

**BEATY'S BUTTE HERD
MANAGEMENT AREA
Wild Horse Population
Control and Gather**

**ENVIRONMENTAL ASSESSMENT
DOI-BLM-OR-L050-2009-0065-EA**

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carry the seed in their hair. By maintaining horse numbers at or below AML, the chance of noxious weed spread would be reduced. Limiting vehicle travel to existing roads and ways, combined with avoidance of noxious weed infestations when selecting trap sites, would limit the potential of noxious weed spread during gathering operations.

b. Special Status Species

There would be no effect of the action alternatives on special status species except sage-grouse and pygmy rabbits. Sage-grouse utilize riparian zones for late season brood rearing. Forage in these areas is important to chick development and survival. A decrease in grazing by horses in these areas would improve habitat conditions for sage-grouse. Additionally, habitat conditions in upland areas would be expected to be maintained in better condition with reduced grazing also benefitting sage-grouse and potentially pygmy rabbits. Pygmy rabbits require increased amounts of grasses and forbs in their diet during the reproductive period. A reduction of grazing by horses could provide additional forage for pygmy rabbits during their reproductive period. By returning the wild horse herd to AML, the number of horses grazing and watering along perennial streams would be reduced thereby helping to improve water quality.

c. Migratory Birds

Gathering horses and reducing the herd population to AML would improve availability of sagebrush and woodland habitat for migratory birds associated with those habitats. The quality of the habitat would be improved due to the decreased number of horses. Reproductive capabilities of migratory birds would be improved as a result of increased food sources. Cover for most ground-nesting species would be increased. Migratory bird species abundance and diversity would be increased within the HMA.

d. Water Quality/Riparian Areas/Floodplains

None of the activities in the action alternatives would not be located adjacent to any surface water sources or riparian areas; therefore, there would be no anticipated impacts.

2. Alternatives 1-3 Anticipated Effects – Noncritical Elements

a. Wild Horses

Appendix E provides the comparison of alternatives resulting from the WinEquus Population Model. Alternatives 1&3 resulted in the smallest

population growth rate. Alternative 1 resulted in the least number of horses removed. Alternative 3 resulted in the least number of horses gathered. Population modeling did not account for the population differences resulting from drifting of horses between neighboring the neighboring, private, BLM and USFW lands.

Initially wild horses may be difficult to gather with the recent gather history and frequency of gathers. Many horses may be trap wise and resistant to being driven by a helicopter. As the time between gather cycles increases the number of trap wise horses would also decrease.

Direct impacts to individual wild horses as a result of the gather and removal operation include the handling stress associated with these activities. Traumatic injuries that may occur typically involve biting and/or kicking that may result in bruises and minor swelling which normally does not break the skin. These impacts are known to occur intermittently during wild horse gather operations. The intensity of these impacts varies by individual, and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality of individuals from these impacts is infrequent but may occur in one half to one percent of horses gathered in a given removal operation (Nevada BLM statistics). Implementation of SOPs in Appendix A would help minimize direct impacts to animals. Alternative 1 has the greatest initial direct impact due to the large amount and degree of handling animals at the trap sites and holding facilities, alternatives 2&3 are about equal in direct impacts to wild horses. However increasing the time period between gathers would also reduce the overall direct impacts to wild horses.

The gelding aspect of alternative 3 is the only irreversible action considered; therefore gelding is the least favorable of the actions presented in this EA. A study of gelding dominant studs in the Beatys Butte HMA found no reduction in population growth. Potentially gelding could reduce population growth rates; however, it is unknown what percentage would be necessary to accomplish this reduction.

Alternative 1 has the greatest positive potential impacts to breeding mares in the population that are treated with PZP. After foaling normally the first year the mares should be infertile for at least the next year. Mares would be expected to have reduced pregnancy induced stress levels during the infertile year. This would result in improved health of individual mares for that year.

Direct impacts to the wild horse herd's social structure as a result of the proposed gather, handling and removal operation include the temporary separation of foals from their mothers, and mixing and separation of individual bands. These impacts would be short-term (from a few hours to

a few weeks) and would disappear within a few weeks following the gather as bands reform.

The indirect effect of removing excess wild horses before range conditions deteriorate further would be decreased competition among the remaining animals for the available water and forage. This should result in improved wild horse health and body conditions.

Population wide direct effects are immediate effects which would occur during or immediately following implementation of the action alternatives. They include the displacement of bands during capture and the associated dispersal which occurs following release, the modification of herd demographics (age and sex ratios), the temporary separation of members of individual bands of horses, and the reestablishment of bands following releases, and the removal of animals from the population. Direct population wide effects would be temporary in nature with most if not all effects disappearing within hours to several days of release. No observable effects would be expected within 1-month of release, except for a heightened awareness of human presence.

The removal of horses from the population would not be expected to have effect on herd dynamics or population variables; as long as the selection criteria for the removal ensured a “typical” population structure was maintained.

Effects of Alternative 3

The following affects would be expected from successive removals causing shifts in sex ratios away from normal ranges are. If selection criteria leave more studs than mares, band size would be expected to decrease, competition for mares would be expected to increase, recruitment age for reproduction among mares would be expected to decline, and size and number of bachelor bands would be expected to increase. Gelding of males would not significantly alter these results. Gelding would change the individual behavior of each male horse. Many of the gelded males would be expected to form bachelor bands. Breeding age mares would be expected to breed with available studs regardless of the presence of geldings in the HMA.

For mares, the greatest biological stress is during pregnancy and lactation. In wild horse populations, this occurs in late winter or early spring when forage availability is at its lowest level, and body condition is at its

poorest. For studs, biological stress is at its peak during the breeding season. This peak biological demand is in the late spring and early summer and is more suited to a rapid recovery and a lower energy deficit than for mares.

Immunocontraception

Population modeling found no significant difference in results among action alternatives comparing the lowest average population size in 11 years. However, immunocontraception results indicate this alternative would result in the least number of horses gathered and placed in long term holding, adoption or sale programs over a 10 year period.

a. **Grazing Management**

The action alternatives would minimize competition for forage and water between livestock wildlife and wild horses and maintain the thriving ecological balance of the Beatys Butte HMA.