

Attachment 1:

**Pryor Mountain Wild Horse Range
Environmental Assessment**

**FY2003: Fertility Control on Select Wild Horse Mares
FY2003: Selective Removal of Young Wild Horse Stallions
EA # MT-010-03-14**

Summary of Public Comments and BLM Responses

Prepared by: Linda Coates-Markle, Wild Horse and Burro Specialist, Mt/Dks
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Introduction:

Sixty-nine letters and email were received by the Billings Field office (BiFO) in response to EA # MT-010-03-14 for the FY2003 proposed fertility control and selective gather on the PMWHR. All submissions were reviewed and comments and concerns were consolidated for BLM response. Over 30 responses were email received prior to the deadline but without original signature. These email were retained as part of the public record. Another dozen or so email were received after the deadline of May 16, 2003 and also did not contain original signatures. These email were not retained as part of the public record.

A list of individuals and agencies that responded are on file at BiFO as are all original submitted documents. These documents may be requested by public members under BLM FOIA procedures. Details can be provided by contacting BiFO.

Comments and concerns that were determined significant to the field office decision-making process were consolidated for BLM response. Every effort has been made to clarify issues that appeared confusing and contradictory to the public. The public is reminded that in some cases similar public concerns were raised and responded to in Decision Records pertaining to the FY2001 Gather Plan and the FY2002 Humane-Use of Fertility Control on the Pryors. These documents are available on the website: <http://www.mt.blm.gov/bifo/whb/doc2.html> or by contacting BiFO.

The public is also reminded that comments submitted in response to a BLM environmental assessment (EA) do not constitute a voting process. The BLM does not determine management decisions based on the number of supporting or protesting public comments that are received. Letters or email that reflect blatant comment duplication or multiple signatures offer little value to the decision-making process. Comments that offer original thought and concern, however, are considered of high value.

BLM Response to Comments and Concerns Regarding:

A. Time Frame for the Proposed Management Activities

The proposed time frame for the fertility control efforts is July 28 to September 28, 2003. Based on previous efforts, remote-delivery of the PZP vaccine should happen successfully for the

majority of the selected mares within the first 2 weeks of darting activity. The proposed time frame allows sufficient opportunity for the delivery of booster shots that must be given about one month following the initial primer shot. At this time, there are a total of 24 mares proposed for this program (7 yearling fillies, 9 two-year old fillies and 8 fourteen years of age and older mares). Please see Figure 1 in the Decision Record. Fertility control provided in the summer of 2003 will impact 2004 pregnancies only. No additional mares will be added to this 2003 program; however, additional mares may be lost due to natural mortality. The beginning of remote-delivery activities will be communicated to the public via timely press releases or information can be obtained by contacting BiFO.

The proposed time frame for the gather is September 8 to September 12, 2003. The available budget will allow a maximum of 4 days of helicopter effort. Gather efforts will be maximized at 13 young male stallions (5 yearlings, 5 two-year olds, 3 four-year olds). Please see Figure 1 in the Decision Record. Gather efforts will be determined by opportunities for animal access as well as safety and humane considerations. It is likely that capture efforts will be concentrated on the Park Service Dryhead herd area as well as other lower elevations of the range. Some temporary trapping efforts may take place in the upper elevations of the horse range as well. It is expected that impacts to other wildlife will be minimal and that any range closures will be temporary and limited in nature. Efforts on the Park Service will be closely coordinated with Park Service personnel and will not involve closures. Any and all activities will be communicated to the public via timely press releases or information can be obtained by contacting BiFO.

B. Humane-Use of PZP Fertility Control versus Population Control.

As stated in the EA, the application of a one-year fertility control agent to select younger and older mares falls under a humane-use objective. In order to use fertility control to slow herd growth, a large percentage of mares (>80%) within the core breeding age classes (4-13 years old) would need to be repeatedly vaccinated each year. This was not proposed under the current EA.

Under a humane application, total foal production may be reduced by a maximum of 5-7 foals for each year ~25 selected yearling, two-year old and fourteen and older mares are vaccinated. Application of this data to the WinEquus model (EA, pg 11) has demonstrated that an application of a one-year fertility control agent would have a minimal impact on future herd growth rates. Fertility control will not act to reduce current herd size. This was analyzed under existing conditions of herd size, foal production and survival (predation impacts) and herd natural mortality. As a result, herd gathers and removals are still necessary to maintain population size within appropriate management levels (AML).

Also under a humane application, each and every mare is still being allowed to genetically contribute to the herd. The young mares are simply being delayed in their reproductive efforts by one or two years. After that, mating is still a random process dictated by the social structure of the herd. The older mares chosen for treatment have already had 12 years in which to make their genetic contribution to the herd. The intent will be to contracept them for their remaining lives. Application of this data to genetic models developed specifically for this herd (EA, pg 11) indicates this is a sound approach for minimizing management impacts to the existing herd genetic diversity. Furthermore, natural selection is still permitted to operate at the level of births and deaths for the core breeding age mares (4-13 years of age).

C. PZP Vaccine Safety and Efficacy and Use Authority.

Safety and efficacy of the existing one year PZP vaccine for fertility control on wild horses has been well documented in the scientific literature. BLM has nationally embraced this tool as a technique for herd size control that should continue to be explored. As such, a national research strategy has been developed which reflects BLM's investment in establishing fertility control as a viable management tool. The strategic plan is a joint effort of the USGS-BRD, the BLM, and the APHIS. This plan was developed to provide the BLM with a research strategy to meet the evolving needs for management and care of WH&B's.

The Strategic Research Plan was developed over a period of two years with the input of 39 subject area experts from 11 universities, 3 Federal agencies (BLM, USGS-BRD, APHIS), and two State wildlife agencies. The USGS-BRD took the lead role in planning and coordinating meetings of the expert committees, and in drafting the strategic plan based on committee and agency inputs. Members of the Wild Horse and Burro Advisory Board and the BLM Director's Science Advisory Board actively support the plan. The HSUS has nationally supported this effort and provides BLM the permission to use the vaccine through their use permit from the FDA. All of the fertility control efforts in the Pryors are linked to this national research strategy, and require NEPA analysis each time additional mares are added to the treatment protocol.

Public interested in the use of PZP vaccine within the Pryor herd have been encouraged to review documents pertaining to this vaccine. The distribution of relevant information has been actively practiced by BiFO. Select references were suggested for review in EA# MT-010-02-22, Appendix 6, regarding criteria identifying an ideal contraceptive agent. More recently, a compilation of references specific to PZP use on equines has been prepared and distributed from the Field Office. Persons wishing copies may contact BiFO.

D. Appropriate Management Level for the PMWHR.

Current legal AML for the Pryor Mountain Wild Horse Range was revised in July 1992 and set at 95 total head of horses. BLM currently has the legal authority to gather and reduce the herd to this number. BLM also has the legal authority to perform a major roundup and removal of excess horses when the population exceeds 125 head of horses. Documentation for this authority is enclosed in the revision of the Herd Management Plan MT-025-2-18.

BLM is currently considering a revision of AML for the herd based on extensive research in areas of herd demographics and genetics, ecosystem health, range condition and trend and updated ecological site inventories. Since managing for a fixed number is virtually impossible, the proposed AML will consist of a range. A summary of these efforts was provided in the FY2001 EA and Gather Plan MT-010-01-44. The herd plan revision is presently on hold pending completion of the NRCS Ecological Site Inventory for the horse range in early 2004. At that time, BiFO will prepare an appropriate NEPA document and hold associated public meetings for input regarding AML and other considerations in the herd plan.

The BLM does not actively manage for maximum sustained yield (maximum foal production) within a herd. The mandate is to manage for a healthy, self-sustaining herd on healthy rangelands. A normal wild horse herd age structure reflects a component of younger less active breeders, core age classes of active breeders and then older age classes of less active breeders. The AML is designed to take this into consideration. Genetic considerations also must take this into account. This is exactly why a population size of ~140-150 animals appears necessary to support an

effective genetic population size (N_e) of ~50. This should be considered a minimum herd size if the management goal is a self-sustaining herd.

Since 2001, BLM has been conservative in terms of herd size reduction, until all data necessary for the revision is in place. BLM has recognized the rare genetic component of the herd as well as being considerate of range condition and health. The main goal of all interim management documents (including the present EA) is to reduce the herd to a size that would not negatively impact its genetic viability in the short term or cause irreparable harm to the range. Historical data does indicate that a herd size averaging ~140-150 horses has not only supported sufficient genetic diversity in the herd and but has allowed a slow improving trend in range conditions. There is no known existing data to dispute this fact.

Also, as emphasized in this Environmental Assessment (EA), all available evidence including research, adaptive modeling, range monitoring, utilization and actual use studies concur that PMWHR range conditions may suffer markedly under the prolonged impact of a wild horse population surpassing 200 animals in size. This does not mean that BLM will adopt a “do nothing management strategy” until the herd surpasses 200 animals in size. Nor does this mean that the new AML for the herd is 200. It means that BLM has the legal responsibility to remove horses before the herd size contributes to resource damage. At this time, all available information indicates that optimum herd size, then, is below 200 animals.

E. Range Condition and Drought Impacts

The EA (MT-010-03-14), states that the primary function of utilization studies is to promote and protect health of the land by limiting grazing impacts to acceptable levels based on plant response to grazing pressure. Average grazing impacts on the range appear light to moderate over the last eight years and are reflective of an average of 165 horses (all ages) on the range, as well as impacts from other grazing species. As further indicated in the EA, considerable relief to grazing pressure on the upper elevations of the horse range has been provided by unauthorized horse use on Forest Service lands. Grazing pressures are currently bordering on unacceptable levels on the Park Service Dryhead portion of the range as well as other areas of the lower range. There is year-round presence of horses in these lower elevations and vegetation production tends to be limited due to poor soils and minimal precipitation. These data are all indicative of the need to prevent horse numbers from increasing beyond current levels.

Drought impacts over the past six years have been severe in the mid to lower elevations of the horse range. Impacts have generally been noted as moderate in the upper elevations. This year (FY2003) BiFO has seen localized relief primarily in the mid to upper elevations of the PMWHR. This temporary and localized relief does not negate the need to be concerned about the present size of the horse herd and the proposed need to gather. One year of partial relief from a multiple year drought is insufficient to allow full plant physiological recovery from drought stress and increasing grazing impacts.

F. Minimum Feasible Management of the PMWHR Herd.

H4710-1- BLM Management Considerations Handbook, Chapter IV – Herd Management defines Minimum Feasible Management as:

“...The Authorized Officer shall manage wild horses with the least amount of herd and habitat manipulation necessary to achieve management objectives... while avoiding unnecessary or excessive handling.....”

BiFO supports this approach to management. This is one main reason why BiFO supports the development and evaluation of fertility control as a minimally-intrusive, remotely-delivered technique for population control in the Pryors. Upon the successful outcome of on-going BLM fertility control research, BiFO would readily propose population-control use of the PZP vaccine for the Pryor herd. However, due to remaining concerns regarding out-of-season mare cycling and foaling and population level compensatory reproduction for west coast herds, BiFO feels it is still premature to recommend this step for the PMWHR.

In the interim, BiFO feels sufficient safety and efficacy information exists to move forward with humane-level application as proposed within all released EAs the last three years. As explained earlier, however, this does not negate the need for removals for population control. With the herd approaching the size that it is, a small minimally-intrusive gather has been proposed. BiFO feels there is much to gain by making efforts to gather young horses in temporary traps out on the range rather than subjecting large numbers of the herd to a helicopter effort with capture and confinement at Britton Springs. And BLM reserves the right to determine which techniques are most humane, logistically appropriate and minimally-intrusive for a given capture effort. Heading and heeling roping efforts have been permanently discontinued on the Pryor range. If a small gather effort is not successful this year, in all probability herd size will necessitate a larger scale gather for FY2004.

G. Clarification of Proposed Age Classes and Horse Numbers for Removal.

Total Pryor wild horse herd size (as of June 16) is currently 191 animals including 22 surviving foals and 9 missing or unaccounted for animals (Figure 1). About 70% of the annual foal crop (24) is on the ground. With concerns about a herd size approaching a critical level, BLM examined the current age structure and sex ratio of the population. This structure is constantly changing due to the cycle of births and deaths and this is readily acknowledged in every management document. It is typical in this herd for the foal, yearling and 2-year old age classes to have the highest numbers of animals. Although an average of 26 foals survive each year, foals are not generally considered for removal unless under exceptional circumstances.

Currently, there are 10 yearling fillies and 13 yearling colts. Daily monitoring has shown that 6 animals are currently missing (3 of each). One male is expressing a rare color and is not recommended for removal. Currently there are 10 fillies and 12 colts as two-year olds. One filly is currently missing and 2 colts are expressing rare colors and are not recommended for removal. Considering this information, this leaves a maximum of 10 young males within these young age classes that could be removed (no more than 50% of each age class). The decision of exactly how many and which animals will be removed is dependent on field logistics, successful access to the animals during gather activities and the number of young animals remaining in these age classes at the time of the gather. Final decisions will be made just prior to and/or during the gather effort.

As proposed in the EA, consideration will be given primarily to the removal of young males that impact areas of the range under the heaviest grazing pressure. In reality all young males, born on either Sykes Ridge or Burnt Timber Ridge, are likely to pressure both unauthorized Forest Service lands (summer) and lower reaches of the horse range (winter) as young bachelors. Eight years of distribution data support this fact. Consideration will also be given to the young males

that seem to pressure the Dryhead and lower Sykes areas of the horse range repeatedly throughout the year.

Since the herd sex ratio is currently 104/87 in favor of males, a small removal of ~13 young males will act to balance the sex ratio. There is no evidence that this temporary change in herd sex ratio would significantly impact herd demographics, genetics or social structure from a negative standpoint. In addition, our best genetic information suggests that as long as the herd size averages ~140-150 total size, there are no additional measures needed at this time to conserve herd genetic diversity.

There is some concern that completely missing age classes in a wild horse herd may have a negative impact on long-term herd viability. Therefore, because the number of three and five-year old Pryor males is already low (3-4 animals each), BLM does not recommend removing horses from these age classes. BiFO also does not recommend removing six-year old males that are already vying for females and harem development. Hormone levels have already peaked in these males and innate behaviors make them high risk for successful adoption.

There are currently 8 four-year old males on the range. Five stallions in this age class are expressing rare color genetics (9915, 9921, 9922, 9931, 9933) and are not recommended for removal. However, three remaining animals might be considered for removal. These decisions would be based on animal access during the gather. BLM is concerned, though, that the risk of injury during capture and confinement is greater for these older males. BLM is also concerned that the risk of unsuccessful adoption placement is also greater for these older males. This concern is based on past experience within the program.

H. Impacts of Predation on the Pryor Herd.

The PMWHR is designated as a “No Predator Control Area” through the Wildlife Damage Management Plan with USDA, APHIS and Wildlife Services. The BLM is not responsible for managing predator species through hunting but does evaluate predator impact on the horse herd. Records from Montana Fish, Wildlife and Parks indicate that an average of 0 to 2 lions per year have been harvested from the Pryor complex in the last decade or so. The BLM’s mandate is to manage for balance in the ecosystem by adjusting variables over which it has legal management authority. No data exists at this time to indicate that if hunting were restricted on the Pryors that additional predation on the horse herd would occur. It is likely that other, more typical prey species like Bighorn sheep, would bear the brunt of increased predation impacts. However, this is highly speculative, and BLM is not in a position to recommend that hunting activities be ceased in order to enhance predation on the horse herd as a means of population control.

However, BLM’s field monitoring of animal mortality due to predation or other causes has been an on-going process for the past 8 years. This monitoring is at a level that is not required by BLM management but is encouraged by all of the research efforts on the Pryors. During this period there has been noticeable increases in foal loss, however, BiFO have only been able to positively identify the loss of three foals (# 2222, 2124, 2029) due to mountain lion predation. We also have documented a fourth foal (# 2230) that was attacked by a mountain lion but somehow survived the attack. Bear predation has been more difficult to verify as most of the reported black bear impacts have resulted from the scavenging of carcasses. It is likely that more foal loss has been related to predation, but this is hard to determine given the difficulty of foal carcass recovery.

At this time, however, under the existing conditions of natural mortality and average herd size, there has been an average of 26 surviving foals per year. This number has been more than sufficient to support a healthy and viable herd over the long term. Both historical data on the herd and models used to forecast the impacts of predation on foals and long-term herd demographics support this position.

BLM must make management decisions based on the best available information it has on hand. To speculate that predation impacts may increase or that more predators may move into the area is just that – speculation. Presumably the Pryor herd has existed for over a 100 years and has already experienced and survived cycles of both natural predation and human impacts. Since predation on wild horses is a learned behavior for most natural predators, and primarily focused on the young of the year, substantial animal losses are not likely to happen overnight. This provides BLM ample opportunity to adjust management impacts accordingly.

I. The Threat of West Nile Disease to the Pryor Herd

In 2002, BLM requested a risk assessment report from the “Centers for Epidemiology and Animal Health,” APHIS-USDA, on potential impacts of West Nile virus to western wild horse and burro herds. Within the conclusions of this report, it was determined that the western US probably has the necessary conditions to sustain the WN virus’ life cycle among birds and to allow for transmission of virus to wild horses. The question remains whether the western ecosystems will support birds and mosquitoes in sufficient concentrations and proportions to make transmission of WNV to free-roaming horses a likely event. Although it appears likely that free-roaming horses will be exposed to WNV, the frequency of such exposure is currently unknown, but due to arid conditions in the west, is likely to be lower than in the eastern US. Horses are dead-end hosts for WNV and thus do not play a role in the transmission and spread of WNV. Free-roaming horses do not present a risk of transmitting WNV to domestic horses.

Epidemiologic observations from the 1999, 2000, and 2001 outbreaks in the eastern US indicate that overall clinical attack rates are low and that clinical cases are geographically clustered. Clinical disease in free-roaming horses may be more common than in domestic horses due to dietary deficiencies. One possible scenario based on current observations results in an annual mortality rate of 16 per 10,000, or a national total of 73 free-roaming horses.

Thus, initially it seems unlikely that the threat of West Nile virus to any given herd would result in substantial mortality of multiple individuals within the herd. Herds, such as the Pryors that sustain daily monitoring by BLM and research personnel, have the advantage that clinical symptoms may be detected in the early stages of the disease. Decisions to allow this type of natural mortality to run its course will be tempered by humane considerations to alleviate suffering of individual animals.

J. Status of the Repair or Replacement of the Northern PMWHR Boundary Buck and Pole Fence

Boundaries for the PMWHR were established at the time the range was created in 1968. After passing of the Wild, Free-Roaming Horse and Burro Act in 1971, the range was expanded to include lands that the horses traditionally had been using. This expansion included both upper elevation Forest Service (FS) and BLM lands. Details on these expansion efforts can be obtained by contacting BiFO. A buck and pole drift fence was subsequently constructed at the northern

boundary (in the upper elevations) to deter wild horse use of unauthorized FS lands. This drift fence has not been effective, due to increasing wild horse pressure in the upper elevations over the past two decades.

In March 2000, the FS went out to the public with a scoping letter regarding their concerns that the existing buck and pole fence is not keeping wild horses within their designated territory and range. Wild horses are crossing into areas including the Lost Water Canyon Research Natural Area and lands in the Lost Water Canyon area recommended for wilderness classification. FS lands beyond the northern boundary buck and pole fence are not authorized for use by the horses. Therefore the FS requested a more effective barrier and the BLM requested authorization to construct an improved fence.

In February 2001, BLM requested further clarification from the Forest Service regarding the management status of all Custer Forest Service lands used by the horses at the present time. In their response (June 13, 2001), the FS indicates that Forest Plan Management Area Q has long been considered as “wild horse territory” under the 1971 Wild Horse and Burro Act and 36 CFR 222. At that time, the FS re-iterated that unauthorized horse use of the Tony’s Island and Dryhead Overlook areas is exceeding the incidental use that is allowed by the Custer Forest Plan. Horses are also penetrating the Crooked Creek cattle allotment on Commissary Ridge.

The FS also stated that they are convinced that evidence does not exist which supports wild horse use of Tony’s Island and Dryhead Overlook at the time of the Act (December 1, 1971). They also stated that they are not convinced that formal expansion of the range would significantly affect the genetic viability of the Pryor herd. The FS did recommend that the analysis and decision on the proposed fence reconstruction be done simultaneously and in co-ordination with the PMWHR herd plan revision, and that all three agencies (BLM, NPS and FS) continue to be involved in joint management decisions with BLM reaffirmed as the lead agency. BLM fully concurred with this approach and will continue to consider this issue in the pending Herd Plan revision.