

**United States Department of the Interior
Bureau of Land Management**

**Little Book Cliffs Wild Horse Range Gather
Environmental Assessment
DOI-BLM-CO-130-2013-0018-EA**



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1.0 BACKGROUND INFORMATION

1.1 Introduction

The Bureau of Land Management (BLM) Grand Junction Field Office (GJFO) proposes to gather and remove up to 50 excess wild horses from the Little Book Cliffs Wild Horse Range (LBCWHR) using bait and/or water trapping methods with an option of using the helicopter method if necessary. The BLM has measured heavy and severe utilization of vegetation forage species in the upper and lower elevation areas of the LBCWHR and has determined excess wild horses are present on the range. The use patterns of the wild horses within the LBCWHR have not shifted for a majority of the population since the last gather and heavy utilization continues in the same areas. The gather would begin as soon as the environmental assessment (EA) and decision process is complete and environmental conditions allow in calendar year 2013, which would most likely be early September to first of December if necessary and conditions allow. Gather operations may extend into 2014 if needed.

The proposed action is designed to protect rangelands from deterioration from an overpopulation of wild horses and help maintain a thriving natural ecological balance and multiple-use relationships. The method of capture would be water and/or bait-trapping using temporary traps of portable panels throughout selected sites within the LBCWHR. After capture in the trap, excess wild horses would be sorted and transported to a holding facility in Grand Junction, Colorado where they would be prepared and offered for adoption.

This gather is scheduled to begin in early September 2013. Due to limited space and budget restrictions there exists the possibility of a postponement. The most likely scenario for a postponement would be that there are a large number of fires in the western states within HMAs this year. Fires may cause the necessity of emergency gathers and removal of wild horses taking the space and budget away from planned gathers. If this gather is postponed we would gather LBCWHR as soon as space and budget allows.

This proposed action is in conformance with the Little Book Cliffs Wild Horse Management Plan (HMAP) written in 1979 and revised in 1984 and 1992. In 2002 the Little Book Cliffs Population Management Plan (PMP) was prepared and amended the HMAP (Appendix A). This EA also incorporates the Little Book Cliffs Wild Horse Range Fertility Control program analyzed in the 2002, 2004 and 2007 gather EAs: CO-GJFO-02-32-EA decision signed 6/28/02, CO-GJFO -04-94-EA decision signed 7/9/04 and CO-130-2007-010-EA decision signed 8/27/07.

This EA has been prepared to analyze the impacts to wild horses and other identified resources from conducting or not conducting a gather operation.

After analyzing the monitoring data collected since the 2007 LBCWHR gather, the BLM has determined that more wild horses are present than the range can sustain. The BLM's monitoring data was compared to forage utilization objectives within the HMAP which are identified as an average of 30% on September 15 in the summer range and 60 percent on April 15 in the winter range. Monitoring data showed that use levels were much higher than these utilization objectives. Use levels were exceeded in 2009, 2010 and 2012. In 2011 utilization levels were more acceptable due to higher than normal precipitation. Monitoring data is summarized in the

vegetation section of this EA. This data further supports the current Appropriate Management Level (AML) of 90 to 150 wild horses (excluding current year's foals) as determined in the 2002 PMP and subsequent Decision Record. Currently, a fertility control program is being administered.

The AML is defined as the number of wild horses that can be sustained within a designated HMA which achieves and maintains a "thriving natural ecological balance" in keeping with the multiple-use management concept for the area. The Interior Board of Land Appeals (IBLA) defined the goal for managing wild horse (or burro) populations in a thriving natural ecological balance as follows:

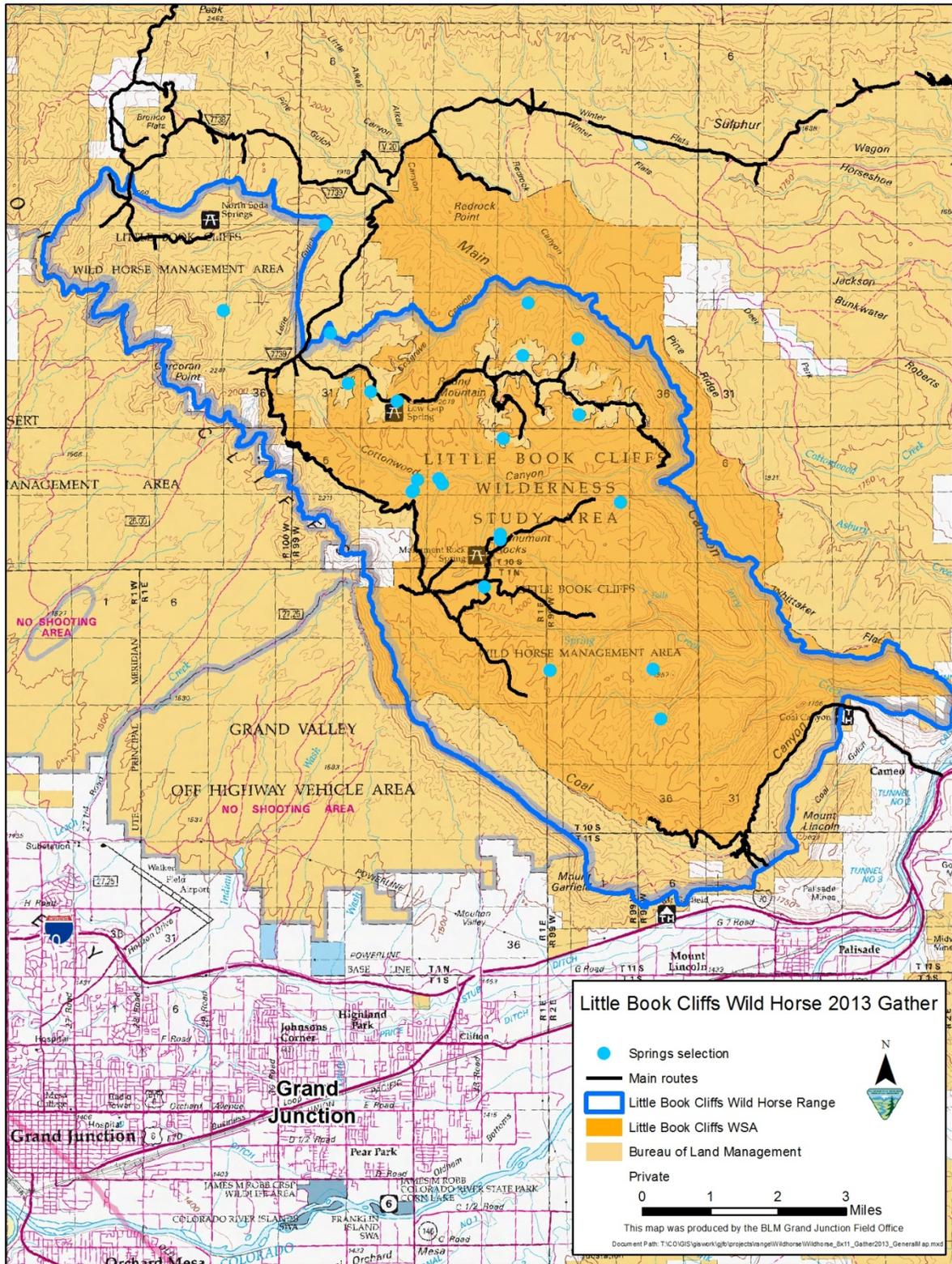
As the court stated in *Dahl v. Clark*, 600 F. Supp. 585, 594 (D. Nev. 1984), "the benchmark test" for determining the suitable number of wild horses on the public range is "thriving ecological balance." In the words of the conference committee which adopted this standard: "[T]he goal of wild horse and burro management * * * should be to maintain a thriving ecological balance between wild horse and burro populations, wildlife, livestock, and vegetation, and to protect the range from the deterioration associated with overpopulation of wild horses and burros." (*Animal Protection Institute of America v. Nevada BLM* 1989).

In 2002 the BLM initiated a fertility control research program in the Little Book Cliffs Wild Horse Range, in coordination with the Biological Research Division (BRD) of the United States Geological Service (USGS) to study the effectiveness of porcine zona pellucida (PZP) and the effects of the drug on wild horses. Details of the research program are contained in the Environmental Assessment and Gather Plan Document CO-GJFO-02-32-EA which are available at the Grand Junction Field Office (GJFO). From 2002 through 2006 the fertility control continued under the research program. In 2007 fertility control activities shifted from the Individual Based Research study to the Population Based Research. Since 2007 additional mares have been treated, as analyzed in Environmental Assessment CO-130-2007-010-EA and subsequent NEPA documents. Results from treating mares are discussed later in this EA. Fertility control will continue within the LBCWHR regardless of the determination to conduct a gather operation. Additional fertility control is proposed as part of the gather proposal.

1.2 Location

The project area is located in the LBCWHR in Mesa County in western Colorado (see Map 1). The area is approximately 15 miles north of Grand Junction, Colorado. The LBCWHR encompasses 36,014 acres of which 35,189 are public land and 925 acres are private. Elevations range from 5,100 feet to 7,100 feet above sea level.

Map 1.2-1: Little Book Cliffs Wild Horse Range



1.3 Purpose and Need for the Proposal

The purpose of the Proposed Action is to meet the goals and objectives of the LBCWHR HMAP to maintain a healthy viable wild horse population in balance with healthy rangelands by maintaining the AML. The action is needed because BLM has determined excess wild horses are present on the range. The current population of wild horses is approximately 149-152 animals not including 2013 foals as determined by a census kept by BLM with assistance from the local volunteer group Friends of the Mustangs (FOM). Currently there are 5 new foals in 2013 with an anticipation of 5 more resulting in approximately 159 to 162 total animals at the time of the gather.

The BLM has measured heavy and severe (60%+) utilization of vegetation forage species from wild horse grazing on most of the key use areas of the LBCWHR for three of the past four years. Drought conditions along with an excess of wild horses has led to the high utilization levels which if continued will lead to deteriorated rangeland conditions. The population needs to be reduced to attain a thriving natural ecological balance. The HMAP identified the AML at 90-150 wild horses as the carrying capacity in order to maintain ecological stability of the range, and protect the range from deterioration.

The Proposed Action will maintain wild horse herd numbers at levels consistent with range conditions and the AML, in order to make progress toward meeting standards of rangeland health, and to achieve objectives and decisions authorized in the HMAP. The BLM has confirmed that numbers in excess of the AML lead to deteriorated range condition. Removal of excess wild horses will restore a thriving natural ecological balance in the LBCWHR.

1.4 Decision to be Made

The BLM will decide whether or not to remove excess wild horses from the LBCWHR using bait and/or water trapping, and if necessary helicopter gathering. The BLM also will decide the number of horses to be removed to maintain the population in a thriving natural ecological balance. In addition the method of capture will be analyzed. The number of horses to be removed would be determined by range conditions and current utilization levels in August of 2013. A decision will be made within the last 10 days of August as to how many horses will be removed just prior to initiation of the gather. If utilization levels are moderate or less then fewer than 50 wild horses would be removed. Provided there has been no new information and circumstances have not substantially changed within LBCWHR removal of excess wild horses could continue into 2014 if gather objectives are not met in 2013. The BLM also will decide whether to treat (with PZP) mares released during the gather operation. Bait trapping would occur mainly during the late summer and fall months, September 1 to December 1 to avoid issues with winter weather conditions and foaling in the spring.

1.5 Issues identified during scoping #

The BLM conducted internal (interdisciplinary) scoping and also conferred with FOM. Through the FOM newsletter and on March 14, 2013 at their regularly scheduled open public monthly meeting the BLM discussed the plans for conducting a gather in 2013. BLM answered questions and invited FOM members to contact BLM with comments. Issues brought forward at the meeting included how many horses would be removed based on forage conditions, if fertility

control would be given to released mares, and what would be used to determine when a helicopter would be utilized. FOM was invited to provide input that would help the BLM develop a proposed action and alternatives, further identify issues, potential environmental consequences and mitigation opportunities.

1.6 Relationship to Planning

The proposed action is in conformance with the Grand Junction Resource Management Plan (1987) Record of Decision (ROD), which included the objectives to manage for a balance between a healthy population of wild horses and improvements in range condition, wildlife habitat, and watershed condition.

The proposed action also is in conformance with the Little Book Cliffs Herd Management Area Plan (HMAP) written in 1979, as revised in 1984 and 1992. In 2002 the Little Book Cliffs PMP was prepared and amended the HMAP (Appendix A). The EA for the management plan and PMP along with gather plan EAs prepared in 2002, 2004 and 2007 analyzed and supported decisions to manage the wild horse population between 90-150 wild horses. These EAs also analyzed the fertility control program within the LBCWHR.

The proposed action is in conformance with the Wild Free-Roaming Horses and Burros 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 the BLM.

The Wild Free-Roaming Horses and Burros Act of 1971, Section 1333 (b) (1), states that the Secretaries of the Interior and Agriculture shall “determine appropriate management levels of wild free-roaming horses and burros on areas of public lands; and determine whether appropriate management levels should be achieved by the removal or destruction of excess animals, or other options (such as sterilization or natural controls on population levels).” According to 43 CFR §4700.0-6, “Wild horses shall be managed as self-sustaining populations of healthy animals in balance with other uses and the productive capacity of their habitat.”

Colorado Standards for Public Land Health

In January 1997, the Colorado State Office of the BLM approved the Standards for Public Land Health and amended all RMPs in the State to include the Standards. The Standards describe the conditions needed to sustain public land health and apply to all uses of public lands.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitats potential.

Standard 4: Special status, threatened and endangered species (federal and state), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the Water Quality Standards established by the State of Colorado.

Because standards exist for each of these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in Chapter 3 of this document.

2.0 DESCRIPTION OF THE PROPOSED ACTION and ALTERNATIVES

This EA focuses on the Proposed Action and a No Action alternative. There are no issues to resolve through other action alternatives since no unresolved issues have been identified. The No Action alternative is considered and analyzed to provide a baseline for comparison of the impacts from the Proposed Action.

2.1 PROPOSED ACTION

The Proposed Action alternative would be to remove up to 50 excess wild horses from the Little Book Cliffs Wild Horse Range. The objective of this proposed gather is to match the population of wild horses with appropriate vegetation utilization levels to maintain healthy rangelands and sustain a healthy wild horse population. The intent is to maintain utilization at proper levels of 60% use or less to reduce grazing impacts to forage plants. Removing the necessary number of excess wild horses of up to 50 would maintain a natural thriving ecological balance. The current population is estimated to be 149 to 152 wild horses excluding 2013 foals. The estimated population of the LBCWHR at the time of the gather including the 2013 foals would be 159 to 162 horses based on a current foal count of 5 and the potential for 5 more foals. The removal of horses would reduce grazing pressure on forage plants that have been subject to heavy and severe grazing for three out of the past four years. The number of horses to be removed would be determined by range conditions and current utilization levels in August of 2013. A decision will be made within the last 10 days of August, just prior to initiation of the gather, as to how many horses will be removed. If utilization levels are in the heavy or severe category, up to 50 excess wild horses will be removed, leaving approximately 110 horses on the range, including some 2013 foals. If utilization levels are light to moderate, fewer horses would be gathered, leaving the population at approximately 130 to 140 head, including some 2013 foals. The proposed action would consist of removing excess animals 5 years of age or younger. This age of wild horse is expected to be more appealing to adopters thus increasing the success of the local adoption. .

Achieving an adequate post-gather population level, along with the fertility control program which would keep growth rates below 15%, would be expected to attain an appropriate utilization level for the next several years, given adequate moisture. In any event the proposed action would not result in fewer than 110 wild horses being left in the LBCWHR.

The primary gather method would be bait/water trapping, which has not been utilized in the LBCWHR in the past. In the event bait/water trapping is not achieving the desired gather objectives as described above a helicopter may be used to herd wild horses into a trap, which is similar to past gathers. Bait/water trapping has proven to be successful in smaller HMAs such as the Pryors and McCollough Peaks gathers which have similar conditions to the LBCWHR, in regards to smaller number of horses to be removed, smaller bands, acceptance of human presence, and terrain. Bait/Water trapping would provide greater flexibility for the selection process on where and which horses to gather, more options for trap sites and more flexibility with the timeframe to complete the gather in the event of unforeseen delays. Furthermore, qualified, knowledgeable, volunteers are able to work with the BLM to help conduct the trapping which may reduce the cost of the gather. The gather would begin with bait/water trapping and if the number of required wild horses is captured and removed the gather would end. However, after forty five days if the desired number of wild horses have not been captured and removed a helicopter may be utilized to gather the remaining excess wild horses. Bait, water trapping, and helicopter gather IM's and SOP's will be followed.

The proposed action also provides for the continuation of fertility control as part of the on going fertility control program. All previously untreated mares captured and selected for release back to the range would be treated with a primer dose of PZP prior to release. Mares would be treated using BLM approved remote application devices (i.e. CO2 Dan Inject). Mares treated would be added to the current data base of treated mares and monitored for success of fertility drug and any behavior changes. Depending on age, genetics and herd demographics each mare may be treated with a booster dose of PZP after three weeks or at a later date. In addition, mares that have been treated prior to the gather may be boosted while in the trap if they meet the criteria laid out in the current fertility control program.

Hair samples for DNA analysis would be obtained from all horses released back to the range unless safety to the wild horse or personnel is jeopardized.

Excess wild horses removed from the range would be transported to a facility in the Grand Junction area where they will be prepared for adoption. This will entail veterinarian examination and care, permanent freemark placed on the left side of the neck, vaccinations, feed and care, and possible gelding. The wild horses not adopted would be transported to the Canon City facility.

The proposed action would utilize herd characteristics objectives and the removal considerations from the 2002 PMP when removing individual animals to the extent possible (Appendix A). The desired sex ratio as identified in the PMP would range from 60:40 to 40:60 stallion/mare percent ratio. Any wild horses outside of the LBCWHR will be gathered and would go through the same selection process as those on the range. Horse trapped outside of the LBCWHR and not selected for removal would be returned to the LBCWHR.

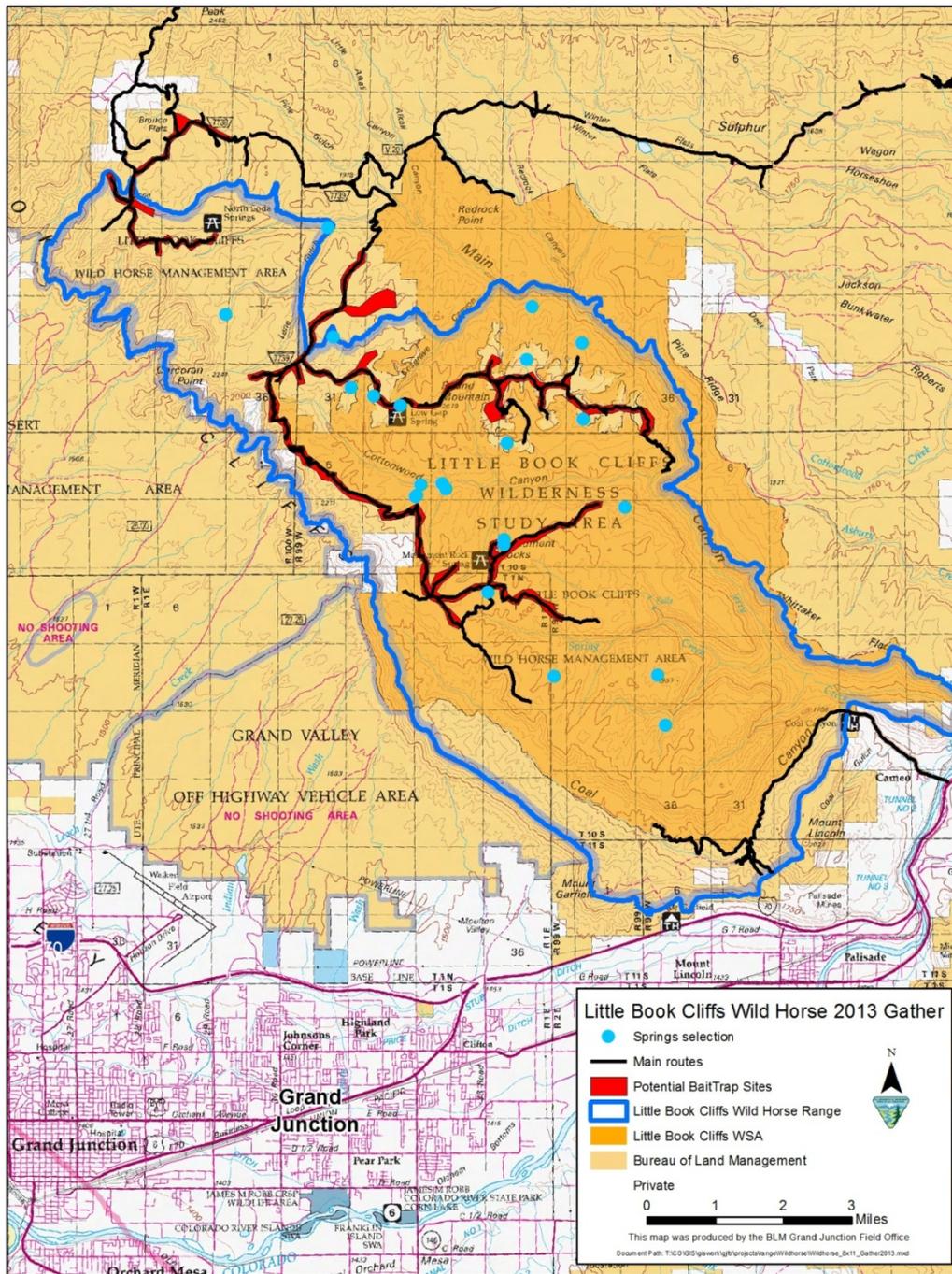
Capture operations would be conducted by BLM personnel with the assistance of approved volunteers. If a helicopter is used, the contractor's staff would also assist with the gather. Multiple trap sites would be used to capture the wild horses. Bait and/or water traps would most likely be placed in areas shown on Map 3. Other sites may be used as necessary based upon flow

and success of the bait trap operation. Bait and water traps would consist of portable panels set up at locations that are frequented by wild horses and that have existing road access. Trap sites would be coordinated with the local FOM groups. Certified weed-free hay or other attractants (such as mineral or processed cubes) would be used to lure horses to the area. Portable water tanks may be used if the use of baits is unsuccessful. Prior to any wild horses being captured, the trap or bait may be in place to accustom wild horses to their presence. When a band of horses or individuals enters the trap, the gate would be closed by BLM or volunteers.

Helicopter gathering would be performed in accordance with the methods described in the SOP's and Instruction Memorandum No. 2013-059.

Animals identified for removal would be sorted at the trap site and transported to a holding facility located in the Grand Junction area with horse or stock trailers pulled behind trucks. Any animals not identified for removal would be released back onto the range. If an animal is captured and must be held before being transported to the holding facility, the animal(s) would be provided with feed and water at the trap site.

Map 2.1-1: Little Book Cliffs Wild Horse Range Potential Trap Sites



A few wild horses that are captured but identified for return to the range may be moved to another location within the LBCWHR to help sustain genetic diversity and/or distribution. For example a horse gathered in the Monument Rocks area may be moved to the North Soda area. These movements would be determined at the time of capture.

Appropriate site-specific clearance and review for cultural resources and vegetative species of concern would be conducted at each trap site prior to set up if the area has not been previously disturbed. Traps would not be located around springs unless absolutely necessary or in areas impacting riparian resources. Trap sites in the Monument Rocks area within the Little Book Cliffs Wilderness Study Area (WSA) would be placed on existing routes approved for use in the Interim guidance. Trap sites would be located in previously disturbed areas and in areas with existing road access. The areas would be monitored for noxious weeds over the next several years. All sites would be assessed for post bait trap reseeding. All capture and handling activities (including capture site selection) would be conducted in accordance with the standard operating procedures (SOPs) in Appendix B and recent IM's found in Appendix D.

All domestic animals would be removed during this bait trap removal as well. As per state law, the "stray horses" would be turned over to the Colorado Brand Inspector.

2.2 Alternative II (No Action):

The no action alternative provides a baseline for impact analysis. Under this alternative the gather operations would not occur this year but ongoing fertility control would continue, consistent with existing decisions along with the collection of herd and range monitoring data. The current fertility treatment program would continue through 2014 based upon the latest NEPA document or if BLM approves a revision of the HMAP. Due to the fertility control program, the population growth rate would be reduced, but the wild horse population would still continue to grow from 10% to 15% annually.

2.3 Alternative Considered but Eliminated from Further Analysis

2.3.1 Alternative to Only use a Helicopter:

This alternative would only utilize helicopter assisted trapping to remove excess wild horses. In the past, most of the gathers within the LBCWHR that removed excess wild horse were conducted using this method. This alternative was not carried forward because the impacts are not significantly distinguishable from those analyzed for bait trapping and helicopter use under the proposed action.

CHAPTER 3 - AFFECTED ENVIRONMENT AND EFFECT

3.1 INTRODUCTION

This section provides a description of the human and natural environmental resources that could be affected by the Proposed Action and presents comparative analyses of the direct, indirect and cumulative effects on the affected environment stemming from the implementation of the actions under the Proposed Action and other alternatives analyzed.

This EA draws upon information compiled in the Grand Junction Resource Area RMP (BLM 1987).

3.1.1 Elements Not Affected

The following elements, identified as not being present or not affected will not be brought forward for additional analysis:

Areas of Critical Environmental Concern – No ACECs are within, or immediately adjacent to the project area.

Farmlands, Prime and Unique – Not present

Recreation – Recreation will not be analyzed in detail. The primary recreation related activities and sought after experiences are available during this activity and would not be impacted during or after the gather. This area does not fall with a recreation management area; therefore setting prescriptions do not exist. The setting character in its current state would not be impacted by either of the action alternatives. Transportation and access will not be analyzed in detail in this document. The use of approved routes for herd management has been identified with no change to that system or need for additional access. Use of those routes may increase during the preparation and execution of the gather, with expectations of this use to have no significant impacts on the current route system or access needs of the public.

Fire and Fuels – No impact

Geology – No impact

Mineral Resources – No Impact

Paleontological – No Impact

Visual Resources – No Impact

Wild and Scenic Rivers – Not present

Lands with Wilderness Characteristics – Not present

Land Tenure, ROWs – No Impact

Riparian – No Impact. Proposed design features would mitigate any potential impacts.

Table 3.1.1–1 Potentially Impacted Resources

Resources	Not Present On Location	No Impact	Potentially Impacted	Effects sufficiently analyzed/ mitigated in previous NEPA document or proposed action?	BLM Evaluator Initial & Date	Comments
PHYSICAL RESOURCES						
Air and Climate	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	ND 4/15/13	
Water (surface & subsurface, floodplains)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	ND 4/24/13	
Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	ND 4/23/13	
Geological/Mineral Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	DSG 4/15/13	
BIOLOGICAL RESOURCES						
Special Status Plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	JT 4/24/13	
Special Status Wildlife	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	JT 4/24/13	
Migratory Birds	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	JT 4/24/13	
Other Important Wildlife Habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	JT 4/24/13	
Vegetation, Forestry	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	JRD 5/2/13	
Invasive, Non-native Species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	MT 4/1/13	
Wetlands/Riparian Zones	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	DSG 4/15/13	

Table 3.1.1–1 Potentially Impacted Resources

Resources	Not Present On Location	No Impact	Potentially Impacted	Effects sufficiently analyzed/mitigated in previous NEPA document or proposed action?	BLM Evaluator Initial & Date	Comments
HERITAGE RESOURCES AND HUMAN ENV.						
Cultural or Historical	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	ALR 5/10/13	See Comments
Paleontological	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	DSG 4/15/13	
Tribal& American Indian Religious Concerns	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	ALR 5/10/13	
Visual Resources	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	MLB 5/2/13	
Social/Economic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	JRD 5/7/13	
Transportation and Access	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	MLB 5/2/13	
Wastes, Hazardous or Solid	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	AK 4/29/13	
LAND RESOURCES						
Recreation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	MLB 5/2/13	
Special Designations (ACEC, SMAs, WSR)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	CPP 4/29/13	
Wilderness & Wilderness Characteristics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	CPP 4/29/13	
Range Management	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	JRD 5/2/13	
Wild Horse and Burros	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	JRD 5/6/13	
Land Tenure, ROW, Other Uses	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	RBL 5/8/13	
Fire/Fuels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Y <input type="checkbox"/> N <input type="checkbox"/>	JP 5/8/13	

3.2 PHYSICAL RESOURCES

3.2.1 Air Quality and Climate Change

Current Conditions:

Air quality in the project area is typical of undeveloped regions in the western United States. The closest Class I Airshed is the Maroon Bells Snowmass Wilderness Area located approximately 55 air miles to the southeast.

The primary sources of air pollutants in the region are fugitive dust from the desert to the west of the planning area, unpaved roads and streets, seasonal sanding for winter travel, motor vehicles, and wood-burning stove emissions. Seasonal wildfires throughout the western U. S. may also contribute to air pollutants and regional haze. The ambient pollutant levels are usually near or below measurable limits, except for high short-term increases in PM₁₀ levels (primarily wind-blown dust), ozone, and carbon monoxide. Within the Rocky Mountain region, occasional peak ozone levels are relatively high, but are of unknown origin. Elevated concentrations may be the result of long-range transport

from urban areas, subsidence of stratospheric ozone or photochemical reactions with natural hydrocarbons. Occasional peak concentrations of CO and SO₂ may be found in the immediate vicinity of combustion equipment. Locations vulnerable to decreasing air quality include the immediate areas around mining and farm tilling, local population centers, and distant areas affected by long-range transportation of pollutants. Representative monitoring of air quality in the general area indicates that the existing air quality is well within acceptable standards.

The EPA General Conformity regulations require that an analysis (as well as a possible formal conformity determination) be performed for federally sponsored or funded actions in non-attainment areas and in designated maintenance areas when the total direct and indirect net air pollutant emissions (or their precursors) exceed specified levels. Since the GJFO is not within a non-attainment or a maintenance area, the Clean Air Act conformity regulations do not apply.

No Action:

Direct and Indirect Effects: No direct or indirect impacts to air quality would result from the No Action alternative.

Cumulative Effects: Under the No-Action alternative, a gather would not be conducted and the existing population would continue to grow from 10 to 15% annually. The wild horse population would be allowed to reach equilibrium by regulating their numbers through periodic elevated mortality rates caused by drought, disease, and insufficient forage, water and/or space availability or a combination of these factors. Under this scenario, the potential for the expanding horse herd to contribute towards degradation of land health conditions could leave soils exposed and more vulnerable to erosional processes which influence production of fugitive dust. Impacts resulting from an expanding horse herd when combined with other past, present, and reasonably foreseeable land uses such as motorized recreation, mineral development and natural phenomena such as wild fire and persistent drought, could contribute towards air quality degradation both locally and regionally as a result of increased dust production.

Proposed Action:

Direct and Indirect Effects: Direct impacts associated with the proposed action would include temporary increases in fugitive dust production from the herd management area as BLM/FOM personnel install traps, haul water, and transport horses from the range to the adoption facilities. Impacts would be highly localized (roadside impacts), limited to periods of transportation, and would have no measurable impact on air quality away from driven access routes.

Cumulative Effects: Cumulative impacts to air quality associated with the proposed action are anticipated to be beneficial to air quality as the horse herd would be managed to maintain rangeland health conditions as well as herd health. These management objectives would operate within the context of past, present, and reasonably foreseeable uses in the herd management area.

3.2.2 Soils (includes a finding on Standard 1)

Current Conditions:

This area is characterized by shallow soils with a significant component of rock outcrop. Much of the area has steep to very steep slopes. Because of the steep slopes runoff potential is high and the erosion hazard is also high. A comprehensive description of all affected soils can be obtained online through the NRCS website: <http://soils.usda.gov/technical/classification/osd/index.html>

Soil related problems in the horse area are primarily related to erosion and a lack of perennials to bind and protect the soil. Past livestock grazing and present grazing by wild horses has reduced the perennial plant communities in the deep loamy soils. In problem areas the perennial component has been replaced by annual invasive species. Since this area is managed as a horse area it is not possible to change the season of grazing. Table one outlines the findings for Public Land Health Standard 1 from the 2006 BLM Land Health Assessment in the De Beque/Roan Creek Area.

Table 3.2.2-1:

Finding for: Public Land Health Standard 1 (upland soils)		
Meeting	Meeting with Problems	Not Meeting
30,461 acres	7,158 acres	573 acres

No Action:

Direct and Indirect Effects: Under the No-Action alternative, no gather would occur. Therefore, no impacts associated with gather operations would result. Effects to soil resources under this alternative are addressed under cumulative impacts.

Cumulative Effects: Through the 2006 BLM Land Health Assessment of the De Beque/Roan Creek Area, soil related problems were identified as being primarily related to erosion and a lack of perennials to bind and protect the soils. The Land Health Assessment (LHA) notes that these problems were directly related to drought as well as past livestock grazing and present grazing by horses. The LHA further explains that a combination of these factors have effectively reduced the perennial plant communities in the deep loamy soils which have been replaced by annual invasive species that are less effective at stabilizing soils. Since this area is managed as a horse area it is not possible to change the season of grazing. Under the No-Action Alternative, a herd reduction strategy would not be implemented, over grazing by horses would continue, ecologic diversity (lack of perennial plants) would be reduced and erosion potential would be elevated. As a result, implementation of the No-Action Alternative would contribute to degradation of soil health over the entire herd management area (38,192 acres).

Finding for Public Land Health Standard 1:

Reassessment of the herd management area would verify any changes to Public Land Health Standard 1. Although, it is anticipated under the No-Action alternative an overall reduction in soil health would occur. Areas currently not meeting standard 1 (573 acres) would persist under this condition, areas currently meeting with problems (7,158 acres) could be degraded to the point they no longer meet public land health standards, and areas currently meeting standard 1 (30,461 acres) could be degraded to a point they are meeting with problems or not meeting public land health standards for upland soils.

Proposed Action:

Direct and Indirect Effects: The proposed action could directly result in some additional surface disturbance which would primarily be associated with construction of traps and hoof action within these holding areas. The proposed action estimates several bait sites (traps) could be utilized and for this analysis it is estimated that each bait station would encompass approximately 1 acre. Additional surface disturbances would leave approximately 10+ acres exposed to erosional processes where soil erosion could be elevated. These areas would be allowed to reclaim naturally with time but the success of reclamation would largely depend on existing seed bank and climatic conditions following the gather.

Cumulative Effects: Through the 2006 BLM Land Health Assessment of the De Beque/Roan Creek Area, soil related problems were identified as being primarily related to erosion and a lack of perennials to bind and protect the soils. The Land Health Assessment (LHA) notes that these problems were directly related to drought as well as past livestock grazing and present grazing by wild horses. The LHA further explains that a combination of these factors have effectively reduced the perennial plant communities in the deep loamy soils which have been replaced by annual invasive species that are less effective at stabilizing soils. Since this area is managed as a horse area it is not possible to change the season of grazing. Therefore, a reduction in herd size as outlined under the proposed action would help restore ecologic diversity and limit erosion potential by reducing grazing pressure from horses. As a result, implementation of the proposed action (reduced horse herd) would promote overall improvement to soil health as the entire herd management area would benefit.

Finding for Public Land Health Standard 1:

Reassessment of the herd management area would verify any changes to public land health standard 1. Although, it is anticipated under the proposed action an overall increase in soil health would occur. Areas currently not meeting standard 1 (573 acres) would persist under this condition or improve, areas currently meeting with problems (7,158 acres) could be restored to the point they meet public land health standard 1, and areas currently meeting standard 1 (30,461 acres) would continue to do so.

Protective/Mitigation Measures: Construct bait stations (traps) within existing disturbances as much as possible to limit erosion potential from the landscape associated with new disturbance.

3.2.3 Water (surface and groundwater, floodplains) (includes a finding on Standard 5)

Current conditions:

All streams within the Herd Management Area are situated in water quality stream segment 13a of the Lower Colorado River Basin and are tributaries to the Colorado River between Grand Junction and DeBeque, Colorado (CDPHE. 2013). Stream segment 13a is not identified in Colorado's list of impaired streams or monitoring and evaluation list (CDPHE. 2012) meaning water quality standards are being met. All affected streams are ephemeral or intermittent, flowing in response primarily to summer convective storms and snowmelt. No water quality measurements were taken as part of the Land Health Assessment due to the lack of flowing water, but limited BLM data from past water sampling are available which are representative of the watershed within the herd management area. Conn Creek near DeBeque is one such location. Past sampling events at the mouth of Conn Creek indicate that the water is of poorer quality, tending to be greatly elevated in total dissolved solids, hardness, and alkalinity. Based on visual observations, high sediment loads are common of the flashy, high intensity, and localized storm events in this area. It is anticipated that streams within the assessment area are of similar quality. Water quality in these intermittent and/or ephemeral systems is primarily attributable to the natural environment and geologic setting. However, anthropogenic influences can elevate sedimentation rates increasing dissolved solids, hardness, alkalinity, and degrade water quality in general.

Numerous perennial springs are situated within the herd management area most of which are developed for wild horse and wildlife use and have BLM water rights to protect the sources. The water quality of these springs varies, but most tend to be high in total dissolved solids, which is indicative of their geologic setting.

Finding for Public Land Health Standard 5:

Currently streams within the herd management area are not identified on the State's list of impaired waters or monitoring and evaluation list (CDPHE. 2012). Therefore, water quality within the herd area is meeting public land health standard 5. However, watershed health and water quality is intricately tied to soil health and areas where soil health standard 1 is not meeting or meeting with problems tend to highlight areas where water quality may also be a concern (see table 1 in soils affected environment).

No Action:

Direct and Indirect Effects: Under the No-Action alternative, no gather would occur. Therefore, no impacts associated with gather operations would result. Effects to water resources under this alternative are addressed under cumulative impacts.

Cumulative Effects: As outlined under "Cumulative Effects" to soil resources under the No-Action alternative, drought as well as past livestock grazing and present grazing by horses has contributed to reduced soil stabilization and elevated erosion potential within the herd management area. As outlined under the affected environment, anthropogenic factors such as overgrazing by non-native species (introduced species) can result in elevated sedimentation rates which increase concentrations of dissolved solids,

elevate hardness and alkalinity, and reduce water quality in general. Under the No-Action Alternative, a herd reduction strategy would not be implemented, over grazing by horses would continue, erosion potential would be elevated and water quality across the entire 38,192 acre range as well as downstream in the Colorado River would experience some level of degradation.

Finding for Public Land Health Standard 5:

Reassessment of the herd management area would verify any changes to public land health standard 5. Because soil health and water-quality/watershed health are intricately related, it is anticipated that any changes to soil health standard 1 would signify possible changes to standard 5. Therefore, under the No-Action alternative an overall reduction in soil health would occur as would a reduction in water quality/watershed health standard 5. Areas currently not meeting standard 1 (573 acres) would persist under this condition and likely not meet standard 5 for water quality as well, areas currently meeting soil health standard 1 with problems (7,158 acres) could be degraded to the point they no longer meet public land health standard 1 and/or standard 5, and areas currently meeting standard 1 (30,461 acres) could be degraded to a point they are meeting with problems or not meeting public land health standards for upland soils and/or water quality (standard 5).

Proposed Action:

Direct and Indirect Effects: The proposed action could directly result in some additional surface disturbance which would primarily be associated with construction of traps and hoof action within these holding areas. The proposed action estimates several bait sites (traps) could be utilized and for this analysis it is estimated that each bait station would encompass approximately 1 acre. Additional surface disturbances would leave approximately 10+ acres exposed to erosional processes. Additional disturbances could elevate rates of sediment delivery to area drainages potentially degrading water quality near bait stations (traps). However, at the watershed scale quantification of impacts associated with surface disturbance at bait stations would be difficult to distinguish from natural conditions or other anthropogenic influences in the area (e.g. roads, OHV use, etc.).

Cumulative Effects: As outlined under “Cumulative Effects” to soil resources under the Proposed Action, drought as well as past livestock grazing and present grazing by horses has contributed to reduced soil stabilization and elevated erosion potential within the herd management area (38,192 acres). As outlined under the affected environment, anthropogenic factors such as overgrazing by non-native species (introduced species) can result in elevated sedimentation rates which increase concentrations of dissolved solids, elevate hardness and alkalinity, and reduce water quality in general. Under the Proposed Action, a herd reduction strategy would be implemented to reduce the horse herd to better fit the carrying capacity of the herd management area. Therefore, a reduction in herd size would help restore ecologic diversity, limit erosion potential and contribute towards water quality improvements as grazing pressure from horses would be reduced. As a result, implementation of the proposed action (reduced horse herd) would promote overall improvement to water

quality and watershed health over the entire herd management area (38,192 acres) as well as downstream in the Colorado River.

Finding for Public Land Health Standard 5:

Reassessment of the herd management area would verify any changes to public land health standard 5. Because soil health and water-quality/watershed health are intricately related, it is anticipated that any changes to soil health standard 1 would signify possible changes to standard 5. Therefore, under the proposed action an overall increase in soil health would occur as would an increase in water quality/watershed health standard 5. Areas currently not meeting standard 1 (573 acres) would persist under this conditions or improve. Watershed health and a finding on public land health standard 5 would likely mirror any improvements to soil health in these areas. Areas currently meeting soil health standard 1 with problems (7,158 acres) could be restored to the point they meet public land health standard 1, similar improvements to water quality and standard 5 would be expected to follow. Areas currently meeting standard 1 (30,461 acres) would continue to do so and water quality standard 5 in these areas would also be meeting.

Protective/Mitigation Measures:

1. Avoid establishing bait stations (traps) that would impact riparian or streamside habitats.
2. Avoid trapping horses in spring sources areas.

3.3 BIOLOGICAL RESOURCES

3.3.1 Invasive, Non-native Species#

Current Conditions:

A 2004 inventory of the LBCWHA revealed a few very small infestations of noxious weeds (hoary cress and Russian knapweed). These infestations have been treated. There is, depending on seasonal moisture, cheatgrass and annual forbs throughout the area.

No Action:

Direct and Indirect Effects: In the short term, there would be a negligible effect of not gathering, but in the long term, there would likely be a gradual decline in the overall health of the range and a greater potential for noxious weeds to move into the system.

Cumulative Effects: Over the very long term, a herd size over the AML or at the maximum, there is the potential of noxious weeds moving into the stressed ecosystem.

Proposed Action:

Direct and Indirect Effects: There should be very little effects from a weed perspective, regardless of the method used to gather horses (bait or helicopter, or both). The most likely way to introduce weeds to the site is in contaminated feed if used as bait.

Cumulative Effects: There is a long term benefit to the range from a weed perspective if the number of horses is reduced.

Protective/Mitigation Measures: To protect against inadvertent weed seed introduction, bait (hay, etc.) should be certified weed-free, or a processed feed (e.g. cubes or pellets).

3.3.2 Threatened, Endangered and Sensitive Species (includes a finding on Standard 4)

Current conditions:

Few threatened, endangered and sensitive species are found within the Wild Horse Management area, plant or wildlife, and none are known in the proposed gather areas. Raptors nest in woodlands throughout the area, and on cliffs around the periphery, but nesting activities would have ended by the time of the gather. Only one BLM Sensitive Plant is known in the management area, narrow-stem gilia (*Aliciella stenothyrsa*); it is known from the very southeastern fringes of the area above Palisade and DeBeque Canyon. No gathering activities are planned in this area, which is inaccessible by vehicles that would be necessary to remove horse form the area standard for the area. Surveys for Colorado hookless cactus (*Sclerocactus glaucus*) will be conducted this spring in the general area; if cactus is discovered, potential gather sites will be surveyed prior to the gather. If cactus is found at a gather site, that site would be avoided. Public Land Health Standards would be unaffected by the gather event.

No Action:

Direct and Indirect Effects: This alternative would not result in direct effects to special status species. Indirect impacts could affect Land Health if horse numbers are not reduced to match forage capacity; forage utilization above 60% would have a negative effect on Land Health.

Cumulative Effects: No effects to special status species. Cumulative effects of continuing growth of the horse herd for the years ahead at utilization rates greater than 60% would have a negative effect on Land Health.

Proposed Action

Direct and Indirect Effects: None for special status species. Proposed action would be expected to maintain or improve Land health by maintaining forage utilization below 60%.

Cumulative Effects: None to special status species.

3.3.3 Vegetation (grasslands, forest management) (includes a finding on Standard 3)

Current conditions:

The Little Book Cliffs Wild Horse Range consists primarily of three vegetative communities. Canyon bottoms in the lower elevation are desert shrub type surrounded by steep rocky piñón-juniper canyon walls. Higher elevations consist of scattered sagebrush parks surrounded by piñón-juniper hillsides and canyon walls. Prescribed burning and mechanical treatments have been used to convert sagebrush or piñón/juniper dominant

areas to herbaceous communities of grasses and forbs. Some prescribed burned areas were not reseeded but most treatment areas included reseeded. To improve herbaceous cover. In the past ten years several areas in the North Soda, Indian Park and Round Mountain areas were treated with a Hydro-ax or rollerchopper to remove increasing brush and tree species. As part of the treatments the areas were seeded with a mixture of grass and forbs species. These treatments were successful in increasing the forage available for wild horses and wildlife species. Many of the areas treated had been chained during the 1960's and 1970's. Cheatgrass does provide forage in some areas. In 2011 the Cosgrove wildfire was managed to burn approximately 1700 acres to benefit wildlife and wild horses. The area was aerially reseeded in February of 2012. Seeding success has been marginal thus far due to the dry conditions in 2012 but monitoring in 2013 is showing some improvement.

Precipitation

Since 2008 precipitation has been below normal every year except 2011 which received 134% of normal based on a BLM weather station located nearby in Corcoran Wash. The good year in 2011 was followed by an extremely dry year in 2012 which only received 65% of normal based on the same BLM weather station. In 2012 at the Grand Junction NOAA station only 51% of normal was received. Following is a summary of precipitation received in at two weather stations within the general area.

Table 3.3.3-1

Year	Location	Average (Inches)	Actual (Inches)	Deviation from Normal (Inches)
2008	Grand Junction – NOAA	8.70	7.26	-1.44
	Corcoran Wash- BLM	17.17	15.77	-1.4
2009	Grand Junction – NOAA	8.70	7.79	-0.91
	Corcoran Wash – BLM	17.17	16.58	-0.58
2010	Grand Junction – NOAA	8.70	8.80	+0.10
	Corcoran Wash – BLM	17.17	14.50	-2.67
2011	Grand Junction – NOAA	8.70	9.76	+1.06
	Corcoran Wash – BLM	17.17	23.03	+5.86

2012	Grand Junction – NOAA	8.70	4.52	-4.18
	Corcoran Wash – BLM	17.17	11.13	-6.04

Finding for Public Land Health Standard 3:

Finding on the Public Land Health Standard 3 for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): A land health assessment was completed for the Little Book Cliffs Wild Horse Range in 2006 by an interdisciplinary team. The following table summarizes the results for Standard 3 in relation to plant communities.

Table 3.3.3-2

Evaluation of Standard Three: Plant Communities				
Area	Acres Achieving or Moving Towards Achieving	Acres Achieving with Problem Areas	Acres Not Achieving	Acres Not Meeting Standard Three Due to: Grazing (1) Fire (2) Surface disturbance (3) Non-native Plants (4) Drought (5)
Wild Horse Area (36,050) 308 unclassified	26,755	4,491	4,496	Lacking perennial diversity, cheatgrass, and grazing pressure

Approximately 4,496 acres were not achieving Standard 3 for plant communities. The majority of these acres were sagebrush parks that lacked diversity of perennial grasses and forbs and the presence of cheatgrass. Most of these parks are used extensively by the wild horses. The Proposed Action to reduce the population to below AML would reduce the grazing pressure on these sagebrush parks. Reduced pressure would allow for an increase in vigor of perennial plants and allow for seed production to increase the presence of each particular species. Acres achieving with problem areas were sagebrush parks or pinyon/juniper communities that had decent perennial plant composition but were also occupied by a substantial amount of cheatgrass. These areas would also benefit from reduced grazing pressure by wild horses to improve the vigor of perennial grasses increasing seed production. Healthier perennial plants have a greater ability to compete with cheatgrass. The Proposed Action provides for healthier plant communities thus would be in compliance with this Standard. Land Health documents are available at the GJFO.

Rangeland Monitoring

Following is a summary of trend studies in the Little Book Cliffs Wild Horse Range. Studies are located in five areas of the range: Coal Canyon, Monument Rock, Indian Park, Round Mountain and North Soda. Trend studies include a combination of a photo

point, nested frequency transect, apparent trend and utilization. Changes that are stated as significant are changes that are statistically different.

No trend studies were conducted in 2012 due to very dry conditions.

Coal Canyon: Plot 13 (outside enclosure); Frequency data from 1986, 1996, 2001, 2006 and 2011 showed the primary grass species remained fairly constant from 1986 to 2011 with slight increases and decreases through the time period. Shadscale saltbush showed a significant decrease through the time period. Apparent trend was static in 2001 and 2006.

In plot 14 (inside enclosure); Frequency data from 1986, 1996, 2001 and 2006 showed a steady decrease in the primary grass species including galleta grass, salina wildrye and sandberg bluegrass. Shadscale saltbush also showed a slight decrease. Apparent Trend was upward in 1996 and 2001 and static in 2006.

Summary for Coal Canyon area: Rangeland conditions appear to be stable on the outside of the enclosure for the primary grass species. The shadscale has decreased. Apparent Trend is stable. Wild horse use was noted in the enclosure in 2006 due to a break in the fence.

Monument Rock: Plot 1: This photo point shows that grass and sagebrush cover has remained fairly constant from 1984 to 2010. Apparent Trend was static. Plot 7 (Felix Flats): Apparent Trend was static in 1996 and 2001 and downward in 1991 and 2006. Frequency data from 1986, 1991, 1996, 2001 and 2006 at Plot 7 showed a significant decrease in needle and thread grass and galleta grass. Bluegrass increased significantly while Sagebrush dominates this site and remained constant at a high frequency.

Plot 11: outside the enclosure: Frequency data from 1986, 1991, 1996, 2001, 2006 and 2010 showed a significant decrease in wheatgrass and needle and thread grass, slight decrease in junegrass and static conditions in bluegrass, squirrel tail, and sagebrush. Sagebrush dominates the site and remained constant. Apparent Trend was upward in 1996, static in 2001 and downward in 2006 and 2010.

Plot 12: inside the enclosure: Also showed a significant decrease in wheatgrass and needle and thread grass, a decrease in squirrel tail, slight increase in bluegrass and static conditions in junegrass and sagebrush. Apparent Trend was upward in 1996 and 2001 and static in 2006 and 2010.

Summary for Monument Rock area: The frequency of the primary forage species such as wheatgrass and needle and threadgrass is declining in the area including both inside and outside the enclosures. Sagebrush cover is slightly less inside the enclosure. Overall sagebrush is dominating these areas reducing the grass component thus decreasing the forage base for wild horses.

Indian Park: Plot 6: This area was mechanically treated in 2005. Frequency data from 1986, 1991, 1996, 2001, 2004, 2006 and 2010 showed significant decreases in bluegrass, wheatgrass and junegrass although there was an improvement between 2006 and 2010 most likely due to the treatment. Sagebrush remained static until the treatment which caused a significant decrease. Apparent Trend was upward in 1996 and static in 1991, 2001, 2006 and 2010. Plot 6T is a frequency transect that was established in 2006 to better represent the treatment area. From 2006 to 2010 species such as sagebrush, and

wheatgrass remained constant with a significant increase in bluegrass and junegrass. Apparent Trend was static in 2006 and 2010.

Plot 5 (Cosgrove Ridge): This photo point is in an area that was burned in 2000 and was also treated in 2005. Following the treatments there was a decrease in tree and brush species and an increase in grass species given the reseeding as part of the 2005 treatment. Apparent trend was upward in 2001 and static in 2006 and 2010. Species diversity was good but vigor was poor due to heavy utilization.

Summary for Indian Park area: The area was showing a static to steady decline in forage species until the treatment in 2005. Conditions in forage species increased following the treatment due to the reseeding effort and associated decrease in sagebrush. Due to the increase in forage species these areas are primary use areas by wild horses.

Round Mountain: Plot 3: A photo point located in an area that was part of the prescribed burn in 2000. Apparent Trend was up in 1997, static in 2001 and 2010 and downward in 2006. The fire removed tree and brush species but grass species diversity remained low. Cheatgrass did increase.

Plot 4: A photo point in a burned area. Conditions are similar to Plot 3. Apparent trend was static in 2001, 2004 and 2010 and down in 2006. Poor diversity was noted.

Plot RM5 (Darting Field): This photo point is also within the 2000 prescribed burn. Following the burn there was a significant decrease in sagebrush and slight increase in grass species including cheatgrass. Apparent Trend was up in 1997, static in 2001 and 2010 and downward in 2006. Species diversity is low.

Plot RM6: This frequency transect was also within prescribed burn area. Frequency data from 1989, 1997, 2001, 2006 and 2010 showed a significant decrease in needle and thread grass and an increase in western wheatgrass. Sagebrush was static until removed in prescribed fire. Apparent trend was upward in 1997 and 2001, static in 2006 and down in 2010. Species diversity and vigor is low with abundant cheatgrass.

Summary of Round Mountain area: The areas burned resulted in less tree and shrub species, some increase in perennial grass species as well as an increase in cheatgrass. Since the area was not reseeded following the prescribed burn species diversity remained low. The areas did see an increase in use by wild horses following the burn.

North Soda: Plot 4: A photo point located within the area mechanically treated and seeded in 2003. The treatment resulted in a decrease in tree and shrub species and a slight increase in grass species. Apparent Trend was static in 2001, 2006, 2010 and 2012. Poor vigor was noted in this area.

Plot 8A: The frequency transect is located in area mechanically treated and seeded in 2003. Frequency data from 1986, 1991, 1996, 2001, 2006, 2010 and 2012 showed: bluegrass remaining constant until significant decrease in 2012; junegrass increased, an increase in junegrass, wheatgrass has slightly increased. Sagebrush was on a gradual increase until the treatment caused a significant decrease. Apparent Trend was upward in 1996 and static in 2001 2006, 2010 and downward in 2012.

Plot 15, outside enclosure: Frequency data from 1986, 1991, 1996, 2001, 2006 and 2010 showed an overall decrease in grass species including bluegrass, blue grama, needle and thread grass and wheatgrass. Most species had increased slightly up until 2001 then

decreased. Sagebrush remained static. Apparent Trend was upward in 1996 and static in 2001, 2006 and 2010. Low diversity and fair vigor was noted.

Plot 16, inside enclosure: Frequency data from 1986, 1991, 1996, 2001, 2006 and 2010 showed a slight decrease in needle and thread grass and wheatgrass, slight increase in junegrass and static conditions for sagebrush and bluegrass. Sagebrush and needle and threadgrass are higher inside the enclosure while western wheatgrass is higher outside the enclosure. Apparent Trend was upward in 1996 and 2001 and static in 2006 and 2010. Good vigor and better diversity was noted inside the enclosure.

Summary of North Soda area: Conditions appear slightly better inside the enclosure than outside indicating the wild horse use is having some impact. Treatments in the area have been successful in removing tree and brush species and increased grass species from the seeding efforts resulting in an increase in the forage base for wild horses. Treatment areas are primary use areas for the wild horses.

Vegetation Trend Summary for LBWHR

Overall trend studies are showing conditions on the range to be static with some cases of downward and upward trends. Upward trends are generally a result of the recent treatments where reseeding was a component of the treatment. The areas in a downward trend are areas that have a high component of tree and/or brush species with a declining grass component. The reduced amount of grass has decreased the forage base in these areas resulting in over use of grass plants present. These trends result from a combination of grazing by horses and drought conditions. Comparisons between inside and outside enclosures data conclude that some of the downward trends outside the enclosures are related to drought but wild horse use is also a factor. Utilization comparisons between inside and outside the enclosures were dramatic illustrating the heavy to severe grazing that was occurring from the wild horses.

Utilization

Utilization data collected in 2009, 2010, 2011 and 2012 was completed using the key forage plant method. This method is an ocular reconnaissance study designed to capture forage utilization levels. This method employs the use of range utilization cages if available, enclosures or other ungrazed areas to assist the observer's ability to determine what growth occurred in relation to exclusion of grazing. These areas help prevent observation bias that could occur from year to year variability in weather patterns that directly correlate to plant production and phenology. When using this method a random directional transect is run at a study site where a reading is taken at several points. At each point a classification rating is assigned from six classes and placed on the data sheet. After the data is collected the mid-point of each use class is multiplied by the frequency of points within that use class by forage species. All values are then summed and divided by the total number of points to equal the utilization level. Utilization studies were conducted at study sites described above under rangeland monitoring or other key horse use areas. The six categories of utilization levels with the percentages in parenthesis are Severe (81-100), Heavy (61-80), Moderate (41-60), Light (21-40) and Slight (0-20). Following is a summary of utilization studies from 2010, 2011 and 2012. See map 3 for locations sites listed below.

Utilization levels were heavy or severe in most of the LBCWHR in 2009, 2010 and 2012 which is above the utilization objectives identified in the HMAP. Utilization levels in 2011 were within the acceptable range primarily due to precipitation being significantly above normal. Continued heavy and severe utilization of plants will lead to a decline in plant vigor and eventually death of a plant resulting in a reduction in the available forage base for wild horses. Observations in the spring of 2013 are showing plants that were heavily or severely grazed in 2012 with less vigor than ungrazed plants. Continued heavy grazing will result in the loss of these forage plants.

Table 3.3.3-3 Utilization Summary 2010:

Date Collected	Utilization Level	Location
September 25, 2010	Heavy	Indian Park
September 25, 2010	Heavy	Cosgrove Ridge
September 25, 2010	Heavy	Big Ed's Field
September 25, 2010	Heavy	Darting Field
September 25, 2010	Moderate	Main and Cottonwood Canyon
September 25, 2010	Moderate	End of Round Mountain Road
October 9, 2010	Heavy	Monument Rock – Near Exclosures
October 9, 2010	Heavy	Felix Flat
September 26, 2010	Moderate	North Soda – Entrance Fields
September 26, 2010	Heavy	North Soda – Treated Fields towards cabin
September 26, 2010	Heavy	North Soda – Big Field
September 26, 2010	Moderate	North Soda – Far Side

Table 3.3.3-4 Utilization Summary 2011:

Date Collected	Utilization Level	Location
October 18, 2011	Heavy	Indian Park
October 18, 2011	Heavy	Cosgrove Ridge
October 18, 2011	Moderate	Big Ed's Field
October 18, 2011	Heavy	Darting Field
October 18, 2011	Light	Main and Cottonwood Canyon
October 18, 2011	Light	End of Round Mountain Road
October 18, 2011	Moderate	Monument Rock – Near Exclosures
October 18, 2011	Heavy	Felix Flat
October 18, 2011	Light	North Soda – Entrance Fields
October 18, 2011	Moderate	North Soda – Treated Fields towards cabin
October 18, 2011	Heavy	North Soda – Big Field
October 18, 2011	Moderate	North Soda – Far Side

Table 3.3.3-5 Utilization Summary 2012:

Date Collected	Utilization Level	Location
October 24, 2012	Severe	Indian Park
October 24, 2012	Severe	Cosgrove Ridge
October 24, 2012	Heavy	Big Ed's Field
October 24, 2012	Heavy	Darting Field
October 24, 2012	Moderate	Main and Cottonwood Canyon
October 24, 2012	Moderate	End of Round Mountain Road
October 24, 2012	Heavy	Monument Rock – Near Exclosures
October 24, 2012	Heavy	Felix Flat
October 24, 2012	Heavy	North Soda – Entrance Fields
October 24, 2012	Severe	North Soda – Treated Fields towards cabin
October 24, 2012	Severe	North Soda – Big Field
October 24, 2012	Moderate	North Soda – Far Side

No Action:

Direct and Indirect Effects: Under the no action alternative, the wild horse population would continue to rise resulting in higher utilization levels. The continuation of higher than acceptable utilization levels would result in the loss of grazed plants thus a reduction in the forage base for wild horses and wildlife species. The continuation of the fertility control program would reduce the population growth but not result in acceptable utilization levels. Concentrated wild horse use in parts of the LBCWHR would adversely impact soils and vegetation health under current use patterns. As native plant health deteriorates and plants are lost, soil erosion would increase. Continued heavy forage utilization by wild horses would cause further compaction, reduced infiltration and increased runoff and erosion. The no action would most likely result in an increase in the amount of the LBCWHR not meeting Standard 1 and 3 due to the loss of desirable vegetation and increase in impacts to the soils. The shallow soils typical of this region cannot tolerate much loss without losing productivity and reducing the ability to be re-vegetated with native plants. Invasive, non-native plant species would increase and invade new areas following increased soil disturbance and reduced native plant vigor and abundance. Wild horses likely transport weed propagules, and this transport would increase as horse numbers increase. This would lead to both a shift in plant composition towards weedy or invasive species and an irreplaceable loss of topsoil and productivity due to erosion. With the no action alternative, the localized trampling associated with trap sites would not occur, but this alternative would not make progress towards achieving and maintaining a thriving natural ecological balance.

Cumulative Effects: Over utilization of forage plants results in the loss of desirable plants and an increase in undesirable plants. This impacts results in negative impacts to soil resources as well as wildlife and watershed functions.

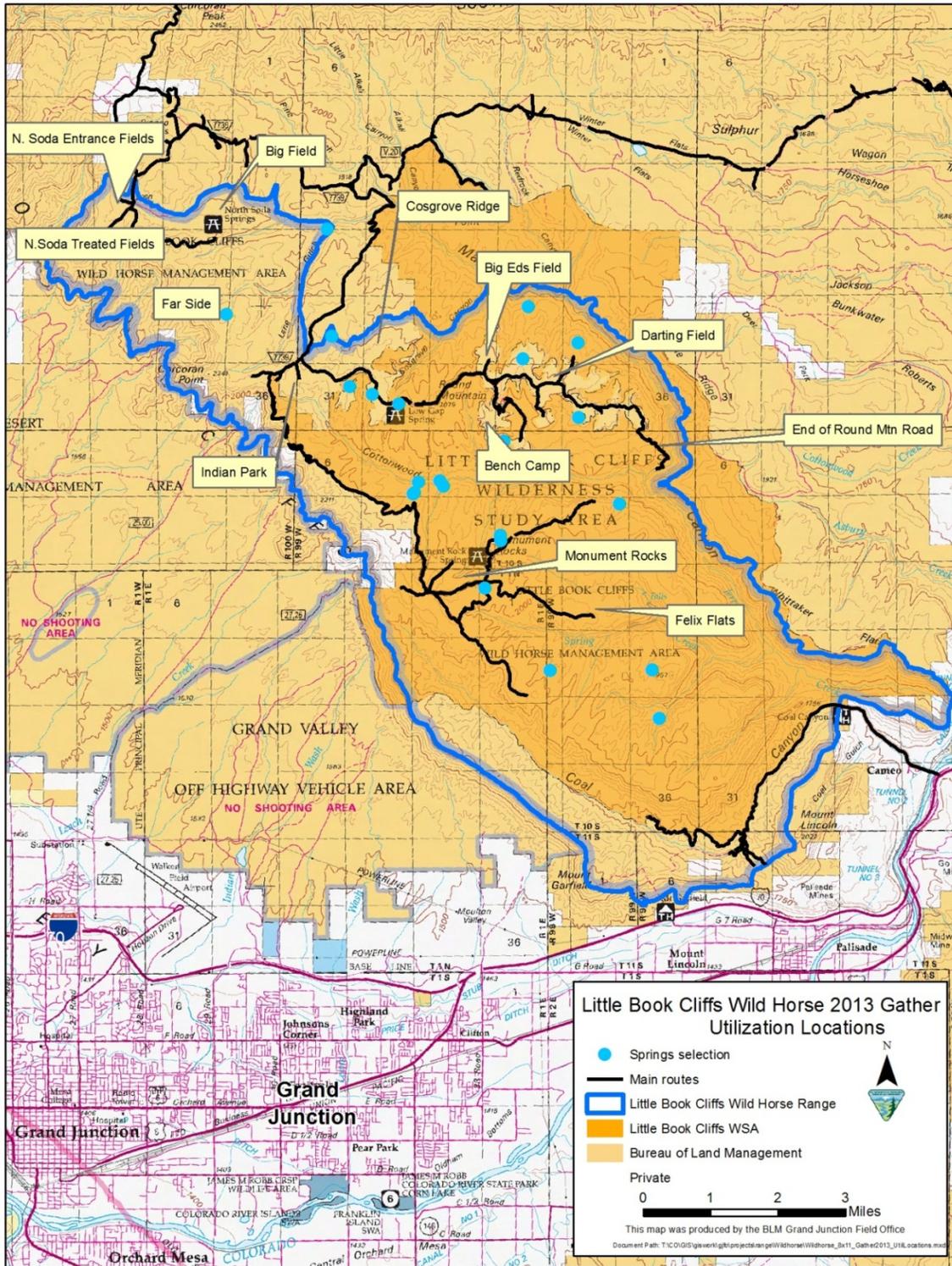
Proposed Action:

Direct and Indirect Effects: The proposed action to remove excess wild horses would relieve the impacts of overgrazing to these plant communities. Achieving acceptable utilization levels would reduce the overgrazing of desired grass species thus increasing the vigor and reproductive capability of these plants. Healthier plants result in sustainable forage conditions for the appropriate wild horse population. The proposed action should result in achieving an overall objective of reversing downward trends and create upward trends.

Removing excess wild horses to maintain the AML would bring the population in balance with multiple-use relationships and achieve a thriving natural ecological balance. It would reduce stress on vegetation communities and be in compliance with the Wild Free-Roaming Horses and Burros Act, Standards for Rangeland Health, and land use plan management objectives. Rangeland health and vegetative resources would stabilize with the reduced population. Utilization levels on forage plants would be reduced to acceptable levels resulting in more vigorous and productive plants. Healthy plants produce seed which increases the establishment of more desirable plant species and minimizes the invasion of undesirable species. Plant communities would become more resilient to disturbances such as wildfire, drought, and grazing.

Impacts to vegetation and soils with implementation of the proposed action would include disturbance of native vegetation immediately in and around temporary trap sites. Impacts would be by vehicle traffic and the hoof action of penned horses and would be locally severe in the immediate vicinity of the corrals or holding facilities. Generally, the activity sites would be small (less than one acre) in size. Soil compaction, localized wind erosion, and destruction of biological soil crusts, where present, would occur at the trap sites. Since most trap sites and holding facilities would be in areas previously disturbed any impacts would remain site-specific and isolated in nature. In addition, most trap sites would be selected to enable easy access by transportation vehicles and logistical support equipment and would generally be adjacent to or on roads, pullouts, water developments, or other flat spots that were previously disturbed. Vehicles used in the horse gather would also cause soil compaction and increased erosion in a small area. By adhering to the Standard Operating Procedures (SOP's) for Wild Horse Gathers (Appendix I), adverse impacts to soils would be minimized.

Map 3.3.3-1: Utilization Locations



Cumulative Effects: Removing excess horses would result in acceptable utilization levels of grazed forage plants. Acceptable utilization levels result in healthy, vigorous and productive plants which maintain or improve desirable vegetative communities within the LBCWHR. Healthy plant communities benefit soil, water and wildlife resources within the area as well as provide sustainable habitat for wild horses. Productive plant communities result in healthy wild horse populations.

Protective/Mitigation Measures: Following the Standard Operating Procedures for Wild Horse Gatherers would minimize impacts to vegetative resources.

3.3.4 Wildlife (includes fish, aquatic and terrestrial) (includes a finding on Standard 3)

Current conditions:

Habitat in the area supports most species of wildlife expected in pinyon-juniper woodland plant communities. Raptors, songbirds, mammals, reptiles and amphibians are present in suitable habitats in the management area. Hunted species include mule deer, elk and mountain bighorn sheep. Fish are not present in the area; all streams are ephemeral or intermittent.

Analysis of current land health conditions: A range of land health conditions for biotic integrity exist in and near the proposed bait and trap locations, which are located primarily on flatter, more productive mesa tops along existing roads. Analysis of 20 land health points in the proposed bait and trap areas indicates 50% meet biotic integrity standards, 35% are not meeting, and 15% are meeting with problems. Primary reasons for problems or not meeting standards are dominance of cheatgrass (5 sites), lack of plant diversity (2 sites), and in one case, heavy grazing preventing native grass seed production.

No Action:

Direct and Indirect Effects: Direct effects would not occur in the No Action alternative. No action could have indirect negative effects on wildlife if wild horse numbers are maintained or increased. If utilization by wild horses exceeds 60%; less forage would be available for wildlife forage and cover. In this situation, land health would likely decrease further into “not meeting” or “meeting with problems” categories, which currently make up half of the impacted bait and trap areas. This reasoning is based on the following assumptions: 1) that the bait and trap areas are already heavily frequented by the horses; and 2) that similar conditions (frequent horse foraging and land health ratings) in the bait and trap areas exist in similar range sites throughout the management area.

Cumulative Effects: No action leading to maintained or increased horse numbers would likely lead to declining land health; areas currently meeting land health standards could decline to “meeting with problems” and current areas “with problems” could decrease to “not meeting.” Areas not meeting standards, e.g., dominated by cheatgrass, represent a long-term management challenge in that trends toward greater cheatgrass dominance are difficult to reverse.

Proposed Action:

Direct and Indirect Effects: Direct effects would be limited to some disturbance to soil and plants in areas along existing roads accessible by trucks and horse trailers. Indirect effects would tend toward positive impacts: 1) less impact to riparian areas because of reduced number of horses visiting and grazing; and 2) reduction in overall grazing impacts should increase the likelihood of an upward trend in land health.

Cumulative Effects: The proposed project's long-term benefits to the range are positive to virtually all desirable wildlife species that occupy the area. With successful implementation of the proposed action, lower herd growth rates would prolong the need for the next round-up, thereby reducing disturbance to wildlife.

3.4 HERITAGE RESOURCES AND HUMAN ENVIRONMENT

3.4.1 Cultural Resources

Current Conditions:

A records search of the general project area indicates that approximately 235 acres of the possible 1880 acres identified for bait trap locations in Map 2 have been surveyed for cultural resources. During those surveys 12 cultural resource sites were located. The sites range from prehistoric open lithic sites, and open and sheltered camp sites and historic ranching sites including a cabin. It is expected that similar site types would be encountered in the remaining portions of the proposed action Area of Potential Effect (APE).

No Action:

Direct and Indirect Effects: Under the No Action Alternative, a gather would not occur and the wild horse population would continue to grow. Cultural resources can be impacted by horses much in the same way as other livestock and increased numbers can lead to increased surface disturbing impacts to cultural resources including trampling, artifact breakage, and mixing of archaeological deposits. Indirect impacts such as vegetation removal can increase erosion processes on sensitive sites.

Cumulative Effects: The No Action Alternative would result in a larger wild horse population which would likely result in decreased land health. This would lead to decreases in vegetation and increases in erosion impacts to cultural resources which could result in their permanent loss.

Proposed Action:

Direct and Indirect Effects: Under the Proposed Action bait locations would be surveyed for cultural resources and cultural resource locations would not be used for bait placement. There would be no impacts to cultural resources due to Proposed Action design.

Cumulative Effects: Same as Direct and Indirect Effects above.

Protective/Mitigation Measures: The following standard stipulations would protect any cultural resources in the area that are unknown to the agency: All persons in the area who are associated with this project shall be informed that any person who, without a permit, injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law (16 USC 433, 16 USC 470, 18 USC 641, 18 USC 1170, and 18 USC 1361). Strict adherence to the confidentiality of information concerning the nature and location of archeological resources would be required of the proponent and all of their subcontractors if applicable (Archaeological Resource Protection Act, 16 U.S.C. 470hh)

Inadvertent Discovery: The National Historic Preservation Act (NHPA) [16 USC 470s., 36 CFR 800.13], as amended, requires that if newly discovered historic or archaeological materials or other cultural resources are identified during the Proposed Action implementation, work in that area must stop and the BLM Authorized Officer (AO) must be notified immediately. Within five working days the AO would determine the actions that would likely have to be completed before the site can be used (assuming in place preservation is not necessary).

The Native American Graves Protection and Repatriation Act (NAGPRA) [25 USC 3001 et seq., 43 CFR 10.4] requires that if inadvertent discovery of Native American Human Remains or Objects of Cultural Patrimony occurs, any activity must cease in the area of discovery, a reasonable effort made to protect the item(s) discovered, and immediate notice be made to the BLM Authorized Officer, as well as the appropriate Native American group(s) (IV.C.2). Notice may be followed by a 30-day delay (NAGPRA Section 3(d)).

The BLM official would relocate activities to avoid the expense of mitigation and delays associated with this process, as long as the new area has been appropriately inventoried and has no resource concerns, and the exposed materials are recorded and stabilized. The BLM authorized officer would provide technical and procedural guidelines for relocation and/or to conduct mitigation. Upon verification from the BLM authorized officer that the required mitigation has been completed, the operation would be allowed to continue.

Antiquities, historic ruins, prehistoric ruins, and other cultural or paleontological objects of scientific interest that are outside the authorization boundaries but potentially affected, either directly or indirectly, by the proposed action shall also be included in this evaluation or mitigation. Impacts that occur to such resources as a result of the authorized activities shall be mitigated at the operator's cost, including the cost of consultation with Native American groups.

3.4.2 Tribal and Native American Religious Concerns

Current Conditions:

American Indian religious concerns are legislatively considered under several acts and Executive Orders, namely the American Indian Religious Freedom Act of 1978 (PL

95-341), the Native American Graves Environmental Assessment Protection and Repatriation Act of 1990 (PL 101-601), and Executive Order 13007 (1996; Indian Sacred Sites). In summary, these require, in concert with other provisions such as those found in the NHPA and ARPA, that the federal government carefully and proactively take into consideration traditional and religious Native American culture and life and ensure, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon. In some cases, these concerns are directly related to “historic properties” and “archaeological resources”. In some cases elements of the landscape without archaeological or other human material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation. During a tribal consultation meeting on May 7, 2013, the Ute Mountain Ute Tribe Cultural representative had no concerns about the project if cultural resources were avoided.

No Action:

Direct and Indirect Effects: None known to the agency.

Cumulative Effects: None known to the agency.

Proposed Action:

Direct and Indirect Effects: The Ute have a generalized concept of spiritual significance that is not easily transferred to Western models or definitions. As such the BLM recognizes that they have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. Due to project design, bait locations would not be placed on cultural resources sites and no tribal access to the area would be impacted. There would be no impacts to cultural resources due to Proposed Action design.

Cumulative Effects: Same as Direct and Indirect Effects

Protective/Mitigation Measures: If sites of interest to local tribes are found during inventory consultation, additional consultation which could include field visits to evaluate the sites, and discussions on the effects of the project could occur and appropriate protection measures would be incorporated into the Proposed Action before implementation.

3.4.3 Social, Economic, Environmental Justice

Current Conditions:

A social value for the resource (outside of other resources analyzed above) within the LBCWHR could include viewing wild horses, wildlife, wilderness character or other features of the landscape. This type of value, also known as a non-use value, cannot necessarily be quantified, but rather recognition of these social values is made. This value could include the idea that something is still out there or how the thought of something makes a group or an individual feel.

The economic costs associated with the management of the LBCWHR are limited to the area and the wild horses themselves.

No action:

Direct and Indirect Effects: Under the no action alternative, there would be no impacts to the social values identified above, viewing wild horses, wildlife, wilderness character or other features of the landscape.

The costs of gather operations themselves, subsequent feed and care of excess animals, and adoption events would be more expensive in the future when a greater amount of excess wild horses would exist.

Cumulative Effects: Overutilization of vegetation and a subsequent decline in rangeland conditions would negatively impact wild horse conditions, wildlife populations and vegetative communities. These impacts discussed would have an effect on wilderness characters by changing the vegetation landscape. All of these are social values that are enjoyed by the visiting public and contribute to the local economy.

Proposed Action:

Direct and Indirect Effects: Under the proposed action alternative, viewing wild horses opportunities could be disrupted during gather operations. The public would be invited to view wild horses at some trap sites and any temporary holding pens. In the vicinity of gather operations wildlife viewing would be disrupted but would be short in duration.

No direct economic impact would exist to individuals since wild horses cannot be used for commercial purposes, and wild horses would continue to be present after a gather operation. However, costs associated with a gather would include public consultation, environmental assessments, potential legal challenges, gather operations themselves, subsequent feed and care of excess animals, and an adoption event.

Cumulative Effects: When wild horse populations are kept in balance with available forage and other resources this results in sustainable and healthy wild horse and wildlife populations and healthy rangelands. The social values that are dependent on the health of these resources would benefit as well. This leads to greater enjoyment by these visitors and a positive economic benefit to the local economy

3.4.4 Wastes, Hazardous or Solid

Current Conditions:

Hazardous and solid wastes are not a part of the natural environment.

No Action:

Direct and Indirect Effects: None

Cumulative Effects: None

Proposed Action:

Direct and Indirect Effects: Hazardous wastes could be introduced into the environment if the helicopter option was used, if on-site refueling of the helicopter was undertaken (as opposed to refueling at the Grand Junction Airport), and if fuel was spilled during this process. The direct effect would be contamination of the soil and, potentially, surface water. Indirect effects would be exposure of wildlife to the contaminated soil or water.

Cumulative Effects: With prompt, proper cleanup, cumulative impacts would be negligible.

Protective/Mitigation Measures: If on-site helicopter refueling is practiced, refueling should not be undertaken within 100 feet of any water body or watercourse (perennial or ephemeral – including dry washes). Any spills should be reported immediately and proper cleanup would be required.

3.5 LAND RESOURCES

3.5.1 Wilderness Study Areas

Current Conditions:

This project would take place primarily in the Little Book Cliffs Wilderness Study Area (WSA). The Little Book Cliffs (WSA) consists of 26,525 acres of public lands characterized by gently sloping plateaus, dissected by four major canyon systems (Main, Coal, Cottonwood and Spring) with many side canyons. Excellent opportunities exist for solitude and unconfined recreation. The outstanding scenic beauty, topographic diversity and the presence of the wild horse herd offers photography opportunities as well. The ruggedness and abrupt slopes leading to the valley floor give it distinct character. The Little Book Cliffs Herd is managed to remain in balance with productive capacity of the habitat (as determined by available science and monitoring activities), to ensure a thriving natural ecological balance, and to prevent impairment of wilderness characteristics, watershed function, and ecological processes.

No Action:

Direct and Indirect Effects: The no action alternative could allow for an increase in herd numbers that would exceed the maximum viable to achieve and protect wilderness characteristics.

Cumulative Effects: The cumulative impacts of not managing herd numbers could result in loss of wilderness values as animal numbers increase and resulting impacts to the natural character of the landscape degrades.

Proposed Action:

Direct and Indirect Effects: The bait trapping method would use natural patterns of movement between food and water sources to acclimate animals to specific areas for the gather operations. The resulting use of temporary traps for the removal of excess horses as described in the proposed action would have limited direct or indirect effects on

wilderness values over the long term and are relatively insignificant in comparison to the no action alternative and alternatives considered but not analyzed like the use of helicopters.

Cumulative Effects: Cumulative effects would be minimal in the proposed action.

Protective/Mitigation Measures: Traps should be situated to minimize impacts to vegetation and soils. Vehicles necessary for set-up and take-down of traps and transportation of excess wild horses away from the area may only be driven on routes identified for this purpose. At the completion of the gather, all facilities should be removed and trap area should be rehabilitated so that it is no longer visible.

3.5.2 Range Management

Current Conditions:

There is no domestic livestock grazing permitted within the LBCWHR. Natural barriers and gap fencing separates the wild horse range and surrounding BLM lands permitted for livestock use. Currently there are approximately 10 to 15 wild horses off of the LBCWHR and occupying the Red Rock allotment or private lands. It has not been uncommon to occasionally have wild horses off of the LBCWHR for a portion or all of the year. In the past several years the number of wild horses and length of time they have been off has increased.

No Action:

Direct and Indirect Effects: Under the No Action alternative the problem of wild horses occupying areas outside the LBCWHR would be expected to increase. As utilization levels remain high within the LBCWHR the wild horses will seek areas where forage is more available. The BLM is not authorized to manage wild horses on private lands or in areas outside of the LBCWHR per the HMAP.

Cumulative Effects: High utilization levels within the LBCWHR will lead to the deterioration of rangelands and a subsequent decrease in available forage. If excess wild horses are not removed rangeland conditions would deteriorate both within the LBCWHR and the trespass areas outside. As this occurs the desire for wild horses to leave the horse range and thus occupying surrounding grazing allotments or private land would continue and intensify.

Proposed Action:

Direct and Indirect Effects: The proposed action would result in the removal of excessive wild horse numbers and maintain a population level that is in balance with the available forage within the LBCWHR. If adequate forage is available wild horses would be less likely to leave the LBCWHR to seek additional forage. There would be the occasional movement of wild horses to and from the wild horse range but would be at a minimal rate if rangeland conditions are maintained.

Cumulative Effects: Reducing the presence of wild horses outside the LBCWHR would benefit the rangeland health of these areas. The grazing use by permittees in these areas is designed to meet land health standards and improve rangeland health. Reducing the unauthorized grazing use by wild horses in these areas would help to achieve this objective.

3.5.3 Wild Horse

HMA Description and Background:

The Little Book Cliffs Wild Horse Range (LBCWHR) is located approximately 20 miles west of DeBeque, Colorado, atop the Book Cliffs escarpment. It is 13 miles in length and encompasses 36,014 acres of which 35,189 are public and 925 are private acres (See Figure 1, Location Map).

Topography is highly variable, ranging from deep, rugged canyons in the lower elevations along with gently sloped mesas dissected by steep canyons in the upper elevations. Coal and Main Canyons are the primary use areas at the lower elevations whereas Upper Main, Cottonwood and Lane Canyons' divide the upper elevations. The entire wild horse area is enclosed by pole or wire fencing in combination with natural barriers (sheer canyon walls and escarpments). There are numerous types and colors of horses in this HMA, and with the proximity to the Grand Valley, the HMA receives abundant interest from the public.

This LBCWHR was established in the fall of 1974 by a General Management Agreement. The agreement was made to resolve wild horse conflicts and impacts associated with the Round Mountain grazing allotment and the permittee. On November 7, 1980, the area was dedicated as the third National Wild Horse Range in the country. There is no livestock grazing authorized within the LBCWHR.

The Little Book Cliffs Wild Horse Management Plan was written and approved in 1979, and revised in 1984, 1992. In 2002, The Little Book Cliffs Population Management Plan (PMP) was prepared and amended the Wild Horse Management Plan (appendix A). The PMP adjusted the AML and described the desired population demographics for the range.

In 1997 part of the Round Mountain Allotment was added to the horse range through a cooperative agreement with the permittees. This added 4904 acres and 319 animal unit months to the horse range. As reflected in the PMP (appendix A), the addition of 4904 acres changed the appropriate management level from 65 to 125 horses, to a range of 90 to 150 horses.

Current records kept by the BLM with assistance of the local volunteer group show a current population as of April 2013 of 149 to 152 horses not including 2013 foals. These records are based on year-round ground surveys and have proven to be accurate in the past. Of the 152 wild horses 65 are males and 87 are females for a male/female sex ratio of 43/57 percent. Foaling records for the past several years show a much higher percentage of fillies born as compared to colts. The post 2007 gather sex ratio was 46/53 percent.

In 2002 a fertility control research program in coordination with the Biological Research Division (BRD) of the United States Geological Service (USGS) was initiated in the Little Book Cliffs Wild Horse Range to study the effectiveness of porcine zona pellucida (PZP) and the effects of the drug on wild horses. Details of the research program are contained in the Environmental Assessment and Gather Plan Document CO-GJFO-32-EA Appendix E. The research program followed the national field trial research protocol. In 2007 fertility control activities shifted from the Individual Based Research study to the Population Based Research. Field darting under this research program ended in 2006 but BLM and volunteers continue to keep records of foaling data and administered fertility control. Following 2006, fertility control efforts continued within the LBCWHR through additional NEPA analysis. As of the end of 2012 80 mares have been darted as part of the fertility control program since 2002. Darting efforts and data collection are similar to those followed under the research program. A darting team comprised of BLM personnel and volunteers conduct the fertility control efforts based on BLM policy and protocol. The vaccine induces one year of infertility. The number of foals per year has been reduced since 2004. Foal counts had ranged from 24 to 41 foals per year prior to the fertility program resulting in a population growth in the 20 to 25% range. Since the fertility program foal counts have ranged from 11 to 26 dropping the annual growth rate to 9 to 15%. Foal Counts since 1997 are shown below.

Table 3.5.3-1

YEAR	FOALS	YEAR	FOALS	YEAR	FOALS
1997	32	2004	25	2011	11
1998	32	2005	17	2012	17
1999	37	2006	26		
2000	31	2007	24		
2001	38	2008	17		
2002	41	2009	16		
2003	40	2010	11		

Behavioral observations by the research team occurred from the initiation of the program up until 2006. The basis for observations is to observe behavioral characteristics and determine if there are variations from what has been considered normal. Record keeping of foaling rates and foaling periods for treated mares will continue while fertility control efforts are being conducted. The fertility program has reduced the population growth rate for the herd but still allows for some reproduction to improve or maintain genetic diversity.

The use of contraceptives has long been recognized as a humane method to limit the growth of wild horse herds while minimizing disruption to the herd gene pool. Individual contracepted mares have their genetic contributions delayed but not removed. The use of contraceptives also increases the time between gathers, with associated cost benefits and reduction of resource impacts.

Gather History and Population Characteristics

The follow chart illustrates the gather history since 1977.

<u>YEAR</u>	<u>HORSES REMOVED</u>	<u>REASON FOR GATHER</u>
1977	40	Drought and over utilization
1983	45	Health of Vegetation and Soils
1988	44	Health of Vegetation and Soils
1989	40	Drought and over utilization
1992	39	Health of Vegetation and Soils
1996	53	Health of Vegetation and Soils
1997	10	Horses outside HMA
1999	57	Health of Vegetation and Soils
2002	79	Drought and over utilization
2004	68	Health of Vegetation and Soils
2007	55	Health of Vegetation and Soils

Population growth rates have declined since the fertility program was initiated. Following are the estimated population numbers since the last gather in 2007. Population numbers shown were as of January 1 of each year.

Table 3.5.3-2

YEAR	Estimated Population
2008	102
2009	118
2010	135
2011	135
2012	140
2013	152

Genetic Diversity and Viability

Blood samples were collected from removed animals during the 2002 gather to monitor genetic baseline data (e.g. genetic diversity, historical origins of the herd, unique markers). Blood samples were not taken during the 2004 and 2007 gather given the short time frame since the samples in 2002. The samples were analyzed by Dr. Gus Cothran, a University of Kentucky now Texas A&M University, geneticist, to develop a genetic frequency for the herd, however there were no other interpretations made from the data.

At this time, there is no evidence to indicate that the LBCWHR suffers from reduced genetic fitness. The following summarizes what is known about the LBCWHR as it pertains to genetic diversity based on the 2002 report by Dr. Gus Cothran:

- The LBCWHR is isolated from other herds.
- Genetic variation in the LBCWHR is moderately high. Allelic diversity also is fairly high with a high proportion of variants at low frequency.

- Variation in the LBCWHR has increased dramatically since 1992.
- No Action was required following the 2002 blood analysis as variation was sufficient and the AML was near what was required to maintain a minimal rate of loss.

Assumptions for analysis: The Standard Operating Procedures (Appendix B) for handling are incorporated as part of the Proposed Action. The population model (Appendix C) is for illustration and alternative comparison purposes only and may not necessarily reflect actual populations or outcomes of management actions.

No Action:

Direct and Indirect Effects: Under the no action alternative, excess wild horses would not be removed from the LBCWHR at this time. Fertility control efforts would continue as analyzed in CO-GJFO-02-32-EA and CO-130-2007-010-EA and subsequent NEPA documents. The animals would not be subject to the individual direct or indirect impacts as a result of the bait and/or water trapping operation or helicopter gathering. The population would remain above the AML and the current population of 149 152 wild horses would continue to increase at approximately a 10 to 15% growth rate and exceed the carrying capacity of the range over time. This growth rate is based upon the continuation of the fertility control program. Though it may require several years for the population to reach catastrophic levels, by exceeding the upper limit of the management range (150), this alternative poses the greatest risk to the long-term health and viability of the LBCWHR wild horse population.

Cumulative Effects:

Over the course of time, the animals would deteriorate in condition as a result of declining forage availability and the increasing distance traveled between forage and water sources. The mares and foals would be affected most severely. The continued increase in population would eventually lead to catastrophic losses to the herd through starvation or dehydration, which would be a function of the lack of available forage and water and the degradation of the habitat. A point would be reached where the herd reaches the ecological carrying capacity and both the habitat and the wild horse population would be critically unhealthy. This would be contrary to the purpose and need to maintain a thriving natural ecological balance and the directives of the act.

Proposed Action:

Direct and Indirect Effects: The proposed action would utilize herd characteristics, objectives and the removal considerations from the 2002 PMP when removing individual animals to the most feasible extent possible. The current population is approximately 149-152 wild horses not including 2013 foals based upon current census data. Herd characteristic objectives have previously been analyzed in the 2002 PMP (Appendix A) and are incorporated by reference. The Standard Operating Procedures (Appendix B) for handling and IM 2013-059 are incorporated as part of the Proposed Action.

Under the proposed action, excess wild horses would be captured and removed from the LBCWHR utilizing a combination of bait and/or water trapping. In the event the bait and/or water trapping does not meet the removal objectives a helicopter would be used to accomplish these objectives. Herding could be used in conjunction with the two techniques but not for actual capture off of horseback, rather for moving congregated animals away from trap sites, herding animals toward trap sites, or locating animals. Traps would be constructed of portable steel panels typically 15 to 25 twelve foot long by six foot high panels placed either around a water trough (water trapping) or in an area with regular wild horse use for bait trapping. The traps would be constructed in a manner that allows wild horses to initially move freely through them until they are accustomed to their presence. The traps could be designed either in the shape of a “key hole”, the letter “Q”, or the letter “P” with a side pen to hold captured wild horses until ready for transport to the holding facility in Grand Junction, Colorado for adoption preparation. The traps would also have an alley attached for loading captured excess wild horses onto horse/stock trailers and pulled behind appropriate motorized vehicles.

Before panels are set up capture trap sites would be baited to allow wild horses to become accustomed to coming into an area for feed, salt or other attractant. The GJFO Wild Horse Specialist with the assistance of FOM would make the selections of which horses would be removed. However, in order to allow for unforeseen circumstances, the wild horses identified for removal have been photographed prior to the gather so as to allow for various personnel to conduct capture. Once the panels are set up, two sides would be left open to allow wild horses to walk through or not completely closed with one side open. When trapping occurs one side would be closed off and wild horses would only be allowed to enter one side. That side would have a panel or a gate that would be closed by personnel at the trap as a wild horse identified for removal enters, or a band with a member(s) in it identified for removal enters. Once captured the wild horse(s) identified as excess would be sorted from other wild horses and either immediately loaded in a horse/stock trailer and transported to Grand Junction, or sorted into the holding pen to await transport.

Water traps would be designed similar to a bait trap, except only one entrance would be in place with the initial panel setup. A water trap would leave a much wider opening initially to allow wild horses to enter and drink without creating a situation where the horses are unwilling to drink due to the presence of the panels. As the wild horses become more accustomed to the panels the mouth or opening would be slowly closed until there is only a gate or one panel for an opening. Once an identified animal is inside the trap, the gate would be closed by personnel tending the trap. After capture, the impacts would be the same as described in the SOP's.

During the initial setup, game cameras would be placed on each trap to help monitor wild horse use and determine when to begin capture operations. The use of a saddle horse or horses to locate wild horses and/or herd wild horses away from bait sites would be a minimally used tool. Based upon past experience by BLM personnel through monitoring on foot or horseback or herding animals back to the LBCWHR, wild horses are responsive to a saddle horse or on foot and not agitated nor flighty.

Excess wild horses would be prepared for adoption at the holding facility in Grand Junction. This would entail veterinarian examination and care, permanent freeze-mark placed on the left side of the neck, vaccinations, Coggins testing, feed and care, and possible gelding. The animals would be offered for adoption to qualified applicants.

Impacts to individual animals could occur as a result of stress associated with the gather, capture, processing, and transportation of animals. The intensity of these impacts would vary by individual and would be indicated by behaviors ranging from nervous agitation to physical distress. Sometimes hitting panels or trailers or interaction with other wild horses in a confined space can result in bruising scrapes or cuts. Mortality to individuals from this impact is infrequent but can occur. Other impacts to individual wild horses include separation of members of individual bands and removal of animals from the population.

Population-wide impacts could occur during or immediately following implementation of the proposed action. Potential impacts include the displacement of bands during capture and the associated re-dispersal, modification of herd demographics (age and sex ratios), temporary separation of members of individual bands of horses, reestablishment of bands following release, and the removal of animals from the population. With the exception of changes to herd demographics (removed individuals), direct population-wide impacts would be temporary in nature with most, if not all, impacts disappearing with release.

Indirect impacts can occur to horses after the initial stress event and could include increased social displacement or increased conflict between studs. These impacts are known to occur intermittently during wild horse gather operations. Traumatic injuries could occur and typically involve biting and/or kicking bruises.

The action would make progress towards bringing the population within the AML. Less competition for forage and water resources would reduce stress and promote healthier animals.

The proposed action would also allow for the continued collection of information on herd characteristics, determination of herd health through direct examination of animals, and collect genetic samples for monitoring of genetic variation.

In addition, removing a smaller number of animals than in past gathers improves the chances that all horses would be adopted by the public during the proposed adoption. This in turn potentially keeps horses from entering long-term holding and saves significant amounts of money.

The Jenkins population modeling suggests that under the proposed action the wild horse population would have a 10.7% average growth rate at the end of 10 years and the median “average” population size would be 152 horses. This demonstrates that a desirable growth rate may be attained. The opportunity to conduct small bait/water trap removals coupled with the one-year, native PZP fertility control treatment program could

allow for flexibility in management of the wild horse numbers, as the number of mares treated with fertility control could be adjusted based on population trends.

In the event a helicopter would be utilized as a backup to achieve gather objectives the attached SOP's and IM 2013-059 would be adhered to. The number of horses gathered and what horses are gathered would be the same as described above under the bait/water trapping method or helicopter method.

Cumulative Effects: Maintaining the wild horse population at the mid AML level of 120-130 horses not to exceed the high AML level would result in a population that is in balance with the available forage on the range and is in conformance with other land uses and values as described in the Grand Junction EIS Record of Decision. This population level would also provide for a genetically stable and viable wild horse population.

4.0 CUMULATIVE IMPACTS

NEPA requires federal agencies to consider the cumulative effects of proposals under their review. Cumulative impacts are impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. The cumulative impacts analysis should be focused on those issues and resource values identified during scoping that are of major importance. Accordingly, this cumulative impacts analysis focuses on maintaining rangeland health and proper management of wild horses within the established boundaries of the LBCWHR.

4.1 Past, Present, Reasonably Foreseeable Actions

The Council on Environmental Quality (CEQ) states that the "cumulative effects analyses should be conducted on the scale of human communities, landscapes, watersheds, or airsheds" using the concept of "project impact zone" or more simply put, the area that might be affected by the proposed action. The area that may be affected by this project includes the Upper Colorado River. To assess past, present and reasonably foreseeable actions that may occur within the affected area a review of GJFO NEPA log and our field office GIS data was completed. The following list includes all past, present and reasonably foreseeable actions known to the BLM that may occur within the affected area:

Past Actions:

Coal and Natural Gas Development: Pre-1990's

Vegetation Treatments Including prescribed burning, rollerchopping, Hydro-ax and Lawson aerator: 1990 and 2000's

Release of Rocky Mountain Bighorn Sheep

Recreation

Wild Horse Grazing

Wild Horse Gathers

Wilderness Study Area Designation

Present Actions:

Recreation

Wild Horse Grazing

Wilderness Study Area Designation

Reasonably Foreseeable Actions

Increased Recreation and Wild Horse Watching

Bighorn Sheep Management

Wilderness Study Area Designation

This list of past, present and reasonably foreseeable actions was considered when analyzing cumulative effects in sections 3.3, 3.4, and 3.5 above.

5.0 MITIGATION/MONITORING

All mitigation/monitoring procedures are listed in the Standard Operating Procedures (Appendix B) and as incorporated into the proposed action.

6.0 CONSULTATION AND COORDINATION

The scope of this EA was developed through consultation with the BLM resource specialists (meetings and subsequent conversations); consultation with other local, state, and federal agency resource personnel; review of company and agency files, field reconnaissance, and review of supporting documentation.

Notification of the bait/water trap removal to Friends Of The Mustangs (FOM) was accomplished through the clubs newsletter and monthly meetings.

The public meeting on the use of motorized vehicles and aircraft for the management of wild horses and burros will be held at the Grand Junction Field Office July 9, 2013 at 6:00pm.

6.1 TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

Friends of the Mustangs

During a tribal consultation meeting on May 7, 2013, the Ute Mountain Ute Tribe Cultural representative had no concerns about the project if cultural resources were avoided.

A notice for the release of the preliminary Environmental Assessment for a 30 day public comment period was sent to the wild horse groups, wilderness groups and local/state officials who have expressed interest in the Little Book Cliffs wild horse program and the WSA activity.

As required by 43 CFR 4740.1(b) a public hearing was held at 6:30 pm on July 9, 2013 at the Grand Junction Field Office to take comments regarding the use of helicopters and other motorized vehicles for wild horse management within the state of Colorado including gathering the Little Book Cliff wild horses.

7.0 . Public Involvement

A letter notifying potentially interested public of the availability of the preliminary Little Book Cliffs Wild Horse Range Gather Plan EA #DOI-BLM-CO-130-2013-0018-EA was sent on June 17, 2013, for a 30 day review and comment period that ended on July 17, 2013. This potentially interested public list included individuals, organizations, county officials, and state and federal agencies. The EA was posted on the BLM Grand Junction Field Office website, <http://www.blm.gov/co/st/en/fo/gjfo.html> or upon request from the field office.

The Northwest District issued a news release on June 17, 2013, notifying the general public of the availability of the document for review, how to access the document, and where to submit comments.

The BLM received over 6, 517 emails and three letters during the public comment period. All comments received during the 30 day comment period were reviewed and considered prior to finalizing this EA. Letters and e-mails were received both in support of and in opposition to the gather. Numerous form letters were also received. These are letters that are generated from a singular website from a non-governmental organization, such as an animal advocacy group. Comments identified on the form were considered along with the rest of the comments received, but as one collective comment letter. Form letters are not counted as separate comments due to their duplicative nature. However, where individuals added their own comments to the form, the personalized comments were considered as separately submitted comments. A summary of comments can be found in Appendix E.

Although the BLM's review of public comments did not indicate that substantive changes to the conclusions presented in the preliminary EA were warranted, they did lead to changes throughout the document to better explain and clarify BLM's analysis in response to comments, which resulted in a more comprehensive and complete document.

8.0 References Cited

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CDPHE. 2012. Water Quality Control Commission, 5 CCR 1002-93, Regulation #93, Colorado's Section 303(D) List of Impaired Waters and Monitoring and Evaluation List, Amended February 13, 2012, Effective March 30, 2012.

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LIST OF PREPARERS AND PARTICIPANTS

INTERDISCIPLINARY REVIEW

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Christina Stark	Riparian Coordinator/Project Manager	Riparian and Wetlands
Julia Christiansen	Natural Resource Specialist	Surface Management and Permitting for Oil & Gas
Alissa Leavitt-Reynolds	Archaeologist Archaeologist	Cultural Resources, Native American Religious Concerns
Michelle Bailey Chris Pipkin	Outdoor Recreation Supervisor Outdoor Recreation Planner	Access, Transportation, Recreation, VRM, Wilderness, ACECs
Scott Clarke	Range Management Specialist	Vegetation, Range
Jacob Martin	Range Management Specialist	Range, Forestry
Jim Dollerschell	Range Management Specialist	Range, Wild Horse & Burro Act
David Scott Gerwe	Geologist	Geology, Paleontology
Alan Kraus	Hazardous Materials Specialist	Hazardous Materials
Robin Lacy	Realty Specialist	Land Tenure/Status, Realty Authorizations
Heidi Plank	Wildlife Biologist	T&E Species, Migratory Bird Treaty Act, Terrestrial & Aquatic Wildlife
Anna Lincoln	Ecologist	Land Health Assessment, Range Ecology, Special Status Plant Species
Collin Ewing	Environmental Coordinator	Environmental Justice, Prime & Unique Farmlands, Environmental Coordinator
Nate Dieterich	Hydrologist	Soils, Air Quality, Water Quality, Hydrology, Water Rights
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Lathan Johnson	Fire Ecologist Natural Resource Specialist	Fire Ecology, Fuels Management

Appendix A

**LITTLE BOOK CLIFFS
WILD HORSE RANGE
POPULATION
MANAGEMENT PLAN**

Bureau of Land Management
Grand Junction Field Office
Grand Junction, Colorado

June 2002

LITTLE BOOK CLIFFS WILD HORSE RANGE POPULATION MANAGEMENT PLAN

The purpose of a population management plan is to provide guidance for the management of wild horses within Herd Management Areas. As a basis for determining the appropriate management actions in the future, a review of historical events, background information, past management, local population data and studies, current research and as well as current policy is necessary. Following is a discussion of each of these elements followed by management actions for the Little Book Cliffs wild horse herd identified to meet management objectives in the Herd Management Plan and provisions of the Wild Free-Roaming Horse and Burro Act.

HISTORY AND BACKGROUND

The Little Book Cliffs Wild Horse Range was established through a General Management agreement in 1974 and officially dedicated as a wild horse range on November 7, 1980. Wild horses had inhabited the area many years prior to 1974, dating back to the first part of the 20th century. Throughout the first half of this century horses were introduced and removed by local ranchers. In 1971, the Wild Free-Roaming Horse and Burro Act was enacted to protect, manage and control wild horses and burros on BLM land. The population count for the Little Book Cliffs Horse Area at this time was 42 head. Once protected the population expanded annually. The annual increase in population size ranges from 15 to 25 %.

The Little Book Cliffs Wild Horse Management Plan (WHMP) was implemented in 1979 and updated in 1984, 1990 and 1992. Specific population objectives were:

- Provide for the protection of wild horses from capture, branding, harassment and death.
- Maintain a healthy, viable breeding population of 65 to 125 wild horses, with an Appropriate Management Level (AML) of 80 head.

This Population Management Plan (PMP) is an amendment to the WHMP. It will provide guidance for the management of the Little Book Cliffs Wild Horse Range and the horses on the range, and establish the appropriate management level (AML) for the horse population.

Several gathers have occurred since 1979 to meet the population objectives stated above. Gathers have occurred in 1975, 1977(40), 1983(45), 1988(44), 1989(40), 1992(39), 1996 (53), 1997(10), and 1999(56). Numbers in parentheses represent the number of horses removed from the range. The gathers in 1975 and 1997 were to gather horses outside the area. In 1975 the horses were gathered from the adjoining livestock allotment, particularly the Red Rock, Round Mountain and Bronco Flats area, and moved into the Horse Area. Gathers in 1989 and 1977 were unscheduled but necessary due to drought conditions.

The WHMP called for periodic introduction of wild horses from other BLM horse herds into the area to avoid the undesirable effects of inbreeding, to maintain vigor as well as good conformation and to keep a diversity of color in the herd. The history of released animals is as follows:

Year	Number Released	Sex of Horses	Color of Horses	Previous Location	Location Released
1983	6	4 studs, 1 mare, 1 filly	Gray Pinto, Buckskin, Palomino, Sorrel (2)	Colorado- Piceance Herd	Indian Park
1985	2	studs	Buckskin. Red roan	Wyoming	North Soda
1986	2	studs	Palomino, Brown Paint	Wyoming	Coal Canyon
1987	4	3 studs, 1 mare	Gray, Pinto, Red roan, Blue roan	Wyoming	Indian Park
1993	2	mares	Buckskin, Dun	Nevada	Coal Canyon
1994	3	2 mares, 1 colt	Paint, Bay Paint	Utah-Vernal	Low Gap North Soda
1998	1	stud	Gray	Colorado- Spring Creek	Indian Park

Past introductions have been very successful. Observations have shown that young studs released take several years before they obtain a mare or harem. Whereas mares generally are picked up by a stud soon after release, but will wander from stud to stud before sticking with a particular stallion.

Genetic Studies

Genetic variation and diversity is a concern in the Little Book Cliffs herd due to the relatively small population size. In 1993 a report was written by E. Gus Cothran, PhD. from the University of Kentucky summarizing an analysis of genetic data from the Little Book Cliffs horses including recommendations for management. Results were obtained from the analysis of blood samples taken from adopted horses gathered from the area and animals rounded up in 1992.

In terms of genetic similarity Dr. Cothran states that the genetic origin of the herd is not clear, however data suggests a fairly strong Spanish component including the Morgan Horse and the American Saddlebred . He also states, genetically the herd does not fit in well with any grouping of domestic breeds and is placed in a position between the saddle horses and the cold blood breeds. Genetic tests revealed that the Little Book Cliffs herd is most similar to the Spring Creek Basin and Piceance herds.

The level of genetic variation in the Little Book Cliffs herd is low, but not immediately threatening. Mr. Cothran concluded that overall genetic variability is low but when compared to other feral horses is higher. He states that inbreeding is not yet a problem, however if population size is kept at a low level and there is no introduction of outside animals, inbreeding is inevitable.

Management actions suggested by Dr. Cothran based on his analysis were:

- Keep the population near the carrying capacity of the range to build up the genetic reserve of the herd.
- On an irregular basis introduce one or two horses to the herd to increase genetic variability reducing the risk of inbreeding. Females are preferred as introductions as they are less likely to cause drastic changes in the makeup of the population with unpredictable results. Select horses from within the same geographic region.
- To improve/maintain the effective population size remove mainly young animals. By culling young horses, the genetic variation that currently exists in the herd remains in the animals that are reproducing.
- Continue to monitor genetic components within the herd.

Population Studies: The majority of information obtained on the Little Book Cliffs herd has been from field observations. A local volunteer, Marty Felix , along with the Friends of the Mustang, under a cooperative agreement, have spent endless hours gathering information. Information gathered includes population size, annual foal crop, mortality, number of bands, distribution, age structure, sex ratio and intra-herd movement. Because of these efforts information gathered for this herd is of greater detail than that afforded of most other wild horse herds. A computer program known as Wild Horse Identification Management System has been developed in cooperation with the U.S. Geological Survey to store data on individual animals and provide a means of summarizing population data. Aerial counts were used in the past but became unfeasible due to expense and difficulty in finding horses due to the terrain and pinon-juniper vegetation type.

Population Size and Foal Count data since 1994 is shown below.

Year	Total Population Estimate*	Foal Count
1994	?	24
1995	151	24
1996	166	29
1997	142	33
1998	162	30
1999	183	39
2000	153	30
2001	169	33

*Estimates include Adults and the current years foals.

Selective Criteria for Removal in Past

Prior to 1988, selective criteria for removal was primarily to remove most of the animals captured except for a few select animals. Prime breeding animals and a few older animals were released. Capture efforts occurred in one or two sites each gather.

Beginning in 1988 selective criteria focused on: removing younger animals (5 years and less), reducing bachelor bands, improving color balance on range (reduce dominant colors), improving conformation, retaining older animals(15 years and older), and retaining successful breeding animals on range to maintain genetic variation and diversity. Capture efforts occurred in three or more areas of the range to even out distribution and balance numbers within each area.

The Herd as of 2001

As of October 2001 the Little Book Cliffs herd consisted of approximately 169 horses including 2001 foals. Census data was obtained from observations and data collection by the local volunteer organization. Based on the 169 horse count, 74 were females, 87 were males and 8 unknown resulting in a sex ratio of females to males of 46% to 54%.

The current age structure is representative of a typical age structure for a wild ungulate herd being pyramidal in shape with the majority of animals in the youngest age categories. Age structure is summarized below based on information compiled in October 2001 :

Age	Number of Animals	Percent of Population
< 1	29	18
1	29	18
2	15	9
3	10	7
4	12	8
5	10	7
6	7	5
7	9	6
8	6	4
9	4	3
10	4	3
11	3	2
12	4	3
13	2	1
14	2	1
15	1	1
16	0	0
17	1	1
18	1	1
19	1	1
20+	2	1
Total	152	100

* The age for 17 horses was unknown.

It is evident that a typical pattern shows relatively limited mortality across most ages classes, with more deaths occurring by foals and yearlings as well as animals over 15 years of age. The greatest cause of mortality is injury and old age.

Color Variation in the Little Book Cliffs Herd: The color variation has increased in the herd since designation of the herd area. For the most part this is due to the introduction of horses to the area with coloration less prominent to the area and through the selection process during gathers.

Color Variation in Little Book Cliffs Herd as of 2001		
Color	Number of Animals	Percent
Bay	43	24
Black	33	19
Sorrel	14	8
Buckskin	13	8
Dun	8	5
Chestnut	10	6
Paint	16	9
Palomino	6	4
Brown	6	4
Grey	5	3
Red Roan	5	3
Grulla	3	2
Blue Roan	5	3
White	2	1
TOTAL	169	100%

FUTURE MANAGEMENT

Population Objectives:

- 1) Provide for the protection of wild horses from capture, branding, harassment and death.
- 2) Maintain a healthy, viable breeding population at a level which will achieve and maintain a thriving, ecological balance on the public lands and does not result in deterioration of the range.
- 3) Establish an Appropriate Management Range of from 90 to 150 horses.

Management Actions:

-Appropriate Management Level(AML): The original Horse Management Plan for the Little Book Cliffs Wild Horse Range stated that a healthy, viable breeding population of from 65 to 125 wild horses with an AML of 80 head would be maintained.

In 1997 the Round Mountain Area consisting of 4,904 acres was added to the horse range through a cooperative management agreement. There were 319 animal unit months associated with this acreage in terms of available forage for livestock use which equates to 26 Animals Year Long.

An Ecological Site Inventory (ESI) was completed for the horse range in 1997. Analysis of the Ecological Site Inventory data in relation to available forage for wild horses using the proper use factor confirmed that the horse range could support a maximum herd of 150 horses. Management of a population larger than this would have a negative influence on the thriving natural ecological balance.

When considering the original carrying capacity, the estimate from the ESI and the vegetative studies completed in the area, and the necessity for a minimum four year gather cycle, it was determined that the new AML will be a range between 90 to 150 horses.

-Selective Criteria for Removals : Overall the main objective for selective removal is to maintain the viability, adaptability, and character of the established herd which includes keeping breeding bands together as much as possible. The appropriate philosophy involves retention of the natural working integrity of the population, allowing the majority of the decisions to be driven by the horses themselves. Priority is given, therefore to retaining dominant stallions, established lead and/or partner mares and reproductively successful mares within each established family group. This approach also recognizes the importance of maintaining reproductively fit horses to assist with long-term perpetuation of the population as recommended by Dr. Cothran. As such, removals are concentrated on young animals which have not as yet entered the breeding ranks of the population and have the greatest ability to adapt to adoption and domestication.

Age structure: Retain the pyramidal age structure discussed earlier. As directed by current policy, wild horses five years and younger and horses ten years and older will be targeted for removal during gathers. The majority of horses between six and nine years of age will be returned to the range. Select animals in removable age groups will be returned to the HMA when it is determined it is in the best interest of the animal, or to encourage maintenance of a viable, self-sustaining herd. Horses greater than 20 years of age will be returned to the range or euthanized if they cannot maintain a Henneke condition score of two.

Sex Ratio: Removals should result in a female to male sex ratio ranging from 60:40 to 40:60 with an ideal ratio of 50:50. Preference would be to have a higher number of females than males based on studies suggesting desired sex ratios in wild ungulates. At the same time it has been suggested that removals which increase the sex ratio slightly in favor of males tends to support a social structure of many smaller harems over that of fewer larger harems, which results in a positive impact on the effective genetic herd size.

Color: Color balance should continue to be a consideration during removals but not the major factor in determining selection of animals to be removed. Maintaining the

diversity of color in the herd is important but overall health of the herd including genetic make-up, herd demographics and herd social structure should override color in the selection process. The introduction of animals to the herd with color variations should continue but again color alone should not be the only factor considered when selecting horses for introduction as discussed above. Horses with color associated with health problems should be avoided.

Conformation: Horses with undesirable physical disabilities which are hereditary in nature should be removed to prevent passage on to future generations. Manage for horses which are 14 to 15 hands in size at maturity.

-Introduction of Horses: Due to the relative small population of wild horses within the Little Book Cliffs herd, inbreeding is an inevitable consequence which over the long term results in the loss of genetic variability. As discussed above in order to counteract the loss of genetic variation within the Little Book Cliffs herd it is necessary to periodically introduce new horses from other wild horse herds.

The following criteria would be used for selecting individual horses for introduction:

- Wild horses selected for introduction would be from those herds which closely resemble (per DNA analysis) and exhibit the same characteristics and conformation of this herd.
- Wild horses from the same geographic area containing habitat characteristics similar to the Little Book Cliffs Wild Horse Range.
- Various colors of individual horses could be selected for introduction.
- Younger mares (2-5 years old) would be the preferred sex, but stallions meeting the other criteria is also acceptable. Mares tend to be more readily acceptable by other horses into established existing bands.
- Only individual horses that exhibit good health, strength, vigor and good conformation would be selected for introduction. Individual horses with severe injuries, gross deformities or disease would not be selected for introduction.

-Transplants: Continue to transplant horses from one portion of the range to another during gather operations. This action will reduce inbreeding activity.

-Trap Site Locations: Continue to gather and remove horses from several locations within the range to even the distribution. Dr. Cothran recommended that removal of horses from the range should not concentrate on one geographic area over another to promote genetic health of the herd.

-Fertility Control: The use of fertility control measures need to be considered in the future for population management of the Little Book Cliffs Herd. Long term research efforts have resulted in viable alternatives to removal-only procedures in controlling herd size. The use of contraceptives has long been recognized as a humane alternative to limit the growth of wild horse herds while providing less disruption to the herd gene pool. Based on a four year gather cycle, the current AML and an expected population increase of 15 to 25% annually, gathers would have to reduce the population size to 80 animals given a 5% mortality rate. From a herd stand point, this reduces the population size to an undesirable level and could potentially effect

the health of the herd in terms of genetics and maintaining an effective population size. Fertility Control will provide a means of reducing the annual growth rate of the herd which would increase the time frame between gathers while maintaining the herd at an effective population size. In addition, Fertility Control use on younger mares allows these mares to advance in maturity prior to foaling thus reducing stress and physical demands on these young animals. Currently the immunocontraceptive vaccine has not been approved by the Food and Drug Administration for management based applications, but can be used for approved research needs.

-Blood-Draws for Genetic and Health Studies: Blood Samples should be drawn from horses removed during gather efforts when appropriate or as needed. At a minimum, this will be done every other gather. If conditions and facilities allow, all horses gathered should be tested with priority given to animals turned back onto the range. These samples will be used to supplement genetic data which has been gathered periodically in the past, in an effort to further monitor genetic variability and genetic effective population size for the Little Book Cliffs herd. The information will also aid in minimizing the occurrence of inbreeding and genetic defects.

Population Studies: Continue with the current level of data gathering including, herd size, foal counts, mortality, demographic data such as age structure, sex ratio and color as well as overall population data contained in the Wild Horse Identification Management System computer program. Continue to take advantage of the efforts of Marty Felix, Gerald Thygerson and Billy Hutchings and the local Friends of the Mustangs group in gathering and compiling information.

Appendix B

BLM Standard Operating Procedures for Wild Horse Gathers

The following procedures for gathering and handling wild horses would apply whether a contractor or BLM personnel conduct a gather.

Prior to any gathering operation, the BLM will provide for a pre-capture evaluation of existing conditions in the gather area(s). The evaluation will include animal conditions, prevailing temperatures, drought conditions, soil conditions, road conditions, and a topographic map with wilderness study area boundaries, the location of fences, other physical barriers, and acceptable trap locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during operations.

Trap sites and temporary holding sites will be located to reduce the likelihood of injury and stress to the animals, and to minimize potential damage to the natural resources of the area. These sites would be located on or near existing roads when feasible.

The primary capture methods used in the performance of gather operations include:

1. Bait Trapping. This capture method involves utilizing bait (feed, supplement, mineral, etc.) to lure wild horses into a temporary trap.
2. Water Trapping. This method involves utilizing temporary water sources to trap wild horses as they come to drink.
3. Helicopter Trapping if necessary. This method involves the use of a helicopter to move horses into traps.

The following procedures will be followed to ensure the welfare, safety and humane treatment of wild horses in accordance with the provisions of 43 CFR 4700.

A. For All Capture Methods Used in the Performance of Gather Contract Operations

1. The primary concern is the safe and humane handling of all animals captured. Gather operations including temporary traps and holding facilities shall incorporate the following:

a. Traps and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and the bottom rail that shall not be more than 12 inches from ground level. All traps and holding facilities shall be oval or round in design.

b. All loading chute sides shall be a minimum of six feet high and shall be fully covered with plywood or metal without holes larger than two by four inches.

c. All runways shall be a minimum of 30 feet long and a minimum of six feet high for horses and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of one to five feet above ground level for burros and one to six feet for horses. The location of the government-furnished portable fly chute to restrain, age, or provide additional care for the animals shall be placed in the runway in a manner as instructed by or in concurrence with the gather crew.

d. All crowding pens including the gates leading to the runways shall be covered with a material which prevents the animals from seeing out (plywood, burlap, plastic snow fence, etc.) and shall be covered a minimum of one to five feet above ground level, two to six feet for horses.

e. All pens and runways used for the movement and handling of animals shall be connected with hinged self-locking or sliding gates.

2. No modification of existing fences will be made without authorization from the agency of jurisdiction.

3. When dust conditions occur within or adjacent to the trap or holding facility, the BLM will wet down the ground with water.

4. Alternate pens within the holding facility to separate mares' small foals, sick and injured animals, strays, or other animals determined to need separate pens from the other animals. Animals shall be sorted according to age, number, size, temperament, sex, and condition when in the holding facility to minimize, to the extent possible, injury due to fighting and trampling. Under normal conditions, the government will require that animals be restrained for the purpose of determining an animal's age or sex, or for other necessary procedures. In areas requiring one or more satellite traps, and where a centralized holding facility is utilized, additional holding pens will be provided to segregate animals transported from remote locations so they may be returned to their traditional ranges. Either segregation or temporary marking and later segregation will be at the discretion of the BLM.

5. A continuous supply of fresh, clean water at a minimum rate of 10 gallons per animal per day. Animals held for 10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of no less than two pounds of hay per 100 pounds of estimated body weight per day. An animal held at a temporary holding facility through the night is defined as a horse/burro feed day.

6. If there is a contractor, it is the responsibility of the contractor to provide security to prevent loss, injury or death of captured animals until delivery to final destination.

7. Animals shall be transported to their final destination from temporary holding facilities within 24 hours after capture unless prior approval is granted for unusual circumstances. Animals to be released back into the herd management area following gather operations may be held up to 21 days or as directed by the cognizant employee. Animals shall not be held in traps and/or temporary holding facilities on days when there is no work being conducted. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three hours in any 24 hour period. Animals that are to be released back into the capture area may need to be transported back to the original trap site.

B. Additional Requirements related to Bait/Water Capture Methods That May Be Used in the Performance of a Gather

1. Capture attempts may be accomplished by utilizing bait (feed, water, mineral licks) to lure animals into a temporary trap. The following applies:

a. Gates shall be either a swinging panel or a regular metal gate that is intended for use with the portable panel system.

b. All traps will be manned when actively capturing wild horses.

c. Traps shall be left open in manner that won't inadvertently trap a wild horse or wildlife when not actively trapping.

C. Additional Requirements related to Helicopter Gather Method That May Be Used in the Performance of a Gather

The (*Helicopter Drive Trapping*) method employed for this capture operation requires that horses be herded to a trap of portable panels. Gathering would be conducted by using agency personnel or contractors experienced in the humane capture and handling of wild horses. The same rules apply whether a contractor or BLM personnel are used. This capture method will involve driving horses into a pre-constructed trap using a helicopter. The trap is constructed of portable steel panels consisting of round pipe. Wings are constructed off the ends of the panel trap to aid in funneling horses into the trap. The wings are constructed of natural jute, (or similar netting which will not injure a horse), which is hung on either trees or long steel posts. This sort of wing forms a very effective visual barrier to the horses that they typically will not run through. When the trap is ready for use, a helicopter will start moving one band of horses at a time toward the trap and into the wings.

The following stipulations and procedures will be followed during the contract period to ensure the welfare, safety and humane treatment of the wild horses in accordance with the provisions of 43 CFR 4700.

1) In heavily wooded areas, it may be necessary to use personnel on horse back in support of the helicopter to locate and/or move the horses. The helicopter will act more as a spotter for the ground crew in this situation.

2) The contractor/BLM shall attempt to keep bands intact except where animal health and safety become considerations which would prevent such procedures. The contractor/BLM shall ensure that foals shall not be left behind.

3) Domestic saddle horses may also be used to assist the helicopter pilot (on the ground) during the gather operation, by having the domestic horse act as a pilot (or "Judas") horse on the ground, leading the wild horses into the trap site. Individual ground hazers and individuals on horseback may also be used to assist in the gather.

Safety and Communication for Non Contract Helicopter Operations:

An Aircraft Safety Plan and flight hazard analysis will be appropriately approved and filed and copies distributed to the necessary individuals prior to commencing the removal operation. Daily flight plans will also be filed. If a BLM contract helicopter is used, all BLM, Aircraft Safety and Operations standards will be adhered to.

There will be daily briefings with the helicopter pilot, Authorized Officer and all personnel involved in the day's operation. The purpose of this meeting is to discuss in detail all

information gathered during the familiarization flight such as hazards, location of horses, potential problems, etc. Discuss any safety hazards anticipated for the coming day's operation or any safety problems observed by the Authorized Officer or anyone else, outline the plan of action, delineate course of actions, specifically position the hazers and their responsibilities, logistics, and timing. After each flight, removal personnel will discuss any problems and suggest solutions. This may be accomplished over the radio or on the ground as the need dictates.

A flight operations plan will be filed with the Grand Junction Dispatch Center. This plan will describe the area to be flown and the expected time frames of flight operations. A weather forecast will be acquired from the dispatcher. There will be no flights on days of high or gusty, erratic winds or days with poor visibility.

Two-way radio communication between the helicopter and the ground crew will be maintained at all times during the operation.

An operation or contractor's log will be maintained for all phases of the operation. The log will be as detailed as possible and will include names, dates, places and other pertinent information, as well as, observations of personnel involved.

All incidents/accidents occurring during the performance of any delivery order shall be immediately reported to the Authorized Officer.

D. Treatment of Injured or Sick; Disposition of Terminal Animals

1. The contractor/BLM shall restrain sick or injured animals if treatment is necessary. A veterinarian may be called to make a diagnosis and final determination. If necessary, destruction shall be done by the most humane method available. Authority for humane destruction of wild horses (or burros) is provided by the Wild Free-Roaming Horse and Burro Act of 1971, Section 3(b)(2)(A), 43 CFR 4730.1, BLM Manual 4730 - Destruction of Wild Horses and Burros and Disposal of Remains, and is in accordance with BLM policy.

2. Any captured wild horses that are found to have the following conditions may be humanely destroyed:

- a. The animal shows a hopeless prognosis for life.
- b. Suffers from a chronic disease.
- c. Requires continuous care for acute pain and suffering.

3. The Authorized Officer will determine if injured animals must be destroyed and provide for destruction of such animals. The contractor/BLM may be required to dispose of the carcasses as directed by the Authorized Officer.

4. The carcasses of the animals that die or must be destroyed as a result of any infectious, contagious, or parasitic disease will be disposed of by burial to a depth of at least 3 feet.

E. Use of Motorized Equipment

1. All motorized equipment employed in the transportation of captured animals shall be in compliance with appropriate state and federal laws and regulations applicable to the humane transportation of animals.
2. All motorized equipment, including horse and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that captured animals are transported without undue risk or injury.
3. Only horse or stock trailers with a covered top shall be allowed for transporting animals from trap site(s) to temporary holding facilities and from temporary holding facilities to final destination(s). Sides or stock racks of all trailers used for transporting animals shall be a minimum height of six feet six inches from the floor.
4. The rear door(s) of horse and stock trailers must be capable of opening the full width of the trailer. Panels facing the inside of all trailers must be free of sharp edges or holes that could cause injury to the animals. The material facing the inside of all trailers must be strong enough so that the animals cannot push their hooves through the side
5. Floors of horse and stock trailers and loading chutes shall be covered and maintained with wood shavings or other non-slip material to prevent the animals from slipping.
6. Animals to be loaded and transported in any trailer may include limitations on numbers according to age, size, sex, temperament and animal condition. The following minimum square feet per animal shall be allowed in all trailers:

11 square feet per adult horse (1.4 linear foot in an 8 foot wide trailer);
6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
7. The BLM shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of captured animals. The BLM shall provide for any brand and/or inspection services required for the captured animals.

F. Safety

Safety of BLM employees, contractors, members of the public, and the wild horses will receive primary consideration. The following safety measures will be used by the Authorized Officer and all others involved in the operation as the basis for evaluating safety performance and for safety discussions during the daily briefings:

1. A briefing between all parties involved in the gather will be conducted each morning.
2. All BLM personnel, contractors, and volunteers will wear protective clothing suitable for work of this nature. BLM will alert observers of the requirement to dress properly. BLM will assure that members of the public are in safe observation areas.

3. Emergency road closures may be planned and implemented to control public access once trap locations are determined.

4. BLM Law Enforcement Officer presence may be required to ensure the safety of the public, BLM personnel, contractors, volunteers, and animals.

G. Communication

1. The Agencies involved shall have the means to communicate with all personnel engaged in the capture of wild horses utilizing a VHF/FM transceiver or VHF/FM portable two-way radio. If communications are ineffective, the government will take steps necessary to protect the welfare of the animals.

2.. All accidents occurring during the performance of any task order shall be immediately reported to the field office.

H. Site Clearances

No personnel working at gather sites may excavate, remove, damage, or otherwise alter or deface or attempt to excavate, remove, damage or otherwise alter or deface any archaeological resource located on public lands or Indian lands.

Prior to setting up a trap or temporary holding facility, BLM will conduct all necessary clearances (archaeological, T&E, etc). All proposed site(s) must be inspected by a government archaeologist. Once archaeological clearance has been obtained, the trap or temporary holding facility may be set up. Said clearance shall be arranged for by the COR, PI, or other BLM employees.

Gather sites and temporary holding facilities would not be constructed on wetlands or riparian zones.

F. Animal Characteristics and Behavior

Releases of wild horses would be near available water if the area is new to them. A short-term adjustment period may be required while the wild horses become familiar with the new area.

G. Public Participation

Opportunities for public viewing (e.g., media, interested public) of gather operations will be made available to the extent possible; however, the primary considerations will be to protect the health, safety and welfare of the animals being gathered and the personnel involved. The public must adhere to guidance from the on-site BLM representative. It is BLM policy that the public will not be allowed to come into direct contact with wild horses or burros being held in BLM facilities. Only authorized BLM personnel or contractors may enter the corrals or directly handle the animals. The general public may not enter the corrals or directly handle the animals at any time or for any reason during BLM operations.

H. Responsibility and Lines of Communication

Jim Dollerschell, Jerome Fox or delegate has direct responsibility to ensure human and animal safety. Grand Junction Field Manager Katie Stevens will take an active role to ensure that appropriate lines of communication are established between the field, field office, state office, national program office, and BLM holding facility offices. All employees involved in the gathering operations will keep the best interests of the animals at the forefront at all times.

All publicity and public contact and inquiries will be handled through the Grand Junction Field Manager and Colorado State Office of Communications. These individuals will be the primary contact and will coordinate with the COR on any inquiries.

The BLM delegate will coordinate with the corrals to ensure animals are being transported from the capture site in a safe and humane manner and are arriving in good condition.

The BLM require humane treatment and care of the animals during removal operations. These specifications are designed to minimize the risk of injury and death during and after capture of the animals. The specifications will be vigorously enforced.

I. Additional requirements for personnel conducting gather operations also include:

1. Flagging will be used strategically, as excessive flagging desensitizes the animal and becomes useless if used too much.
2. Gates and doors will not be deliberately slammed or shut on horses or burros passing through.
3. Excessive yelling and unnecessary noises will not be utilized in the loading and unloading process.
4. There will be no hitting, kicking, striking or beating a horse.
5. Loading or unloading of transport vehicles is performed during daylight hours, or supplemental light is provided in the area to facilitate visibility.
6. Holes, gaps, or openings will be eliminated in the loading/unloading area to avoid injury.
7. Transport vehicles will be properly aligned with the loading/unloading ramps or docks. No gaps will exist between the unloading/loading docks or ramps and the bottom or floor of the trailer's exit. No gaps exist between the trailer and the side walls of the unloading area, whereby a horse's limbs or head can become stuck or injured.

APPENDIX C

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Population Model Overview

WinEquus is a program to simulate the population dynamics and management of wild horses created by Stephen H. Jenkins of the Department of Biology, University of Nevada at Reno. For further information about this model, you may contact Stephen H. Jenkins at the Department of Biology/314, University of Nevada, Reno, NV 89557.

Detailed information is provided within the WinEquus program available at <http://unr.edu/homepage/jenkins>, and will provide background about the use of the model, the management options that may be used, and the types of output that may be generated.

The population model for wild horses was designed to help wild horse and burro specialists evaluate various management strategies that might be considered for a particular area. The model uses data on average survival probabilities and foaling rates of horses to project population growth for up to 20 years and forecasting cumulative impacts over time. The model accounts for year-to-year variation in these demographic parameters by using a randomization process to select survival probabilities and foaling rates for each age class from a distribution of values based on these averages. This aspect of population dynamics is called environmental stochasticity, and reflects the fact that future environmental conditions that may affect wild horse population's demographics can't be established in advance. Therefore each trial with the model will give a different pattern of population growth. Some trials may include mostly "good" years, when the population grows rapidly; other trials may include a series of several "bad" years in succession. The stochastic approach to population modeling uses repeated trials to project a range of possible population trajectories over a period of years, which is more realistic than predicting a single specific trajectory.

The model incorporates both selective removal and fertility treatment as management strategies. A simulation may include no management, selective removal, fertility treatment, or both removal and fertility treatment. Wild horse and burro specialists can specify many different options for these management strategies such as the schedule of gathers for removal or fertility treatment, the threshold population size which triggers a gather, the target population size following a removal, the ages and sexes of horses to be removed, and the effectiveness of fertility treatment.

To run the program, one must supply an initial age distribution (or have the program calculate one), annual survival probabilities for each age-sex class of horses, foaling rates for each age class of females, and the sex ratio at birth. Sample data are available for all of these parameters. Basic management options must also be specified.

Population Modeling – Little Book Cliffs Wild Horse Range

To complete the population modeling for the Little Book Cliffs Wild Horse Range, version 1.40 of the WinEquus program, created April 2, 2002, was utilized.

Objectives of Population Modeling

Review of the data output for each of the simulations provided many useful comparisons of the possible outcomes for each alternative. Some of the questions that need to be answered through the modeling include:

- Do any of the Alternatives “crash” the population?
- What effect does fertility control have on population growth rate?
- What effects do the different alternatives have on the average population size?
- What effects do the different alternatives have on the genetic health?

Population Data, Criteria, and Parameters utilized for Population Modeling

Population data including Initial Age Structure, Survival Probabilities, Foaling Rates, Sex Ratio at Birth, Removal Criteria and contraception Criteria for the Little Book Cliff Wild Horse Range used in the population model are available at the Grand Junction Field Office.

Population Modeling Summary– Little Book Cliffs Wild Horse Range

Out of 100 trials in each simulation, the model tabulated minimum, average, and maximum population sizes. The model was run from 2013 and continuing for 11 years to forecast cumulative impacts overtime and determine what the potential effects would be on population size for the proposed action and alternatives. These numbers are useful to make relative comparisons of the different alternatives, and potential outcomes under different management options. The data displayed within the tables is broken down into different levels. The lowest trial, highest trial, and several in between are displayed for each simulation completed. According to the creator of the modeling program, this output is probably the most important representation of the results of the program in terms of assessing the effects of proposed management, because it shows not only expected average results but also extreme results that might be possible

The Grand Junction Field Office used the model to simulate results for the three alternatives 1) Selective removal with additional fertility control treatments, 2) No removal with the continuation of existing fertility control and 3) No Management. The NO MANAGEMENT alternative is not analyzed in the EA but is to show what might be expected if no fertility control or gathers were occurring. The simulations were run for 100 trials over the next eleven years. Initial population age structures were developed from current data kept for the Little Book Cliffs

Wild Horse Range. Survival data and foaling rate data were obtained from results from a Garfield Flat, Nevada studies.

Proposed Action - Proposed Action: Bait/Water trapping with additional use of Immunocontraceptives.

For this analysis the fertility control program would continue with the addition that all mares released would be treated. The herd would be gathered when the population exceeded 150 horses and be gathered down to 130 horses resulting in more frequent gathers with fewer numbers removed.

Population Sizes in 11 Years*

POPULATION SIZES IN 10 YEARS			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	67	104	162
10 th Percentile	97	133	170
25 th Percentile	112	142	176
Median Trial	124	152	184
75 th Percentile	134	158	195
90 th Percentile	141	162	204
Highest Trial	148	169	274

*0 to 20+ Horses

This table shows that in 11 years and 100 trials under this alternative the herd is likely to range in size from 104 to 169 horses with a median of 152. The median trial shows a population range of 124 to 184 horses. For the proposed action only 10% of the trials resulted in a minimum population fewer than 97 horses and only 25% of the trials were below 112 horses in size. Also there were only 10% of the trials that resulted in a minimum population would be greater than 141. In other words, 80% of the time one could expect a minimum population between 97 and 141 and a maximum population of 170 to 204 given the assumptions about survival probabilities, foaling rates, initial age-sex distribution and management options. Only in the lowest trial would the minimum population fall below the low end of AML thus the probability of the population crashing is very low.

AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	2.8%
10 th Percentile	4.6%
25 th Percentile	8.2%
Median Trial	10.7%
75 th Percentile	13.1%
90 th Percentile	14.4%
Highest Trial	18.2%

The Proposed Action alternative results in a population size that falls within the parameters of the Appropriate Management Level (AML) identified for this herd. The resulting median growth could threaten the survival and genetic integrity of the population.

Alternative II. No Gather and Continuation of Current Fertility Program

For this analysis there would be no gathers and a continuation of the current fertility program.

Population Sizes in 11 Years*

POPULATION SIZES IN 10 YEARS			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	144	194	240
10 th Percentile	161	240	336
25 th Percentile	165	264	394
Median Trial	171	307	460
75 th Percentile	178	336	514
90 th Percentile	190	363	587
Highest Trial	224	444	703

*0 to 20+ Horses

This table shows that in 11 years and 100 trials under this alternative the herd is on average likely to range in size from 194 to 444 horses with a median of 307. There is less than a 10% chance the herd will drop below 161 and less than a 25% chance the herd will drop below 165 horses in size. Also there is a 10% chance that the minimum population would be greater than 190. In other words, 80% of the time one could expect a minimum population between 161 and 190 given the assumptions about survival probabilities, foaling rates, initial age-sex distribution and management options.

AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	6.1%
10 th Percentile	9.0%
25 th Percentile	10.1%
Median Trial	11.5%
75 th Percentile	12.9%
90 th Percentile	13.9%
Highest Trial	16.6%

No Management:

For this analysis there would be no gather and no continuation of the fertility program.

Population Sizes in 11 Years*

POPULATION SIZES IN 10 YEARS			
	MINIMUM	AVERAGE	MAXIMUM
Lowest Trial	120	346	758
10 th Percentile	162	435	866
25 th Percentile	165	489	986
Median Trial	172	523	1094
75 th Percentile	184	575	1253
90 th Percentile	198	640	1414
Highest Trial	249	800	1790

*0 to 20+ Horses

AVERAGE GROWTH RATE IN 10 YEARS	
Lowest Trial	14.0%
10 th Percentile	16.6%
25 th Percentile	18.6%
Median Trial	19.8%
75 th Percentile	21.3%
90 th Percentile	22.8%
Highest Trial	24.7%

This alternative would result in population numbers that are above the established AML range thus threaten land health of the area and the balance between available forage and a thriving horse population. Minimum population size in 90% of the trials would be greater than the high range of AML. In some trials the population would more than double the identified sustainable carry capacity of the area.

To summarize the results obtained by simulating the range of alternatives for the Little Book Cliffs Wild Horse Range wild horse gather the following questions can be addressed.

- *Do any of the Alternatives “crash” the population?*
None of the alternatives indicate that a crash is likely to occur to the population. Minimum population levels and growth rates are all within reasonable levels, and adverse impacts to the population are not likely.

- *What effect does fertility control have on population growth rate?*
The Growth Rate simulated for the Proposed Action would be 10.7% which is lower than the No Action, does not threaten to crash the herd and is an adequate rate for maintaining a viable, self-sustaining wild horse herd.

What effect do the different alternatives have on the average population size.

The population sizes obtained through the model indicate that the Proposed Action using fertility control implementation would result in lower average population sizes than the No Action. The minimum population size would be sufficient for a viable horse herd and not threaten genetic diversity.

The No Action Alternative is clearly unacceptable, however, was analyzed for comparison with the other alternatives. Without a wild horse gather, the population would quickly exceed the carrying capacity of the WHR, with attendant long term habitat damage, substantially reducing the ability of the WHR to support wild horses.

Appendix D



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240
<http://www.blm.gov/>

January 23, 2013

In Reply Refer To:
4710 (WO 260) P

EMS TRANSMISSION 01/30/2013
Instruction Memorandum No. 2013-058
Expires: 09/30/2014

To: All Field Office Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Wild Horse and Burro Gathers: Public and Media Management

Program Area: Wild Horse and Burro (WH&B) Program

Purpose: The purpose of this Instruction Memorandum (IM) is to establish policy and procedures for safe and transparent visitation by the public/media at WH&B gather operations, while ensuring the humane treatment of wild horses and burros.

Policy and Action: Effective immediately, all State, District, and Field offices must comply with the new policy of this IM for all gathers within their jurisdiction. This policy establishes the procedures for safe and transparent visitation by the public/media at WH&B gather operations.

This IM is part of a package of forthcoming IMs covering aspects of managing wild horse and burro gathers, including:

- IM No. 2013-060, Wild Horse and Burro Gathers: Management by Incident Command System;
- IM No. 2013-061, Wild Horse and Burro Gathers: Internal and External Communicating and Reporting;
- IM No. 2013-059, Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy

The BLM's on-site Core Gather Team (CGT) consists of four individuals: an Incident Commander (IC), Lead Contracting Officer's Representative (Lead COR), Lead Public Affairs Officer (Lead PAO), and Lead Law Enforcement Officer (Lead LEO). Specific roles and responsibilities of each of these core positions and all other personnel, including Contracting Officer (CO), are addressed in IM No. 2013-060, Wild Horse and Burro Gathers: Management by Incident Command System.

National Policy Regarding Access for Public and Media Observation of Gather Operations

- Every gather day is considered a public observation day unless the Agency Representative/Authorizing Officer (AR/AO) has made a decision to temporarily close or restrict access on public lands due to availability of gather observation sites, safety concerns or other considerations relevant to individual gather observations. Gather operations involve some level of inherent risk due to both the nature of working with wild animals, and risks associated with normal helicopter operations. Risks are highest near the trap-site area. The

BLM generally allows members of the public an opportunity to safely view gather operations from designated observation areas near the trap-site and at temporary holding facilities, but they must be escorted to those areas by BLM personnel. If a trap-site space will not safely accommodate public/media observation, then alternative viewing opportunities will be discussed and resolved prior to gather operations beginning in a given area.

- If the best location for gather facilities are on private lands or if access across private lands is necessary to access gather facilities on the public lands, prior to the start of the gather operations, BLM will make every effort to obtain permission from private landowners to allow for public ingress/egress through or to host the public/media visitation on the private lands. If permission cannot be obtained and public access limitations exist, this will be announced as soon as determined. Every effort should be made in locating gather facilities to minimize such access limitations.
- The IC should work to ensure that the public/media have opportunities to safely observe gather activities at the trap-site and temporary holding facilities when practicable. The IC should also work to ensure that gather safety is maintained at all times and that the public/media's presence at the gather is successful.
- The Lead COR coordinates the selection of the public/media-designated observation area(s) with the other members of the CGT and the Contractor to select the location that provides the best viewing of activities while also providing for the safety of the public/media, gather staff, Contracting staff and the animals. All trap-site observation areas will be selected prior to the beginning of operations and before the arrival of public/media observers.
- Decisions and changes to agreed upon start times for gather operations will be fully coordinated and communicated between the CGT and the Contractor, through the Lead COR. The Lead PAO will work closely with the CGT to make necessary coordination of planned daily public/media meeting times and locations to get public/media into designated observation areas prior to daily trapping activities, and at designated observation areas at temporary holding and shipping areas. Opportunities for the public/media to visit temporary holding facilities and view the shipping activities should also be provided to the extent practicable.
- The IC will ensure that decisions made and actions taken regarding public/media access to the trap-site, temporary holding facilities and other sites during the gather operations are in conformance with the standards found in existing guidance and that may be identified in IM. 2013-059, Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy.
- The Lead PAO serves as the liaison between the CGT and the public/media and is responsible for conducting media interviews and managing public/media visits including facilitating the movement of public/media during all aspects of gather operations.
- The Lead PAO will endeavor to provide stock B-roll footage of gather operations to the media upon request, resources permitting.
- The Lead LEO ensures safety by addressing public actions that may pose a safety or operational threat to the gather, including the immediate removal from the gather of individuals exhibiting unsafe or disruptive behavior. The IC is responsible for having any public/media exhibiting unsafe or disruptive behavior removed from the gather area immediately after consultation with the Lead LEO. Instances of unsafe or disruptive behavior will be immediately addressed.
- Any disruptive behavior or interference with the gather operation by any member of the public/media, such that the safety, health, and welfare of animals or people is threatened, will result in the *suspension* or *shutting down* of the gather operation until the situation is resolved

and safety is restored. The authority to *suspend* gather operations lies with the Lead COR. The authority to fully *shut down* gather operations lies with the CO. Specific authority for the enforcement of these concerns may be addressed by LEOs with the enforcement of 43 CFR 8365.1-4 (*Public health, safety and comfort*); and, if applicable when closure order exists, 43 CFR 8364.1(d) (*Violation of Court Order or Restriction Order*).

- A LEO will be available at all times when the public/media are present within the gather operations area and at temporary holding/shipping areas. Exceptions to this will be determined by the CGT.
- The on-site veterinarian may be asked by the IC or COR to help BLM with technical questions or information regarding animal health, condition, or welfare; but at no time shall an on-site or Animal and Plant Health Inspection Service (APHIS) veterinarian be asked or allowed to address or directly answer questions from the public/media. Requests directed to APHIS about their participation in gathers should be referred to APHIS Legislative and Public Affairs Media Coordinators.
- The trap-site and temporary holding areas are designated as safety zones and only essential personnel will be allowed inside these safety zones during gather operations or while animals are in the trap or temporary holding areas. Essential personnel will normally consist of the Lead COR, Project Inspector (PI), and on-site veterinarian. When other BLM personnel (such as the CGT, BLM videographers, and BLM photographers) have a need to be in the safety zone on a limited basis, they are authorized as temporary essential personnel for that purpose.
- Where appropriate, the AR/AO may grant access to non-BLM personnel, such as Comprehensive Animal Welfare Policy Auditors and National WH&B Advisory Board Members, to the safety zone on a limited basis, as temporary essential personnel.
- The IC, State Director, and the WH&B Division Chief will jointly decide who constitutes temporary essential personnel in cases otherwise not described.
- Unofficial passengers (public/media, etc.) are not authorized to travel in government-owned vehicles in accordance with BLM Handbook G-1520-3 Fleet Management, Chapter 1. § III (B).
- The public/media are prohibited from riding or placing equipment in the helicopters contracted for a gather. The National Gather Contract Attachment 1 §C.9.d states “under no circumstances will the public or any media or media equipment be allowed in or on the gather helicopter while the helicopter is on a gather operation.” The placement of public/media cameras or recording equipment on panels, gates and loading equipment including trucks and trailers are also prohibited.
- The minimum distance between the public/media and the helicopter operations shall be established in accordance with “Guidance regarding distance of helicopter operations from persons and property during Wild Horse and Burro gather operations” issued by the BLM Fire and Aviation Directorate on June 14, 2011, as required by Federal Aviation Administration (FAA) regulations. However, within those constraints, the locations that will provide the best unobstructed view of the gather operations should be identified for public/media observation opportunities as described below.
- The minimum distance between the public/media and non-essential personnel and the perimeter of the temporary holding facility should be established for the gather during the pre-work conference with the Contractor and prior to any public/media presence. This viewing distance should result in minimal disturbance to the wild horses and burros held in the facility

and should be flexible based on observed animal behavior and response. The CGT may consider the use of elevated viewing such as a flatbed trailer or hillside in those cases where the observation location is at a greater distance from the gather operation.

- The CGT retains the discretion to provide additional viewing opportunities at the trap-site on a case-by-case basis after the Lead COR has determined that no helicopter or loading activities will occur for a minimum of 30 minutes or gather operations have concluded for the day, so long as the animals that might be observed have settled down and such additional opportunities can be provided in a manner that will not result in increased stress to the gathered horses or interference with the gather activities. The Lead COR will get the concurrence of the CGT and Contractor of such additional opportunities prior to offering it to the public/media.

Timeframe: This IM is effective immediately.

Budget Impact: Unit costs for conducting gathers for removals and population growth suppression efforts have increased as a result of the staffing necessary for internal and external reporting associated with increased transparency. The budget impacts of visitation that occurs during WH&B gathers include substantial unplanned overtime and per diem expense. While limiting the number of BLM staff attending the gather to essential personnel may reduce gather costs, it should not be at the expense of the safety of the animals, gather personnel, or members of the public/media.

Background: The BLM has a longstanding policy of allowing public/media to view WH&B gathers. Advance planning helps ensure the safety of the animals, staff, Contractor personnel, and the public/media. The number of public/media interested in viewing gathers has increased in recent years, though interest varies from one HMA to another as well as State to State. In response to this, the BLM has implemented an Incident Command System to safely and appropriately manage the larger numbers of public/media.

A high degree of interest from the public/media to observe WH&B gathers is expected to continue. Strong communications and coordination among the on-site CGT will allow for safety and flexibility regarding the selection of observation areas for viewing trap-sites and the temporary holding facilities.

Manual/Handbook Sections Affected: None

Coordination: This IM was coordinated among WO-200, WO-260, WO-600, WO-610, WO-LE, WH&B State Leads, WH&B Specialists, State External Affairs Leads, public affairs, and law enforcement staff in the field.

Contact: Any questions regarding this IM can be directed to Joan Guilfoyle, Division Chief, Wild Horse and Burro Program (WO-260) at 202-912-7260, or Jeff Krauss, Division Chief, Public Affairs (WO-610) at 202-912-7410.

Signed by:
Edwin L. Roberson
Assistant Director
Renewable Resources and Planning

Authenticated by:
Robert M. Williams
Division of IRM Governance, WO-560

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240
<http://www.blm.gov/>

January 23, 2013

In Reply Refer To:
4710 (NV934) P

EMS TRANSMISSION 01/30/2013
Instruction Memorandum No. 2013-059
Expires: 09/30/2014

To: All Field Office Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Wild Horse and Burro Gatherers: Comprehensive Animal Welfare Policy

Program Area: Wild Horse and Burro (WH&B) Program

Purpose: The purpose of this Instruction Memorandum (IM) is to establish policy and procedures to enable safe, efficient, and successful WH&B gather operations while ensuring humane care and treatment of all animals gathered.

Policy/Action: The Bureau of Land Management (BLM) is committed to the well-being and responsible care of WH&B we manage. At all times, the care and treatment provided by the BLM and our Contractors will be characterized by *compassion and concern* for the animal's well-being and welfare needs. Effective immediately, all State, District, and Field Offices must comply with this IM for all gathers within their jurisdiction.

This IM is part of a package of IMs covering various aspects of managing WH&B gathers.

- IM No. 2013-060, Wild Horse and Burro Gatherers: Management by Incident Command System
- IM No. 2013-058, Wild Horse and Burro Gatherers: Public and Media Management
- IM No. 2013-061, Wild Horse and Burro Gatherers: Internal and External Communicating and Reporting

Roles and responsibilities of all gather personnel are covered in IM No. 2013-060, Wild Horse and Burro Gatherers: Management by Incident Command System.

The goal of this IM is to ensure that the responsible and humane care treatment of WH&B remains a priority for the BLM and its Contractors at all times. Our objectives are to use the best available science, husbandry, and handling practices applicable for WH&B and to make improvements whenever and wherever possible, while meeting our overall gather goals and objectives in accordance with current BLM policy, standard operating procedures, and contract requirements.

The Lead Contracting Officer's Representative (Lead COR) is the primary party responsible for promptly addressing any actions that are inconsistent with the expectations set forth below. The Lead COR may delegate responsibility to an alternate COR. The responsibilities of a BLM Project Inspector are assigned by the Lead COR and are limited to performing on-the-job government inspection of work accomplished by the Contractor.

The Lead COR has authority to *suspend* gather operations if he/she believes actions contrary to the humane treatment expectations are taking place or that an unsafe condition exists. The Lead COR will promptly notify the Contractor if any improper or unsafe behavior or actions are observed, and will

require that such behaviors be promptly rectified and eliminated. Any observed problems shall be reported at the end of each day. The Lead COR and Incident Commander (IC), through coordination with the Contracting Officer (CO) shall, if necessary, ensure that corrective action has been taken to prevent those behaviors or actions from occurring again and all follow-up and corrective actions shall be reported as a component of the Lead COR's daily reports.

Based on past experience with WH&B gathers and the need to adapt some gather practices to specific local conditions, the following information will be discussed with all gather personnel before gather operations begin and shall be incorporated as management's expectations that is included as an appendix to the documentation supporting the gather and made available on BLM's website. Humane care and handling of WH&B during gather operation is always the primary concern. During the pre-work conference facilitated by the Lead COR, expectations for the humane treatment and care of WH&B during gather operations will be discussed. They include the following expectations:

1. The Lead COR will ensure that the gather helicopter(s) will not be operated in a manner where, for any reason, the helicopter could reasonably be expected to come into contact with a WH&B. In cases when it is necessary during gather operations, hovering by the helicopter over the WH&B is acceptable.
2. Handling aids (including body position, voice, flags, paddles and electric prods) will be used in a manner that is consistent with domestic livestock handling procedures. Flags and paddles will be used as signaling and noise making devices first, with only light contact of the flag or paddle end allowed when necessary. Animals will not be whipped or beaten with these or any handling aids. Flagging and paddles will be used strategically and in a manner that avoids desensitizing the WH&B. While it may be necessary on occasion to use a hand or foot to safely move a WH&B, the Lead COR will ensure that kicking or hitting of WH&B does not occur.
3. Electric prods (hotshots) will not be routinely used on WH&B, but rather should only be used as a last resort when WH&B or human safety is in jeopardy or other aids have been tried and are not working. When used, electric prods will only be used to shock animals, not to tap or hit animals. Similarly, electric prods will not be applied to injured or young animals, nor will they be applied to sensitive areas such as the face, genitals, or anus.
4. Gates can be used to push WH&B but will not be used in a manner that may be expected to catch legs. Gates and doors will not be slammed or shut on WH&B.
5. Only the Lead COR will identify and request the Contractor to pursue and capture a single WH&B. Pursuing a single WH&B should be a rare event and not standard practice. If the animal is identified as a stud, further pursuit should be abandoned unless for management purposes (such as public safety, nuisance animals, or animals outside HMA boundaries or on private lands) it is necessary to capture the animal.
6. The Lead COR will ensure every effort is made to prevent foals from being left behind or orphaned in the field. If a foal has to be dropped from a group being brought to the trap because it is getting too tired or cannot keep up, the pilot will relay to the Lead COR and ground crew the location of the foal and a description of the mare to facilitate "pairing-up" at temporary holding. In this case, the Contractor will provide trucks/trailers and saddle horses for the retrieval of the foal and transport the foal to the gather site or temporary holding. If the helicopter is needed to locate and capture the foal, retrieval of the foal should occur prior to another band being located and driven to the trap. The method of capture will be directed by the Lead COR.
7. The Lead COR will ensure that if during the gather any WH&B (including foals or horses that may be aged, lame, injured or otherwise appear weak or debilitated) appear to be having difficulty keeping up with the group being brought in, the Contractor will accommodate the animals having difficulty to allow for rest before proceeding, drop those animals from the group, or drop the entire group. It is expected that animals may be tired, sweaty and

breathing heavily on arrival at a trap, but they should not be herded in a manner that results in exhaustion or collapse.

8. The need to rope specific WH&B will be determined by the Lead COR on a case-by-case basis.
9. While gathering, a WH&B may escape or evade the gather site while being moved by the helicopter. If there are foals in the band and an animal that has evaded capture has been identified as a mare that might have one of these foals, the Contractor may make multiple attempts to move the mare by the helicopter to the gather site for capture prior to roping or other alternative for capture. In these instances, animal condition and fatigue will be evaluated by the Lead COR on a case-by-case basis to determine the number of attempts that can be made to capture the animal. Animals will not be pursued to a point of exhaustion or distress.
10. Mares and their dependent foals will be separated from other animals at the temporary holding facility and moved to a designated BLM preparation facility. The Lead COR will ensure that any foals that are not weaned and have been maintained with their mares at temporary holding will be transported with their mares to the BLM preparation facilities as soon as practical.
11. The Lead COR will ensure that all sorting, loading or unloading of WH&B will be performed during daylight hours.
12. All handling pens, including the gates leading to the alleyways, should be covered with a material which serves as a visual barrier (plywood, burlap, plastic snow fence, etc.) and should be covered a minimum of 1 foot to 5 feet above ground level for burros and 2 feet to 6 feet for horses. Perimeter panels on the holding corrals should be covered to a minimum height of 5 feet for burros and 6 feet for horses. Those panels attached to and leading directly into the trailers from the trap will be covered with a material which serves as a visual barrier. Padding should be installed on the overhead bars of all narrow gates used in single file alleys leading or leaving the squeeze chute set up. Screening will be placed on all division gates in the sorting area and solid fencing placed on panels from the working chute to the semi-trailers in an effort to decrease outside stimuli.
13. When dust conditions within or adjacent to the trap or holding facility so warrant, the Contractor shall be required to wet down the ground with water.
14. When possible (e.g., soil conditions allow) and as needed (e.g., the WH&B are unwilling to step up), the Lead COR should request that the Contractor will have the trailer floor at ground level to ease the loading of WH&B at the gather site.
15. If the pilot is moving WH&B and observes an animal that is clearly injured or suffering, the animal should be left on the range and its location noted. The BLM Lead COR with veterinary assistance from an Animal Plant Health Inspection Service or locally licensed veterinarian will then go to the identified location as promptly as possible so that any animal that cannot make it to the trap will be inspected to determine the problem. The Lead COR will then decide on the most appropriate course of action.
16. Injuries that required veterinary examination or treatment, deaths and spontaneous abortions that occur will be noted in gather reports and statistics kept by the Lead COR.
17. At the discretion of the Lead COR, if a WH&B is injured or in distress during gather operations and the animal is within the wings or first corral of the trap, gather operations may be temporarily suspended if necessary to provide care for the animal and subsequent removal. Such actions should take place prior to the trapping of additional animals whenever possible.

18. The Contractor shall provide animals held in facilities with a continuous supply of fresh clean water at a minimum rate of 10 gallons per animal per day. Pens containing more than 50 animals will have water provided in at least two separate locations of the pen (i.e. opposite ends of the pen). Animals held for 10 hours or more in the traps or holding facilities shall be provided good quality hay at the rate of not less than two pounds of hay per 100 pounds of estimated body weight per day. If the task order notes that weed free hay is to be used for this gather the Contractor will provide certified weed free hay in the amounts stated above. The Contractor will have to have documentation that the hay is certified weed free. An animal that is held at a temporary holding facility after 5:00 p.m. and on through the night, is defined as a WH&B feed day. An animal that is held for only a portion of a day and is shipped or released does not constitute a feed day.
19. When extreme environmental conditions exist (such as temperature) during a gather, the overall health and well-being of the animals will be monitored and the Lead COR will adjust gather operations as necessary to protect the animals from climatic and gather related health issues. The Lead COR should be equipped to take air temperatures periodically throughout the day to help with the monitoring of environmental conditions at the gather site. There may be days when the Lead COR determines that gather operations must be suspended or ceased based on temperatures or other environmental conditions.
20. The rate of movement and distance the animals travel shall not exceed limitations set by the Lead COR who will consider terrain, physical barriers, access limitations, weather, extreme temperature (high and low), condition of the animals, urgency of the operation (animals facing drought, starvation, fire rehabilitation, etc.) and other factors. In consultation with the Contractor, the distance the animals may travel will take into account the different factors listed above and other concerns relevant to individual HMAs. With foals, pregnant mares, or horses that are weakened by body condition, age or poor health, the appropriate herding distance and rate of movement will be determined on a case-by-case basis considering the weakest or smallest animal in the group and the range and environmental conditions present. The maximum gather distance will depend on the specific animal and environmental conditions on the day of the gather and direct dialogue with the pilot/ Contractor and Lead COR to provide important information as to numbers, number of foals, locations distance and/or overall animal and/ or environmental conditions. The trap locations will be moved closer to horse locations whenever possible to minimize the distance the animals need to travel.
21. The Lead COR or IC should be available to provide a short briefing to any members of the public that may be present at the end of daily operations, including the preliminary tallies on the total number of animals captured by sex, number of foals, and any incident that required medical attention or euthanasia. This briefing should occur at temporary holding corral after all animals have been sorted, fed and watered and allowed to settle. The public should be clearly informed that such preliminary tallies may change after all the information is processed from the day's gather and that the final results of the day's gather will be posted to the appropriate BLM website.
22. The Lead COR should ensure that holding alleys will not be overcrowded at temporary holding facilities. If there is a risk of overcrowding, gates should remain open to allow animals to move back out of the alley and be reloaded. If an animal falls in the alley no other animals should be moved through the alleyway until the animal stands on its own or the alleyway is clear.
23. The Lead COR should ensure that animals will not be left in alleyways for any extended period of time (greater than 30 minutes). If personnel are not present at the temporary holding corrals to sort animals, the horses should be placed into a holding pen until such time as they can be sorted and placed into the appropriate pen.
24. Bait/water trapping: All traps will be checked a minimum of once every 24 hours when the traps are "set" to capture without human presence (trip trigger traps, finger traps, etc.). All

handling procedures outlined above in this document apply to bait trapping to the extent applicable.

Again, at all times, the care and treatment provided by the BLM and our Contractors should be characterized by *compassion and concern* for the animal's well-being and welfare needs. The IC will ensure that everyone involved in gather operations receives a copy of these expectations prior to the start of the gather and the Lead COR and all BLM employees present shall ensure that gather operations are conducted in compliance with these expectations.

Timeframe: This IM is effective immediately.

Budget Impact: Unit costs for conducting gathers as a result of this interim guidance are not expected to increase significantly when compared to existing costs.

Background: The BLM is committed to the humane treatment and care of WH&B through all of the phases of its WH&B program. To ensure a clearer statement of its expectations and greater consistency in the program, the development of a Comprehensive Animal Welfare Policy has been undertaken. In addition to the standard operating procedures (SOP) for capture operations, SOPs for management on the range, capture operations, short- and long-term holding facilities, transportation, and adoption will be developed.

Manual/Handbook Sections Affected: None

Coordination: This IM was coordinated among WO-200, WO-260, WO-600, WO-610, WO-LE, WH&B State Leads, WH&B Specialists, State External Affairs Leads, public affairs and law enforcement staff in the field.

Contact: Any questions regarding this IM can be directed to Joan Guilfoyle, Division Chief, Wild Horse and Burro Program (WO-260) at 202-912-7260.

Signed by:
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UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240
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January 23, 2013

In Reply Refer To:
4710 (WO 260) P

EMS TRANSMISSION 01/30/2013
Instruction Memorandum No. 2013-060
Expires: 09/30/2014

To: All Field Office Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Wild Horse and Burro Gathers: Management by Incident Command System

Program Area: Wild Horse and Burro (WH&B) Program

Purpose: The purpose of this Instruction Memorandum (IM) is to establish policy and procedures for the Incident Command System (ICS) to enable safe, efficient, and successful WH&B gather operations.

Policy/Action: Effective immediately, all Bureau of Land Management (BLM) State, District, and Field Offices must comply with the new policy of this IM for all gathers within their jurisdiction. This policy recognizes the importance of teamwork and the need to clearly define the roles and responsibilities of each BLM employee involved in gather operations.

This IM is part of a package of IMs covering aspects of managing WH&B gathers:

- IM No. 2013-058, Wild Horse and Burro Gathers: Public and Media Management
- IM No. 2013-061, Wild Horse and Burro Gathers: Internal and External Communicating and Reporting
- IM No. 2013-059, Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy.

Gather Organizational Structure

Each gather will be led by an Agency Representative/Authorized Officer (AR/AO) who should delegate the authority to manage gather operations to an Incident Commander (IC). The IC leads the on-site Core Gather Team (CGT) consisting of a Lead Contracting Officer's Representative (Lead COR), Lead Public Affairs Officer (Lead PAO), and Lead Law Enforcement Officer (Lead LEO). The CGT is established for gather planning purposes, implementation of gather operations management, and responses to emerging needs throughout the course of the operation. The CGT will develop a command structure and identify staffing needs for the gather. Depending on gather complexity, duration, and special circumstances, the CGT may develop and recommend other positions for approval by the IC, such as additional Contracting Officer's Representatives (COR), and Project Inspectors (PI), whose role(s) and reporting relationship within the command structure must be clearly identified. All individuals assigned to the gather will report to the IC as illustrated in the Gather Command Structure Template (Attachment 1). Non-gather agency personnel who are participating as observers fall under the authority of the IC while on-site.

The CGT will determine the appropriate number of gather personnel needed to:

- Conduct a safe, humane, and effective gather within budget limitations;
- Ensure the safety of all personnel, including gather staff, Contractors, public/media;
- Ensure the welfare of animals being gathered and handled; and

- Effectively manage expected public/media interest and attendance.

The ICS structure and procedures may differ for gathers of long-duration but must be followed for all gathers with two exceptions: nuisance gathers of fewer than 15 animals and certain bait trapping as approved by the AR/AO. Some trapping gathers may require the same ICS and personnel (modified to meet the needs of the gather operation) depending on the number of animals captured, geographic location, and duration of gather.

Employee safety and animal welfare are critical concerns, particularly during extensive gather periods. Personnel assignments for long duration gathers shall consider reasonable employee rotations and days off. In response to long days and inclement weather, employee safety shall be continually emphasized and monitored by the IC.

A. Roles and Responsibilities

The following positions that are considered essential roles to successful and smooth gather operations are described in this section. Additional positions as recommended by the CGT may be approved by the IC (Attachment 1).

On-Site Core Gather Team

The following positions are expected to be on-site during gather operations:

1. Incident Commander (IC)

The IC should ideally be an individual who is a WH&B Specialist or a line manager with working knowledge of the WH&B program; who has previous gather operation experience; and who has current knowledge of program policy, procedures, and direction. The AR/AO delegates authority to the IC to manage the gather within the parameters of management expectations. The IC:

- Receives the Delegation of Authority (Attachment 2) from the AR/AO prior to the start of the gather;
- Serves as deciding official on gather operations;
- Supervises CGT members and makes on-site management decisions;
- Receives management expectations from AR/AO, if applicable;
- Is responsible for meeting the overall gather goals and objectives, including management, coordination and execution of all gather related activities;
- Maintains regular communication that continually keeps AR/AO informed of gather status and emerging issues, conflicts and needs, including the need for Early Alerts;
- Ensures continuity of the command structure;
- Approves the Gather Operations Plan, ensures that the Plan is followed, and ensures that the AR/AO and all gather staff receive a copy of it prior to starting operations;
- Coordinates the necessity for a pre-gather field trip to the Herd Management Area/Herd Area (HMA/HA) with appropriate staff;
- Works with AR/AO to establish and maintain relationships and partnerships with all gather stake holders;
- Provides for successful management of public/media, and ensures through the Lead PAO that the public/media have opportunities to safely and effectively observe gather activities at the trap-site and temporary holding facilities;
- Ensures that decisions made and actions taken regarding public/media access to the trap-site, temporary holding facilities and other sites during gather operations are in conformance with standards described in IM No. 2013-059, Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy.
- Ensures, after consultation with the Lead LEO, that any individual exhibiting unsafe or disruptive behavior is immediately removed from the gather area such that safety is restored;
- Ensures preparedness in the event of unanticipated situations;
- Ensures effective radio communications among staff, Contractor and pilot;

- Establishes the time and location of daily debriefing, and facilitates conference calls as needed;
- Completes and disseminates information using the Daily Gather Overview (Attachment 3);
- Conducts the gather After Action Review (AAR); and
- Implements orders for temporary closure/restricted access.

2. Lead Contracting Officer's Representative (Lead COR)

The Lead COR should ideally be an individual who is the District/Field Office WH&B Specialist or someone very familiar with the HMA/HA and its wild horses and/or burros; who has previous gather operation experience; and has current knowledge of program policy, procedures, and direction. The Lead COR:

- Reports to the IC while on the gather operation;
- Schedules and facilitates the Pre-Work Conference with the Contractor;
- Manages all technical aspects of gather operations and provides direction to the Contractor as identified in the contract, and to operational staff including alternate CORs, PIs, COR trainees, fertility control applicators, recorders, branders, and veterinarians;
- Oversees any temporary holding facilities or additional gather sites;
- Ensures safe, humane, and efficient gathering of horses and burros in accordance with BLM policy;
- Coordinates logistics with on-site Animal Plant Health Inspection Service (APHIS) veterinarian assigned to the gather, as needed;
- Coordinates with state brand inspection and animal health officials, as necessary;
- Keeps the IC regularly informed throughout each day of the operation, regarding general animal conditions, numbers captured, emerging issues, or incidents;
- Serves as point of contact for all communications with the Contractor, the Contracting Officer (CO) and National COR;
- Works with the National COR and CO to address issues of concern and resolve any disputes with the Contractor;
- Through coordination with the CO, ensures that corrective action is taken prior to continuance of operations in the case of any Contractor exhibiting unsafe or inhumane behavior toward the animals;
- Following consultation with the IC, is authorized to *suspend* gather operations if an unsafe condition exists (the authority to fully *shutdown* gather operations lies with the CO);
- Coordinates the selection of the public/media observation area with the IC, the other members of the CGT, and Contractor to address safety needs and visibility opportunities;
- Develops the Risk Assessment Plan section of the Gather Operations Plan, updating it as needed as the gather operation progresses;
- Ensures that each Gather Operations Plan has a plan for euthanizing animals as necessary, including provisions to ensure that persons carrying out the function have the required equipment and training, in accordance with current BLM policy and guidance;
- Serves as a point of contact with the receiving facilities;
- Develops a COR/PI staffing schedule that meets gather operational needs;
- Participates in conference calls and meetings initiated by the IC;
- Ensures the CGT is aware of the location of the gather site's temporary holding facility and, if the temporary holding facility is on private land, ensures that any restrictions or permissions are documented in writing;
- Provides accurate information necessary to complete the Daily Gather Overview (Attachment 3);
- Completes the Final Gather Data Report (Attachment 4) within three days upon completion of the gather. The data from this report will be used for the final website posting; and
- Provides a copy of the Final Gather Data Report to WO-260 and inputs all gather data into the Wild Horse and Burro Program System (WHBPS) within three weeks of completing the gather (unless data entry has been assigned to the Local WH&B Specialist by the AR/AO).

3. Lead Public Affairs Officer (Lead PAO)

The Lead PAO should ideally be an individual who is in the GS-1035 job series with extensive gather experience; who is familiar with the history, issues, and concerns of the HMA/HA; and who has current knowledge of program policy, procedures, and direction. The Lead PAO:

- Reports to the IC while on the gather operation;
- Develops the External Communication Plan/Public Outreach Strategy sections of the Gather Operations Plan, in consultation with the CGT;
- Develops a PAO staffing schedule that meets the public outreach goals identified by the CGT;
- Provides direction to PAO staff assigned to the gather in order to meet the public outreach needs as identified by the CGT;
- Confers with the IC regarding issues and communications regarding gather operations, activities, and incidents;
- Serves as the BLM spokesperson for all media interviews;
- Conducts and arranges media interviews and manages public/media visits;
- Serves as the liaison between the CGT and the public/media;
- Works closely with the CGT and Contractor to select the best location for public/media designated observation areas;
- Facilitates movement and management of public/media to and from the gather operation areas;
- Assures that public/media are in observation area prior to start of gather or shipping activities;
- Establishes the public/media meeting location and time following coordination with IC, COR, and Contractor on upcoming gather activities;
- Identifies potential public affairs issues, develops appropriate responses, and works with CGT to implement appropriate responses;
- Coordinates with the State Office public affairs team throughout the gather, including the dissemination of Early Alerts, information updates, etc., as needed;
- Participates in conference calls/meetings initiated by the IC;
- Ensures accurate information is posted via state website and other agency-approved social media outlets;
- Ensures that information from the Final Gather Data Report is posted to website within three weeks upon completion of gather;
- Ensures that gather related information found on social media internet sites by the National WH&B Information Center (Information Center) is conveyed to the CGT in a timely fashion; and
- Ensures that the Information Center is aware of any gather related public/media issues that may arise.

4. Lead Law Enforcement Officer (Lead LEO)

The Lead LEO should ideally be an individual who is familiar with WH&B Program policy, procedures, and direction; and has some knowledge of the particular HMA/HA. The Lead LEO:

- Reports to the IC while on the gather operation;
- Develops the Law Enforcement Operations Plan and staffing plan in coordination with the AR/AO and State Chief Ranger to determine the appropriate LEO numbers for gather operations based on a law enforcement risk-assessment plan;
- Consults with the IC regarding LEO roles during the gather operation;
- Provides direction and duties to other LEOs assigned to the gather;
- Remains available at all times when public/media are present within the gather operations area and at temporary holding/shipping areas (exceptions to this will be determined by CGT);
- Coordinates with the State Chief Ranger and appropriate local law enforcement agencies;

- Ensures safety by addressing public actions that may pose a safety or operational threat to the gather, including unsafe or disruptive behavior that requires the immediate removal from the gather area;
- Controls and maintains access to gather and holding locations if such areas are under temporary closures; and
- Participates in conference calls and meetings initiated by the IC.

Other Personnel

These personnel are typically not on-site during gather operations, but are generally available as needed for consultation with the CGT during the gather period. When on-site, these positions, along with other BLM employees observing gather operations, report to the IC who remains responsible for the gather operations as a whole.

5. Agency Representative/Authorized Officer (AR/AO)

It is desirable that the AR/AO be a District Manager, Field Manager or similar line officer who is familiar with the WH&B program, the gather EA, and the project area. The AR/AO:

- Identifies overall gather goals and objectives;
- Develops a Delegation of Authority (Attachment 2) to the IC for mission completion during the period of the gather;
- Designates individuals to the CGT;
- Coordinates pre-gather coordination meeting;
- Ensures that the appropriate government equipment needed for successful completion of gather is made available (to include satellite phones, radios, trailers, trucks, travel trailers);
- Is readily available for consultation to address concerns with the IC during gather operations, whether on or off site;
- Coordinates, with input from the IC, District, and/or State Office and Washington Office to resolve issues that arise from the gather operation;
- Establishes and maintains relationships and partnerships with all gather stakeholders;
- Ensures internal After Action Review (AAR) is completed;
- Ensures that all gather data is entered into the Wild Horse and Burro Program System (WHBPS) by the local WH&B Specialist within three weeks of completing the Final Gather Data Report; and
- Makes final decision and ensured implementation and coordination for temporary closures/restricted access through the IC.

6. Contracting Officer (CO)

The CO:

- Has final authority in all contract administration matters;
- Following consultation with the IC, is authorized to stop gather operations if s/he believes an unsafe condition exists (the authority to *suspend* gather operations lies with the on-site Lead COR);
- Administers or terminates contracts and makes related determinations and findings;
- Determines any equitable adjustments to the contract price resulting from the execution of any of the change clauses in the contract or contract modifications; and
- Identifies the gather COR (Lead).

7. National Contracting Officer's Representative (National COR)

The National COR:

- Serves as a contracting advisor to the Lead COR; and
- Coordinates with the Lead COR and CO regarding disputes with the Contractor.

8. Wild Horse and Burro Program State Lead (SL)

The SL:

- Serves as technical consultant and advisor for all aspects of WH&B program management and operations;
- Coordinates with the national Animal and Plant Health Inspection Service (APHIS) veterinarian to arrange for an APHIS veterinarian to be assigned to the gather, as needed;
- Reviews and provides technical support for all gather documents and data regarding upcoming gather operations;
- Serves as liaison for DOI Regional Solicitor's Office and Department of Justice attorneys, as needed;
- Serves as liaison for WO-260 and the relevant state office; and
- Finalizes all gather reports in the Wild Horse and Burro Program System (WHBPS) within four weeks of the Final Gather Data Report (Attachment 4) to ensure crossover into Performance Management Data System (PMDS).

9. Local Wild Horse and Burro Specialist (Specialist)

The Specialist:

- Serves as technical consultant with extensive knowledge of the HMA/HA, permittees/landowners, location of water sources/fences, herd history, distribution patterns, environmental conditions and other information pertinent to the area of gather operations;
- Enters all gather data into the WHBPS within three weeks of completing the Final Gather Data Report (Attachment 4) when directed by the AR/AO.

10. Project Inspector (PI)

The PI may be designated by the Lead COR. The PI:

- Performs as needed on-the-job Government inspection of work accomplished by the Contractor; and
- Examines and inspects the Contractor equipment and services to ensure they conform to contract and legal requirements.

B. Pre-Gather Activities

1. Meetings

Pre-gather coordination meetings are key to the success of the gather operation to ensure everyone is informed about all aspects of the gather. These meetings should be held well enough in advance of the start of the gather to smoothly coordinate all operational and communication details with all parties, including management of possible public/media interest. The roles and responsibilities of all gather staff should be discussed and finalized in these meetings. The number, frequency, and agenda items of pre-gather meetings are at the discretion of the AR/AO, depending upon the size and complexity of the gather. In addition to CGT members, attendees may include Field, District, and State Office level individuals that will be part of gather operations, as well as facility managers who will be receiving animals from the gather.

2. Field Trips

A pre-gather field trip to the HMA/HA to review trap-sites, temporary holding sites, and potential observation areas is advantageous for ensuring full communication and coordination between the CGT and Contractor. The trip also helps determine how the public/media will be accommodated. The IC schedules the field trip with the CGT and other appropriate personnel.

3. Preparation of the Gather Operations Plan

The Gather Operations Plan serves as an essential tool for gather staff during gather operations. The AR/AO will work with the Specialist and other staff as needed to assemble and provide copies of the Gather Operations Plan. The Gather Operations Plan should consist of the following standard materials:

- Gather Organization Chart (Attachment 1)
- Delegation of Authority between AR/AO and IC (Attachment 2)
- Management Expectations, as applicable
- Final Environmental Assessment, Decision Record/FONSI
- Radio Communications Plan
- External Communications Plan/Public Outreach Strategy
- Law Enforcement Operations Plan
- Risk Assessment Plan
- Letter of permission from private landowners for use of property/facility(ies), as applicable
- Maps
- Roles and responsibilities of all gather staff.
- Euthanasia Plan
- Staffing schedules
- "Guidance regarding distance of helicopter operations from persons and property during Wild Horse and Burro gather operations," issued by BLM Fire and Aviation on June 14, 2011 (Attachment 5)
- Temporary closure EA, if applicable

C. Pre-Work Conference

Prior to the start of a gather, by regulation, the Lead COR shall meet with the Contractor to discuss the items listed below, and as called for in the contract. Whenever possible, all members of the CGT should participate in the pre-work conference.

1. Review the contract/task order;
2. Discuss the overall objectives/goals of the gather;
3. Review regulations concerning flight distance; and
4. Review maps pertinent to gather operations area. This may include maps relating to: land ownership, aerial safety hazards, fences, population inventories, road access, and any other maps deemed necessary.

D. Access to the Operational Area

The Lead COR and Contractor shall identify the operational area necessary for safe execution of the gather operations including aviation, animal welfare, and transport. This information will be provided to all gather personnel so that accurate information can be relayed to the public/media. The IC will work with the CGT to discuss arrangements with the private landowner if the temporary holding facility is located on private land and will address concerns of public access limits and allowances on private land.

Aviation safety limitations and operational safety issues identified by the on-site pilot must conform to the following:

1. The helicopter pilot must comply with FAR Part 91.
2. The minimum distance between the public/media and the trap-site or helicopter operations shall be established in accordance with "Guidance regarding distance of helicopter operations from persons and property during Wild Horse and Burro gather operations" issued by BLM Fire and Aviation Directorate on June 14, 2011 (Attachment 5).
3. The trap operational area must be marked and designated as a safety zone and only essential personnel will be allowed inside this zone during any helicopter operations; or while animals are in the trap. Essential personnel will typically consist of the Lead COR, alternate COR, PI, and on-site Veterinarian. Other personnel who may need to be in this area includes the IC, Lead LEO, Lead PAO, and any BLM-authorized observers.

Time Frame: This IM is effective immediately.

Budget Impact: The budget impacts of unanticipated situations that can occur during WH&B gathers include substantial unplanned overtime and per diem expense. Through advance planning, necessary support staff can be identified (i.e., law enforcement, public affairs, or other BLM staff). Additional staffing cost (labor and travel only) from Fiscal Years 2009 through 2011 has increased an average of \$110 per horse gather/removal (unit of JJ) to \$280 per horse. This average does not factor in operational costs, and there may be considerable variance by state due to the complexity of gathers.

Background: The WH&B gathers have become increasingly complex due to an increase in public interest and the desire of large numbers of public or media to view gathers. Advance planning for observation of gather operations can minimize the potential for unanticipated situations to occur and ensure the safety of the animals, staff, and Contractor personnel, as well as the public/media. In response to this, the BLM has implemented a modified ICS at gathers. As staffing needs vary by gather, the structure may be modified for effective staffing. The BLM gathers will be conducted with humane handling of all animals involved of primary concern and in accordance with standards described in IM No. 2013-059, Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy.

Manual/Handbook Sections Affected: No change to BLM manuals or handbooks is required.

Coordination: This IM was coordinated among WO-200, WO-260, WO-600, WO-610, WO-LE, WH&B State Leads, WH&B Specialists, State External Affairs Leads, public affairs and law enforcement staff in the field.

Contact: Any questions regarding this IM can be directed to Joan Guilfoyle, Division Chief, Wild Horse and Burro Program (WO-260) at 202-912-7260.

Signed by:
Edwin L. Roberson
Assistant Director
Renewable Resources and Planning

Authenticated by:
Robert M. Williams
Division of IRM Governance, WO-560

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C. 20240
<http://www.blm.gov/>
January 23, 2013

In Reply Refer To:
4710 (260) P

EMS TRANSMISSION 01/30/2013
Instruction Memorandum No. 2013-061
Expires: 09/30/2014

To: All Field Office Officials (except Alaska)
From: Assistant Director, Renewable Resources and Planning
Subject: Wild Horse and Burro Gathers: Internal and External Communicating and Reporting

Program Area: Wild Horse and Burro (WH&B) Program

Purpose: As part of the Bureau of Land Management's (BLM) responsibility to provide concise, accurate and timely information about ongoing gathers within the agency, the public, the Department of the Interior and Congress, gather reports must be consistent, accurate and timely. This Instruction Memorandum (IM) establishes protocols for internally communicating and reporting gather information during the course of all ongoing WH&B gathers.

Policy/Action: Effective immediately, all State, District, and Field offices must comply with the new policy of this IM for all gathers within their jurisdiction. This policy establishes protocols for internally communicating and reporting gather information during the course of all ongoing WH&B gathers.

This IM is part of a package of IMs covering aspects of managing WH&B gathers:

- IM No. 2013-060, Wild Horse and Burro Gathers: Management by Incident Command System
- IM No. 2013-058, Wild Horse and Burro Gathers: Public and Media Management
- IM No. 2013-059, Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy

Roles and responsibilities of all gather personnel are covered in IM No. 2013-060, Wild Horse and Burro Gathers: Management by Incident Command System.

Gather-Related Information Sharing Within BLM

Daily Gather Overview

To assist BLM State, District, and Field offices in communicating essential information, a Daily Gather Overview (Attachment 1) will provide gather information each day that gather activity occurs. The Lead Contracting Officer's Representative (Lead COR) is responsible for providing accurate information necessary to complete the Overview in a timely manner. The Incident Commander (IC) or his/her designee is responsible for the completion and dissemination of the Overview. Transmission will be by e-mail, copied and pasted into the body of said e-mail, each day after gather activities have concluded, usually by 10:00 PM Eastern Time. This may require the participation of a designated off-site official with access to e-mail.

Receiving Report

To provide feedback internally that animals shipped from a gather were received by a short-term facility and to notate the condition of the animals, a Receiving Report will be sent from the receiving facility each day that animals are transported and received. The facility manager is responsible for the

completion and dissemination of the report. The report shall be in the form of an email and consist of the following information for each shipment received: facility name, date, number, gender, current condition, and any incidents or issues pertaining to that shipment. The IC is responsible for coordinating with the facility manager to ensure that the report is disseminated each day that animals are shipped and received.

BLM Recipients of the Daily Gather Overview and Receiving Report (above)

Overviews and Receiving Reports shall be sent to the Director, the Deputy Director for Operations, Chief of Staff, the Assistant Directors and Deputy Assistant Directors for WO-200 and WO-600, Division Chiefs for WO-260, WO-610 and WO-620, Deputy Division Chief for WO-260, the appropriate State Director(s), the appropriate External Affairs Chief(s), the National WH&B Information Center (Information Center), the National WH&B Outreach Coordinator, the State Lead and the on-site Core Gather Team (CGT). The on-site CGT consists of four individuals: the IC, Lead COR, Lead Public Affairs Officer (Lead PAO), and Lead Law Enforcement Officer (Lead LEO). Additional recipients for these reports may be added by the IC. The Final Gather Data Report (below) is available to the above recipients on request.

Final Gather Data Report

Within three days of the completion of a gather, the Lead COR is responsible for preparing the Final Gather Data Report (Attachment 2), the purpose of which is to assemble gather data for entry into the Wild Horse and Burro Program System (WHBPS). The WHBPS tracks information on all animals removed, treated, gelded, and/or released as part of a gather operation, including a mortality log. The Lead COR or Local WH&B Specialist will complete the Final Gather Data Report within three days upon completion of gather. The Lead COR will also provide the Final Gather Data Report to WO-260 and input all gather data into the WHBPS within three weeks of completing the gather. The Final Gather Data Report shall also be sent to the Lead PAO to post final gather information to the website.

Early Alerts

The IC in consultation with the CGT will evaluate any potentially controversial event that occurs (e.g., unanticipated or unusual animal death, law enforcement incident, accident, etc.) to determine an appropriate response. If an Early Alert is warranted, it is disseminated by the IC or Lead PAO to WO-610, through the External Affairs Chief(s). WO-610 distributes Early Alerts internally as per WO-600 direction. A description of the event will also be included in the Overview.

After Action Reviews

An After Action Review (AAR) is a learning tool intended for evaluation of a gather to improve future performance by sustaining strengths and correcting weaknesses in technical operations and communications. Sharing the lessons learned and innovative solutions to evolving gather situations with other WH&B personnel contributes to improved best practices and standard operating procedures on a national level. The AAR should not be utilized as an investigative tool. An AAR will be conducted by the IC as soon as possible after operations are completed and include as many gather personnel as possible, at a minimum the CGT. The AAR will be structured such that all participants have the opportunity to openly and honestly discuss what transpired, in sufficient detail and clarity. The AAR should be distributed to the AR/AO, appropriate State Director(s) and Associate State Director(s), WH&B State Lead, WH&B Division Chief, and CGT within three weeks of the conclusion of the gather.

Transparency: Gather-Related Information Shared With the Public via Internet

The Overview is the official record *internal to BLM* for daily events and serves as the foundation for the dissemination of information to be publicly shared via state website and other agency-approved social media outlets. The Lead PAO compiles information from the Overview to be posted publicly and ensures its accuracy. Each gather will have an individual responsible for uploading gather information, photographs, and video clips. Updating the website is a critical element of BLM transparency. The webpage shall be updated no later than 2:00 PM Eastern Time on the day following the date of the most recent Daily Gather Overview, including weekend days. All state webpages must adhere to template found at <http://blm.gov/3qkd>. Each gather must have its own set of webpages. Any deviations from this template must be approved by the Division Chief, WO-610.

States may use all available social media platforms, consistent with [National social media policy](#), to provide gather-related updates and information. All gathers must use the national WH&B Twitter

account (<http://twitter.com/BLMWHB>) to provide updates during the gathers. State BLM Twitter accounts should also be utilized, if available. Access to this account, as well as a unique hashtag for each gather, will be provided by the New Media Lead, WO-600 to the State External Affairs Chief immediately preceding operations of the gather.

Animal Health, Veterinary Examination, Necropsy, and APHIS Daily Activity Reports

A report routinely prepared by the Lead COR describing the normal condition of animals during a gather should be called an "Animal Health Report" or a "Report of Animal Condition." On-site veterinarians may be asked to advise the Lead COR when these reports are prepared, but these routine "all is well" type reports should not be requested from the on-site veterinarians. The term "Veterinary Report" should be limited to reports prepared by the examining veterinarian. In the event of an unusual animal health or condition problem, an animal health, or welfare incident or an unusual animal death, an APHIS or other veterinarian may be asked to examine an animal or perform a necropsy.

Following these exams, a report suitable for sharing publicly on the internet should be requested from the examining veterinarian and provided by him/her in a timely manner. These reports, called a "Veterinary Examination Report" or a "Necropsy Report," will be intended for the public record and should be reviewed by the Lead COR and national APHIS/BLM Staff Veterinarian whenever possible prior to their release.

The daily APHIS "Specific Activity Report" is an administrative document for APHIS use. It will be made available to the Lead COR following the conclusion of a gather, but will not generally be routinely released on the internet during or following a gather.

Monitoring Public Response during Gathers

The Information Center is responsible for ensuring that the social media and internet sites are continually monitored and that appropriate information from public/media sites is conveyed back to the Lead PAO who will then inform the rest of the CGT in a timely manner. The Lead PAO also ensures that the Information Center is aware of any gather-related public/media issues that may arise. This will allow the CGT the option to address concerns and clarify key points as appropriate. It will also serve as a feedback mechanism to the IC.

Timeframe: This IM is effective immediately.

Budget Impact: Unit costs for conducting gathers for removals and population growth suppression efforts have increased as a result of the increased staffing necessary for internal and external reporting associated with increased transparency.

Background: Some BLM WH&B gather operations are high-profile events that receive a significant level of internal and external attention. The 24-hour news cycle of internet and satellite communications have made it possible for mass information sharing about the BLM's WH&B Program. In addition, press/media, congressional, and public attention on recent gathers have compelled the BLM to provide the most accurate and up-to-date information. Given this attention, it is critically important that the BLM operate in as open and transparent manner as possible. Furthermore, providing gather information to key BLM officials, as outlined in this IM, will significantly improve the BLM's situational awareness and its ability to make good decisions, address controversial events and accurately respond to congressional, press/media, and public inquiries.

Manual/Handbook Sections Affected: None.

Coordination: This IM was coordinated among WO-200, WO-260, WO-600, WO-610, WO-LE, WH&B State Leads, WH&B Specialists, State External Affairs Leads, public affairs, and law enforcement staff in the field.

Contact: Any questions regarding this IM can be directed to Joan Guilfoyle, Division Chief, WH&B Program (WO-260) at 202-912-7260 or Jeff Krauss, Division Chief, Public Affairs (WO-610) at 202-912-7410.

Signed by:
Edwin L. Roberson
Assistant Director
Renewable Resources and Planning

Authenticated by:
Robert M. Williams
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APPENDIX E

SUMMARY OF PUBLIC COMMENTS

#	Comment Received From	Summarized Comment	BLM Response
Public Organizations			
1	Cloud Foundation	The EA is lacking a clear explanation of how BLM proposes to remove wild horses.	The EA states in the proposed action to bait/trap wild horses with an option to utilize a helicopter if gather objectives are not being met.
2	Cloud Foundation	The EA needs clarification of range conditions.	The vegetation section 3.3 of the EA summarizes the vegetation monitoring and status of land health standards.
3	Cloud Foundation	The EA does not mention if any range improvements have been made or are planned and if treated areas are to be reseeded.	Beyond the scope of analysis of this EA. In the past 15 years many areas have been treated which included reseeded as discussed in the Vegetation section 3.3.3.
4	Cloud Foundation	The proposed action flies in the face of the newly released NAS report.	The BLM and Wild Horse Advisory Council is currently analyzing the NAS report.
5	Cloud Foundation	Utilization levels do not justify removal of wild horses especially a massive removal.	Utilization studies are summarized in section 3.3 of the EA. Levels have been higher than utilization objectives identified in the HMAP for 2 of the past 3 years. As identified in the proposed action the number of wild horses removed will be based on utilization levels in

			August 2013.
6	Cloud Foundation	Removal of wild horses to the 110 head level will jepordize genetic diversity.	Based on Dr. Gus Cotheran's analysis the LBCWHR has remained genetically stable even with gathers resulting in fewer than 110 horses remaining on the range.
7	Cloud Foundation	At the very least any DNA samples inadvertently drawn from horses that are no longer on the range must be flagged so the researchers are made aware of this when they conduct the genetic analysis.	Samples will be taken from horses that are captured and then released
8	Cloud Foundation	The removal of wild horses removes the benefit which they provide to the range and other wildlife species.	As described in the Proposed Action maintaining wild horse population levels that are in natural ecological balance will benefit wildlife, vegetative and soil resources. These benefits are described in the appropriate sections of the EA.
9	Cloud Foundation	Remove the potential of using a helicopter to gather wild horses from the proposed action.	Acknowledged and considered.
10	Cloud Foundation	If a gather is to occur support the bait/water trapping method which has been used successfully in the Pryor Mountain and McCollough Peaks herds.	The proposed action supports trying bait/water trapping
11	Cloud Foundation	Recommend the native PZP instead of PZP 22.	The LBCWHR is currently using the native PZP with success and plan to continue this use.
12	Cloud Foundation	Recommend that all mares released back to the range are primed with native PZP.	This recommendation is included in the Proposed Action of the EA.

13	Cloud Foundation	Recommend an increase in the number of mares treated with PZP to eliminate the need for removals .	Beyond the scope of analysis of this EA, as fertility control is proceeding in accordance with a prior decision and supporting analysis. Currently the HMAP does not identify this objective but will be considered in revision of HMAP.
14	Cloud Foundation	The EA fails to identify the opportunity of enacting a MOU with the wildlife management agencies to protect mountain lions within the HMA allowing them to be a no cost management option.	This comment is outside the scope of the analysis for the gather and removal of wild horses in accordance with the HMAP. A minimum amount of predator control has occurred within the LBCWHR to protect the Bighorn sheep population. This action would need to be analyzed in a revision of the HMAP or wildlife management.
15	Cloud Foundation	Recommend that all fillies one year and older receive the native PZP vaccine.	Currently treating one year old fillies is an objective of the LBCWHR fertility control program. Treating all fillies has not been identified or analyzed.
16	Cloud Foundation	Allow older horses to remain on the range. Do not remove horses in 11-19 age group.	The EA was revised to state that wild horses 5 years and younger would be targeted for removal.
17	Cloud Foundation	Recommend prioritizing the construction of new range improvements and maintaining existing ones, reseeding rangelands and weed control.	This comment is outside the scope of the analysis. However the maintenance of range improvements is a priority conducted in

			coordination with the Friends of the Mustangs. New improvements will be analyzed in the HMAP revision.
18	Cloud Foundation	Recommend BLM implement Adaptive Management including the use of volunteers.	This comment is outside the scope of the analysis. However some aspects of Adaptive Management are included in the HMAP in management of the LBCWHR. The partnership of the volunteer group FOM and the BLM is a success story .
Individuals			
1	Public	DNA samples should not be taken from captured and removed horses	Samples will be taken from horses that are captured and then released
2	Public	Population is only two wild horses over AML this does not show excess	AML is not a determination of excess. Wild Horses are managed within AML to achieve range standards and a natural ecological balance to maintain healthy horses on healthy rangelands.
3	Public	If the herd were left alone the population might very well stabilize on its own.	This management option would prevent BLM from maintaining a thriving natural ecological balance on the range.
4	Public	The elk are responsible for the grazing pressure not the horses.	From all monitoring in the LBCWHR there is not an indication of resident elk within the wild horse range.
5	Public	WinEquus is based on assumptions, BLM proceeds as if the results were solid proof.	Results from WinEquus are used to indicate possible

			trends in the different alternatives only.
6	Public	BLM needs to adopt “Holistic Management” and increase the number of horses. Drought is a made disaster from under grazing.	Holistic Management successes are anecdotal and have not been recommended by the range scientist community with peer reviewed documents.
7	Public	Horses outside of the WHR should be put back on the WHR not removed.	The proposed action states that wild horses outside of the range will go through the same selection process as those on the range. Horses not selected for removal will be returned to the range.
8	Public	Minimum feasible level of Management means hands off. No reason to remove any wild horses at this time.	Excess wild horses determination was addressed in the EA along with the authority for this federal action.
9	Public	This proposed gather is jeopardizing the genetic health of the WHR.	This gather is a selective removal and for each wild horse removed, BLM and volunteers will confirm that the horse’s mare still has offspring on the range.
10	Public	Interpretation of the 1971 WH&B Act state we are breaking the law.	Outside the scope of this EA. The proposed action is consistent with the HMAP and is designed to fulfill BLM’s obligations under the Wild Free-Roaming Horses and Burros Act.
11	Public	BLM needs an optimal number of horses left on the range for genetically viability. Recommending a minimum number of 200 wild horses.	All population sizes for genetic viability are recommendations only. There is not any defined science on the

			subject. The only way to ensure genetic viability is to monitor genetics. This EA addresses the monitoring of genetics. Dr. Gus Cotheran's analysis indicates the LBCWHR has remained genetically stable even with gathers resulting in fewer than 110 horses remaining on the range.
12	Public	BLM should increase the size of the heads to a minimum of 500 and up to 2,500 and increase the range to support this size.	Raising the AML is outside the scope of this document. Adjusting range size is a planning level decision outside the scope of this document. Further, BLM can only manage wild horse in areas where they existed in 1971.
13	Public	BLM stocking rates for wild horses is too low. NRCS uses a different calculation to determine stocking rates and the BLM should use the NRCS calculations.	NRCS uses a stocking rate that incorporates total remove once a utilization level has been reached. Total removal or rotation of wild horses is not achievable.
14	Public	BLM should protect predators and introduce wolves in the LBCWHR. Stop hunting cougars and let predators control the population size.	The federal government does not manage wild game on BLM lands. This type of management would need to be identified and analyzed in a wildlife management document or HMAP revision.

15	Public	Install real time video cameras at trap sites and corrals and live stream the video on your website.	At present the BLM is declining request for this activity. There is not a budget appropriation to accommodate this request.
16	Public	I would like to thank the BLM for trying this new bait trap approach to capturing and removing wild horses.	Noted.
17	Public	Please implement a birth control plan in the LBCWHR.	The LBCWHR has had a successful fertility control program since 2002, and this program will continue under either alternative.
18	Public	Remove or reduce cattle grazing within the LBCWHR.	There is no authorized livestock grazing within the LBCWHR as stated in the EA.
19	Public	Appreciate the documentation of vegetation trend studies and utilization records. Agree with new utilization cage locations.	Noted.
20	Public	Unclear on when decision will be made on how many wild horses will be removed based on utilization levels.	EA revised to reflect late August to be period when decision is made on how many wild horses will be removed.
21	Public	Agree to treat all mares that are released back onto range with PZP.	Noted.
22	Public	Agree with transplanting some wild horses identified to remain on the range to different location to improve genetic diversity.	Noted.
23	Public	Believe the total number of adult horses on the range is 149 not 152 based on potential death of older horses not seen this spring.	EA revised to reflect changes
24	Public	Given there are currently 5 foals and possibly 5 more expected the projected population at the time of the gather would be 159 wild horses.	EA was revised to reflect this potential.
25	Public	Believe there could be a loss of up to	BLM acknowledges

		12 horses this winter due to old age and thus would recommend no gather this fall or remove a small number.	that the potential exists for the death of older horses reducing the total population. Reducing the population to a mid AML level is needed to reduce grazing pressure on forage plants for several years allowing for plant recovery.
26	Public	Outside of the gather ,BLM should be treating more than the current rate of mares with PZP and strive towards a Zero Population Growth (ZPG).	Beyond the scope of analysis of this EA. BLM plans to treat all mares released during the gather. Fertility control efforts outside of the proposed gather will be identified and analyzed in a revision of the HMAP.
27	Public	The number of foals for 2012 is incorrect. Should be 17 rather than 16.	EA revised to reflect change.
28	Public	Skewing wild horse sex ratios is counterproductive as it destabilizes the bands and increases fighting amongst the stallions.	The desired sex ratio following the gather as identified in the Population Management Plan is broad. The stallion to mare ratio ranges from 40:60 to 60:40. The EA has been revised to make this clear.
29	Pubic	This EA does not give the public an explanation as to WHY the Wild Horses have left the LBCWHR.	Section 3.5.2 of the EA explains that as forage availability decreases due to range deterioration wild horses will pursue areas outside of the range.
30	Public	Wild Horses that have moved onto private lands should be RETURNED to	The proposed action states that wild horses

		the LBCWHR, NOT removed altogether.	captured off of the range will go through the same selection process as those on the range. Horses not selected for removal will be returned to the range.
31	Public	The AML should be raised to a higher level in order to protect the genetic diversity of this Herd. The public must given scientifically verifiable data for the decision making process.	Raising the AML is beyond the scope of this EA. Scientific data supporting the removal of excess horses is contained in the Soil and Vegetation Sections 3.2.2 and 3.3.3.
32	Public	It is unclear whether or how the results of the WinEquus model are used in management decisions, and the input parameters are not transparent.	Results from WinEquus are used to indicate possible trends in the different alternatives only. Parameters used for the WinEquus model are available upon request.
33	Public	Please explain HOW and WHY the AML was set at a range of 150 for the Little Book Cliffs Wild Horse Range.	The current AML was established in the 2002 Population Management Plan and the associated EA. The previous AML was 120. The increase to 150 was based on the addition of 4904 acres.
34	Public	A proper and complete EA must provide the following data to the public: A complete and detailed breakdown of allocations would include multiple use projects such as: % of water allocated to mining projects % of water allocated to gas/oil explorations/ extractions % of water allocated to wind projects % of water allocated to solar projects	Water rights have been obtained for the developed springs within the LBCWHR. Defined purposes of the water rights is wild horses and wildlife. There is no other allocation of water for other uses listed.

		<p>% of water allocated to geothermal projects</p> <p>% of water allocated to other multiple use projects</p> <p>% water allocated to Livestock</p> <p>% water allocated to Wildlife</p> <p>% water allocated to Wild Horses and Burros</p>	
35	Public	What is the BLM’s Grand Junction Field Office, Colorado definition of “thriving ecological balance”. What are the specific measurements that define the range conditions that your office of the BLM uses that determine a thriving natural ecological balance?	IBLA decision and definition of “thriving ecological balance” has been added to Chapter 1.1 Background
36	Public	Please provide to the public, the written request(s) to remove wild horses from private lands as referred to and included in the EA – section 3.5.2 Range Management.	There is no mention of letters received from private land owners in section 3.5.2.
37	Public	Are wild horses outside of the HMA on public lands as well as private.	As stated in the EA wild horses off the range are residing within an allotment on public lands and on private lands.
38	Public	Which of the numerous private resource extraction and/or pipeline projects within the Grand Junction district has prompted this large wild horse removal?	Currently there are no resource extraction or pipeline projects within the LBCWHR.
39	Public	What are/where are the perimeter boundaries fences and the internal (cross-fencing) and how these fences prevent or assist wild horses from intermingling and/or from seasonal migration with details and justification of statement.	Beyond the scope of analysis of this EA. There are no internal fences within the LBCWHR.
40	Public	If bait/water trapping is done, how will the public be kept informed of the progress of this trapping (numbers trapped and numbers taken to BLM holding, dates of these actions, etc.)? If bait/water trapping will be done, will any public	Progress of the bait/water trapping will be available on the Grand Junction Field Offices web site. Public observation opportunities will be

		observation be available and how will this be arranged?"	established as operations develop.
41	Public	All relevant species of wildlife and other land and water usage must be provided to the public and I have found no information in the EA that informs the public of this data	This information is described in the affected environment section of this document.
42	Public	Scientific monitoring data and reports and photos are required by the public which verify the BLM's estimated population including but not limited to aerial and ground observation.	Current estimate population data is explained within chapter 1 of the EA.
43	Public	Request for scientific monitoring data and reports for any and all previous roundups that verify that the roundup contributed to range health improvement SOLEY due to the removal of wild horses.	Noted. All monitoring data has been summarized in the EA. Specific data is needed to provide the reader with requested information through a FOIA request.
44	Public	Request for accurate and comprehensible chart/data/report that shows the number of animals and number of AUMs per the 1) the Wild Horses 2) foraging wildlife (deer, elk, bighorn sheep, antelope). This includes monitoring data, maps, research notes and information that <u>clearly delineates</u> wild horse impacts from other wildlife impact.	These allocations would have been made in an earlier Land Use Plan or Resource Management Plan and are outside the scope of this document.
45	Public	The BLM EA must provide alternatives that would mitigate any need to remove any or all of the horses currently targeted for removal and provide the specific data and a complete analysis of the alternative.	The EA analyzed all reasonable alternatives, including a no-action alternative.
46	Public	Making decisions to apply a fertility drug to wild horse herd mares would put wild horse herds in danger of a die-off if any natural or manmade disaster struck the herd management area – be it wild fire or an extreme winter or mass predation or other.	Potential impacts of the use of fertility control drugs in the LBCWHR has been analyzed in previous EA's.
47	Public	Current studies are not conclusive on the impacts of fertility controls of the	Noted. The results of ongoing studies on the

		Porcine Zona Pellucide (PZP). These methods will restrict the growth of the herd, but the long term indirect effect to the reproductive health and genetic viability and impact on the herds are scientifically uncertain.	effects are forthcoming. All current data has been scientifically studied and PZP has been recommended as a population control method.
48	Public	I urge BLM not to include in the count this years foals in the proposed roundup. BLM is not supposed to count the current year's foals in the population count.	The current census of 149 to 152 wild horses does not include this years foals.
49	Public	Concerns with the BLM selling wild horses to horse slaughter businesses	Beyond the scope of analysis of this EA. The destruction of healthy excess wild horses is not a component of any of the action alternatives.
50	Public	Strongly OPPOSE the use of helicopters and support the use of bait trapping to administer PZP fertility control.	Noted.
51	Public	Why do you need to round up 50 of the only 150 Wild Horses in that area?	The proposed action includes gathering up to 50 horses based on utilization levels in August. Fewer horses will be gathered if utilization levels are acceptable in August.