Chapter 2. Alternatives, Including the Proposed Action

Alternatives to the proposed action are developed to explore different ways to accomplish the purpose and need in response to the controversy or argument presented in the significant issues. The purpose and need for the proposed action, along with the significant issues (see Chapter 1) serve as the objectives and framework around which the alternatives are developed. A reasonable alternative is one that responds to an argument presented in a significant issue and substantially accomplishes the purpose and need. Each alternative is designed to address one or more issues that surfaced during the analysis process.

This chapter provides a detailed description of the proposed action and alternative methods for achieving the project's purpose and need. This section also presents the alternatives in comparative form, sharply defining the differences between each alternative and providing a clear basis for choice among options by the decision maker and the public.

Alternatives Considered but Eliminated from Detailed Study

Federal agencies are required by the National Environmental Policy Act to rigorously explore and objectively evaluate all reasonable alternatives and to briefly discuss the reasons for eliminating any alternatives that were not developed in detail (40 CFR 1502.14). Public comments received in response to the proposed action provided suggestions for alternative methods for achieving the purpose and need. Some of these alternatives may have been outside the scope of the need for reevaluating the Wild Horse Management Plan for the Jicarilla Wild Horse Territory and determining the appropriate management level for the Territory. Therefore, a number of alternatives were considered, but dismissed from detailed consideration for reasons summarized below.

Manage For An Average of 60 Horses

The 1977 Wild Horse Management Plan [29] specified an average of 60 horses as an appropriate management level (AML) for the Jicarilla Territory. While the annual number of wild horses may vary from the average, over time the average of 60 horses was to be maintained. From 1977 to 1998 there were only three years when horses were not gathered on the JWHT. Even with this intensive gather schedule, the average number of horses was well above 60 animals. Wild horse populations fluctuate with annual total population increases usually falling within the 15-22 percent range. [221] Managing for an average of 60 horses, even with an intensive gather schedule would not be successful. Opportunity for success when managing within a range is much higher. This alternative would not meet the purpose and need of the proposed action; therefore it was eliminated from further study.

Remove All Wild Horses From the Territory

An alternative to reduce the population of wild horses to zero by removing all horses was considered, but eliminated. Although some people believe wild horses are not a part of the natural ecosystem, the animals have been present on the Jicarilla Ranger District for over 100 years. In 1971, the United States Congress established the Jicarilla Wild Horse Territory. Congress is the only government body that can abolish it. This alternative would not meet the purpose and need of the proposed action, nor Congressional intent; therefore it was eliminated from further study.

Manage for Over 150 Horses

In order to improve genetic diversity and maintain population viability, some people believe that the horse population size should to be over 150 horses. This issue is dealt with in the Vegetation -

Grazing Capacity section and Wild Horses - Genetics section in *Chapter 3*. In addition, the no action alternative (Alternative A) allows for a population well over 150 horses.

Remove All Fences

There is a concern that fencing prevents wild horses from being "free-roaming." Some members of the public wanted an alternative that would remove all fences within the Territory. Fencing is very limited within the JWHT with permittees depending largely on natural boundaries to manage livestock. There are no internal or boundary fences between the Carracas or Cabresto grazing allotments, which leaves 79 percent of the JWHT unfenced. Where fences are present, gates are left open when cattle are not present. The wild horse herd continues to thrive under the current limited fencing situation, with population growth and herd band size well within the norm for wild horse herds. [221] In addition, these fences play an important part in managing livestock on the JWHT. There is no research that supports removal of fences as an important part of wild horse management. The removal of fences was dropped from further study since it does not meet the purpose and need.

No Helicopter Use In Gathering

Helicopter gathering consists of using a helicopter to herd wild horses into a holding pen that is usually set up along a normal travel route for the horses. Several different methods for gathering wild horses have been tried through the years on the Jicarilla Wild Horse Territory. These have included roping on horseback, baiting (using salt or water to lure horses into a trap), darting from helicopters, and using horseback riders to herd horses into holding pens. All of these have been marginally successful. However, helicopter gathering has proven to be very successful and humane. Since 1981 this has been the method that has been used on the JWHT.

Of the 370 horses gathered, 301 have been with the use of a helicopter. Out of those gathered over a 20-year period, 4 deaths have been associated with helicopter gathers and three of these were related to loading horses into trailers at the trap site once horses were captured. This is the primary method that the Wild Horse and Burro Program uses to gather horses throughout the west and is considered their standard practice. [245] Even highly publicized wild horse herds, such as the Pryor Mountain Wild Horse herd in southern Montana and the Little Book Cliffs herd in western Colorado and the Kigers in eastern Oregon, continue to utilize helicopters for gathering horses. [255, 257, 258]

Excluding helicopter use as a form of gathering was dropped from further study since it did not meet the purpose and need. Determining the method(s) used to gather horses will be made on a case-by-case basis. Different methods for gathering are discussed in more detail in the Wild Horse - Gathering section in *Chapter 3*.

Relocate Instead of Adopt

Relocation of horses from the Jicarilla Wild Horse Territory to other wild horse territories or herd management areas is an option provided that: "… sufficient suitable habitat is present and relocation of animals will not jeopardize vegetation conditions, and animals are requested by the appropriate land manager having jurisdiction." [40, 37] The 1971 Wild Horses and Burros Act does not authorize wild horses to be relocated to areas where they do not presently exist. [25]

Currently there are no known stocked wild horse territories or herd management areas that have sufficient forage available and are requesting additional horses. No further study is suggested since this does not meet the purpose and need.

Use Contraception To Control Herd Size

Several people suggested that the use of contraception on the wild horses would reduce reproduction, thus control herd size. No free ranging western horse herds have yet been managed at their respective AML level with contraceptives alone. [221] Once the appropriate management level is determined, the size of the herd may need to be adjusted to that number through gathering and adoption – if the appropriate level is less than the existing herd size. Once the appropriate management level of the herd has been reached, contraception could be one method used for maintaining that herd size. A more detailed discussion on contraception is found in Wild Horses – Contraception section in *Chapter 3*.

Items Common to All Action Alternatives

This section describes several general design items common to all action alternatives.

Gather Timing and Methods

To avoid complications with pregnant mares during foaling and with their young foals, no gathers on the Jicarilla Wild Horse Territory would be conducted between the first of April and the end of June.

Walking gathers and baiting are methods that will be considered in future gathers. Helicopter gathering will not be ruled out as an option. Roping may also be used but only as necessary. If a helicopter is used in gathering horses, helicopter assisted roping may be used when horses have left a band that has been or will be gathered. Helicopter assisted roping will not be used as a primary means of gathering horses on the JWHT.

If other methods become available that are humane and reduce stress on the horses, they may be considered. Selection of the method to be used will be based on season, history of the band or bands to be gathered, location of the bands to be gathered and the number that need to be removed. Any helicopter assisted capture and handling activities will be conducted in accordance with Bureau of Land Management's Standard Operating Procedures for Removal and Safety for Wild Horse Herds. [245]. Wild Horses – Gathering section in *Chapter 3* discusses gather history and methods in more detail.

Wild Horse Adoption Program

The Carson National Forest is the only national forest in the United States that holds it's own adoptions. Most of these horses go to local families in northern New Mexico. Once a horse is adopted, it retains its wild horse status and remains the property of the US Government for one year. After a year, if the animal is in good condition and the pen and housing requirements have continued to be met, the animal loses its wild horse status and becomes the property of the adopter. Horses are not tracked after the first year following adoption.

From the perspective of the Carson National Forest, this has been a very successful program and there is always a waiting list of potential adopters. Many of these have had success with their horses and want another. There have been instances when an individual has not taken care of an adopted horse and the horse has been removed to another home and the person's name is taken off the list of potential adopters.

Some comments were received relating to the need for an overall review of the National Wild Horse and Burro Adoption Program. This is well beyond the scope of this analysis. Wild horses which are gathered and removed will be put up for adoption, in accordance with the Wild Free-Roaming Horses and Burros Protection Act of 1971, as amended and 36CFR 222.29. Horses that

are not adopted through the Carson National Forest's local adoptions may be turned over to the BLM Wild Horse and Burro Adoption Program.

Herd Maintenance

After the appropriate management level has been reached using gathering and adoption, it would be maintained through gathers and other methods such as contraception. *Chapter 3- Environmental Consequences, Wild Horses* discusses how maintenance of herd size, selection for removal and maintenance of genetic diversity could be accomplished.

Alternatives Considered In Detail

The following section is organized so that a comparison of all alternatives can be readily made. Table 1 provides a quantitative comparison of alternatives. Table 1 is both a quantitative and narrative comparison of how well each alternative meets the purpose and need for action, as well as a summary comparison of effects for Alternatives A through D.

Table 1. Comparison of Alternatives

	Alternative A	**Alternative B**	**Alternative C** Proposed Action	**Alternative D**
Number of Wild Horses	Up to 300	15 to 118	50 to 105	100 to 150
Priority Forage Allocation	Horses	1) Wildlife 2) Livestock	1) Wildlife 2) Horses/Livestock	1) Horses 2) Wildlife 3) Livestock
Gathers and Adoption	No	Yes	Yes	Yes

Alternative A – No Action

Alternative A is the no action alternative. The no action alternative usually provides a point of Reference, enabling decision makers to compare the magnitude of environmental effects between the action alternatives. An alternative was considered to remove all wild horses from the Jicarilla Wild Horse Territory, however it was eliminated from further consideration (see previous section - *Alternatives Considered but Eliminated from Detailed Study*).

For this analysis, "no action" means that there would be no action taken (through gathering and adoption) to reduce the size of the Jicarilla wild horse herd. Alternative A would take a "hands off" approach to wild horse management, allowing the wild horse population to grow unhindered. Forage would be allocated first to wild horses and then to wildlife. Based on current utilization levels and drought conditions within the JWHT, it is unlikely that Alternative A would provide enough forage for continued livestock grazing on the allotments that overlap the Jicarilla Wild Horse Territory.

Alternative B

Alternative B addresses the significant issue related to the wild horse herd size and resource conditions -- *resource conditions under the proposed herd size would continue to decline within the Jicarilla Wild Horse Territory*. This alternative would allocate available forage first to wildlife and then to permitted livestock. The remainder of available forage would be allocated to wild horses. Based on overall range conditions, forage availability and use from competing wildlife and livestock resources; the appropriate management level of wild horses for this alternative would vary from 118 to 15. Gathers would be completed within the territory to maintain the

population at the appropriate management level. Alternative B would include *Items Common to All Action Alternatives*, described in the previous section of this chapter.

An example of this alternative during average forage production years: 33 percent of available forage would be used for wildlife and 34 percent would be available for permitted livestock, based on planned grazing use of 140 head (the historical average) over the three allotments in the JWHT. The remaining 33 percent of available forage would be allocated for wild horses and the AML would be 118 horses.

Another example during an extended drought: 66 percent of forage available for wildlife, 20 percent available for 40 head of livestock and the remaining 14 percent available for wild horses (26 horses).

Alternative C – Proposed Action

This alternative is the proposed action. Alternative C would allocate available forage first to wildlife and then balance the remaining forage between wild horses and permitted livestock. Based on overall range conditions, forage availability and balancing competing horse and livestock resources, the appropriate management level of wild horses for this alternative would be a range between 50 and 105 horses. The population would not be allowed to fall below 50 horses or exceed 105 horses. Gathers would be completed within the territory to maintain the population at the appropriate management level. Alternative C would include *Items Common to All Action Alternatives*, described in the previous section of this chapter.

An example during average forage production years: 33 percent of available forage would be used for wildlife and 29 percent of available forage would be allocated for wild horses, which would be equivalent to 105 head (the maximum number). The remaining 34 percent would be available for permitted livestock based on planned grazing use of 140 head for approximately 5.5 months (the historical average) over the three allotments in the JWHT.

Another example during extended drought: 66 percent available for wildlife, 27 percent for 50 head of wild horses (the minimum number) and the remaining 9 percent would be available for permitted livestock (18 cows). The wild horse population would not be managed for fewer than 50 horses.

Alternative D

Alternative D addresses the significant issue related to the wild horse herd size and the genetic health of the horses. This alternative would allocate available forage first to wildlife and then to wild horses. The remainder of available forage would be allocated to permitted livestock. Based on overall range conditions and forage availability; the appropriate management level of wild horses for this alternative would be a range between a 100 and 150 horses. The population would not be allowed to fall below 100 horses or exceed 150 horses. Gathers would be completed within the territory to maintain the population at the appropriate management level. Alternative D would include *Items Common to All Action Alternatives*, described in the previous section of this chapter.

An example during average forage production years: 33 percent of available forage would be used for wildlife, 41 percent would be available for wild horses, which would be equivalent to 150 head. The remaining 26 percent of available forage would be allocated for permitted livestock or 105 head over the three allotments in the JWHT.

An example during extended drought: 54 percent of forage would be available for wild horses (maintaining a minimum number of 100 head) and 46 percent for wildlife. This would be a 28

percent reduction in wildlife use within the JWHT. This alternative would have to be accomplished in coordination with New Mexico Department of Game and Fish. The other option would be to allow utilization levels to exceed the 30 percent use level. No forage would be allocated to livestock.

Monitoring

Monitoring provides a quality control and adaptive management strategy. By monitoring the effects of wildlife, horses and livestock within the Jicarilla wild horse territory and evaluating the results, we are able to make appropriate modifications to the size of the herd, assess resource trends and apply new knowledge to similar situations in the future. Monitoring and evaluating informs the decision maker, specialists and interested public of progress toward the goals and objectives during the implementation of projects.

Range and Ecological Monitoring

Determining the number of horses on the JWHT requires an adaptive approach to management. The number of wild horses maintained on the Jicarilla Wild Horse Territory would depend on existing rangeland health, the predicted severity of droughts and forage utilization guidelines. Monitoring of range conditions, predicted weather patterns and annual forage utilization and productions levels are incorporated as a part of this proposed action. The upper and lower limits of the AML insure sustainable rangelands and must be verified by vegetation/forage monitoring under actual field conditions.

Range/ecological conditions would be monitored every 3-5 years using established and accepted methods for assessing vegetation conditions. Such methods as Parker 3-step, line intercept and Daubenmire plots are examples of acceptable methods.

Range and soil stability conditions would be monitored annually to assess the current trends in vegetation and soil conditions. Methods such as that described in FS Region 3 Range Analysis Handbook or the Rapid Assessment Methodology (RAM) analysis procedure or other well-established methods would be used. [39, 276]

Forage production and utilization would be monitored annually in each pasture to assure that utilization standards are being met Methods such as that described in FS Region 3 Range Analysis Handbook and or the RAM analysis procedure or other well established methods would be used. [39,276] Paired caged plots combined with ocular estimates would be used for establishing production in key grazing areas. [39]

Population Monitoring

Monitoring would also be conducted so that the wild horse population would not fall below the alternative's minimum number of horses or exceed its maximum. The primary population monitoring would be annual aerial surveys. Ground surveys and counts in connection with range inspections or other field duties will supplement aerial survey information. The gathering of horses to meet the appropriate management level would be necessary. Gathers would be initiated to maintain the population within the range, with strong emphasis on horse health and safety as well as public safety. The following criteria would trigger the need for an adjustment in horse numbers and a subsequent gather followed by an adoption:

- Drought conditions. The Standardized Precipitation Index (SPI) or its successor will be used to define drought conditions. SPI values are available monthly from the Western Regional Climate Center at www.wrcc.dri.edu. Conditions will be determined by the size of the

negative number. The larger the negative number, the more severe the drought. SPI values of –0.70 or less for the past month signal drought conditions. SPI values of positive 1.0 or more for the past 12 months signal the end of drought.

- Utilization in key grazing areas exceeding 30 percent utilization standards for two consecutive years.
- Key grazing areas are sampled for range/ecological conditions and show that range and soil stability conditions are trending downward.
- Forage production based on forage production samples in key areas do not show sufficient forage to support the present population.
- The number of horses exceeds 105 (determined generally by aerial survey).

Summary Comparison of Effects By Alternative

Table 2. Comparison of Effects[1]

	Alternative A	Alternative B	Alternative C	Alternative D
Soils	Declining soil stability.	Improving soil stability.	Improving soil stability.	Maintaining current soil stability conditions.
Vegetation	Declining range conditions.	Improving range conditions.	Improving range conditions.	Maintaining current range conditions.
Wild Horses	Wild horse numbers 300+ , potential die off of wild horses from starvation.	Wild horse numbers 118-15, possible loss of horse population at low end of range.	Wild horse numbers 105-50, genetic conservation strategies would be implemented.	Wild horse numbers 100-150, genetic conservation strategies would be implemented.
Wildlife	Increasing conflicts with wildlife.	Decreasing conflicts with wildlife.	Decreasing conflicts with wildlife.	Conflicts with wildlife during drought.
Threatened, Endangered, and Sensitive Species	Degrading habitat for MSO, goshawk, and migratory birds.	Improving habitat for MSO, goshawk, and migratory birds.	Improving habitat for MSO, goshawk, and migratory birds.	Improving habitat for MSO, goshawk, and migratory birds - during some years.
Gas Development	Revegetation efforts unsuccessful due to heavy grazing use.	Revegetation efforts improve.	Revegetation efforts improve.	Revegetation efforts improve during favorable moisture years.
Recreation	Increasing conflicts with recreational hunters.	Decreasing conflicts with recreational hunters.	Decreasing conflicts with recreational hunters.	Continued conflicts with recreational hunters.
Social	Increased opportunity for wild horse viewing.	Limited opportunity for wild horse viewing during extended drought.	Continued opportunity for viewing.	Increased opportunity for viewing.
Livestock Grazing	Permits for livestock grazing would be issued, but it is unlikely that forage would be available for livestock grazing.	Permitted livestock would receive preference over horses for allocating available forage.	Available forage would be allocated between wild horses and permitted livestock.	Permits for livestock grazing would be issued, opportunities for grazing livestock could be limited depending on available forage.
Heritage Re-	Increase potential to	Decrease potential to	Decrease potential to	Decrease potential to

[1] This is only a summary of the effects that are described in detail in *Chapter 3* of this Environmental Assessment.

	Alternative A	Alternative B	Alternative C	Alternative D
sources	impact cultural resources.	impact cultural resources.	impact cultural resources.	impact cultural resources.