts. The fundamental premise of rewilding is that the replication of Nature, particularly by the presence of wild equines and primitive ruminates, has proven in many different ecosystems to produce the result of restored landscapes. In a December 1, 2020 webinar, Rewilding Europe co-founder Wouter Helmer emphasized that every ecosystem, every rewilding project, is different, and that difference is the ‘common thread’ between all the successful projects across the geographic and climatic spectrum. It is stunning, too, that the ONF draws no “anthropogenic” comparison between 100 years of livestock abuse, as well as relics of human enterprise, in the Draft EA project area, and the abandoned cattle, horse, sheep, pig, goat, and geese farms of Poland. But most appalling is the ONF’s statement that *“This would account for the failure of the ecological systems in the project area to respond to impacts from horse grazing in a manner similar to those reported in this paper.”*

The equine-centric rewilding scenario is first that the primary species is the wild horse. These are specific breeds of primitive horses, selected for characteristics responsive to a particular region and known to interact with the natural environment as wildlife; not livestock, with the Konik often the chosen breed. The same selection criteria are used for the respective cattle breeds, while the deer/elk equivalents are those indigenous to the region. The horse is the primary species, most represented numerically, followed by wild cattle, and lastly, deer/elk. Human presence is minimal. Impediments to migration are eliminated. The horse-created Mud Hole is highly prized as a natural feature, serving all wildlife and providing micro-habitat for numerous invertebrates. Herbivory on riparian and upland vegetation results in high levels of biodiversity. Thriving Natural Ecological Balance is achievable. This is the polar opposite of

wild horse management by the ONF. But again, we only present this as an alternative view of natural resource management, where wild horses are not only residents, but are under the stewardship of the ONF.

Comment: However, with this EA, citing the National Forest Management Act's direction to "provide habitat to maintain viable populations of existing native and desired non-native vertebrate species", the question of the wild horse as a Native species is firmly on the table. It is difficult to locate a uniform definition for Native species, since Executive Order 13112 replaced EO 11987, and was then amended by 13751. This EA refers to 13112 in its Invasive Plants section, which demonstrates that the Native species designation has diminished in importance compared to the heavier emphasis on invasive species necessary to recover natural ecosystems. (see definitions of native species incorporated in to comments). [4]

Consideration: The WFRHBA mandates that wild horses be managed in a thriving natural ecological balance with other uses and the productive capacity of their habitat (EA p. 3).

(35) Our Objection: The WFRHBA does not mandate the wild horses be managed in a thriving natural ecological balance with other uses and the productive capacity of their habitat. The WFRHBA states:

(Sec 2) c. "range" means the amount of land necessary to sustain an existing herd or herds of wild free roaming horses and burros, which does not exceed their known territorial limits, and which is devoted principally but not necessarily exclusively to their welfare in keeping with the multiple use management concept for the public lands;

(Sec 2) f. "excess animals" means wild free-roaming horses or 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.

(Sec 3) a. The Secretary shall manage wild free-roaming horses and burros in a manner that is designed to achieve and maintain a thriving natural ecological balance on the public lands.

Whether the Forest Service considers wild horses to be a Native species or not, the National Forest Management Act does indeed require the Forest Service to provide habitat to maintain viable populations of existing native and desired non-native vertebrate species. "Desired non-native" does not equate to permitted livestock, as the context for this direction is "habitat". Permitted livestock do not function as a species in their habitat, but as consumers of forage required by native and desired non-native vertebrate species. Wild horses may not be a "desired" species, Native or not, but since 1971 they are a recognized species, for which Forest Service personnel should develop a desire based on the Wild Free-Roaming Horses and Burros Act. The proposed AML of 12-57 does not satisfy the NFMA mandate "to provide habitat to maintain viable populations of existing native and desired non-native vertebrate species".

Comment: The ONF reference to the 2013 National Research Council Report Using Science to Improve the BLM Wild Horse and Burro Program; A Way Forward regarding the discussion of all

America's wild horses comprising a "metapopulation" is a misrepresentation of the Report's full text. [see page 2 letter #4 and cited references]. [4]

Consideration: The sample sizes of existing genetic studies of is inadequate to make definitive origin determinations for the herd but are adequate to indicate that genetic variability is lacking (Cothran personal communication 9/13/2017, EA p. 2 and 33). "Management of equids as a metapopulation is necessary for the long-term genetic health of horses and burros at the HMA or HMA-complex level." (p. 8, NAS, 2013) , was a major finding of the National Research Council committee. While there were some caveats associated with this finding, there is not adequate data to determine their application (Cothran personal communication 9/13/2017) and increasing genetic variability in the herd is an overriding concern. Genetic monitoring under Alternative 2 and associated consultation with genetics experts is intended to provide the genetic health of the herd (EA p. 21).

(36) Our Objection: Again, the ONF fails to address our comment. The ONF's references to a wild horse "metapopulation" are consequential not only to the planned translocation of outside horses into the Big Summit Herd, but especially in the context of the statement (EA p. 10) that "The wild horses in the Big Summit Territory are considered as part of the metapopulation of all wild horses in the western United States therefore, loss of horses in one Territory does not constitute loss of a population (National Academy of Sciences 2013)". Such misconstrued references are pivotal to the ONF's entire approach to the management of this herd. As we discussed in our Objection 24, above, the ONF's statement (EA p. 10) is a complete fabrication and a gross mischaracterization of the 2013 NAS report.

Since the understanding of the 2013 NAS report's concept of "metapopulation" is of concern when misapplied to the management of the Big Summit Herd, we include here a full-text compilation of the references we find in the NAS report to metapopulation, with emphasis added to show "caveats" to which the ONF refers in above "Consideration":

NAS p. 8

FINDING: Management of equids as a metapopulation is necessary for the long term genetic health of horses and burros at the HMA or HMA-complex level.

The committee also recommends that BLM consider at least some animals on different HMAs as a single population and use the principles of metapopulation theory to direct management activities that attain and maintain the level of genetic diversity needed for continued survival, reproduction, and adaptation to changing environmental conditions.

Movement of individual animals among HMAs to maintain genetic diversity will need to be guided by genetic, demographic, behavioral, and logistical factors.

NAS p. 47, 48

Second, in response to the widely held perception that free movement of animals among adjacent HMAs confounds inventory procedures and reduces the ability to interpret counts, managers have subjectively assessed their knowledge of equid movements among adjoining HMAs and

aggregated 93 of 179 HMAs into HMA “complexes.” Each complex is composed of two to six areas managed for equids; many HMAs are managed with adjacent U.S. Forest Service Wild Horse (or Burro) Territories. The goal is to coordinate surveys, gathers, removals, and other management actions among HMAs within a designated complex and thus to manage all horses in a complex as a single biological population (BLM, 2010)

NAS p. 149

It was originally thought that an effective population size of at least 50 was necessary to avoid short-term inbreeding depression, but empirical work suggests that if maintenance of fitness is important, effective population sizes much larger than 50 are necessary. Theoretical studies suggest that the figure could be closer to 5,000 for several reasons. First, new genetic variation from mutations is added to a population more slowly than originally thought (Lande, 1995). Mutations with large effects tend to be detrimental and are removed from the population by natural selection, so the overall mutation rate does not accurately predict the infusion of new genetic variation. Second, the effects of inbreeding depression are likely to be more severe in stressful environments (Jiménez et al., 1994; Pray et al., 1994). Finally, slightly deleterious mutations may accumulate in smaller populations and lead to a decline in fitness (Lynch and Gabriel, 1990; Charlesworth et al., 1993; Lande, 1994). A related concern is whether there is a general rule that would help managers to decide how large a population needs to be to remain genetically and demographically viable in the long term (Flather et al., 2011a,b). Flather et al. (2011b) argued that a general rule of thumb is not scientifically defensible given the variation among species, their evolutionary history, the habitats that they occupy, and the threats to their survival. However, they agreed with previous suggestions that multiple populations totaling thousands, rather than hundreds, of individuals will probably be necessary for long-term viability of species. At the time of the committee’s study, the total population of horses on BLM land exceeded 31,000. When that population is considered as a whole, concerns regarding minimum viable population (MVP) size are not important. However, this population exists in many smaller, fragmented units. Only a small fraction of the HMAs or HMA complexes contain more than 1,000 horses, so no single HMA or complex could be considered to have an MVP size for the long term, although the analyses cited above suggest that horse populations on HMAs or HMA complexes that are larger than 1,000 do have a greater than 50-percent probability of survival for 100 years. In addition, it does not appear to be realistic to attempt to manage each HMA or HMA complex with a goal of a minimum of 5,000 animals. Therefore, management of the HMAs as a metapopulation, in the form of natural and assisted movement of animals between HMAs, will be necessary for long-term persistence of the horses at the HMA or HMA-complex level. Movement of animals will need to be guided by a number of genetic, demographic, behavioral, and logistical factors, discussed later in this chapter.

NAS p.161

The goal of genetic management is to maintain as much as possible of the standing genetic diversity of a population and thereby provide the raw material needed to respond to environmental changes. Chapter 4 outlines a variety of techniques for controlling and reducing fertility in free-ranging horses and burros so that numbers can be kept at prescribed levels.

Although dramatically limiting individual fertility will reduce a population's size, it will also reduce its genetic effective population size, and this will have effects on genetic diversity.

Many HMAs are spatially isolated, and others are contiguous. Some of the contiguous HMAs have been grouped into complexes by BLM (see Figure 1-2); this suggests that they are exchanging migrants and may be considered a single unit. Within each of the HMAs, BLM could accomplish the goal of conserving genetic diversity through intensive management, as has been done for the herds at Assateague Island and Shackleford Banks. Alternatively, BLM could consider the HMAs as a single population and use the principles of metapopulation management to guide its actions.

NAS p.169,170

The committee recognizes that genetic management of some HMAs is complicated by other considerations. For herds that have strong associations with Spanish bloodlines—such as those of the Cerbat Mountain, AZ; Pryor Mountains, MT; and Sulphur, UT—or herds that contain unique morphological traits—such as the Kiger, OR, herd—BLM will need to balance concerns about maintaining breed ancestry with the need to maintain optimal genetic diversity. Herds that remain isolated over the long term will inevitably lose genetic diversity inasmuch as maintaining or slightly increasing herd sizes will not offset the effects of genetic drift. The public is interested in these herds, and it is particularly important that BLM seek opportunities to discuss the complexity of the situation with interested parties. It is true that the existence of a few genetic markers may indicate Spanish origin, but the remainder of the genome may not; rather, it may reflect horses that are well adapted to local conditions. If the latter is the case, isolation of the herd to maintain purity may be mistaken and may lead to unnecessary loss of genetic diversity. The committee recommends that BLM examine in more depth the genetic constitution of these herds and share the findings with the public so that informed decisions about the sustainability of the populations can be made (see Chapter 8). The committee recommends that BLM consider some groups of HMAs to constitute a single population and manage them by using natural or assisted migration (translocation) whenever necessary to maintain or supplement genetic diversity. Although there is no magic number above which a population can be considered forever viable, studies suggest that thousands of animals will be needed for long-term viability and maintenance of genetic diversity. Very few of the HMAs are large enough to be buffered against the effects of genetic drift, and herd sizes must be maintained at prescribed AMLs, so managing the HMAs as a metapopulation will reduce the rate of reduction of genetic diversity in the long term.

Off Range Plan

Comments: Adoptions will remain a component of off-range management, but cannot be assumed on a scale commensurate with captures. [4]

Consideration: Under both Alternatives 2 and 3, “[a]fter wild horses are gathered, they would either be: 1) transported to the BLM Burns corral facility or 2) transported to a Forest Service corral or to temporary/mobile corrals constructed by the Forest Service or 3) transported to leased or contracted private facilities, where they will be prepared for adoption or sale.”(EA p. 17). The EA p. 18 further describes adoptions, sales and compliance checking.

(37) Our Objection: The simplistic nature of the ONF's response to our comment ignores the 50,000 or so horses currently in long-term holding. To reiterate; we stated that, for all the reasons given in our full original comment, under the ONF's plan to capture and adopt/sell the horses, there will likely be an insufficient number of adopters. But even for those captured horses for which there may be an adoption market, we have no reason to believe there will be adequate identification associated with individual horses, as no ONF wild horse adopted outside the former BLM/FS agreement has been freeze-branded. At one time the Forest Service contemplated using microchips as an alternative, to which we strongly objected. There must be clear, easy-to-read external identification due to the likelihood of wild horses ending up in bad situations through no fault of their own. This EA alludes to the use of freeze-brands, and the Forest Service Wild Horse and Burro Handbook prescribes freeze-brands, but the EA is non-committal; EA p. 18 *"All horses placed into private custody through adoption would have some form of unique identifier for future tracking (e.g. freeze brand)."*

We also have questions concerning aspects of the care and maintenance agreement, title/relinquishment process, and database maintenance. Every adoption should start with facility approval, and compliance checking should not be optional. But we have not seen these practices observed in the past. Adopters have had difficulty obtaining titles. We realize these are problems at the Agency level, but that provides little relief to a horse with no freeze brand or compliance check who is shipped to a packing plant. Also, there is no mention of whether the ONF will take advantage of the existing BLM database, or if the Forest Services has created its own database. Considering the potential for adopters to take Ochoco wild horses, the other aspect of a "database" is an informal network of troubleshooters, both local and in other communities, who can provide assistance to adopters with their own wild horse management issues. If the ONF has solutions in place for these adoption issues, it would have been helpful to see those included in this EA.

We still have concerns about the vague references to the various situations a captured horse could find itself in, as stated at EA p. 17. The ONF grants to itself the sole authority to determine appropriate entities and facilities to handle Federally-protected, publicly-owned wild horses, where this has proven to be disastrous in other locations. We have expressed concerns about captured Ochoco wild horses being transported to the Modoc National Forest's holding and adoption facility. They have demonstrated both a chronic lack of expertise and a failure to assure the safety of circumstances into which adopted/sold horses may enter. Additional information has since been provided which affirms this real and present danger to wild horses removed from their range, and yet, we have no assurance from the ONF that captured Ochoco wild horses would not be transported to the Modoc National Forest's facility.

Most importantly, the ONF misrepresents the FY 2020 prohibitions on the killing of healthy wild horses or burros by either BLM or Forest Service. At the time of the writing of this EA, appropriations language prohibited both agencies from selling wild horses or burros "without limitation". But the language also prohibited the killing of healthy wild horses or burros for which there is no adoption or sale demand. Following is the 2020 language (emphasis added):

*2020 Appropriations (p. 215) Public Law 116-94
Humane Transfer and Treatment of Animals*

SEC. 419. (a) Notwithstanding any other provision of law, the Secretary of the Interior, with respect to land administered by the Bureau of Land Management, or the Secretary of Agriculture, with respect to land administered by the Forest Service (referred to in this section as the “Secretary concerned”), may transfer excess wild horses and burros that have been removed from land administered by the Secretary concerned to other Federal, State, and local government agencies for use as work animals.

(b) The Secretary concerned may make a transfer under sub-section (a) immediately on the request of a Federal, State, or local government agency.

(c) An excess wild horse or burro transferred under subsection (a) shall lose status as a wild free-roaming horse or burro (as defined in section 2 of Public Law 92–195 (commonly known as the “Wild Free-Roaming Horses and Burros Act”) (16 U.S.C. 1332)). Wild horses and burros.

(d) A Federal, State, or local government agency receiving an excess wild horse or burro pursuant to subsection (a) shall not— (1) destroy the horse or burro in a manner that results in the destruction of the horse or burro into a commercial product; (2) sell or otherwise transfer the horse or burro in a manner that results in the destruction of the horse or burro for processing into a commercial product; or (3) euthanize the horse or burro, except on the recommendation of a licensed veterinarian in a case of severe injury, illness, or advanced age.

(e) Amounts appropriated by this Act shall not be available for— (1) the destruction of any healthy, unadopted, and wild horse or burro under the jurisdiction of the Secretary concerned (including a contractor); or (2) the sale of a wild horse or burro that results in the destruction of the wild horse or burro for processing into a commercial product.

The 2021 Consolidated Appropriations Act reads as follows, on Page 880:

(e) Amounts appropriated by this Act shall not be available for— (1) the destruction of any healthy, unadopted, and wild horse or burro under the jurisdiction of the Secretary concerned (including a contractor); or (2) the sale of a wild horse or burro that results in the destruction of the wild horse or burro for processing into a commercial product.

Without the available option of killing unadopted horses, the ONF faces a substantial and ongoing financial burden for long-term care of unadopted wild horses.

The public record should also show that the Forest has a long history of setting the lowest allowable standards for wild horse and burro management. When asked of a BLM official, in a public forum, why the BLM and Forest Service “modified” their longstanding agreement to provide wild horse and burro services, the official responded with some thinly-veiled disgust that “the Forest Service wanted to kill horses”. It seemed like an instance of agency rivalry, as no one imagined the Forest Service would take that position. The following excerpt is taken from “Final Report – U.S. Forest Service Wild Horse and Burro Program”, p. 2:

“In fiscal year (FY) 2015, the Forest Service and BLM modified their interagency agreement to limit BLM services to the care of animals already removed from Forest Service land, with the intention of limiting additional horses being placed in BLM care facilities. This change was implemented to ensure BLM’s compliance with restrictions regarding selling horses, as outlined in the FY 2005 budget appropriations bill (that amended the 1971 Act). The Forest Service, on the other hand, has no restriction on sales.”

Combined with hundreds of pages of subjective, skewed “analysis”, the institutionalized Agency disdain for wild horses is readily apparent and makes this entire EA difficult to accept as being the best, most humane, most environmentally-preferred direction possible.

***Comment:** This EA is alarmingly vague about their off-range vision and non-committal on the matter of disposition of captured horses. Any new Big Summit Wild Horse Management Plan must set forth, with absolute clarity, its intentions to assure appropriate adoptions and sales including compliance follow-up, regardless of the alternative selected. This element is weak and disturbing in its lack of specificity. [4]*

***Consideration:** Under both Alternatives 2 and 3, “[a]fter wild horses are gathered, they would either be: 1) transported to the BLM Burns corral facility or 2) transported to a Forest Service corral or to temporary/mobile corrals constructed by the Forest Service or 3) transported to leased or contracted private facilities, where they will be prepared for adoption or sale.”(EA p. 17). The EA p. 18 further describes adoptions, sales and compliance checking.*

(38) Our Objection: Since this comment is a follow-on to the comment addressed in our Objection 37, above, our response is again that we hope the ONF will provide a detailed off-range plan prior to finalizing this decision. It would appear, however, that the ONF has had ample opportunity to do so and instead assumes the public’s trust. This is inconsistent with the purpose of this EA, and amplifies the need for an EIS instead of a Finding of No Significant Impact.

Emergency Response

***Comment:** The Emergency Response Plan in this EA consists only of provisions related to euthanasia although COWHC has submitted a list of potential situations affecting wild horses including emergency starvation relief. [4]*

***Consideration:** The Central Oregon Wild Horse Coalition’s proposal for emergency starvation relief was inconsistent with Forest Service Policy regarding supplemental feeding of wild horses (EA p. 9) and is therefore, not included in the Emergency Response Plan in the EA.*

(39) Our Objection: In the first round of Comments, we provided sufficient evidence that the Forest Service policy on emergency feeding is unfounded in law and constitutes flagrant inhumane treatment; a violation of its own statutes. That the ONF, and the Agency, persist in this stance is horrifying, and grotesquely incongruous with the public’s view of humane wild horse management. It is not the People who are ignorant of law; it is the Forest Service.

Comment: We also restate the importance of avoiding the situation in 1992/93 which was likely the cause of the "bottleneck effect" present in the Big Summit Herd today. The ONF must take responsibility for this event and strive to prevent similar occurrences in the future. [4]

We reiterate that the genetic "bottleneck" referred to in this EA was very likely the result of the ONF's "do not feed" policy during the extreme winter conditions of 1992-93. Employees were threatened with termination, and concerned public with jail time, if they attempted to alleviate suffering and certain starvation. Because of the sudden and persistent nature of the snow accumulation, untold numbers of wild horses, deer, and elk were entrapped and ultimately perished. [4]

Consideration: Table 4, on page 29 of the EA indicates that in 1993 only 19 horses remained on the territory due to a, "[s]evere winter in January required removal of horses staying on country road due to public safety concern, majority of horses in poor condition, hauled to the Burns BLM facility". The focus of genetic management for the Big Summit wild horse herd will be to manage for an observed heterozygosity of at least 0.66. Under Alternative 2 this would be done in consultation with genetic experts, through monitoring and the translocation of animals from genetically similar herds (EA p. 16).

(40) Our Objection: This response from the ONF is shamefully ill-informed and myopic. We have first-hand knowledge of the 1992,93 situation, while the ONF can't seem to even read its own report. EA p. 29 does not state that only 19 horses remained on the Territory; it states that 19 horses were gathered due to their presence on the County road. The rest of the horses, whose number was unknown, whose locations were unknown, whose conditions were predictably dead or dying, were trapped throughout the Territory. Photos showed skeletal figures with tails eaten to the bone by desperate band mates. This was a situation of unspeakable horror, for all large ungulates. Yet, the ONF's attitude was beyond threatening, certainly unwavering, and disturbingly unfeeling. Nothing about the situation approximated Thriving Natural Ecological Balance nor did it have a thing to do with allocated forage. No one knows how many horses were living in the Territory prior to November of 1992, or how many somehow emerged in May of 1993. But the ONF needs to consider that the alleles present in those survivor genetics *must* be preserved; not by some blind allegiance to a target Ho or ridiculous AML, but by working with the existing population to determine HOW to maintain the naturally-selected adeptness of these horses.

Comments: In this EA, the suggestion of emergency feeding is summarily dismissed as being against policy, deleterious to the natural behavior of wild horses, and for artificially elevating the carrying capacity of the Territory. It is also implied that wild horse advocates recommended this as a regular practice, rather than as a last-resort means of preventing mass mortality in the event of a bonafide catastrophe (which was the intent of the Working Group). [4]

The Ochoco NF and top-level Forest Service management, contend that feeding the horses would violate law. The ONF has threatened public, who were suspected of providing hay to specific horses, with jail time regardless of the void of statutory basis for prosecution. (working group outline and attorney correspondence attached). [4]

The working group's recommendations were aligned with the following "The Report to Congress by The Secretary of the Interior and The Secretary of Agriculture on Administration of the Wild Free-Roaming Horse and Burro Act, June 1974, states (page 20): (f) The Board recommended that the two

Agencies follow the policy of not resorting to supplemental feeding of wild horses and burros except in extreme emergency. The agencies concur with this recommendation.” *We asked only that under the most dire of circumstances, the ONF prevent cruel suffering and death, and our intent was to create a preparedness framework which would eliminate logistical delays in delivering life-saving feed.* [4]

Note: Starvation is recoverable, when agencies are vigilant and a plan is in place which facilitates action prior to a non-recoverable situation. [4]

Consistent with the extreme/catastrophic filter for emergency feeding, the Working Group designed a decision protocol and advance preparation/logistical outline. We envisioned a response plan for the numerous other potential emergencies we delineated in our reply to the ONF Scoping letter. Rather than including any sort of plan, even incorporated by reference, the ONF's emergency contingencies consist of arbitrary standards governing the euthanasia of wild horses. [4]

Consideration: The EA p. 9 states, “[i]t should be noted that supplemental feeding is not consistent with Forest Service policy and has the potential to exacerbate problems within a wild horse herd. Supplemental feeding may facilitate population growth above the AML, leading to other future negative resource impacts resulting in ecological imbalance. Supplemental feeding could also lead to habituation of horses to people and disrupt the movement and migration of horses across the territory, again.”

(41) Our Objection: What “should be noted” is that the ONF does not have a plan for ANY type of emergency that might save horses’ lives; just how to end horses’ lives. We identified several potential situations, in addition to winter starvation, which are likely scenarios for this herd. Some, such as Big Summit horses trespassing on private land, are generally handled with ONF staff as needed. Others require forethought and preparedness. While there may be no official mandate to manage these horses beyond conventional “capture and complain” strategies, the essential direction to “protect, manage and control” would certainly encompass these potential situations. Many of these situations would arise from outside, direct or indirect human influences, as opposed to natural occurrences which are part of the horses’ wild environment.

1. Fire (wildfire or escaped prescribed fire)
2. Disease outbreak (externally-introduced or naturally-occurring, such as West Nile Virus)
3. Winter starvation/exposure
4. Injury
5. Toxic plants or substances (naturally-occurring but beyond historic levels)
6. Poisoning (intentional or accidental)
7. Shooting, theft, or extreme harassment (immediate response, scene and evidence security)
8. Predation (crisis level, beyond historical)
9. Cattleguard entrapment
10. Wild horses on private land
11. Large-scale migration in/out of Territory
12. Trespass horses threatening health and safety of wild herd
13. Problem horses (typically young stallions)

Also, the ONF’s “Better Dead Than Fed” policy, since it is not grounded in law or statute, will continue to be tested.

Livestock in the Territory

Comment: Perhaps more critically, though we may not know if the writers of the 1975 Wild Horse Plan meant "head of sheep" or "ewe/lamb pairs", the public needs to view the sheep presence as numbers of hooves as well as numbers of mouths. The lambs, by the time they spend a summer on the ONF, are barely distinguishable from their mothers. They will have a similar trampling impact on the forage and soils and a similar impact on stream banks as they cross creeks as a herd of approximately 2000. We cannot discern from this EA whether a set of twin lambs counts as one lamb, and this would, of course, multiply impacts. As with all commercial livestock, individual animals are bred to be bigger and heavier with every generation. The ONF needs to be transparent regarding the reality of permitted sheep grazing. This includes statements about the permittee voluntarily grazing his sheep elsewhere for three seasons, especially when 2019 should have yielded above-average forage whether consumed by an elk, a sheep, or a wild horse. [4]

Consideration: Grazing records on the Reservoir allotment which includes the Reservoir and Canyon Creek bands indicate ewe/lamb pairs have been permitted since 1975 (located at the Lookout Mountain Ranger District office). These records also indicate the regular shipment of lambs off of the allotment from FS corrals in August. Actual use records are not available for every year, but those records available indicate consistent use since 1975. The Forest Service Animal Unit factor for a ewe/lamb pair, regardless of twins or a single lamb, is 0.30 (EA, p. 70).

(42) Our Objection: Although the sheep numbers, multiple lambs included, may have been consistent through the length of the permit, in spite of indications to the contrary, we have proven that the amount of forage allocated to sheep has increased – according to ONF figures – since 1971. That difference is significant enough to impact the wild horses.

36 CFR §222.4 Changes in grazing permits

(a) The Chief, Forest Service, is authorized to cancel, modify, or suspend grazing and livestock use permits in whole or in part as follows:

(1) Cancel permits where lands grazed under the permit are to be devoted to another public purpose including disposal. In these cases, except in an emergency, no permit shall be canceled without two years' prior notification.

36 CFR §222.6 Compensation for permittees' interest in authorized permanent improvements

(a) Whenever a term permit for grazing livestock on National Forest land in the 19 contiguous western States is canceled in whole or in part to devote the lands covered by the permittee to another public purpose, including disposal, the permittee shall receive from the United States a reasonable compensation of the adjusted value of his interest in authorized permanent improvements placed or constructed by him on the lands covered by the canceled permit. The adjusted value is to be determined by the Chief, Forest Service. Compensation received shall not exceed the fair market value of the terminated portion of the permittee's interest therein.

It is indisputable that the Forest Service has the authority to terminate grazing permits. The Wild Free-Roaming Horses and Burros Act constituted the change to “another public purpose”, and it’s doubtful there would be a statute of limitations on this. On the ground, this could be retirement of the entire sheep permit, or reduction to exclude the use of wild horse winter range and a commensurate reduction in sheep allowed in the allotment.

Legislation has been proposed to provide compensation to holders of existing permits should they be retired at the request of the permittee. This is not currently authorized, unless §222.6 could be interpreted to apply. However, several organizations are anxious to remove livestock from public lands, and precedents have been established for this to be accomplished. We would pursue this option if the ONF would consider the action. But of course, we fully expect this to be “outside the scope of this analysis”.

***Comment:** The ONF then authorized "resource protection non-use" for the years 2017, 2018, and 2019 (page 72). Our understanding was that the ONF authorized the displaced sheep to graze on another part of the Forest. What is questionable about this arrangement is that in 2019, though the winter was mild, deep snow accumulations occurred in February and persisted due to cloud cover and low temperatures. Wildlife and wild horses suffered until new grass finally grew, about a month later than is typical. But any herbivore or pollinator which survived the protracted end of winter was blessed with forage and water that flourished beyond all expectations. There could be no disguising any purely false assertion that the summer of 2019 was one of a dire competition for forage. [4]*

***Consideration:** Non-use was taken by one or both of the bands of sheep that graze in the Big Summit Territory from 2017-2020 and was not authorized to graze elsewhere on the Ochoco National Forest (records on file at Lookout Mountain Ranger District).*

(43) Our Objection: We now realize that range compensation elsewhere on the Forest seems to apply only if the non-use is requested by the Forest Service. The information regarding range compensation came from a qualified representative of the ONF, speaking at a Crook County Natural Resource Advisory Committee meeting. However, since the EA was released in April of 2020, it would have been helpful to see the utilization data from 2019, which was indeed a season of high vegetation yield.

***Comment:** If the concerns amounted to something other than low forage quantity it is unclear. "In 2017 and 2018 the permittee requested non-use due to resource concerns, to rest one pasture each year." We do not have access to the Allotment Plan, but are aware that pasture rest is normally built into a livestock permit. Whether or not the timing of this non-use represents any level of collusion related to the writing of this EA, we cannot say. We only know that many comments were heard regarding the excellent forage condition of the Territory these past few years. Muddying the facts a shade more, this EA lacks a definitive dietary overlap figure between sheep and wild horses. It might be 21%, according to a study cited in the Wild Horse report (page 38), or the overlap might be closer to the findings of another study between Pronghorn and horses. We've long been admonished by the ONF that the sheep don't eat the wild horses' forage, as "sheep only eat forbs" and one would expect the converse to be true. Until the dietary overlap figure is firmly established, it doesn't serve sheep or horses well to fight over forage allocations, and the ONF certainly does not have a solid basis from which to assess impacts on the sheep permittee operating in the Big Summit Territory or to present resource degradation data as "the best available science". [4]*

Consideration: In the EA (p. 70) the range resource section states the permittee requested non-use based on resource concerns and was granted non-use for 2017 and 2018. Those same two years, utilization levels were calculated in the wild horse winter range in the fall and showed use levels beyond exceeding the Forest Plan standards (EA p. 62). The Reservoir allotment is not managed under a rest rotation, therefore resting the allotment was outside of the planned grazing system. The EA (p. 55) also identifies dietary overlaps for sheep and wild horses in the summer with suggestions of low overlap. These overlaps are specific to summer dietary preference and the EA determined that summer forage is not a limiting factor, winter forage is (EA p. 3). There is little available science that would suggest any re-growth values for grazing in the summer going into the winter so no re-growth adjustments were made for sheep grazing in the wild horse winter range.

(44) Our Objection: Please see our Objection 43, above, regarding; sheep. We have expressed our consternation over the winter range utilization “data” of 2017, 2018 in previous Objections, with the primary issue of the exact locations and protocols used for the data collection and conclusions being undisclosed. This “Consideration” is also troubling in that it affirms that *“There is little available science that would suggest any re-growth values for grazing in the summer going into the winter so no re-growth adjustments were made for sheep grazing in the wild horse winter range.”* just as the ONF stated in its Consideration of our Comment in our Objection 21, above. And yet, the assumption that sheep use in the wild horses’ winter range could have virtually NO regrowth; a factor which has a significant impact on the calculation of AML, is vital not only for wild horses but for all wildlife, and all components of the ecosystem reliant on a Thriving Natural Ecological Balance.

Other Multiple Uses in the Territory

Comment: *The wild horses of Big Summit Territory were here before dispersed camping, hiking trails, mountain bikes, off-road systems, or the level of hunting which inundates the Territory for much of the summer and fall. It is completely backward that this discussion would be about wild horses damaging trails which were created by humans in the horses' habitat. We question whether any analysis of impacts TO the wild horses was ever completed prior to the construction of the trail systems within the Territory or the designation of the Lookout Mtn. Recreation Area. [4]*

Consideration: The public has been camping, hunting, and using trails on the Forest long before the 1975 WFHBA. Many of the earliest trails are now part of the road system. Designation of the Lookout Mountain Recreation Area was analyzed in the Final Environmental Impact Statement for the Ochoco national Forest Land and Resource Management Plan and incorporates the Round Mountain Trail which is a National Recreation Trail.

(45) Our Objection: From the 1975 Ochoco Wild and Free Roaming Horse Management Plan/EAR, we find this narrative of the “Recreation” of the time:

(Plan) 3. Recreation. Wild horses have no conflict with recreation. The two resources, in fact, enhance one another. For further information refer to the attached EAR.

(EAR) Outdoor Recreation – This area is used principally by hikers, backpackers, deer, and elk hunters, and to a lesser extent by snowmobilers and cross country skiers. The greatest use by far is by deer and elk hunters, who often come to come and stay thru hunting season.

Use by rockhounds has not been measurable. There is a nature hiking trail that runs from Walton Lake to the upper reaches of Round Mountain. It runs thru T.13S., R.20E., Sections 21, 32, and 33. We foresee this trail as being used by horses somewhat for movement from one feeding area to another.

There is a proposed nature hiking trail that will be an extension to the one mentioned above and will be built to intersect with Rd. 142 at the summit between Canyon and Johnson Creeks. It will run thru T.14S., R.20E., Sections 5, 8, 9, 16, and 17.

As evidenced here, the development of the Recreation resource on the ONF, where it relates to the wild horses' habitat, is a mixture of historic use by recreationists PRIOR to 1975, and continued development AFTER 1975. Of course, people have been visiting, and residing on, what is now the ONF, prior to 1975. But so have the wild horses been residing on what is now the ONF. To be purely technical, deer and elk hunters, off-trail hikers and backpackers, and some snowmobilers and cross country skiers, and those hiking on the Walton Lake/Round Mountain trail, should have some sort of priority-user status over the wild horses. But then, hikers on the Lookout Mountain Trail, all mountain bikers, all off-highway vehicles, and all paintballers should be excluded from recreational use *unless* such use within the Territory was analyzed according to impacts on the wild horses. Alternatively, reasonable persons would conclude that humans are trespassers into the habitat of all wildlife within the ONF, including wild horses within the Big Summit Territory, and that we should reasonably consider that wild horses will continue to use their historical travel routes, water holes, and other habitat components. Contemporary recreationists and Forest Service planners must recognize this. It is doubtful the FEIS for the LRMP seriously considered impacts to the wild horses of the Lookout Mountain Recreation Area and Round Mountain Trail designations, when a Wild Horse Management Plan doesn't seriously consider impacts to the wild horses.

The fact is, the ONF has been the habitat of wild horses for longer than the ONF has been the ONF; we just can't know exactly how many years or millennia. As a comparison, the Bald Eagle wasn't protected until 1940; that doesn't mean the Federal government only needed to protect nesting areas discovered after 1940. Similarly, the ONF should recognize the habitat used by wild horses as "*an integral part of the natural system of the public lands*", before and after the Wild Free-Roaming Horses and Burros Act. Yet, the ONF failed to designate the Big Summit Territory as a Management Area. Of course, that is "outside the scope of this analysis". But it shouldn't be. The final decision resulting from this EA will require an amendment to the Ochoco LRMP. The ONF can certainly use that opportunity to formally designate the Territory as a Management Area. As it is, managers of other resources do not recognize impacts to the wild horses. When a 75-mile mountain bike trail system was proposed in the Territory, the Recreation staff didn't know there was a Territory. No impacts to the wild horses were considered, and the impacts would have been significant, until we brought this to the ONF's attention. This is typical, but not acceptable. The wild horses, as noted in the next comment, are expected to achieve a Thriving Natural Ecological Balance, while hikers complain about hoofprints in *their* trail.

Comment: *Thriving Natural Ecological Balance cannot be achieved on a landscape which the ONF admits was subjected to heavy logging, road building, and 100 years of intensive livestock grazing. The Multiple Use-Sustained Yield Act meant to guide the intelligent use and preservation of Forest Service-managed natural resources is invoked to include more abuse of a finite environment than it can hope to sustain. Yet, wild horses are the only "use" of the ONF to be held to the Thriving Natural Ecological Balance standard. [4]*

Consideration: *Wild horses are subject to the "thriving natural ecological balance" standard because it is written into the WFHBA. Other uses are subject to their own standards and regulation. Past harvest practices and heavier past livestock grazing contributed to the current conditions for some resources as stated in the EA (p. 36 and 42)*

(46) Our Objection: With this response, it becomes clear that the ONF has lost the ability to navigate the layers and variables and changing winds of public lands management. Of course it's difficult. But direction exists, and the public expects that some collective common sense would prevail. The Multiple Use-Sustained Yield Act of 1960 requires that managers thoughtfully consider their stewardship over the array of resources in their purview:

SEC. 4. 16 U.S.C. 531 *As used in this Act, the following terms shall have the following meanings:*

(a) "Multiple use" *means: The management of all the various renewable surface resources of the national forests so that they are utilized in the combination that will best meet the needs of the American people; making the most judicious use of the land for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions; that some land will be used for less than all of the resources; and harmonious and coordinated management of the various resources, each with the other, without impairment of the productivity of the land, with consideration being given to the relative values of the various resources, and not necessarily the combination of uses that will give the greatest dollar return or the greatest unit output."*

This language of the Multiple Use-Sustained Yield Act essentially describes a Thriving Natural Ecological Balance. It is also consistent with the Wild Free-Roaming Horses and Burros Act where Thriving Natural Ecological Balance is defined by context:

(Sec 3) a. The Secretary shall manage wild free-roaming horses and burros in a manner that is *designed to achieve and maintain a thriving natural ecological balance on the public lands.*

It was envisioned that wild horses and burros contribute to the achievement and maintenance of a Thriving Natural Ecological Balance on the whole of public lands wherein they reside; not that wild horses and burros create a Thriving Natural Ecological Balance unto themselves, without the remainder of ecological components and "other uses" striving toward the same objective.

With the enactment of the Wild Free-Roaming Horses and Burros Act, the Forest Service was given responsibility for managing some (relatively few) of its lands principally but not necessarily exclusively for wild horses and burros. Managers didn't want this responsibility, but the American people clearly expected the Forest Service to step up. The "*combination that will best meet the needs of the American people*" on the ONF is to manage the Big Summit Territory

principally but not necessarily exclusively for wild horses, as the Wild Free-Roaming Horses and Burros Act directs. The requisite Thriving Natural Ecological Balance can only be achieved when other uses and other users contribute to this balance. The ONF LRMP must incorporate the provisions of the WFRHBA into standards and guidelines for other resources, rather than expecting wild horses to single-hoofedly create a Thriving Natural Ecological Balance within their Territory. As an extreme example of the current situation, according to the ONF, Thriving Natural Ecological Balance equates to an inflexible refusal to provide emergency support for wild horses, only under the most dire of circumstances, when those circumstances may have been created by: human-caused climate change; forest management which impedes natural migration or availability of feed and cover; unmanaged harassment or death directly caused by humans; or an AML of 12-57. While Thriving Natural Ecological Balance has yet to be defined, other than to pack the horses into Forest-level livestock utilization standards, the ONF continues to resist the opportunity to explore the holistic, natural balance set forth in that language from the WFRHBA.

The ONF also wages resistance against the Wild Free-Roaming Horses and Burros Act by citing Congressional intent and the CFRs governing Forest Service wild horse management; EA p. 43 *“The principal goal of the Act was to provide for protection of horses from man and not... the single use management of areas for the benefit of wild free-roaming horses and burros. It is the intent of the committee that the wild free-roaming horses and burros be specifically incorporated as a component of the multiple-use management plans governing the use of the public lands (US Congress, 1971)”*. This is indeed reflected in the text of the Act itself; *“principally but not necessarily exclusively”*. At the pragmatic level, this might mean that while livestock producers enjoy widespread use of public lands for taxpayer-subsidized grazing, within the Big Summit Territory, the sheep allotment might be managed so that a viable population of wild horses would be allocated an appropriate share of forage and access to riparian areas. It might mean that new or expanded recreation actions would analyze effects on the resident, viable population of wild horses. It might mean that vegetation management would consider both short and long-term effects on a viable population of wild horses. It might mean that wildlife and fisheries habitat needs might be met through restoration projects rather than reductions of the wild horse population to non-viable levels. It might mean that the ONF LRMP include the Big Summit Wild Horse Territory as a Management Area.

CFRs cited in this same context are:

§ 222.60 Authority and definitions. (b) Definitions.

(13) Wild free-roaming horses and burros mean all unbranded and unclaimed horses and burros and their progeny that have used lands of the National Forest System on or after December 15, 1971, or do hereafter use these lands as all or part of their habitat, but does not include any horse or burro introduced onto the National Forest System on or after December 15, 1971, by accident, negligence, or willful disregard of private ownership. Unbranded, claimed horses and burros for which the claim is found to be erroneous, are also considered as wild and free-roaming if they meet the criteria above.

(14) Wild-horse and burro range means an area of National Forest System specifically so designated by the Chief, Forest Service, from wild horse and burro territory, for the purpose of sustaining an existing herd or herds of wild free-roaming horses and burros, provided the range does not exceed known territorial limits and is devoted principally, but not necessarily exclusively, to the welfare of the wild horses and burros, in keeping with the multiple-use management concept for the National Forest System.

36 CFR §222.61 Administration of wild free-roaming horses and burros and their environment.

(a) The Chief, Forest Service, shall:

(3) Establish wild horse and burro territories in accordance with the Act and continue recognition of such territories where it is determined that horses and/or burros will be recognized as part of the natural system, and designate areas within these territories as a specific wild horse and burro range in those situations where he determines such designation as especially fitting to meet the purposes of the Act and the Multiple Use Sustained-Yield Act, after consultation with the appropriate State agencies where such range is proposed and with the National Advisory Board;

The problem with these Forest Service regulations is that they deviate from the Wild Free-Roaming Horses and Burros Act which they are meant to implement. The WFRHBA does not mention “territory” except in Sec 2 (c) below as “*territorial limits*”, tantamount to the “*area where presently found*” as stated in the preamble. The only nomenclature used to describe areas within which wild horses and burros are to be protected is “range”. “Range” is the only such area defined in the WFRHBA:

Sec. 2 As used in the Act -

c. “range” means the amount of land necessary to sustain an existing herd or herds of wild free-roaming horses and burros, which does not exceed their known territorial limits, and which is devoted principally but not necessarily exclusively to their welfare in keeping with the multiple-use management concept of the public lands;

There is no alternative, additional, or lesser level of wild horse or burro management, other than “range”, prescribed by or discussed in the WFRHBA.

This intentional misconstruction by both BLM and Forest Service regarding the word “range” and the concept of “devoted principally but not necessarily exclusively” is entrenched, institutionalized, and long-standing. But it is still, nonetheless, wrong. One of the often-cited court cases meant to disprove the “principal use” doctrine was included in the ONF’s presentation at their “Wild Horse Herd Management Update Working Group Meeting” on March 23, 2016. Listed among relevant case law was American Horse Protection Association Inc. v Frizzell, 1975, as establishing that “wild horses do not have an exalted status on public lands under the Act relative to livestock.” Since this was important enough to galvanize the ONF’s stance in a public forum, and because its supposed premise appears to shape the ONF’s development of Alternatives, the case is worth reviewing here:

- The case hinges on BLM regulations, not Forest Service.

- The 1975 case predates the Federal Land Management and Policy Act of 1976 (which has very little application to Forest Service wild horse and burro management), the Public Rangelands Improvement Act of 1978, and subsequent updates to the Wild Free-Roaming Horses and Burros Act and BLM regulations.

- There is no evidence of a Wild Horse Management Plan in place at the time of the proposed gather, or of a formal inventory of resident horses in 1971.

- Plaintiff witness asserts decades of range degradation by sheep and cattle which were not made appreciably worse by increases in wild horse numbers.

- *“Plaintiff’s contention that the decision to solve the overgrazing problem by removing wild horses was arbitrary is based on the assertion that wild horses were given a higher priority on the public lands than other grazers under the Wild Horses’ Act. The only statutory or regulatory support for this assertion is at 43 C.F.R. § 4712.1-4: Closures to livestock grazing:*

‘The authorized officer may close public lands to use by all or a particular class of domestic livestock where he finds it necessary to allocate all available forage to, or to satisfy other biological requirements of, wild free-roaming horses or burros. Such closures may be made only after appropriate public notice and in accordance with the procedures for reduction or cancellation of grazing privileges provided for under the [regulations applying to the Taylor Grazing Act].’

The Court does not read this regulation as giving wild horses an exalted status on the public range. The regulation would seem to apply to a situation where wild horses and burros were in danger of extinction; the remedy of restricting a public range for the sole use of one element of the ecosystem would seem to be a last-resort type of measure.” (emphasis added)

- Based on statutes which do not pertain to Forest Service wild horse management (note: ONF states at EA p. 284 *“The CFR 4710.5 is for the Department of Interior (BLM), the Code of Federal Regulations for the Department of Agriculture (Forest Service is 222.61 and does not include anything regarding permitted livestock.”)*), (BLM’s 4710.5 is the updated statute cited in this case, 43 C.F.R. § 4712.1-4: Closures to livestock grazing), the ONF considers this a case against the “principal use” doctrine. The underlined passage above, however, shows equivalence to the Big Summit situation; decreasing livestock grazing in the wild horse Territory would likely help mitigate resource impacts, and if the proposed AML of 12-57 is implemented, extinction is also likely. BLM’s current Closure to livestock grazing statute, though still not applicable to Forest Service, does lean toward an admission of the “principal use” doctrine’s legitimacy:

‘43 CFR § 4710.5 Closure to livestock grazing. (a) If necessary to provide habitat for wild horses or burros, to implement herd management actions, or to protect wild horses or burros, to implement herd management actions, or to protect wild horses or burros from disease, harassment or injury, the authorized officer may close appropriate areas of the public lands to grazing use by all or a particular kind of livestock.’”

The ruling continues, considering the wild horses in a Multiple Use context, and makes the following observations:

“These regulations do appear to contemplate the consideration of resources such as wild horses even though promulgated before the Wild Horses’ Act:

‘Consistent with the provisions of applicable law, the land will be managed:... (c) to preserve important historic, cultural, and natural aspects of our national heritage (43 CFR §1725.3-2)’”

It then reverts back to the Multiple Use concept as prohibiting the priority of one use over another, when in fact, it *does* provide for the balance of uses which cannot occur without consideration of the *relative values* of a given landscape. Livestock grazing occurs on approximately 25 times more public land than wild horses and burros are authorized, and in light of the Wild Free-Roaming Horses and Burros Act; the absence of livestock in its vision of a Thriving Natural Ecological Balance; and the provisional statutory nature of both BLM and Forest Service grazing regulations, Multiple Use clearly allows for wild horses to be managed “principally but not necessarily exclusively” within their habitat. We have never suggested that wild horse management should be the **ONLY use within their habitat.**

- The plaintiffs requested the BLM action follow the full preparation of an EIS, as opposed to the EAR. The Court disallowed the EIS for the specific wild horse gather, but BLM was later ordered to prepare an EIS for this HMA.

- The gather of 400 horses did proceed, but at a later date, livestock use was also reduced.

Benefits of Wild Horses

Comment: Regardless of the horse population size, the expanded water hole will be a habitat component. Many of these mud holes within the Territory were not riparian areas until the horses created them, only to be blamed for destroying them. One such mud hole was effectively obliterated by an entire fir tree which was felled and dragged to the hole. Without this type of uninformed interference, mud holes develop into habitat for invertebrates, amphibians, and specialized plants, as well as providing dissolved minerals for multiple species, insect protection, cool relief from the heat, and where spring sources flow directly from the earth, a free water source when most are frozen. In essence, then, a horse-created mud hole fulfills much of the same purpose as an elk wallow. On page 92 of this EA, the horses are denigrated for creating wallows where an elk may want to create a wallow. [4]

In some cases, it is not clear whether horses created them. There are no reference points as to whether the offending holes are part of a stream system, or what function they might perform without the presence of horses. There are no data showing how the mud holes may be dispersing animal use or reducing trips to fragile stream banks. There is no analysis of the micro- environments of the most enduring of these mud holes. There are no data regarding the benefit to other ungulates during all seasons. [4]

Consideration: *The effects of the alternative actions including the effects of wild horses on aquatic species and habitats are discussed on pages 117 through 127 of the EA. The EA states that year-round use by horses is contributing to degraded conditions of several springs and seeps within the Territory. Mud holes created by wild horses in riparian areas is considered resource damage and not a benefit to aquatic or terrestrial wildlife. Too many horses over a small area have been shown to have a negative effect on stream habitat in terms of width to depth and entrenchment ratios due to bank trampling and continual browsing of riparian vegetation that can lead to bank instability and that widens streams over time.*

(47) Our Objection: We are aware of what this EA states in regard to The Mud Holes. We are also aware that the ONF presents no scientific analysis of its contentions of The Mud Holes' degradation and damage. First, "year-round use" is problematic for this analysis in that the springs and seeps of concern will be under snow and/or the banks frozen for much of the year. We are aware that the ONF considers The Mud Holes created by wild horses in riparian areas "resource damage". We question how a Mud Hole could *not* be in a riparian area in the sense that it is wet, but how a necessary habitat component is considered "resource damage" rather than a "resource". We therefore question how a habitat component necessary for both wild horses and elk is "resource damage" for a horse but a valued "resource" for an elk. We do not see analysis in this EA which proves The Mud Holes are "*not a benefit to aquatic or terrestrial wildlife*". We do not see analysis in this EA which counters our observations that The Mud Holes provide water sources which actually reduce the frequency of horses' use of streams with banks already compromised by decades of use by a number of other activities and users. Further, although the ONF cites valid knowledge of general interrelationships between stream bank trampling and browsing of riparian vegetation to bank stability and width to depth ratios, the ONF has failed to associate The Mud Holes with those effects. You can't be A Mud Hole and also a stream bank.

We also take serious issue with the claim that "*Too many horses over a small area have been shown to have a negative effect on stream habitat in terms of width to depth and entrenchment ratios due to bank trampling and continual browsing of riparian vegetation that can lead to bank instability and that widens streams over time.*" This EA, p. 30, states "*There are many studies that look at habitat use by horses, but they are primarily in very different habitats than occur within the Big Summit Territory (Ganskopp & Vavra, 1986, Miller, 1983, Crane et al, 1997, Slater & Hudson, 1979).*" In truth, there are *no* studies which examine wild horse ecological interrelationships within the Big Summit Territory. And yet, despite this admission by the ONF, studies are continually cited throughout this EA.

The default "*too many horses over a small area have been shown to have a negative effect on...*" begins in earnest at EA p. 117. On p. 118, we find "studies" which are possibly meant to validate these assertions; they are all studies of semi-arid, sagebrush steppe ecosystems. (It is noteworthy that Society for Range Management often has a publisher/promotional role in many such studies; SRM being vice-chair of the militantly anti-wild horse National Horse and Burro Rangeland Management Coalition, and surrogate for BLM and Forest Service research and continuing education. Barry Perryman, Director of SRM, serves on the National Wild Horse and Burro Advisory Board.)

At EA p. 118, which discusses the findings of cited studies which substantiate ONF claims that wild horses degrade riparian habitats, and of course, the metric-less “too many horses over a small area”, cites the following studies:

1) Davies et al. (2014) which is presumably K.W. Davies, G. Collins, and C.S. Boyd.
Effects of feral free-roaming horses on semi-arid rangeland ecosystem from the sagebrush steppe.

As stated by the ONF, the Big Summit Wild Horse Territory is not sagebrush steppe. Nonetheless, we find some observations which might help Agency wild horse managers:

p. 2 “Without rigorous experimental control there are undoubtedly some unaccounted for confounding variables and cause and effect relationships cannot be determined.”

“In addition, plant species diversity was slightly greater in horse grazed compared to ungrazed sites in the Pryor Mountain lowlands (Fahnestock and Detling 1999). The inconsistency in the reported effects of feral horse grazing suggests that vegetation response likely varies by site characteristics.”

p. 6 “Our results suggest that feral horse grazing can affect some aspects of semi-arid ecosystems.”

p. 7, 8 “One limitation of our study was that our study sites were relatively close to riparian areas with permanent springs or small creeks that can concentrate horse use (Crane et al 1997) and thus, horse effects may dissipate further from water sources. However, Ganskopp and Vavra (1986) reported that feral horses rapidly vacate watering areas after drinking.”

p. 9 “Arid and semi-arid plant communities can be relatively slow to recover from disturbances. For example, sagebrush steppe plant communities can take several decades once a disturbing agent is removed for even partial recovery (Sneva et al. 1980, West et al. 1984).”

“Differences between de Villalobos and Zalba’s (2010) and our results could also have been the result of different plant community and site characteristics.”

“Consumption of sagebrush may also be influencing its recruitment as feral horses will consume small quantities of sagebrush, though they primarily consume grass (Krysl et al. 1984, McInnis and Vavra 1987)”

p. 10 “Our results suggest effects of feral horses on species richness and diversity may vary by plant community and site characteristics (grazing-plant coevolution, climate, soils, etc)”

“Other studies have found that feral horse grazing exclusion promoted a decline in species richness in montane grasslands in Argentina (Loydi et al. 2012) and plant diversity in the Pryor Mountain Wild Horse Range (Fahnestock and Detling 1999). (meaning is unclear as p. 2 reference from same authors indicate increase in plant diversity, Pryor Mountains)

To synopsise, this study found that wild horses increase plant diversity in some ecosystems; it may take decades to see appreciable improvement in riparian ecosystems, following disturbance (past overgrazing by non-equids); it’s challenging to identify all cause-and-effect relationships.

Davies is fond of studying the Sheldon-Hart Mountain National Wildlife Refuge Complex. Another study, published by Society for Range Management, appeared to tier off the first study, with the same authors. We have seen several such studies presented by Davies and others, depicting exclosures restricting wild horses use. All are conducted in sagebrush steppe ecosystems, and all limit water availability and fail to disclose other factors such as historic use and other amenities in relation to distance to other water/feed sources. Is this study, effects were mixed, thought to benefit some species while negatively impacting others. In the end, *“Effects of horse grazing on riparian habitat will be density dependent and associated with landscape features and herd management practices that influence horse distribution across the landscape.”* In other words, whether the Big Summit Territory or Sheldon (horses were eliminated with most going to slaughter), engaged management, not merely non-viable population levels, is paramount.

Society for Range Management provides another slant on “wild horse damage” in Impacts of Wild Horses, Cattle, and Wildlife on Riparian Areas in Idaho, Kawek et al (2018). This study takes place in two different areas with several BLM Herd Management Areas. Photos show open, rolling terrain and, instead of Ponderosa pine and Grand fir; lots of sagebrush. The study was meant to show intensity of damage caused by horses, as compared to cattle. Full disclosure; we are aware that the Big Summit Territory is a sheep allotment, not a cattle allotment; the ONF chose to cite this completely-irrelevant study. We note two observations of the researchers; (p. 4) *“Though free-roaming horses are generally smaller than modern rangeland cattle, they may have a greater than expected influence on riparian vegetation.”* and *“In addition, because many breeds of wild horses can go longer without water than can cattle, they often spend less time per day within riparian zones than individual cows do.”* We found these statements interesting, as agencies consider one “modern range cow” and her calf as one AUM, while a wild horse as of January 1 following its birth is considered 1 AUM (and 1.2 by Forest Service in some applications) Also, apparently horses don’t typically tarry long at water sources, at least on sagebrush steppe, and this researcher has observed more than one “breed” of wild horse, which is incongruous with the “metapopulation” theory.

This study used game cameras to document wild horse, cow, and wildlife presence at designated watering sites. However, (p. 7) *“We did not identify individual animals, but rather the total number of occurrences of each group resulting in an index of intensity of use rather than a population estimate.”* This factor makes the study’s usefulness in building the case for “too many horses” virtually nil. But in the interest of establishing superiority between cattle and wild horses, the researchers used a “greenline” system which theoretically measured the size of each hoof disturbing the streambank. We are not certain what “breeds” of modern range cattle or wild horses were present, but we can easily predict that width of imprint would not provide a basis for any credible research of this type. The most useful result of this study is found on p. 10. *“Our analysis did not show any evidence that use of riparian areas by one species of animal caused other species to avoid the area. In fact, there was a slightly positive relationship between horses and wildlife ($p = 0.24$, $P < 0.01$) and between horses and cattle ($p = 0.25$, $P < 0.01$), indicating that these species of animals were using riparian areas during similar times.”* *“We did not observe any relationship between cattle and wildlife use at our study sites ($p = -0.05$, $P = 0.60$).”*

We found interesting research in the Forest Service Library: Effects of feral horse herds on plant communities across a precipitation gradient, L. Baur (2016) (see Appendix C)

The author's premise is that wild horse interaction with habitat west of the Rocky Mountains has received very little study. (p. 1) *"However, most studies of feral horse grazing effects in North America have been conducted in salt marches of the East Coast (Wood et al. 1987, Turner 1987, Turner 1988, Furbish and Albano 1994, Seliskar 2003, De Stoppelaire et al. 2004) and the Pryor Mountain Wild Horse Range of northern Wyoming/Southern Montana (Detling 1998, Gerhardt 2000, Gerhardt and Detling 2000, Fahnestock and Detling 2000), with a limited number of studies conducted in the Great Basin (Beever and Brussard 2000, Beever et al. 2003, Beever et al. 2008, Davies et al. 2014) or other western rangelands. Thus, we still lack basic understanding of the effects of feral horse grazing on rangelands of the western US, despite the fact that this represents a critical knowledge gap for effective rangeland management."*

The study sought to compare effects on a spectrum of ecosystem types, varying in precipitation and elevation. Those sites were Clan Alpine HMA (Nevada), Sulphur HMA (Utah/Nevada border), Spring Creek Basin HMA, (SW Colorado), Pryor Mountain Wild Horse Range (Wyoming/Montana border), and Theodore Roosevelt National Park (North Dakota). We are somewhat familiar with aspects of the Pryor Mountain, Sulphur, and Spring Creek Basin HMAs and found this study to be very interesting. Essentially, the researcher found that variables were too numerous to provide definitive results, and that much more research is needed. Findings did indicate that results varied little by site, which is incongruous with other studies; (p. 20) *"Thus, our hypothesis that grazing effects would vary by site, according to precipitation levels, was not supported."* None of the study sites closely resembled the Big Summit Territory, but the author did make an interesting observation based on the research of others: (p. 2) *"Although Crane et al. (1997) found that feral horses in Wyoming spent proportionately more time in riparian habitat than in other habitat types, Ganskopp and Vavra (1986) did not observe such a preference among feral horses in Oregon. Horses also show a preference for higher elevation habitats (Ganskopp and Vavra 1986, Crane et al. 1997)." Of course, these are studies of sagebrush steppe environments; not the Big Summit Territory.*

Other findings of value to natural resource managers are, for example, that legacy grazing impacts will likely influence assumptions; (p. 21) *"...we have assumed that comparing plant communities inside and outside exclosures constitutes an observation of the effects of 'horses' or of 'grazing.' However, because vegetation recovery is rarely a simple reversal of grazing-induced changes, 'effects of grazing' and 'effects of protection from grazing' may not be equivalent (Fleischner 1994, Sarr 2002). Past or current grazing may have caused changes that are not detectable purely through the use of exclosures."*

The author also affirms what we have repeatedly stated concerning the application of AML; (p. 22) *"The BLM defines the upper AML as the 'maximum number...which...avoids a deterioration of the range'. (BLM 2010). However, whether AMLs accurately reflect such a threshold is questionable (NRC 2013), so it is possible that a herd could be above AML but still too small to cause plant community shifts. Additionally, horse density in the site as a whole may not directly correspond to horse use of the specific plots we sampled."* Also, (p. 26) *"Moreover, given that feral horse grazing often occurs in tandem with cattle, sheep, and native ungulate grazing, there is a pressing need for studies that separate the effects of feral horses from those of other herbivores."* This observation is consistent with 2017 USGS findings:

July 2017 GAO report, Animal Welfare: Information on the U.S. Horse Population:

According to USGS officials and documentation, research that evaluates and separates cattle and wildlife impacts from wild horse impacts has not been conducted, and studies on horse grazing effects are needed. And, BLM and USFS monitor vegetation on public rangeland but do not assign causes to changes in or damage to vegetation. According to BLM documentation, BLM is implementing its Assessment, Identification, and Monitoring (AIM) strategy to track environmental condition of BLM lands and establish a baseline for further analysis.

Another study, Aboveground and belowground mammalian herbivores regulate the demography of deciduous woody species in conifer forests, Endress, Naylor, Pekin, and Wisdom (2016), designed by Marty Vavra, suggested that density of herbivore populations is not necessarily correlated to herbivory levels, and that below-ground mammalian herbivores deserve much credit for their influence over riparian plant growth. We are aware that elk, cattle, and pocket gophers are not horses. But, this Starkey Experimental Forest and Range study is at least in the Blue Mountains, so some similarity in elk interaction with willow and cottonwood could potentially exist. We include this study due to the ONF's persistent "Too many horses over a small area have been shown to have a negative effect on (insert resource)" and countless other conjectural references that baselessly assume that wild horses are responsible for a quantifiable amount of resource damage and that more horses will necessarily equate to more damage. (See Appendix C)

Big Summit Territory Boundary

***Comments:** The Territory boundary was redrawn to exclude such logical use areas as the entire corridor to the northwest of the 22 Rd., the former Ochoco Ranger Station compound, and, of course, the sections mentioned in the 1975 Big Summit Wild Horse Management Plan which were included in their entirety during the public involvement process. We have been told emphatically and repeatedly that "adjusting the Territory boundary would require an act of Congress", yet the ONF has capriciously redrawn this same boundary numerous times, and has chosen to disregard historic documentation of the 1971 areas of use which should have been included; in 1975 and 2020. [4]*

***Consideration:** The Territory boundary in GIS was corrected to reflect the original Territory map from the 1975 EA (EA p. 25). As described in the EA (pp. 24-25) this correction reflects how the active management has occurred on the ground since the Territory was established and will have no effect on the horses.*

***Comments:** Despite the claim that boundary delineations and estimated 1971 wild horse numbers are "already decided" and therefore outside the scope of this EA, the validity and integrity of any Big Summit Wild Horse Management Plan rests upon the accurate representation the wild horse locations and total numbers in 1971. This is the time to correct the early failures of the ONF to adhere to the Wild Free-Roaming Horses and Burros Act; adjusting Territory boundaries to include areas clearly shown to be occupied by horses in 1971 but without increasing AML based on boundary correction. [4, 28, 43]*

We also know (personal communication) that the Biologist who counted horses between 1971 and 1975 was told to do so within boundaries already drawn; he was NOT tasked with locating horses within the total Ochoco National Forest land base. [4]

We have shown that even in the 1975 Plan EA (p. 10), it was known that horses resided outside the current boundary, specifically north to Cupp Spring and south to Brush Creek, and that this was during a time when the herd was supposedly at approximately 60. [4]

Consideration: In the 1975 EA, there were 10 known bands of a total of 60 horses, all of which resided in the current Territory. According to the 1975 EA, “there was a band in the Cup Springs area but had branched off since 1971 (5 horses).” This is the documentation available to identify where the wild horses were found at the time of passage of the Act.

Comment: Horses migrate outside of an invisible line on the ground that corresponds to a random felt-tip marker track on an 8 1/2 x 11 Forest map. They will continue to do this regardless of population size, because wild horses migrate. It is part of their strategy to avoid overuse of resources and to maintain genetic health. The ONF admits in this EA that no studies exist to substantiate the correlation between population size and horse travel. [4]

Consideration: In accordance with the WFRHBA, the management of wild horses and burros is limited to the areas where wild horses and burros were found in 1971, which is the area identified in the 1975 EA (EA p. 9). There are several examples of case law regarding the subject of Territory boundaries. For example, Forest Service has interpreted the Act to mean that only public lands that were home to wild horses at the time of the passage of the Act could qualify as territory (*American Wild Horse Preservation campaign v. Vilsack*, 2015). Or, the [territory] is an “amount of land” within those “territorial limits” (where horses were found in 1971) that is necessary to sustain an existing herd or herds of wild horses (*Habitat for Horses v. Salazar*, 2010). Or, Horses “permanently residing” outside [territories] are in areas not designated for wild horses and are “excess” animals (*Habitat for Horses v. Salazar*, 2010). In addition, the Forest Plan states that horses that establish new territories beyond those which they inhabited prior to December 1971 are “excess” animals. Also, at the time of the 1975 EA, there were 10 known bands of a total of 60 horses, all of which resided in the current Territory. According to the EA, “there was a band in the Cup Springs area but had branched off since 1971 (5 horses)”.

(47) Our Objection: We will respond to the three pairs of Comments and Considerations, above, as they are closely tied. We do not see how it could be made any more clear that the Ochoco National Forest erred in its designation of the Big Summit Wild Horse Territory boundary in 1971. This is not a matter to be dismissed with back-and-forth banter and denial; the area descriptions found in the 1975 Ochoco Wild Horse Plan, including its map and narrative of horse locations, are not debatable. But once again; the description of the Cupp Spring Band expressly stated that they were there in 1971. Period. That is precisely what the Wild Free-Roaming Horses and Burros Act of 1971 decreed. It is of no consequence that the horses may have left, or came back and left again, or that the ONF may have captured them between 1971 and 1975, as it admitted doing at a ‘Sounding Board’ session. The Brush Creek Band utilized Brush Creek in 1971. This is also irrefutable. The ONF, then and now, is in violation of law for failing to include these two areas in the Big Summit Territory. Further, we are including a statement from Don James, former District Ranger of the Big Summit Ranger District (to which we referred in our original Comments), wherein he states where wild horse were located, at a minimum, when he served as District Ranger in the mid 1960s. Although 1966 is not 1971, there is little reason to believe, that without a concerted effort on the part of the ONF (which other witnesses affirm did

take place), horses would have ceased to exist in the other areas. We also reiterate that Mr. Terry Bryan, a reputable and forthright retired Forest Service Wildlife Biologist, stated that he had been asked to identify wild horses within the pre-drawn boundary; NOT to identify wild horses outside the pre-drawn boundary. There is simply no ethical way for the ONF to persist in this conscious violation of the most fundamental tenet of the Wild Free-Roaming Horses and Burros Act.

NEPA

Comment: This topic is highly, even violently, controversial, and no less so at the local level. An EIS must be post truthful, objective, and authentically scientific facts and analysis possible. [4]

Consideration: The Forest has reviewed and considered all comments on the EA including submitted documents. There is no controversy in the relevant body of science about the nature of the effects.

(48) Our Objection: This is what the last sentences of our comment actually said: *This topic is highly, even violently, controversial, and no less so at the local level. An EIS must be prepared, presenting the most truthful, objective, and authentically scientific facts and analysis possible. In terms of “controversy in the relevant body of science about the nature of effects”, we believe controversy does exist. As we demonstrated in discussions of genetic viability, impacts of wild horses to riparian plant diversity, and suppositions of correlations between herbivore numbers and utilization of riparian vegetation, there is at the very least reason to question current thought on these subjects. In the controversial area of Genetic Diversity, we have shown that heterozygosity and allelic richness, or diversity, are equally important in the evaluation of a wild horse population’s genetic health. We have shown that higher numbers of horses than the proposed AML are likely to improve genetic diversity. We have shown that “metapopulation” is not and should not be the vague and casually-applied management canon that the ONF espouses. We have shown that disagreement exists even within the EA as to how many and how often new mares should be translocated into the Big Summit Territory. The ONF has presented opinions to support its proposed action which do differ within the scientific community. In the controversial area of impacts of wild horses to riparian plant diversity, we have shown that limited research suggests wild horses may contribute to higher riparian diversity. The ONF has presented a differing opinion, lacking site specific, quantifiable support. In the controversial area of alleged resource damage correlated to wild horse numbers, we have shown that limited research suggests that some grazing species’ impact on riparian vegetation may be unrelated to population density. The ONF insists, without correlating or baseline data, that “too many horses in a small area have been shown to have a negative effect on riparian areas...” More importantly, there is very little science within this EA to be subject to controversy; there is an absence of science.*

Comment: Significance factors triggers: Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic river, or ecologically critical areas. Lookout Mtn./Paulina Ranger Districts are not known for their glacial vistas, world-class fly fishing, or trees for people to drive cars through. It is a forest of placid meadows and sheltering pines, quiet streams, and enclaves of solitude, and gentle, inviting, grass-covered slopes. The unique history of this place is that many have found refuge here, since the first human and the first horse. It has not attracted (yet) the attention of glittering destination promoters, but those who know - who come from other states and other nations - will defend the place and its

docile wild horses to the death. The subject of this EA cannot be described with such limited analysis. [4]

Consideration: This is a characterization of the Ochoco National Forest and does not provide evidence of potential significant effects to a unique characteristic of the area that would warrant analysis in an EIS.

(49) Our Objection: The project area includes an Inventoried Roadless Area, a National Recreation Trail, and a Recreation Area.

Comment: Significance factor triggered: The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration. Not only will the adoption of any Wild Horse Management Plan firmly establish policy for the ONF, it will set precedents for other Forest Service wild horse management actions. This EA will establish future Wild Horse management policies and practices, entrenching them in F handbooks for many years to come. [4]

Consideration: The AML range under Alternative 2 would be managed at or around the high AML, not the low AML (EA p. 58). In considering the BLM Handbook for the AML Establish and Adjustment Process, it states in Tier 1 of the process to consider the most limiting factor(s) to calculate AML, for the Big Summit Territory, that is available winter forage during winters of above average snowfall. The effects of fertility control methods proposed are summarized on pages 59-60 of the EA and are more fully discussed in Appendix 3 of the Wild Horse Report.

(50) Our Objection: We restate here our original comment in its entirety:

We believe that all actions involving the living, sentient natural resource of Wild Horses and Burros deserve in-depth analysis which considers different perspectives and a wider Affected Environment than is typically prepared. Proposed NEPA rule changes threaten even the current level of analysis and public involvement. But even in a climate where Acting BLM Division Chief Bruce Rittenhouse bemoaned the cumbersome barriers of NEPA compliance (National Wild Horse and Burro Advisory Board meeting, Washington DC 2019), it should be agreed that a proposed action which establishes a Wild Horse Territory Management Plan with associated AML and management practices - into the foreseeable future - would merit full and objective analysis; an EIS. Not only will the adoption of any Wild Horse Management Plan firmly establish policy for the ONF, it will set precedents for other Forest Service wild horse management actions. The Apache-Sitgreaves National Forest (Heber Herd) Wild Horse Management Plan is in decision phase, and the Malheur National Forest/BLM Joint Wild Horse Management Plan, on the Forest adjacent to the ONF, will be written soon. We are aware of direction to manage the two Forests' wild horses similarly. This EA will establish future Wild Horse management policies and practices, entrenching them in Forest Service culture and handbooks for many years to come. The ONF is currently operating under the 1975 Big Summit Wild Horse Territory Management Plan.

The reminder of the number of years since 1975 is mentioned to illustrate the potential half-life of the proposed EA and decision; the impacts to the Ochoco wild horses for the next 45 years, if this Plan is implemented, will surely be catastrophic. The ONF is unwaveringly committed to an AML of 12-57, and views the AML as permission to remove horses to the high AML or below,

when the Wild Free-Roaming Horses and Burros Act does not authorize this. The standard of Thriving Natural Ecological Balance determines whether or not excess horses exist. Since the ONF has not recognized the significance of the totality of Thriving Natural Ecological Balance in view of shared uses of the Territory or metrics beyond LRMP livestock utilization, the decision to establish an inflexible AML, with no future opportunity for public input or environmental analysis, is a very significant impact. This Plan will definitely establish a precedent for future actions with significant effects.

(51) Our Objection: In consideration of our expressed desire for the ONF to prepare an EIS, we include in this Objection the remainder of our response to the ONF's Finding of No Significant Impact. Objections 49 and 50, above, are also to be considered as part of our response to the Finding of No Significant Impact.

Context

The ONF has determined the Affected Environment to be limited to the Big Summit Wild Horse Territory. This ignores the voice of the majority of Commenters affected by the proposed action; most of which spoke in favor of the wild horses. The Commenters who expressed positive opinions toward the wild horses may not have been fully versed in local issues or Forest Service regulations as opposed to those of BLM, but it can be assumed that these respondents do not want the Big Summit wild horses reduced to the proposed AML of 12-57. These Commenters are in large part from outside the geographical location of the Big Summit Territory, but they will be impacted to a very great degree if the ONF prevails in its expressed Decision. Indeed, these Commenters cannot reside within the Big Summit Territory, as National Forest management regulations prohibit long-term occupation. Yet, the Big Summit Wild Horse Territory belongs to the citizens, whether or not they were engaged in the ONF planning process, and the wild horses of the ONF also belong to the citizens; not to ONF staff.

The ONF dismisses this impact on the Human Environment with *"The Ochoco wild horses are considered as part of the metapopulation of all wild horses in the western United States (EA p.10)."* We have addressed this misstatement in our Objections. But the ONF may never recover the public trust squandered by such obscene devaluation of a resource so treasured; in effect saying *"These horses are no different than any other which you could observe in the western United States and the Ochoco National Forest has no interest in your attachment to this specific herd. We have no interest in the healing of your hearts and minds due to interactions with these horses in the wild, or the peace they may bring to you. We have no interest in the qualities and temperaments of these horses as companions or working horses. We have no interest in the Human history that the horses represent or the biological evidence these horses may bear in the natural history of this continent."* That's what the ONF's "metapopulation" means to the Humans in their Human Environment.

The ONF gravely miscalculated the extent of the Affected Environment in its limitation of Context to the single dimension of the physical project area. The wild horses, and the humans who care deeply about their future, will be significantly impacted by this Decision.

Intensity

5. The degree to which the effects on the human environment are highly uncertain or involve unique or unknown risks.

The ONF has not acknowledged high uncertainty or unique or unknown risks, therefore this metric was also dismissed. The predominate “unknown” risk is climate change. The ONF has not identified, or addressed with any conviction, the probability of unknown effects with a climate which could cause dramatic decrease of forage; increase of forage/fuel loading; less water; flood water; new or more devastating disease outbreaks; increased plant toxicity; increased or decreased insect populations; increase or decrease in predator impact; or how wild horse populations could contribute positively to such changes or be impacted by these changes. The ONF has only admitted that, should catastrophic events occur, these horses are expendable as part of a metapopulation. The ONF has failed to anticipate whether, under current environmental conditions or changing conditions, the loss or drastic reduction of the wild horse population could impact other resources, except to assume it would be a positive effect. Increased predation on other mammal species, including livestock, for example would likely be an impact, but is not addressed to any appreciable degree. Other habitat interactions are not understood at all, except to assume less consumption and trampling, should the horse population be lost or drastically reduced. We have presented the concept of rewilding and included studies which suggest horses can have a positive impact in montane ecosystems, but this was not considered and therefore the risks of significant changes are unknown. The likely success of the ONF’s plan for an absurdly low AML, with translocation, fertility control, and other non-specified population control measures, is highly uncertain. The Big Summit Territory cannot be managed according to the already-questionable BLM model, when environmental factors in the Ochoco Mountains present unique and unknown risks.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources.

“Metapopulation” or not, wild horses have been numerous across a wide range that includes the current ONF, at least since the ‘Ochoconian’ internal newsletter boasted of having removed 2166 of them from 1928-1932 in order to “make room for more cattle and sheep”. The removal of 2166 implies that there were many more at one time, and that these numbers had been entrenched for some time. Whether brought here by settlers; left here by Native Americans; escaped from conquistadors; or evolved here, this herd is a cultural and historic resource, and as a result of this action, may be lost. We are particularly concerned, from a scientific perspective, that Oregon and Washington wild horses may comprise a dwindling living remnant of a heretofore unstudied branch of equine history. The mtDNA research conducted by Dr. Mills and others supports a need for further research comparing Tribal and other remote herds to common prehistoric ancestors. This opportunity will be lost, if the Big Summit Herd is lost.

10. Whether the action threatens a violation of Federal, State, or local laws that were imposed for the protection of the environment.

This action would violate the Wild Free-Roaming Horses and Burros Act (Public Law 92-195).

1) From the preamble (Sec. 1); *“It is the policy of Congress that wild free-roaming horses and burros shall be protected from capture, branding, harassment, or death, and to accomplish this they are to be considered in the area where presently found, as an integral part of the natural system of the public lands.*

This action will not protect wild horses from death; in fact, it would expose them to death. We have commented repeatedly that an AML of 12-57, regardless of the ONF’s intent to manage to 45-50, would provide no population resiliency in the face of predictable catastrophic environmental events. In the most imaginable scenario; deep snow, protracted snow depths, prolonged cold, horses will die. If the population is 50, and 40 horses die, we will then have 10 horses. If the population is 120, and 40 horses die, we will then have 80 horses. To further state that a population of 120 horses would not meet the standard of Thriving Natural Ecological Balance is not supported by the conjecture, supposition, and citing of unrelated research in this EA.

This action would also violate the following statement from the preamble; *“...they are to be considered in the area where presently found, as an integral part of the natural system of the public lands.”*

Though this EA makes several references to the ONF’s mandate to manage the horses where they were found in 1971 (EA p. 9 *“In accordance with the WFRHBA, the management of wild horses and burros is limited to the areas where wild horses and burros were found in 1971, which is the area identified in the 1975 EA”*), the ONF refuses to manage the horses according to where they were found in 1971. The 1975 map is clear, and its narrative is clear. But for whatever reason, two areas were dropped from the Territory. Even though the Territory map included in the 2017 Scoping Letter was different from the 1975 map, and the Scoping Letter map is different from the EA map, the ONF states that it would be too late to make changes to Territory map, if only to include areas of use which were described in 1975.

Sec. 2(c) “range” means the amount of land necessary to sustain an existing herd of herds of wild free-roaming horses and burros, which does not exceed their known territorial limits, and which is devoted principally but not necessarily exclusively to their welfare in keeping with the multiple-use management concept for the public lands.;

This action would subordinate the wild horses’ habitat needs to the 1989 LRMP which failed to even recognize the Big Summit Wild Horse Territory as a Management Area, making livestock grazing and other uses not necessarily compatible with wild horses equal to or greater than the wild horses in importance. The LRMP is meant to not only plan for the long-range needs of the public, but to implement Congressional Acts, as it implements the Endangered Species Act. The Wild Free-Roaming Horses and Burros Act is a Congressional Act, and as such, requires that the horses must be given consideration for all aspects of their sustainable existence; viable numbers, forage, water, cover, space, and the liberty to seek other amenities needed to achieve health and vigor. Certain other uses in the Big Summit Territory can and should be adjusted accordingly, creating the balance of multiple uses prescribed in the Multiple Use-Sustained Yield Act of 1960.

Sec 2(f) “excess animals” means wild free-roaming horses or 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.

Sec 3(b)(1) The Secretary shall maintain a current inventory of wild free-roaming horses and burros on given areas of the public lands. The purpose of such inventory shall be to: make determinations as to whether and where an overpopulation exists and whether action should be taken to remove excess animals; determine appropriate management levels of wild free-roaming horses and burros on these areas of the public lands; and determine whether appropriate management levels should be achieved by the removal or destruction of excess animals, or other options (such as sterilization, or natural controls on population levels). In making such determinations the Secretary shall consult with the United States Fish and Wildlife Service, wildlife agencies of the State or States wherein wild free-roaming horses and burros are located, such individuals independent of Federal and State government as have been recommended by the National Academy of Sciences, and such other individuals whom he determines have scientific expertise and special knowledge of wild horse and burro protection, wild-life management and animal husbandry as related to rangeland management.

Sec. 3(b)(2) Where the Secretary determines on the basis of (i) the current inventory of lands within his jurisdiction; (ii) information contained in any land use planning completed pursuant to section 202 of the Federal Land Policy and Management Act of 1976; (iii) information contained in court ordered environmental impact statements as defined in section 2 of the Public Rangelands Improvement Act of 1978; and (iv) such additional information as becomes available to him from time to time, including that information developed in the research study mandated by this section, or in the absence of the information contained in (i-iv) above on the basis of all information currently available to him, that an overpopulation exists on a given area of the public lands and that action is necessary to remove excess animals, he shall immediately remove excess animals from the range so as to achieve appropriate management levels. Such action shall be taken, in the following order and priority, until all excess animals have been removed so as to restore a thriving natural ecological balance to the range, and protect the range from the deterioration associated with overpopulation:

This above language which speaks to “excess” and “Appropriate Management Level” has been misconstrued to grant agencies authority to remove horses when triggered by population numbers greater than AML. This was not intended, since the definition for “excess” remains “(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.” AML should be seen as guidance, with flexibility as conditions change. There is still an implicit mandate to fully analyze whether the wild horse population is responsible for failure to achieve and maintain Thriving Natural Ecological Balance within its habitat. As noted previously, the Forest Service does not have a definition for Thriving Natural Ecological Balance other than the wobbly expectation that livestock, wildlife, and wild horses combined must not utilize more than 30% riparian forage. That is hardly a framework for evaluating the health of an entire landscape, especially where the future of a Federally-protected species (the wild horses) is at issue.

This action would establish an AML which would require the wild horse population to be maintained at 12-57, further requiring the removal of horses in order to stay under the high number of 57. This action would also require that the ONF LRMP be amended to read:

“Conduct livestock management on the Big Summit Wild Horse Territory to ensure that resource conditions meet management goals and standards. Wild horses will be managed so that the AML can be achieved. Horses above the high AML are considered excess.”

Population growth will be managed by:

Conducting gathers to remove excess wild horses as needed to maintain the wild horse herd size within the established AML.

Implementing fertility control methods to slow population growth rates, reduce gather frequency, and decrease the number of excess wild horses which need to be removed over time.”

Removing or controlling wild horse populations while failing to authentically analyze wild horse habitat according to the elusive standard of Thriving Natural Ecological Balance would violate the Wild Free Roaming Horses and Burros Act.

Sec. 3(a) All management activities shall be at the minimal feasible level and shall be carried out in consultation with the wildlife agency of the State wherein such lands are located in order to protect the natural ecological balance of all wildlife species which inhabit such lands, particularly endangered wildlife species. Any adjustments in forage allocations on any such lands shall take into consideration the needs of other wildlife species which inhabit such lands.

In the Senate Committee report accompanying the bill which became the Wild Free-Roaming Horses and Burros Act, the Committee noted, *“The committee wishes to emphasize that the management of the wild free-roaming horses and burros be kept to a minimum both from the aspect of reducing costs of such a program as well as to deter the possibility of “zoolike” developments. An intensive management program of breeding, branding, and physical care would destroy the very concept that this legislation seeks to preserve....leaving the animals alone to fend for themselves and placing primary emphasis on protecting the animals from continued slaughter and harassment by man.”*

While the Committee language still leaves much to interpretation, the last sentence is most applicable to the ONF situation. The Big Summit Wild Horse Territory was established in the most popular area of the Forest. Harassment and slaughter are ongoing. With that history and current situation as a backdrop, the interpretation of the courts seems very fitting for the Ochoco wild horses:

The use of the term Minimal Feasible Level management in court cases (American Horse Protection Association, Inc. v. Watt, No.82-1070) has affirmed Congressional intent; that management alternatives representing the least severe impact on wild horses and burros must be considered over those alternatives having greater impact, in order to be in compliance with the Minimum Feasible Level doctrine.

a) The Wild Horse Act’s section 1333(a) mandate of “minimal feasible level(s)” of management by the Agency required BLM to consider “all alternative courses of action” that would affect the wild horse population less severely than would the proposed roundup and removal. Restricting cattle grazing on the horses’ winter range – an option BLM had failed to consider closely - was a viable al-

ternative that might achieve greater protection of the horses with less management by the Agency, and that therefore merited “full and careful consideration”.

In line with suggested remedies in this case, the reduction of sheep number/avoidance of winter range would seem appropriate, as would the same resource mitigation measures used in other allotments, such as large woody debris in streams, exclosures, hardwood planting, and headcut reconstruction. Removal of wild horses to achieve resource goals would not be within the range of less-severe measures, and would therefore violate the Wild Free-Roaming Horses and Burros Act.

This action would also violate Oregon State statutes regarding the abuse, neglect, and abandonment of animals. As wild horses are considered part of the Environment, this NEPA standard applies. The specific circumstances would determine which of those statutes would apply. Employees of the Federal Government are not exempt from prosecution should they violate State animal welfare statutes in the conduct of their duties. The Forest Service policy of withholding live-saving emergency feed (under the most dire of circumstances only) which is affirmed as a management strategy in this proposed action, would violate Oregon State animal welfare statutes. Further, the failure of the Forest Service to provide for the wild horses' basic needs, as a management strategy in the proposed action, would also violate the Federal statute of Inhumane Treatment of Wild Horses or Burros; first defined under 36 CFR 222.60 Definitions (6) Inhumane Treatment and then Prohibited under 36 CFR 261.23(b). This is not reserved for wild horses or burros removed from their range and placed in adoptive homes.

Miscellaneous Comments

***Comment:** Contrary to the direction of the Wild Free-Roaming Horses and Burros Act, the current Advisory Board is comprised of cattle industry loyalists, anti-horse biologists, pro-sterilization veterinarians, the Director of the Society for Range Management, a few random anti-horse placeholders, and a couple of supposed wild horse advocates with questionable knowledge or commitment to wild horse and burro welfare. [4]*

***Consideration:** The composition of the Advisory Board is outside the scope of this project.*

(52) Our Objection: The composition of the National Wild Horse and Burro Advisory Board would be outside the scope of this project, except for the frequent mention of the ONF's intent to follow the direction of the Board. As the Wild Free-Roaming Horses and Burros Act was being implemented, a monumental undertaking, the Board served the important role of blending the sand of the desert horse range with the sterile words of the 92nd Congress. It was only Velma Johnston's ability to serve on the Board and to have created the words of the Act that bridged this chasm. Nearly 50 years later, the Board's role appears to be to provide chairs and megaphones for industry. Wild horse expertise and advocacy is virtually absent. Direction within the Wild Free-Roaming Horses and Burros Act was to assemble an Advisory Board comprised of “persons who are not employees of the Federal or State Governments and whom they deem to have special knowledge about protection of horses and burros, management of wildlife, animal husbandry, or natural resources management”. At some point, the Board's charter was co-opted by livestock interests and they injected strong representation of their interests, contrary to the Act. As we stated previously, organizations (or more accurately, branches of the

Government) such as Society for Range Management have far too much influence, on a number of fronts, over wild horse and burro management. Too, “wildlife management” has taken the tone of large hunting organizations, which also belong to the National Horse and Burro Rangeland Management Coalition, rather than looking at the natural environment in its entirety. Veterinarians serving on the Board seem to vote along industry lines rather than humane management options. The composition of the Advisory Board is at issue, or should be, to a cognizant Forest Service in the role of protection, management and control of wild horses. The Advisory Board is there to advise. But agencies are not bound to bad advice, and should have the discernment to recognize it.

Comment: Essentially, the science amounts to “if negative impacts are acceptable at the AML of 12-57, then the higher the AML, the worse the negative impacts are expected to be.” [4]

Consideration: The science relied upon for describing the potential effects of wild horses are cited throughout the EA (see for example Holechek et al. 2000, Range Management Principals and Procedures p. 34, 54, 57, 74, 202). The EA assumes that effects of wild horses (through eating, walking, congregating, etc.) would increase in scale and intensity as wild horse numbers increase.

(53) **Our Objection:** EA p. 30 admits “There are many studies that look at habitat use by horses, but they are primarily in very different habitats than occur within the Big Summit Territory”. In our Objection 47, above, we listed but a few studies suggesting that relatively little is actually known about wild horse impacts on the environment. We do not doubt that “studies have shown” that eating, walking, and congregating horses might have an impact which could also vary in intensity with wild horse numbers. But even that is not necessarily true, depending on the environment, and depending on horse behaviors that may adjust due to large numbers, and depending on other natural and unnatural influences which are not measured. Our Objection also weighs that fact that since interrelationships between the Big Summit wild horses and their habitat have never been credibly, scientifically measured and documented, it is not possible to anticipate with accuracy how increasing wild horse numbers would translate into predictable impacts. The ONF’s phrase in Consideration, above, is “The science relied upon for describing the potential effects of wild horses are cited throughout the EA” is telling; “potential impacts”, which will have the real-time impact of eliminating this wild horse herd.

Comment: The Forest Service augmented the herd with two mares from the Steens and administered doses of PZP before studying the effects (25).

Consideration: The augment of two mares was done in consultation with and following a recommendation from Dr. Mills after results of the genetic monitoring in 2010 indicated a low genetic diversity. The application of PZP was done as a trial under a CE. Effects and feasibility were studied during the trial as planned in the CE Both of these actions were specifically sanctioned at the time, by the local wild horse advocacy group.

(54) **Our Objection:** This was not our comment. However, we are mentioned in the ONF’s Consideration as the “local wild horse advocacy group” and it is important that the record be corrected.

The ONF asked the Central Oregon Wild Horse Coalition to provide a letter of support for its proposed PZP trial. Our position is that, in general terms, fertility control is likely to be the least-invasive of options as compared to removal. We were pleased to see the ONF exploring such alternatives. However, during a meeting with the ONF where the subject was discussed, we negotiated that only 10 mares would be treated. The ONF wished to accomplish this action prior to March, after a fairly harsh winter, and we requested that they do at least a cursory census, or preferably, wait until the June census was completed. This was due to unknown post-winter survival. Treating a large number of mares could have resulted in a negative impact on genetic diversity and foal recruitment. After providing our support, agreeing to the maximum number of 10 mares treated, the ONF informed us the trial was complete and they had treated 23 mares. That does not constitute our sanction of the ONF action.

Regarding the augmentation of mares from South Steens HMA, this was again more negotiation than sanction. At the time, two bands of horses had decided to inhabit the Ochoco Ranger Station residential compound and adjacent campground. The ONF wanted to remove the horses. Since allotment fences were not being maintained, horses were also crossing over to the cattle allotment, which is outside the Territory. We agreed that the ONF would set a bait trap, but would only remove bachelor stallions which were outside the Territory. They instead removed the two entire bands, and transported them to the Burns BLM facility for adoption. We agreed to the translocation of the two South Steens mares, as we were also informed of the genetic risk facing the Ochoco horses as a result of the 1992,93 winter event. We agreed to a “rescue” action, as opposed to an ongoing means to keep the population at an untenable level (AML 12-57). We also agreed that the captured yearlings would remain at the Burns facility for adoption and that the remainder of the two bands would be returned to the Territory. We requested that one mare be removed and adopted, as some of her offspring exhibited bone structure abnormalities. We also asked to adopt her filly, but BLM/ONF euthanized her instead, and one other yearling was killed at the corral facility.

We did not “sanction” these two actions. We agreed to compromise, and we agreed on the ultimate objective of a working partnership in the interest of the Big Summit Wild Horse Herd’s future.

With these Objections, we remain in agreement with the concept of a working partnership between the Central Oregon Wild Horse Coalition and the Ochoco National Forest. We maintain our original hope that a restarted and constructive partnership could ensue, and that the Ochoco National Forest would rescind their Decision and commit to an Environmental Impact Statement instead, integrating the mutually-beneficial solutions we propose herein.

Respectfully submitted,

Gayle Hunt

Gayle Hunt
Central Oregon Wild Horse Coalition