

Chapter 1. Purpose of and Need for Action

This environmental assessment (EA) complies with the requirements of the National Environmental Policy Act (NEPA) of 1969. It summarizes the environmental effects of the Management of the Jicarilla Wild Horse Territory (JWHT) proposed on National Forest System lands within the Jicarilla Ranger District of the Carson National Forest (CNF). This EA also provides information needed for the Responsible Official to determine whether the decision may have significant effects requiring an environmental impact statement.

An interdisciplinary analysis on the proposed action is documented in a project record. An index of the project record is presented in Appendix A. Source documents from the project record are incorporated by reference throughout this environmental assessment by showing the document number in brackets [#]. This EA summarizes the project record to make the analysis results as clear as possible.

The Jicarilla wild horse herd is currently being managed as described in the 1977 Wild Horse Management Plan, Jicarilla Territory. [29] The planning process for this project started in the spring of 2000. An environmental assessment was prepared and made available for comment in September 2000. No decision was made. In April 2003, public scoping was reinitiated for the project.

Project Location

The JWHT is located in northwest New Mexico, approximately 60 miles northeast of Bloomfield and 72 miles northeast of Farmington, New Mexico (Figure 1). The northern territory boundary adjoins the Colorado border and lies west of the Jicarilla Apache Reservation. The JWHT is bound by Bureau of Land Management (BLM) lands on the west. The approximate legal description for the Forest Service portions of the JWHT is: Township 32 North, Range 4 West; Township 32 North, Range 5 West; Township 31 North, Range 4 West; Township 31 North, Range 5 West; small part of Township 30 North, Range 4 West; and part of Township 30 North, Range 5 West (Figure 2).

The Jicarilla Wild Horse Territory encompasses approximately 76,270 acres (of which 74,630 are federal lands) on the Jicarilla Ranger District, Carson National Forest. The JWHT encompasses the northern third of the Ranger District. The horse territory as designated by Congress, consists of only National Forest System lands. Although not considered part of the designated territory, there are six small parcels of private land (1,642 acres) within the boundaries of the JWHT.

Scope of Analysis

The Jicarilla Wild Horse Territory is the only designated wild horse territory on the Jicarilla Ranger District of the Carson National Forest. Wild horse management within designated wild horse territories is prescribed through Acts of Congress (laws) and their implementing regulations. These laws and documents include:

- Wild Horse Protection Act of 1959 [24]
- Wild Free-Roaming Horses and Burros Act of 1971, as amended by Federal Land Policy Management Act of 1976 and Public Rangelands Improvement Act of 1978 [25]
- Management of Wild Free-Roaming Horses and Burros - 36 CFR 222 Subpart B [40]
- Forest Service Manual (FSM) Chapter 2200 (Range Management) and Chapter 2260 (Wild Free-Roaming Horses and Burros) [37]
- Carson National Forest Land and Resource Management Plan (herein called Forest Plan) [13]

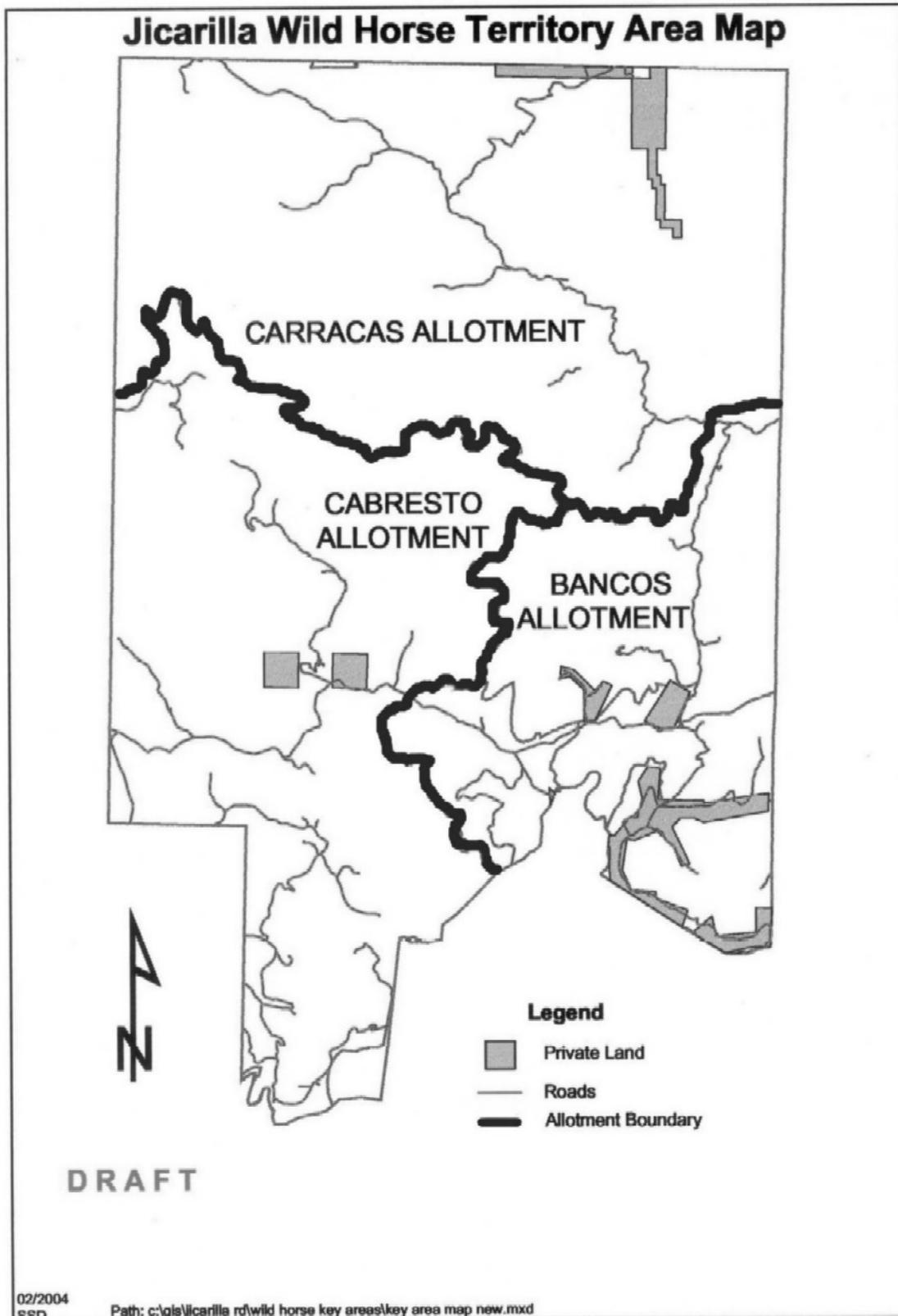


Figure 2. Jicarilla Wild Horse Territory

- Wild Horse Management Plan, Jicarilla Territory (3/16/1977) [28], based on the Environmental Assessment (12/28/1976) [28] and Excess Horse Removal Plan of 10/26/1978 [30]
- Wild horses may also be managed outside the designated JWHT as described in the 1971 Wild Free-Roaming Horses and Burros Act and under FSM 2264.3 (Appendix F).

At the time the Jicarilla Ranger District was formed in August 1910, there were wild free-roaming horses living on the open range. Records for 1912 estimated the population to be around 1,000 horses. When the Wild Free-Roaming Horses and Burros Act was signed in 1971, the first helicopter aerial survey was conducted and 48 horses were counted. The next count in 1978 was 242 horses. Annual aerial surveys have continued to the present with some missed years. Based on the 2004 aerial survey conducted in January, there are an estimated 236 wild horses within the Jicarilla Wild Horse Territory [260].

The ancestry of the Jicarilla herd is questionable. Most consider the herd to be a mixture of domestic horses that were released since the late 1800's. Others believe the horses are direct descendants of Spanish horses brought over during the early Spanish exploration. Based on the Wild Free Roaming Horses and Burros Act of 1971 and its implementing regulations, the Forest Service manages within the JWHT a herd of wild horses that are not a specific type of horse or a horse of specific ancestry or breed.

From the 1880's to the mid 1900's, year-round grazing by domestic sheep and cattle within the JWHT was heavy. According to some of the older residents, the area within the wild horse territory had become so overgrazed that the flood of 1911 started gullies that today are 20 to 30 feet deep. Up until 1923, sheep and goat use was also extremely heavy. Sheep and goat grazing was discontinued in 1941, but permitted cattle, trespass livestock and wild free-roaming horse use remained heavy until 1955. Over the last 20 years an average of 140 head of cattle have grazed from the middle of May to the end of October. [226, 227]

Purpose and Need for Action

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 would be maintained. The AML is recognized as being the balance of available habitat between wild horses, permitted livestock, wildlife and other resources. Periodic horse gathers conducted in the past have been very important in keeping this balance.

Wild horses are smart as well as tough. They know their territory and often show their intelligence by their ability to avoid capture. This is one of the reasons the wild horse is etched in the minds of the American public. Unfortunately, they are often times prolific reproducers. Occasionally a mountain lion will kill a foal, but there are no natural predators that are able to keep the population in check on the Jicarilla Wild Horse Territory. Annual recruitment rates of 15 to 22 percent are common in designated wild horse herds across the west. [221]. Consequently, gathering horses has been routine since 1977. There have been approximately 370 horses gathered off the JWHT. Numbers have varied from year to year, but range from 9 in 1978, to as many as 70 in 1997. The last gather was in 1998, when 30 horses were gathered and adopted out.

For the past several years, the wild horse population within JWHT and adjacent lands has exceeded the AML described in the 1977 Plan. Based on the aerial survey conducted in January 2004, there are estimated to be 236 wild horses within the Territory. [260] The current estimated population of horses is almost four times the number described in the 1977 Management Plan. A

gather was planned for 2000 under the existing Wild Horse Management Plan, but special interest groups expressed concern over the gather and requested that an EA be completed before any future actions. Preparation for an EA for management of the JWHT including gathers, began in 2000 and was initially completed in 2002, however no final decision was made. The process was begun again in 2003, culminating with this EA.

Current poor range conditions and soil stability, along with a 26-year-old management plan, indicate the need for reevaluating management of the Jicarilla Wild Horse Territory. This analysis focuses on determining the appropriate management level of wild horses on the JWHT in order to achieve and maintain sustainable rangelands and balance available habitat, particularly forage, between wildlife, permitted livestock and wild horses. How to maintain the appropriate management level and maintain the genetic health of the herd is also discussed in this document.

Proposed Action

The Forest Supervisor of the Carson National Forest proposes to set the appropriate management level for free-roaming wild horses on the Jicarilla Wild Horse Territory at a range between 50 and 105 horses. Wild horse populations are very dynamic and growth rates can range widely from year to year. This alternative calls for managing within a range that allows some measure of population fluctuation. The proposed action would allow grazing use levels and range conditions to dictate the number of horses allowed to remain on the Territory within the 50-105 population range. Forage will be available first to wildlife and then balanced between wild horses and permitted livestock. The horse herd would be managed within the designated wild free-roaming horse territory (JWHT). Management will comply with the Wild Horses and Burro Protection Act of 1971, as amended, and the Carson National Forest Land and Resource Management Plan, as amended. [25,13,23]

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, soil stability, predicted weather patterns, and annual forage production and utilization 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 those described in FS Region 3 Range Analysis Handbook and/or the Rapid Assessment Methodology (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 50 horses or exceed 105 horses. The gathering of horses to meet the appropriate management level would be necessary. Several gathers would be initiated to bring the population within the range, with strong emphasis on horse health and safety as well as safety of contractors, Forest Service personnel, and the public. Contraception could be an important part of long term population control after the population is brought down to the AML (see Contraception, Wild Horse section, Chapter 3).

The following criteria would trigger the need for an adjustment in horse numbers and a subsequent gather and adoption and/or other population control measures:

- 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).

Gathering Timing and Methods

Considerable interest has been expressed concerning the timing for gathering excess wild horses. In April 2003 during a wild horse gather on the El Rito Ranger District of the Carson National Forest, two mares foaled after arriving in the holding facility -- one foaled 7 days after the gather and the other foaled 10 days after the gather. Both mares were in very poor physical condition and in spite of veterinarian intervention both foals died. Estimated ages on the mares were 9 years and 20 years old respectively. Had the foals been born in the wild, they could not have been expected to live because of the condition of the mares. However, to avoid foaling in the holding facilities again, no gather on the Jicarilla Wild Horse Territory would be conducted between the first of April and the end of June.

There has also been concern in methods for gathering horses. Some have commented that helicopters should not be used, while others have commented that horses should be gathered on foot by walking them into holding facilities or by baiting them into trapping facilities. Gathering horses on foot and baiting horses into trapping facilities are options that will be considered. While these and other methods may be used, helicopter gathering would not be ruled out as an option since it has been proven to be both humane and effective and is the primary method for gathering horses in the Wild Horse and Burro Program throughout the west. Roping may be used, but only as necessary. If other methods become available that are humane and reduce stress on the horses, they would also be evaluated (see Gathering, Wild Horse section, Chapter 3).

Selection of the gathering method to be used will be based on safety to the wild horses and people involved, season of the year, the area to be gathered, the number to be gathered, the location and

history of the band or bands to be gathered, and contractor availability. A contractor must prove that they are able to successfully capture wild horses in a safe and humane manner. Any helicopter 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 that are captured and removed will be put up for adoption, in accordance with the Wild Free-Roaming Horses and Burros Act of 1971, as amended and 36 CFR 222.29. [25,40]

Forest Plan Consistency

The National Forest Management Act of 1976 (NFMA) requires the development of long-range land and resource management plans. The 1986 Carson Land and Resource Management Plan, as amended, (hereby called Forest Plan) sets forth broad, programmatic management direction for the Carson National Forest. [13] This EA is a project-level analysis, designed in conformance with the applicable Forest Service plan direction (goals and prescriptions). Where appropriate, this EA tiers to the environmental impact statement for the Carson Forest Plan, as encouraged by NEPA regulations.

The Carson Forest Plan provides guidance for all natural resource management activities on the Carson National Forest. NFMA requires all projects and activities to be consistent with the Forest Plan. The Forest Plan has been reviewed in consideration of this proposal. Forest-wide prescriptions that apply to the proposed action are primarily those related to protection and/or management of: range (Range 1-2), soils (Watershed 1-2) and wildlife habitat (Wildlife and Fish 1-14).

The Forest Supervisor of the Carson National Forest has the delegated authority to determine the appropriate management level for a wild horse territory designated by Congress on the Carson National Forest, and uses the Forest Plan for guidance. The Forest Plan states that,

- *Maintain wild horse populations to levels outlined in management plans for the area.* [13]
- *Provide forage to the extent benefits are commensurate with costs without impairing land productivity and within the constraints of social needs.* [13]

The proposed action as described would be consistent with the Forest Plan.

On the Carson National Forest, the proposed action would include lands within four different management areas, which have additional standards and guidelines. These management areas (MA) are: [13]

MA 4 – Ponderosa Pine Under 40%
MA 8 – Piñon Juniper
MA 11 –Reseeded
MA 12 – Sagebrush
MA 13 – Oak

The proposed action is consistent with the standards and guidelines for each of these management areas. [94]

Decision Framework

Given the purpose and need, the Responsible Official reviews the proposed action, the alternatives and the environmental consequences in order to make a decision. The Forest Supervisor for the Carson National Forest is the Responsible Official who will decide whether to revise the current Wild Horse Management Plan for the Jicarilla Wild Horse Territory (1977) and select the appropriate management level as proposed or choose an alternative, including taking no action.

[28] In addition, the Responsible Official may elect to require certain mitigation measures to minimize environmental impacts.

Public Involvement

Scoping

Public participation and the scoping process are used to identify issues related to the proposed action, develop alternatives to address issues and to obtain public comment at various stages of the environmental analysis process. The Jicarilla Wild Horse Management proposed action has been listed on the Carson National Forest Schedule of Proposed Actions since April 2000. [261, 263] The Schedule of Proposed Actions has also been posted on the Carson National Forest's website – www.fs.fed.us/r3/carson.

Tribal Contact and Consultation

Native American tribes that may be interested in the project were identified early in the process, and consistent with the 1999 requirements of the National Historic Preservation Act, Section 106, consultation with affiliated tribal officials was initiated. On April 15, 2003 and again on August 26, 2003, a letter describing the proposal on wild horse management on the Jicarilla Wild Horse Territory was sent to the Native American tribes and pueblos for Section 106 consultation. [103,167]

Public Individuals and Organizations

In August and again in June 2000, a scoping letter was sent out to 49 individuals, groups, agencies, tribes and pueblos. [45, 46] In November of 2000 a draft environmental assessment was sent out for comment to 52 interested individuals or organizations. [52,53]

In April 2003, scoping was reinitiated and a letter was sent out to 125 entities including all previously interested individuals, groups and tribes, along with parties that have more recently shown interest in the project. [103, 104] Thirteen individuals responded to the proposal. [106, 107, 109-111, 116-119, 122-125]

On June 13, 2003, a letter was sent to all affected and interested parties announcing a tour and opportunity for discussion of the Jicarilla Wild Horse Territory planned for June 28, 2003. [132, 133] Notices of the upcoming field trip were also placed in *The Taos News* and the *Farmington Daily Times*. [129] Fifteen individuals participated in the field trip, giving them the opportunity to see the Territory, as well as discuss challenges in its management. [145]

Over the years, there have been informal meetings with grazing permittees concerning wild horse management on allotments that overlap the Jicarilla Wild Horse Territory. Generally permittees see horses as competing with their livestock for forage, but are tolerant of their presence when the population is managed.

Notice of 30-day Comment Period

Consistent with the Forest Service Notice, Comment and Appeal Procedures (36 CFR 215, revised June 4, 2003), the proposed action for the Management of the Jicarilla Wild Horses was distributed to the public for a 30-day comment period in August 2003. [155, 156] A legal notice of the proposed action triggering the initiation of the 30-day period was published in *The Taos News* on August 7, 2003. [154] A notice was also published in the *Farmington Daily Times*. [157]

Issues and ideas that surfaced through all of these public involvement activities have contributed to the refinement of the proposed action and the action alternatives, and have played a significant role in the identification and analysis of the potential environmental and social effects of this project.

Issues

An issue is a point of concern, debate or dispute over the effects of implementing the proposed action. Issues also help define the scope of the analysis. Issue management can usually be broken down into several steps. During the initial introduction of the proposed action, people were asked to comment on the proposal. From the comments, issues are clarified and organized. Once this process is completed, significant issues are identified.

The Forest Service separated issues into two groups: significant and non-significant issues. Significant issues are defined as those directly or indirectly caused by implementing the proposed action. Significant issues are used to formulate alternatives, prescribe mitigation measures or analyze environmental effects. Non-significant issues were identified as those: 1) outside the scope of the proposed action; 2) already decided by law, regulation, Forest Plan, or other higher level decision; 3) irrelevant to the decision to be made; or 4) conjectural and not supported by scientific or factual evidence. The Council on Environmental Quality implementing regulations for the National Environmental Policy Act explain this delineation in 40 CFR Sec. 1501.7, "...identify and eliminate from detailed study the issues which are not significant or which have been covered by prior environmental review (Sec. 1506.3)..." [5]

Public comments on the proposed management of the Jicarilla Wild Horse Territory covered a variety of topics. A number of people were concerned over the methods used to gather horses. The proposed action is limited to reevaluating the Jicarilla Wild Horse Management Plan and establishing a population range that will sustain ecological health of the Territory. The issue of methods of gathering is outside the scope of the proposed action.

Significant issues were used to develop alternative management options and/or addressed in the analysis of environmental effects (*Chapter 3-Affected Environment and Environmental Consequences*). Evaluation criteria are used to measure the potential consequences of the alternatives as they relate to each issue. The following are the significant issues and corresponding evaluation criteria identified for the proposed action.

Significant Issue: Size of Herd and Impacts On Natural Resource Conditions

Over the last several years, drought conditions, the climbing wild horse population, and grazing livestock and wildlife use have combined to cause resource conditions on the JWHT to decline. Livestock grazing has been suspended, but the horse population has continued to increase. This increase has jeopardized wildlife habitat and livestock grazing on the allotments that overlap the Jicarilla Wild Horse Territory. In addition, overgrazing has reduced vegetation ground cover, thus increasing sheet and rill erosion – especially on deeper soils associated with canyon bottoms.

Evaluation criteria used for relating herd to forage availability:

- Annual forage utilization levels and range conditions and trend or ecological condition.

Significant Issue: Size of Horse Herd As It Relates to Genetic Health of the Population

The proposed action would manage for a wild horse population between 50 and 105. Comments submitted on this issue varied, with some stating that the horse population should not be allowed to drop below 70 animals and others commenting that the population should not be allowed to drop below 100. The overall concern is that a population below these numbers may not be enough to maintain the genetic health of the JWH herd to avoid genetic defects (inbreeding). Research in wild horse populations have shown that in a closed herd a total census size of 200 animals and/or an effective population (that portion of the population that is actively taking part in reproduction) of at least 50 horses is needed to maintain sufficient genetic diversity. [229]

Evaluation criteria used for relating herd size to horse health:

- A discussion of effective breeding herd size and genetic conservation strategies relating to wild horse herds, genetic viability and overall genetic health of the herd.

Other Issues: Addressed in Chapter 3 – Affected Environment and Environmental Consequences

A number of people requested that certain environmental impacts of the proposed action be addressed in the environmental assessment. These include the following, which will be analyzed as a part of Chapter 3 -- Affected Environment and Environmental Consequences:

Livestock impacts versus wild horse impacts

Some people are concerned that livestock grazing should not occur in a wild horse territory, or that wild horse use should have priority over livestock use. The scope of the analysis and decision to be made do not involve the determination of whether livestock grazing should take place in the Jicarilla Wild Horse Territory or how many head should be permitted. However, the cumulative impacts of livestock grazing, along with wild horses and other ungulates will be addressed in *Chapter 3 – Environmental Consequences, Vegetation and Livestock Grazing*.

Contraception to control herd size

Some people were concerned that contraception should be a viable alternative to gathering and adoption. The BLM is currently carrying out intensive studies using the immuno-contraceptive agent, *porcine zona pellucida* (PZP) on three small populations of wild horses. There are no wild horse populations in the western states that are being managed solely through the use of PZP. Permission to conduct research using PZP is covered under an Investigational New Animal Drug Exemption (INAD #8857) filed with the Food and Drug Administration by the Humane Society of the United States. [221] Further discussion of contraception is addressed in *Chapter 3 – Environmental Consequences, Wild Horses* of this document.

Selection criteria for horses to be removed during gathers

Some people were concerned that no selection criteria are used to determine which horses are removed from the herd during gathers and which remain. Selection criteria are addressed in *Chapter 3 – Environmental Consequences, Wild Horses*.

Other Issues: Addressed in Chapter 2 – Alternatives, Including the Proposed Action

In addition to significant issues for which alternatives are developed, some respondents suggested alternatives of their own. These are discussed in *Chapter 2 – Alternatives* under *Alternatives Considered, but Eliminated From Detail*. Reasons why these alternatives were eliminated are provided in this section of the environmental assessment.