Decision Record
and
Finding of No Significant Impact
for the
Pryor Mountain Wild Horse Range

Pryor Mountain Wild Horse
Population Control 2006
EA # BLM- MT-010-FY06-19

U.S Department of the Interior
Bureau of Land Management
Wild Horse and Burro Program
Billings Field Office
June 29, 2006

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I. DECISION:

The Billings field manager has made the decision to apply fertility control to all mares 11 years of age and older (24 mares in 2006) for the purposes of suppressing herd growth rates (Appendix 1). Seven mares 16 years of age and older have already been treated with the Porcine Zona Pellucida (PZP) vaccine for at least one year and would continue to receive annual boosters for the remainder of their lives. Thirteen mares 12-15 years of age have also been treated for at least one year and would continue to receive annual boosters through 2010. All mares that are 11 years of age would be added to the treatment program each year (four mares in 2006 and an estimated five mares in 2007, six mares in 2008, six mares in 2009 and four mares in 2010). Fertility control application is scheduled to begin no earlier than July 10th, 2006, and will continue annually through 2010. Treatment with contraceptives using the proposed protocol is predicted to be roughly 50% less costly than gather and removal population control (Bartholow, 2004).

Mitigation Measures

- Treatment of 11 year old mares would be suspended for at least one year if the surviving foal crop (from the year before) falls below 25% of recorded foals.
- Treatment of 12-15 year old mares would be suspended for at least one year if the surviving foal crop (from the year before) falls below 10% of recorded foals.

In addition, the Billings field manager has made the decision to capture and remove a maximum of 22 age-specific wild horses from the PMWHR An estimated 11 bachelor stallions (4-8 years of age) and 11 yearlings have been determined excess and would be removed due to the need to reduce wild horse grazing impacts on the PMWHR (Appendix 1). The method of capture will be bait-trapping which is scheduled to begin no earlier than July 10th, 2006, and may continue through September 30th, 2006 as necessary. Bait-trapping and removal of individual horses reduces impacts on the herd and is predicted to be 75% less costly than helicopter gathers.

Mitigation Measures

- As with previous selective removals, the intent is not to remove any horses that are harem stallions or core breeding-age mares (6-10 years old) from the herd (see Appendix 1).
- The selection of individual horses to be removed may depend on a given animal's susceptibility to the bait-trapping effort. The intent is not to remove more than 50% of the horses from any given age class within the herd.

- Any additional removal activity in subsequent years (beyond 2006) would require a further determination of excess animals based on utilization, trend and climate data.

All excess horses will be available for adoption by a sealed-bid competitive process to qualified and pre-approved individuals as determined by the Billings Field Office (BiFO). The minimum bid will be $125 per horse. Preliminary details for the adoption process are provided in Appendix 2. Timing of the adoption will be determined by the completion of bait-trapping efforts. Further details will be communicated to the public via a press release. Any horses not adopted by sealed bid will be sent to the BLM Rock Springs, Wyoming holding facility. Older (4-8 years old) unadopted stallions will be gelded and provided 90-120 days of ground and halter-training. All remaining horses will subsequently be made available to the public again via the BLM internet adoption program.

These decisions are based on the best available information to date as analyzed within Environmental Assessment (EA) MT-010-FY06-19. Both the EA and this Record of Decision are available on http://www.mt.blm.gov/bifo/whb/Env_assessments.html or by contacting BiFO.

II. BACKGROUND:

1) Fertility Control on the PMWHR

The Humane Society of the United States (HSUS) has made the PZP vaccine available to the BLM under the Investigational New Animal Drug exemption (INAD #8857) filed with the federal Food and Drug Administration (FDA). The use of fertility control on mares within the PMWHR began in 2001. Additional fertility control has been remotely-delivered during the summers of 2002 through 2005. Initial treatments focused on younger mares, allowing them time to mature before becoming pregnant and supporting a foal. The treatment of older mares began in 2003 for humane reasons as well as for population control. All of the older mares within the herd have produced foals in previous years.

Vaccine Efficacy

The remotely-delivered PZP two-shot application is expected to offer 90% efficacy for at least one year in older mares. All available data demonstrates that the PZP vaccine is temporary in nature and does not cause permanent sterilization in wild mares unless applied for 5 consecutive years. Since mares are boostered after the breeding season in the Pryors, the vaccine is not effective until the following breeding season and impacts foal production two years later. Preliminary field data collected by trained observers show no detected differences in social behavior or estrus between treated and untreated mares in this herd. This is consistent with results from other behavioral studies with other wild horses (Powell, 1999).

Preliminary studies with the Pryor herd do suggest that immune response to the PZP antigen in wild mares may be correlated with age and fitness. Younger mares in good condition may have a stronger than expected antibody titer response resulting in a period of infertility greater than one year. This appears to be the case with five mares born in 2000 and last boostered in 2002. None of the five mares foaled in 2004 as expected; one mare (#2010) foaled in 2005 and to date one mare (#2015) has foaled in 2006. One mare in that age class (#2036) has never received any PZP boosters and has yet to produce a foal. Additionally, of seven mares born in 2001 and last treated

in 2003, two mares (#2108, #2120) foaled in 2005 and three mares (#2106, #2120, #2128) have foaled in 2006. This represents a near-normal 43% foaling rate for five year old mares. Previous to the use of fertility control, the foaling rates for 4, 5 and 6 year old mares were highly variable but ranged between 40-60% of each age class (EA# BLM-MT-010-FY06-19, Section 1.6). The treatment of younger mares has been suspended since 2004 when only 14% of the foals survived heightened natural mortality during that summer.

Six older mares were boostered with PZP in 2003 and two of these mares (#8912, #8913) foaled in 2005. All of these same mares were boostered in 2004 and only one mare (# 8913) has foaled (or is expected to foal) this year. Previous to the use of fertility control, the foaling rates for these older age classes were also highly variable but often near 80%. It does appear, however, that some older mares may be naturally poor responders to the vaccine and may never develop sufficient antibody titer levels to confer infertility.

Remote-Delivery

All PZP remote-darting operations are handled by trained and certified Biological Resources Division-USGS (BRD-USGS) and BLM personnel. Developed protocols serve as the Standard Operating Procedures (SOPs) for the use of fertility control in the PMWHR (EA# BLM-MT-010-FY06-19, Appendix 3). All applications are required to adhere to guidance and research protocol set by the Wild Horse Fertility Control Field Trial Plan (FCFTP) within the national program (Singer and Coates-Markle, 2005). The FCFTP requires close monitoring of all individual-based study herds in order to evaluate management-level use of the fertility control vaccine under a research protocol.

BLM and BRD-USGS have been tracking individual mares for injection site traumas since 2002. Of the 51 mares treated to date, over 50% of the mares have shown no reaction to darting, 40% have shown temporary swelling around the injection site, and 12% have developed a small nodule about the size of a marble. One mare developed a medium sized swelling and two mares developed abscesses. The abscesses healed and disappeared quickly. Nearly all inoculation-site traumas observed were absent the year following injection. These swellings and nodules are often very difficult to discern amongst other natural coat scars and have never been recorded to cause negative impacts to the quality of life for these mares.

Advantages

Use of fertility control can create a higher percentage of core-breeding age animals within the herd which offers genetic advantages to small populations (Cothran, pers comm.). Reduced herd growth may also allow for longer periods of time between gathers, reduce the size and impact of gathers and limit the loss of genetic diversity through removals of horses. Remote-delivery of the fertility control vaccine also results in fewer disturbances to the herd and supports a minimum feasible level of management (Wild Free-Roaming Horses and Burros Act; PL 92-195 as amended). Economic modeling (Bartholow, 2004) indicates that the use of fertility control may also significantly reduce management costs for the PMWHR.

2) Horse Removals from the PMWHR

Within the last decade, a total of 100 excess wild horses have been gathered, removed and adopted from the PMWHR. Past gathers were necessary to reduce herd size to a level that would

permit both a healthy herd as well as a thriving natural ecological balance on the range. Although helicopter-drive trapping has been used successfully on the PMWHR, this year approximately half of the wild horses identified as excess are bachelor stallions that historically have avoided helicopter removals.

Bait-trapping Process

Due to the very selective nature of removal efforts in 2006, the method of capture will be bait-trapping. This process is minimally intrusive on the herd as a whole, and is designed to capture only targeted animals for removal. A competent contractor will be used having demonstrated skills, experience, safety and success in wild horse bait-trapping and selective sorting, removal, and transport. Motorized vehicles (trucks and trailers) will be used to transport captured horses from trap sites to the Britton Springs corral facility at the southern base of the PMWHR.

During bait-trapping efforts, mineral and/or protein blocks are used as bait in efforts to draw horses into temporary traps of portable panels at specified locations where wild horses are found. All "set" traps are attended. Trapping efforts are designed to capture limited horses at a time. Sorting procedures within the trap are deliberately slow and cautious. Younger horses, targeted for removal, will be held and transported with companions. Horses captured but not targeted for removal would remain in the traps only long enough to permit sorting out the selected animal. No horses would be left in unattended traps.

Selection of Horses for Removal

The selection of individual horses for removal is presented in Appendix 1; however actual removal may depend on a given animal's susceptibility to the bait-trapping effort. Local selective removal policy adheres to national policy (Gather Policy and Selective Removal Criteria for Wild Horses, Washington Office (IM No. 2005-206). Local policy also strives to retain any horses within the herd that are harem stallions or core breeding-age mares (6-10 years old) in efforts to maintain herd social structure and genetic diversity. Efforts will be made to selectively remove yearlings from over-represented breeding lineages on the range. The Pryor herd is relatively uniform in type, and qualities not pertinent to the self-sustaining nature of the herd are generally not used for removal criteria.. However, management has previously recognized and will continue to retain horses of rare color (represented in less than 10% of the horses in the herd). Since the population structure is very fluid within the PMWHR, the selection of horses for removal may be re-evaluated and adjusted during bait-trapping activities.

Advantages

This conservative approach to herd reduction provides a buffer for unexpected increases in natural mortality. This approach also allows management to remove primarily younger horses with high adoption potential and retain the core breeding horses on the range. Total herd size, after BLM management, would not fall below an estimated 150 horses in 2006 which is a genetically sound conservation approach for small populations. Annual monitoring of utilization would determine the need for (and size of) additional removals in order to further reduce grazing impacts on the range. During the next five years additional range improvement projects will be scheduled and land use plan revisions will be occurring within the BiFO, BLM and Custer National Forest. These efforts will re-evaluate appropriate management level (AML) for the PMWHR.

III. JUSTIFICATION:

BLM's mandate is to manage for healthy, self-sustaining herds on healthy rangelands. AML is the number of adult wild horses (6 months and older), determined through BLM's planning process, to be consistent with the objective of achieving and maintaining a thriving natural ecological balance (TNEB) and multiple-use relationship. The Pryor Mountain Herd Management Plan (HMAP, BLM-MT-PT-84-019-4321/June 1984) and the Billings Resource Management Plan (RMP, Sept. 28, 1984) established an initial stocking rate for the range at 115-127 wild horses. AML was revised in July 1992 and set at 85-105 adult horses (MT-025-2-18).

These controls are in conformance with the Wild Free-Roaming Horse and Burro Act of 1971 (PL 92-195 as amended) and with all applicable regulations at 43 CFR (Code of Federal Regulations) 4700, 36 CFR 222, and policies outlined by BLM and USFS. The RMP Final EIS (Sept.1984), Record of Decision, has been reviewed and population controls are in conformance with objectives of managing a balance between a healthy population of wild horses and improvements in range condition, wildlife habitat, and watershed condition.

1) PMWHR Short-Term Management Goals

Given the current status of rangeland health on the Pryors, short-term management goals are to:

1) suppress herd growth rates at a lower population size that is nearer the established AML (85-105 adult horses) within the designated range,
2) balance herd size with the land's current ability to sustain and provide habitat for them and other multiple-uses to achieve a "thriving natural ecological balance."
3) reduce the need for larger and more intrusive gathers, removals and herd disturbance and
4) maintain herd genetic diversity and avoid inbreeding.

Herd control activities (as outlined in EA # BLM-MT-010-FY06-19 and this Record of Decision) are implementation activities tiered to the PMWHR herd management area plan (HMAP) and BiFO RMP. Any adjustments in AML or designated range boundaries, any developments of satellite herds of Pryor horses or revisions to multiple use provisions, or any other long-term goals for PMWHR management must be addressed by a revision of the HMAP. This revision is now planned concurrently with revision of the land use plans (LUPs) for the Custer National Forest and the BLM, BiFO beginning in 2007-2008.

2) Impacts on Herd Demographics and Genetics

Since 1996, the Pryor Mountain wild horse herd has averaged 140 adult horses and 24 foals (Table 1). Annual herd growth from 1996 through 2005 averaged 7% (EA # BLM-MT-010-FY06-19, Section 1.7). The Pryor herd currently consists of 138 horses (2 years and older) and 22 yearlings (Appendix 1) for a total of 160 adult horses. This total currently includes 9 horses that have not been sighted this year. The herd is expected to produce up to 38 recorded foals in 2006, including 24 surviving foals to date (Appendix 1). Herd sex ratio is currently 89 female and 95 male horses. Population controls, scheduled for 2006, will reduce herd size by 22 horses (table 2), and reduce herd recruitment to an estimated average of 4% annual growth (2008 through 2012).

Table 1: PMWHR Herd Demographics 1996-2005 (reported March each year)

Year	Foals Born	Foals Surviving	Adult Deaths	# Horses Removed	Total Herd Size	# Horses Over AML
1996	32	28	1	0	175	42
1997	35	32	1	46	147	10
1998	23	23	4	0	158	30
1999	38	26	11	1	173	42
2000	37	27	8	0	188	56
2001	40	27	14	46	160	28
2002	34	23	9	0	170	42
2003	30	22	22	7	161	34
2004	28	4	19	0	142	33
2005	38	24	12	0	160	30
Annual Average	**34**	**24**	**10**	**N/A**	**164**	**35**

- **AML reported as the upper level of a range (85-105) of adult horses (MT-025-2-18)**

Genetic research (Cothran and Singer, 2000) suggests that maintaining an average of 140-150 total horses (including foals) may facilitate long-term maintenance of genetic diversity within the herd. BLM historical data suggests that a herd size averaging 143 horses over a 32 year (1971-2005) period has supported a genetically diverse herd in the Pryors (Cothran, 2002). BLM management removals in 2006 will not reduce total herd size below an estimated 155 horses (table 2) which will include an estimated 27 surviving foals. As a result, we expect 2006 population controls to have minimal impact on herd genetic diversity.

Table 2: Estimated PMWHR Herd Demographics 2006

Year	Foals Born	Foals Surviving	Adult Deaths	# Horses Removed	Total Herd Size	# Horses Over AML
2006	**38**	**27**	**10**	**22**	**155**	**23**

- **AML reported as the upper level of a range (85-105) of adult horses (MT-025-2-18)**

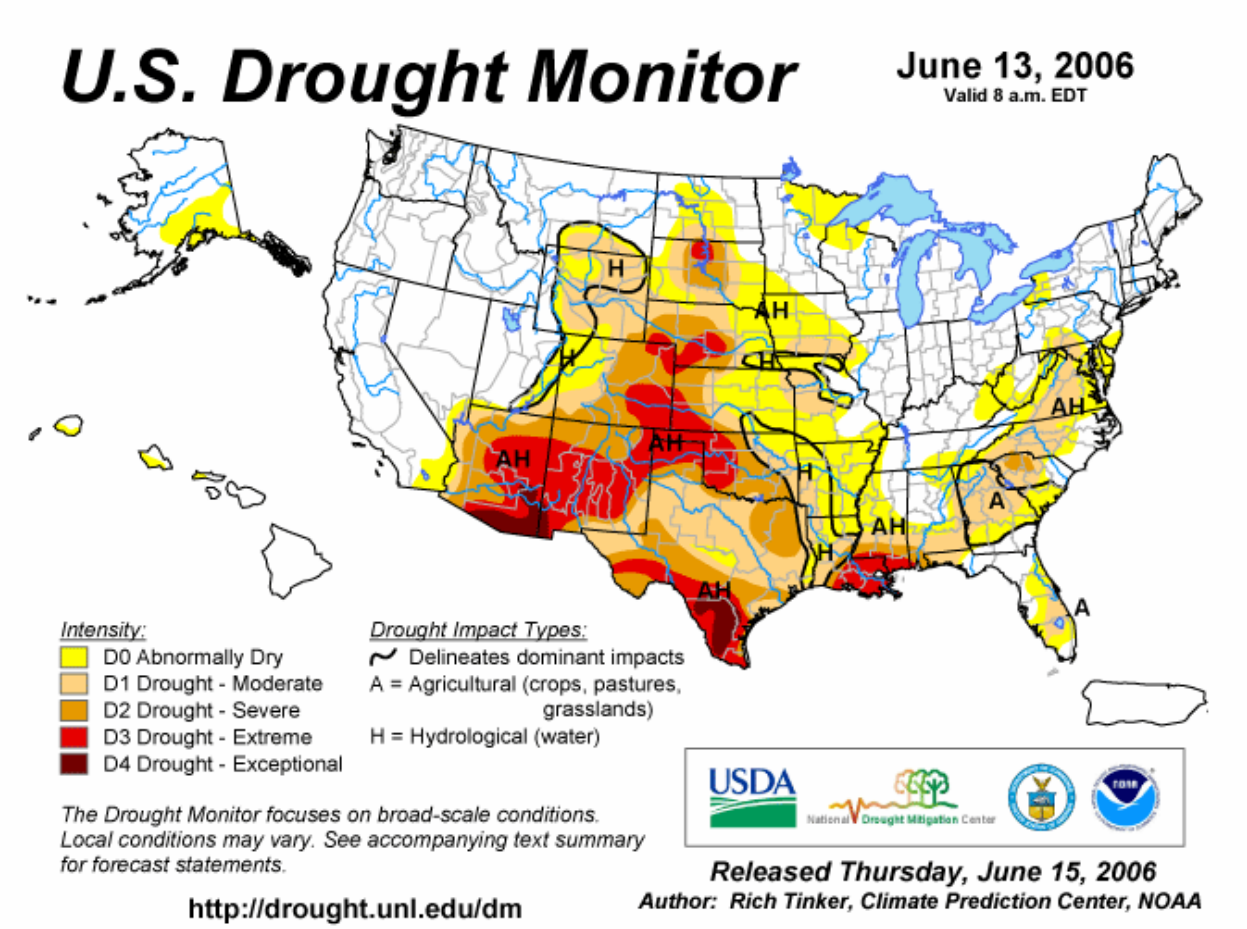
3) Habitat Objectives

Habitat objectives in the HMAP are to manage for a slight upward trend in range health (HMAP, BLM-MT-PT-84-019-4321/June 1984). Cumulative impacts, including weather, drought and grazing, have resulted in the apparent trend being down on 76 percent of range transects (Ricketts, 2004). Grazing impacts, over the last decade, have been light (20%) to moderate (60%) under an average total herd size of 164 horses (EA BLM-MT-010-FY06-19, Section 1.9). Impacts which exceed a proper-use factor of 40% are considered unacceptable under management objectives to allow for improving range conditions (Ricketts, 2004; Vallentine, 1990). Research has also shown that grazing impacts limited to moderate levels (~40% utilization) during and after drought did not adversely affect the sustainability of dominant native range grasses on Montana rangelands (Eneboe et al, 2002).

Population controls are necessary in 2006 to limit herd size and to continue to decrease forage demands on drought-stressed resources. Range recovery from the above cumulative impacts may take several years of reduced grazing impacts, near normal precipitation levels and effective range improvement projects. Additional bait-trapping and removals may be proposed for 2007 as range conditions, utilization impacts, drought conditions and budget impacts dictate. Trend studies, which are used to evaluate long-term changes in the cover and composition of the forage, will continue to be re-evaluated at intervals of 5 to10 years.

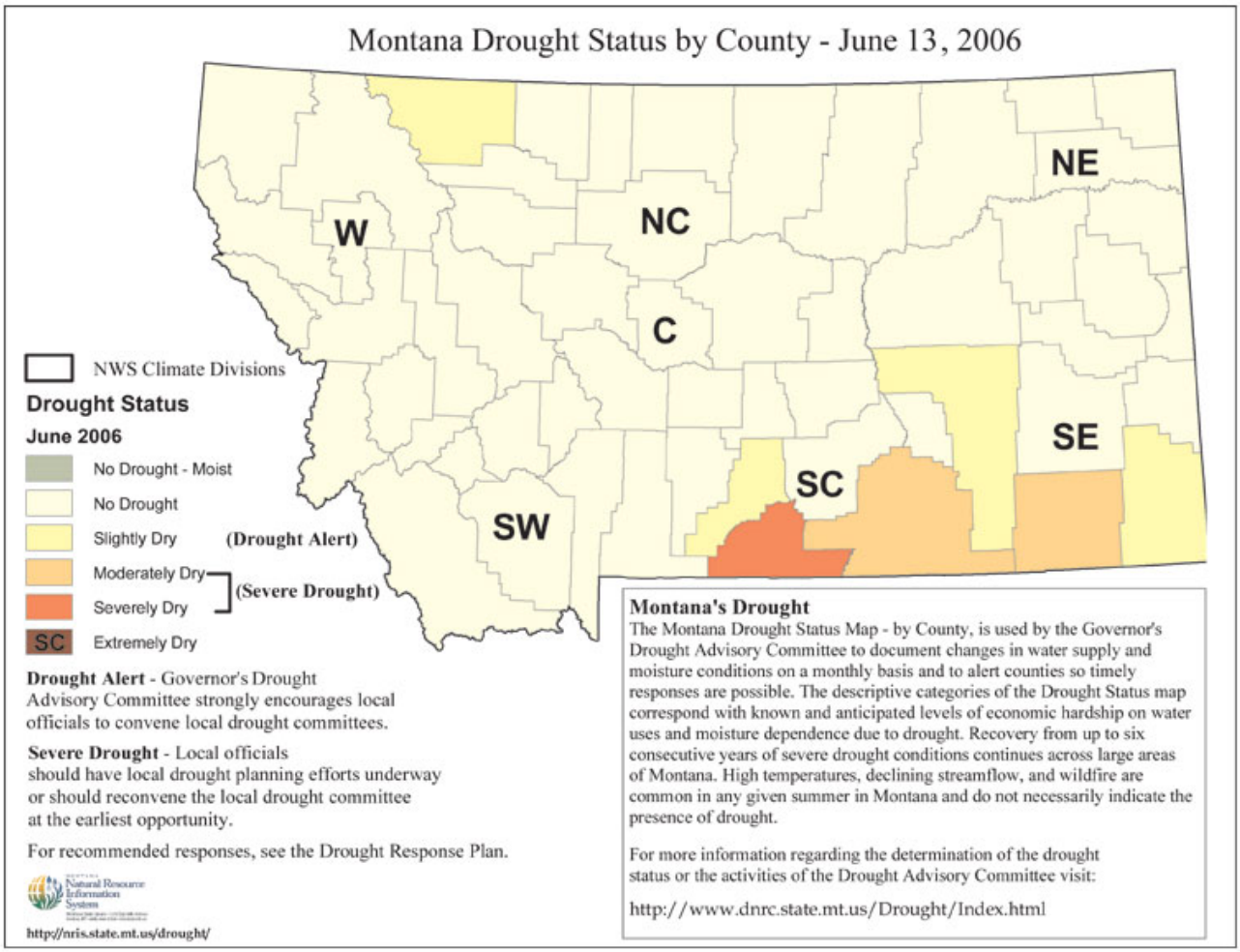
Considerable relief to grazing pressure on the upper elevations of the horse range has been provided by unauthorized wild horse use on Custer Forest Service lands. Management alternatives for addressing this unauthorized use will be considered in the HMAP revision beginning in 2007-2008.

4) Drought Impacts



Severe drought conditions have been present over most of Montana for four or more consecutive years. Long-term drought impacts, including low soil moisture, reservoir storage, groundwater, and forest fuel moisture levels, continue to exist in areas where short-term relief may be present or develop. The US Drought Monitor (see graphic above), and Montana County Drought Status (http://nris.state.mt.us/Drought/status) (see graphic below) still indicate moderate drought

conditions for the PMWHR area. Increases in monthly precipitation summaries (from 70 to 100% of average) have resulted in improved forage response and growth on the PMWHR in 2005 and 2006 (refer to http://www.cbrfc.noaa.gov). However, several years of consecutive drought have decreased plant health, vigor, and forage production. Long-term range recovery, in order to reverse conditions of downward trend, will take more than one or two seasons of near normal precipitation.



Forage utilization levels during the past winter were recorded at 23 to 54 % (average of 37%) under impacts from 160 horses. Available research suggests that continued grazing at pre-drought levels, during moderate drought, is probably the greatest cause of range deterioration (Vallentine, 1990). Reduced grazing levels, however, during and following moderate drought should result in less damage to the forage base and hasten its recovery. This information supports BLM national policy regarding general drought management (Washington Office IM No. 2003-074) and 2006 population control measures to reduce wild horse grazing impacts and allow for range recovery.

IV. ALTERNATIVES CONSIDERED

Alternatives analyzed in detail include the following:

- Alternative 1: **Proposed Action** (Annual Fertility Control on All Mares 11 Years of Age and Older and Bait-trapping of Up to 24 Age-Specific Wild Horses, 2006).
- Alternative 2: Annual Fertility Control on all Mares 11 years of Age and Older and No Bait-trapping or Removal of Horses in 2006.
- Alternative 3: Bait-trapping and Removal of up to 24 age-specific wild horses in 2006 and No Fertility Control
- Alternative 4: No Action (No Fertility Control or Bait-trapping and Removal of Horses)

Alternatives 1, 2 and 3 were developed based on the need to reduce grazing impacts from wild horses in order to manage the range in a thriving natural ecological balance and multiple-use relationship, to prevent further rangeland health deterioration, and to insure healthy, self-sustaining wild horse populations. In addition, these alternatives address the concern over the current state of the range as evidenced by monitoring and climate data.

Alternative 4 (No Action) does not comply with the 1971 Act nor meet the purpose and need for this action. However, it was included as a basis for comparison and for assessment of the impacts in the event that no population controls occur at this time.

Two other alternatives were considered up to the point where BLM determined the alternative would result in either unacceptable (measurable) impacts to herd and/or range health or provided no additional measurable value to a previously analyzed alternative. Reasons for elimination from further consideration are provided in the EA under the relevant section (EA #MT-010-FY06-19, Section 3.5, pp 26).

V. CUMULATIVE IMPACT ANALYSIS

During development of the EA, the BLM is required to do an analysis of cumulative impacts from foreseeable activities over a reasonably foreseeable future. Ongoing intra-agency and interagency discussions have focused on opportunities and logistics for range improvement projects (prescribed fire, water developments) commencing in 2006. These projects are designed to assist with the restoration of range health on the designated range and may take several years to generate a desired result. The BLM also continues to evaluate potential range expansion, but it is unlikely that any opportunities will happen in the reasonably foreseeable future.

Thus, interdisciplinary analysis, during development of the EA, did not identify any additional activities (other than those stated and analyzed) that would necessarily cause impacts to either herd growth or size. In using the Jenkins Population Model (Version 1.40 of WinEquus available on http://unr.edu/homepage/jenkins) to assess possible cumulative impacts (from the natural cycle of births and deaths, variable predation, fertility control, and gather activity) on the wild horse herd, BiFO has satisfied required impact analysis for the Proposed Action under the scope of the EA.

VI. PUBLIC INPUT

The BiFO received 179 documents (520 pages of comments) in response to EA # MT-010-FY06-19 for the FY2006 proposed fertility control on the PMWHR. A complete list of individuals and groups that have responded are on file at BiFO as are all original submitted documents. Public members using Freedom of Information Act (FOIA) procedures may request these documents. Details can be provided by contacting BiFO.

All submissions were reviewed and comments were consolidated and summarized by major area of concern for BLM consideration. These areas included: 1) concerns regarding the use of fertility control; 2) concerns regarding gathers with/without fertility control; 3) concerns regarding herd size as related to genetic viability; 4) concerns over expanding the size of the designated wild horse range; 5) concerns regarding range condition and health, including results of the Natural Resources Conservation Service (NRCS) study (Ricketts, 2004); 6) concerns regarding opportunities to ban hunting of possible predators on the PMWHR; and 7) concerns regarding the overall management of the PMWHR. Forty of 179 comment letters received were considered substantive. Substantive comments are those which question, with reasonable basis, the accuracy of the information in the EA or the adequacy of, methodology for and/or assumptions used in the EA. A summary of relevant public comments and BLM responses can be found in Attachment 1. All comments that did not pertain to the proposed implementation plan, including the proposed action or range of alternatives for wild horse population control, are being kept on file for future land use plan revisions including the on-going HMAP revision.

VII. FINDING of NO SIGNIFICANT IMPACT

The BLM has reviewed this environmental assessment including the explanation and resolution of any potentially significant environmental impacts. The BLM has determined that the Proposed Action will not have any significant impacts on the human environment and that an environmental impact statement (EIS) is not required. The BLM finds that implementation of the Proposed Action would not result in unnecessary or undue degradation of the public lands. The BLM has determined that the Proposed Action is in conformance with the appropriate and approved land use plans.

VIII. EFFECTIVE UPON ISSUANCE

To implement the Pryor Mountain Herd Management Plan (1984) and Revision to the Herd Management Plan (1992), and toward attainment of a thriving natural ecological balance and multiple use relationship, this decision is “effective upon issuance.” This decision is issued in accordance with 43 CFR 4770.3(c), which states in part: "decisions to remove.....shall be effective on issuance or on a date established in the decision." This decision is effective on the signature date for the Record of Decision.

IX. APPEALS

Within 30 days of the date of the decision, you have the right of appeal to the Board of Land Appeals, Office of the Secretary, in accordance with the regulation at 43 CFR, Part 4, Subpart E

and 43 CFR 4770.3(a) and (c). If an appeal is taken, your notice of appeal must be filed in the Billings Field Office, 5001 Southgate Drive, Billings, Montana, 59101-4669. Within 30 days after filing a Notice of Appeal, you are required to provide a complete statement of the reasons why you are appealing. The appellant has the burden of showing that the decision appealed from is in error.

If you wish to file a petition pursuant to regulation 43 CFR 4.21 (58 FR 4939, January 19, 1993) for a stay of the effectiveness of this decision during the time that your appeal is being reviewed by the Board, the petition for a stay must accompany your notice of appeal. A petition for a stay is required to show sufficient justification based on the standards listed below. Copies of the Notice of Appeal and Petition for a Stay must be submitted to (1) the Interior Board of Land Appeals, Office of Hearing and Appeals, U.S Department of the Interior, 801 North Quincy St., Suite 300, Arlington, VA 22203, (2) the Office of the Regional Solicitor, U.S. Dept. of the Interior, Pacific Northwest Region, PO Box 31394, Billings, MT, 59107-1394 and (3) Billings Field Office, 5001 Southgate Drive, Billings, Montana, 59101-4669. The original documents should be filed with the Billings Field Office. If you request a stay, you have the burden of proof to demonstrate that a stay should be granted.

Standards for Obtaining a Stay
Except as otherwise provided by law or other pertinent regulation, a petition for a stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied;

2. The likelihood of the appellant's success on merits;
3. The likelihood of immediate and irreparable harm if the stay is not granted; and

4. Whether the public interest favors granting the stay.

X. SIGNATURES

Prepared by: Linda Cates-Hall Date 6/29/06
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Approved by: Sandra S. Brooks Date 6/29/06
Billings Field Manager
Billings Field Office
Billings, MT

XI. REFERENCES

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