

**U.S. Department of the Interior
Bureau of Land Management**

Environmental Assessment

**Humboldt Herd Area Wild Horse Gather Plan Environmental
Assessment**

DOI-BLM-NV-W010-2013-0024-EA



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Environmental Assessment Humboldt Herd Area Wild Horse Gather Plan Environmental Assessment

Mission Statement: It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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Chapter 1. Introduction

1.1. Identifying Information:

1.1.1. Title, EA number, and type of project:

Humboldt Herd Area Wild Horse Gather Plan Environmental
Assessment DOI-BLM-NV-W010–2013–0024–EA

1.1.2. Location of Proposed Action:

Humboldt Herd Area, Pershing County, Nevada

1.1.3. Name and Location of Preparing Office:

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1.1.4. Identify the subject function code, lease, serial, or case file number:

Subject Function Code: 4700

1.1.5. Applicant Name:

Bureau of Land Management

1.2. Background

The Winnemucca District Office (WD) is proposing to gather excess wild horses within the Humboldt Herd Area (HA) after July 1, 2014 and as soon as funding and holding space allows. The gather area is comprised of 431,544 acres of both private and public lands (Map 1). The HA is located in Pershing County about 30 miles south of Winnemucca, NV and extends along the eastside of Interstate 80 to Lovelock, Nevada.

HAs were identified in Land Use Plans (LUPs) and were limited to areas of the public land used as habitat by wild horses and burros at the time the Wild Free Roaming Horses and Burros Act (WFRHBA) was enacted (December 15, 1971). The HAs where wild horses and burros could be managed for the long term were designated as Herd Management Areas (HMAs) through the land-use planning process. The Humboldt HA was not designated for the long term management of the wild horses in the Sonoma-Gerlach Management Framework Plan (SG-MFP WHB 1.3) due to the checkerboard land ownership pattern found within the HA and therefore,

is not managed for wild horses and burros. The rationale for the SG MFP WHB 1.3 states, “The herd use area (HUAs) designated for complete horse/burro removal are in a checkerboard land pattern. Landowners from each HUA have requested removal of wild horses/burros from their private lands. Section 4 of P.L. 92-195 and part 43 CFR subpart 4750.3 directs the authorized officer to remove wild horses/burros from private lands at the owner's request.”

Even though checkerboard lands are not managed for wild horses, there are currently an estimated 185 animals on these lands. These estimates are based on field observations and counts conducted by the BLM in 2011 and an annual recruitment rate of 15%, the wild horse population within the Humboldt HA is estimated to be 185 animals plus the 2014 foal crop. The exact origin of these wild horses has not been determined. However, some animals may have been missed in the gather to remove wild horses from the area in 1993, analyzed in the Humboldts/West Humboldts/East Range Herd Use Area Gathering Plan NV-020-5-12. Other wild horses may have migrated into the Humboldt HA from adjacent HMAs as they increased in population and the resident horses began seeking more space. Since this area is not an HMA managed for wild horses, these wild horses are classified as excess horses that need to be removed.

In 1993, the BLM removed 173 wild horses that were residing on these lands. The environmental consequences were analyzed under Environmental Assessment for Wild Horse Relocation-Kamma Mountains HMA, NV-020-03-31. Since the last gather, it has been documented that wild horses have remained within and moved back into the Humboldt HA and the presence of wild horses within the HA has led to unnecessary horse fatalities and damage to private property. Between 1999 and 2010, eleven nuisance wild horses were removed at the private land owners' request and four wild horses were euthanized as an act of mercy after being hit by vehicles on the roads. In 2011, four wild horses were removed and two were euthanized after being hit by vehicles. Because of the risk that wild horses located in this area could be struck and killed, that the wild horses could damage human property, or potentially injure or kill humans who collide with wild horses along county roads, it is a priority to remove wild horses from the HA when funding and holding space becomes available.

This Environmental Assessment (EA) is a site-specific analysis of the potential impacts that could result with the implementation of the Proposed Action or the No Action Alternative. Preparation of an EA assists the BLM authorized officer to determine whether to prepare an Environmental Impact Statement (EIS) if significant impacts could result, or a Finding of No Significant Impact (FONSI) if no significant impacts are expected

1.3. Purpose and Need for Action:

The purpose of the Proposed Action is to gather and remove wild horses from public lands in the Humboldt HA that are not designated for management of wild horses and to maintain a zero population of wild horses within the HA over the long-term. The need for action is based upon the BLM's obligation under Section 1333, as amended, of the Wild-Free-Roaming Horses and Burros Act of 1971 (WFRHBA). Section 1333(b)(1) of the WFRHBA requires the BLM to remove excess wild horses when it determines that an overpopulation exists and that the excess horses need to be removed. Code of Federal Regulations, CFR 43 Part 4700, Subpart 4710.1 directs that “Management activities affecting wild horses and burros, including

the establishment of herd management areas, shall be in accordance with approved land use plans prepared pursuant to part 1600 of this title.”

1.4. Scoping, Public Involvement and Issues:

Due to ongoing public input on similar wild horse gathers in Nevada, BLM is very aware of issues commonly raised in public scoping. Issues were identified through internal scoping relative to the BLM’s proposed gather of wild horses from the HA. Due to the similarity between the Proposed Action and other gathers conducted in WD HAs, the BLM staff is familiar with issues commonly raised during public scoping. The BLM has captured the concerns that are generally expressed by potentially interested publics. The interested public has had the opportunity to comment on the proposed action as part of the EA process.

Cultural and Native American Religious Concerns

- How would placement and design of temporary gather sites, including water/bait trapping sites, and holding sites impact cultural resources or Native American sacred sites or Traditional Cultural Properties (TCPs)
- How would the removal of wild horses impact cultural resources, or Native American sacred sites or TCPs?
- How would the use of helicopters impact TCPs/ Native American sacred sites?

Migratory Birds, T&E, Fisheries, Sensitive Species, and Wildlife

- How would the use of helicopters and the placement and design of temporary gather and holding sites impact the health, habitat, and activity of sage grouse, threatened and endangered wildlife, fisheries, migratory birds, and general wildlife?
- How would bait/water trap sites impact the health, habitat, and activity of sage grouse, threatened and endangered wildlife, fisheries, migratory birds, and general wildlife?
- How would the removal of wild horses the impact the health, habitat, and activity of sage grouse, threatened and endangered wildlife, fisheries, migratory birds, and general wildlife?

Water Quality

- How would placement and design of temporary gather or holding facilities impact surface water quality?
- How would movement of horses via helicopter drives impact surface water quality?
- How would the removal of wild horses impact surface water quality?
- How would water trapping and the removal of wild horses impact existing water rights?

Wetlands and Riparian

- How would movement of horses via helicopter drives impact riparian and wetland zones?
- How would the removal of wild horses impact riparian and wetland zones?

Wild Horses

- How would stress from helicopter driving, handling, and time spent in holding facilities (temporary or long term) impact the health of individual animals?

Fire

- How would the removal of wild horses impact emergency stabilization and rehabilitation of areas impacted by wildfire?

Public Health & Safety

- How would placement and design of temporary gather and holding facilities impact vehicle traffic?
- How would the movement of horses via helicopters impact vehicle traffic?
- How would the removal of wild horses impact vehicle traffic?
- How would gather activities, in general, impact individuals interested in observing the BLM's actions?

Rangeland Management

- How would the removal of wild horses impact the amount of forage available for livestock?
- How would the placement and design of temporary gather and holding sites impact the management of grazing within allotments that intersect or lie within the gather area?
- How would the use of helicopters impact the health, management, and activity of cattle?
- How would bait/water trap sites impact the health, management, and activity of cattle?

Soils and Vegetation

- How would the removal of wild horses impact soils and upland vegetative communities?
- How would placement and design of temporary gather and holding sites and bait/water trap sites impact soils within the gather area?
- How would ground based gather activities impact the distribution and density of non-native or noxious plants?

Consultation has occurred with United States Fish and Wildlife Service (USFWS) and with the following tribes: Battle Mountain Band Tribal Council, Fallon Paiute Shoshone Tribe, Lovelock Paiutes, Pyramid Lake Paiutes, and Winnemucca Indian Colony. No issues were identified through this coordination.

Chapter 2. Proposed Action and Alternatives

This section of the EA describes the Proposed Action and No Action Alternatives, including any that were considered but eliminated from detailed analysis. The Proposed Action was developed to remove excess wild horses from the HA in conformance with 43 CFR § 4720. The No Action Alternative would not achieve the identified Purpose and Need, nor would it be in compliance with the land-use plan or with 43 CFR § 4710.1; however, it is analyzed in this EA to provide a basis for comparison with the other action alternatives, and to assess the effects of not conducting a gather at this time.

2.1. Description of the Proposed Action:

The Proposed Action would achieve and maintain a population of zero wild horses within the Humboldt HA consistent with the LUP and management objectives for these public lands (Map 1).

The proposed action would be implemented in one of two ways; a helicopter drive gather or bait/water trapping.

It is estimated the helicopter-drive gather would take approximately ten days to complete. Several factors such as animal condition, herd health, weather conditions, or other considerations could result in adjustments in the gather schedule. No helicopter drive-trapping gathers would occur from March 1 to June 30 due to the established spring closure period for helicopter gathers associated with the peak of foaling. Gather operations would be conducted in accordance with the Standard Operating Procedures (SOPs) described in the National Wild Horse and Burro Gather Contract (Appendix B, *Wild Horse Gather Public Observation Protocol*). Depending on the efficiency of the helicopter gather, supplemental /follow-up gather methods may be used (described below) over a period of ten years.

. The BLM would utilize a contractor to perform the gather activities in cooperation with BLM and other appropriate staffs. The contractor would be required to conduct all helicopter operations in a safe manner and in compliance with Federal Aviation Administration (FAA) regulations 14 CFR § 91.119 and BLM Instruction Memorandum (IM) No. 2010-164. The Proposed Action would be in conformance with BLM policy which prohibits the gathering of wild horses with a helicopter (unless under emergency conditions) during the period of March 1 to June 30 which includes and covers the six weeks that precede and follow the peak of foaling (mid-April to mid-May).

Water or bait trapping may be utilized throughout the time period analyzed in this EA to assist in the removal of wild horses and maintenance of zero wild horse population within the HA. For example, water or bait trapping could be used when trying to remove wild horses from a small distinct geographic area when weather or environmental conditions are not conducive to helicopter gather techniques. Any water/bait trapping activities would be scheduled in locations and during time periods that would be most effective to gather sufficient numbers of animals to achieve management goals. Existing watering sites would be preferred. In rare instances new troughs may be used and would be subject to the Standards and Guidelines for Nevada's Sierra Front-Great Basin Area and Northeastern Great Basin Area (e.g. installation of bird ladders). Use of water at trap sites would comply with Nevada water law. The use of roping from

horseback would also be used if necessary or appropriate.

Multiple temporary trap sites (gather sites), including helicopter drive-trapping and water/bait trapping sites, as well as temporary holding sites, would be used to accomplish the goals of the Proposed Action. In addition to public lands, private property may be utilized for gather sites and temporary holding facilities due to greater accessibility and/or prior disturbance or if necessary to ensure successful gathers. Use of private land would be subject to Standard Operating Procedures (SOPs) set forth in Appendix A, *Standard Operating Procedures (Gather Operation)* and would require written approval/authorization of the landowner. Helicopter drive-trapping and temporary holding sites could be in place up to 30 days. Bait or water trapping sites could remain in place up to one year for periodic use. The exact location of the gather sites and holding sites would not be determined until immediately prior to the gather because the location of the animals on the landscape is variable and unpredictable. The BLM would make every effort to place temporary gather and holding sites in previously disturbed areas and in areas that have been inventoried and have no cultural resources, TCPs, sacred sites or paleontological sites. If a new gather or holding site is needed, a cultural inventory would be completed prior to using the new sites. If cultural resources are encountered, the location of the gather/holding site would be adjusted to avoid all cultural resources. Once the specific locations of proposed gather/holding sites have been identified, the WD Paleontological database would be checked to insure that all known paleontological localities are avoided.

No gather or holding sites would be set up near greater sage-grouse leks, known populations of sensitive species, or in riparian areas, TCPs, sacred sites, paleontological or cultural resource sites. Prior to setting up gather sites within potential habitat for special status plants, a plant survey would be conducted by a qualified botanist. Should a sensitive plant species occur, the habitat for the species would be mapped out and no surface disturbance would occur within that area. The BLM would make every effort to place gather sites outside of areas known to contain noxious species. In order to avoid potential impacts to breeding migratory birds from gather sites, a nest survey would be conducted by BLM personnel within potential breeding habitat prior to any surface disturbance proposed during the avian breeding season (March 1st through August 31st). Surveys would be conducted no more than 10 days and no less than 3 days prior to initiation of disturbance. All gather and handling activities would be conducted in accordance with the SOPs in Appendix A, *Standard Operating Procedures (Gather Operation)*.

All gathered wild horses would be removed and transported to BLM holding facilities where they would be prepared for adoption and/or sale to qualified individuals who can provide them with a good home or for transfer to long-term grassland pastures.

Maintenance gathers (helicopter drive or water/bait trapping) to remove any wild horses that may have been missed and to maintain a zero population within the Humboldt HA may be conducted for the next 10 years following the date of the decision, would be consistent with BLM IM No. 2013-059, Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy and would be conducted in accordance with Standard Operating Procedures (SOPs) in Appendix A, *Standard Operating Procedures (Gather Operation)*, or current guidance as analyzed in this EA.

Opportunities for public observation of the gather activities on public lands would be provided and would be consistent with BLM IM No. 2013-058 and the Humboldt HA Wild Horse Observation Protocol found in Appendix B, *Wild Horse Gather Public Observation Protocol*. This protocol is intended to establish observation locations that reduce safety risks to the public (e.g., from helicopter-related debris or from the rare helicopter crash landing, or from the potential path of gathered wild horses), to the wild horses (e.g., by ensuring observers would not be in the line of vision of wild horses being moved to the gather site), and to contractors and BLM employees who must remain focused on the gather operations and the health and well-being of the wild horses.

Observation locations would be identified at gather or holding sites and would be subject to the same cultural resource requirements as those sites.

The Humboldt HA Wild Horse Gather Observation Protocol would provide the public with the opportunity to safely observe the gather operations. Every attempt would be made to identify one or more observation sites at the gather location that offer good viewing opportunities, although there may be circumstances (flat terrain, limited vegetative cover, private lands, etc.) that require viewing locations to be at greater distances from the gather site due to on-the-ground conditions or to ensure safe gather operations.

Data, including sex and age distribution, body condition score (BCS) (using the Henneke rating system), color, size and other information may be recorded for all gathered wild horses.

BLM would assure that an Animal and Plant Health Inspection Service (APHIS) veterinarian or contracted licensed veterinarian would be on site during the gather to examine animals and make recommendations to BLM for care and treatment of wild horses. BLM staff would also be present during gather operations to observe animal condition, ensure humane treatment of wild horses, and ensure contract requirements for the gather operations are met. Additionally, animals transported to BLM holding facilities would be inspected by facility staff and on-site contract veterinarians to observe health and ensure the animals are being cared for humanely.

Any weaned foals that cannot survive on their own or orphan foals would be removed and would be made available for adoption to qualified individuals. Any old, sick or lame horses unable to maintain an acceptable body condition (greater than or equal to a Henneke BCS of 3) or with serious physical defects would be humanely euthanized as an act of mercy. Decisions to humanely euthanize animals in field situations will be made in conformance with BLM policy (Washington Office Instruction Memorandum 2009-041). Conditions requiring humane euthanasia occur infrequently and are described in more detail in Section 4.1.15, "Wild Horses".

Noxious weed monitoring at gather and holding sites would be conducted by the BLM resource specialist during the growing season preceding the initial gather and each subsequent gather. Any sites used that have previously been documented to have noxious weeds present would be managed to minimize or eliminate risk of noxious weed seed transport, and would result in a requirement to wash equipment prior to leaving the site if gather operations are conducted when soils are wetted and there is a significant risk of contaminated soil transport. In order to minimize noxious weed spread, on-road use would be promoted and off-road travel would be limited. Following gather operations; gather sites would be monitored by BLM personnel for a minimum of two seasons to determine if noxious weeds have been introduced to the site. If it were determined that the gather activities introduced noxious weeds to a site, appropriate treatment would be applied. Treatments would be consistent with the Noxious Weed Control EA# NV-020-02-19 and the Programmatic Environmental Assessment of Integrated Weed Management on Bureau of Land Management Lands, EA# NV-020-08-11. Following gather operations, disturbed soils at gather sites would be seeded with site-adapted native grasses, shrubs, and forbs.

Aerial population inventories would continue. If subsequent observations show that wild horses remain in the Humboldt HA after the initial helicopter gather or that wild horses have moved into the HA from adjacent areas, the WD would return to the HA to remove those excess wild horses. The follow-up gather activities would include helicopter drive- or water/bait trapping as described above. Follow-up gathers could be implemented up to ten years after the initial gather and may require periods of delay between gathers if any remaining horses develop a heightened response to human presence and become more difficult to gather. Funding limitations and competing priorities could also require delaying the follow-up gather component of the Proposed Action.

2.2. Description of the No Action Alternative

Under the No Action Alternative, no gather would occur and no wild horses would be removed from the Humboldt HA at this time. As stated in the Introduction, horse fatalities and damage to property due to the presence of excess wild horses within the HA has been documented and would continue to be an issue. The No Action Alternative would not achieve the identified Purpose and Need and is contrary to the WRFHBA and 43 CFR Part 4700; however, it is analyzed in this EA to provide a basis for comparison with the other action alternatives, and to assess the effects of not conducting a gather at this time.

Excess wild horses would remain on public and private lands within the Humboldt HA, an area that – consistent with the LUP -- is not suitable or being managed for wild horses. BLM would continue to address safety issues regarding wild horses in and near the Humboldt HA on an ad hoc basis only.

2.3. Description of Alternatives Considered but not Analyzed in Detail

Water/Bait Trapping as Sole Gather Method

This alternative would remove all excess wild horses from the Humboldt HA with water/bait trapping methods only (i.e. no use of helicopters). Bait trapping as the primary or sole gathering method would take a significant period of time and could only be done if the proper conditions exist. A number of animals have already been hit by vehicle traffic on Rochester Road. These collisions have proven to be fatal to the horses and have the potential to cause a loss of human life. Because there is a need for a more efficient gather method to remove the potential for the loss of human life and for wild horses' fatalities, this alternative was considered but dismissed as a primary or sole method of gathering and removing excess wild horses. However, bait trapping, as described in the Proposed Action, may be used as a to achieve desired goals of the Proposed Action.

Remove or Reduce Livestock within the HA

This alternative would reduce or eliminate cattle grazing on all or portions of the grazing allotments that intersect or fall within the Humboldt HA. Because this area is designated as an HA (see discussion in Section 1.2, "Background"), that is not managed for wild horses due to a checkerboard land ownership pattern, BLM must attempt to remove wild horses. Removal or reduction of livestock would not result in the removal of wild horses.

Removal or reduction of livestock would not meet the purpose and need as identified in Section 1.3, "Purpose and Need for Action:", would be inconsistent with the Sonoma-Gerlach MFP, and would require amendment to the MFP which is outside the scope of this EA. For the reasons stated above, this alternative was dropped from detailed analysis.

Use of Alternative Capture Techniques Instead of Helicopter Capture

This alternative would utilize some method of gathering (other than helicopters or water/bait trapping) to remove all excess wild horses from the Humboldt HA. Alternative capture methods have been suggested by some members of the public, but no specific alternative methods have been identified. The BLM has identified chemical immobilization, net gunning, and wrangler/horseback drive trapping as the most likely alternative potential methods for gathering

wild horses.

Net gunning techniques normally used to capture big game animals also rely on helicopters. Chemical immobilization is a very specialized technique and strictly regulated. Currently the BLM does not have sufficient expertise to implement either of these methods and it would be impractical to use given the size of the project area (the Humboldt HA), access limitations, and difficulties in approaching wild horses.

Use of a wrangler(s) on horseback drive-trapping to remove excess wild horses can be fairly effective on a small scale. However; given the large geographic size of the Humboldt HA gather area, rough terrain, access limitations, and difficulties in approaching the wild horses; this technique would be ineffective and impractical. Horseback drive-trapping is also very labor intensive and can be very dangerous to the domestic horses and the wranglers used to herd the wild horses. Domestic horses can easily be injured while covering rough terrain and the wrangler could be injured if he/she falls off.

Utilizing one of the methods above as the primary or sole gathering method would take a significant period of time and could only be done if the proper conditions exist. A number of animals have already been hit by vehicles on Rochester Road. These collisions have proven to be fatal to the horses and also have the potential to result in the loss of human life. Because there is a need for a more efficient gather method to remove the potential for the loss of human life and impacts to wild horses and because of the reasons described above, this alternative was considered but eliminated from further consideration as a primary or sole method of gathering.

Control of Wild Horse Numbers by Fertility Control Treatment Only

An alternative to gather a significant portion of the existing population (95%) and implement fertility control treatments only, without removal of excess wild horses over a 10 year period was considered.

This alternative was not considered in detail since it is inconsistent with the SG MFP and it would not conform to the WFRHBA because wild horses would remain on private lands.

2.4. Conformance

2.4.1. Land Use Plan Conformance

The Proposed Action is in conformance with the SG MFP Plan (July 9, 1982) and amendment (1988).

MFP-III Decision WH&B 1.3 (updated: 1988)

Remove wild horses and burros from the checkerboard Horse Use Areas (HUAs) listed below unless a cooperative agreement providing for the retention and protection of wild horses and burros is consummated with the affected private landowner(s). Cooperative agreements have not been obtained on the following areas and wild horses should be removed.

1. Sonoma
2. Humboldt
3. Trinity
4. East Range
5. Antelope
6. Truckee

Planned Actions or Modifications

All HAs will be closely monitored, and if an unacceptable number of either wild horses or burros migrate back into a particular HA, these animals will be removed.

2.4.2. Relationship to Laws, Regulations, and Other Plans

Statutes and Regulations

The Proposed Action is in conformance with the Wild Free Roaming Horses and Burros Act (WFRHBA) (1971) (as amended), applicable regulations at 43 Code of Federal Regulations (CFR) § 4700 and BLM policies. Applicable regulations and BLM policies include:

- **43 CFR § 4710.1: Land Use Planning.** Management activities affecting wild horses and burros, including the establishments of herd management areas, shall be in accordance with approved land use plans prepared pursuant to part 1600 of this title.
- **43 CFR § 4740.1: Use of motor vehicles or aircraft.** (a) Motor vehicles and aircraft may be used by the authorized officer in all phases of the administration of the Act, except that no motor vehicle or aircraft, other than helicopters, shall be used for the purpose of herding or chasing wild horses or burros for capture or destruction. All such use shall be conducted in a humane manner. (b) Before using helicopters or motor vehicles in the management of wild horses or burros, the authorized officer shall conduct a public hearing in the area where such use is to be made.

2.4.3. Conformance with Rangeland Health Standards and Guidelines

The Proposed Action is consistent with making significant progress towards or meeting 1997 *Standards and Guidelines for Rangeland Health Sierra Front-Northwestern Great Basin Resource Advisory Council* and conforms to the recommendations presented in the March 2007 *Standards and Guidelines for Management of Wild Horses and Burros of the Sierra Front-Northwest Great Basin Area*.

2.5. Decision to be Made

The authorized officer will determine whether or not to implement the Proposed Action.

The No Action Alternative would not achieve the identified Purpose and Need. However, it is

analyzed in this EA to provide a basis for comparison with the other action alternatives, and to assess the effects of not removing wild horses from the HA. A decision to select the No Action Alternative for implementation would be contrary to the requirement under the WFRHBA that the Secretary remove excess wild horses from the range, would be contrary to the land-use plan, and would also not in conformance with regulatory provisions for management of wild horses as set forth at 43 CFR § 4700.

Chapter 3. Affected Environment:

3.1. Affected Environment:

In accordance with the BLM's National Environmental Policy Act (NEPA) Handbook (H-1790) (BLM, 2008) internal scoping was conducted by an interdisciplinary team to identify potential natural resources and Supplemental Authorities that may or may not be impacted by the consequences of the Proposed and No Action alternatives. Relevant components of the human environment which would be either affected or potentially affected by the Proposed Action or No Action alternatives are briefly discussed below.

3.1.1. General Description of the Affected Environment

The Humboldt HA Wild Horse Gather Plan encompasses an area of 431,544 acres of which 219,085 acres are public lands (50.8% of project area). The public land is interspersed with private land in a checkerboard pattern. The gather area is located in Pershing County with the north boundary being about 30 miles south of Winnemucca, NV and extends along the eastside of Interstate 80 to Lovelock, Nevada. The HA is bordered to the northeast by the East Range HA and by the North Stillwater HMA to the southeast (Map 1). The elevation ranges from 3930 feet in Packard Wash to 8,917 feet at Indian Peak. Temperatures range from lows around -20°F to highs of around 105°F. Annual precipitation averages from 4 to 6 inches at the lower elevations and around 15 inches at upper elevations.

3.1.2. Supplemental Authorities

To comply with the NEPA, the following elements of the human environment are subject to requirements specified in statute, regulation, or executive order and must be considered.

Table 3.1. Supplemental Authorities (Critical Elements of the Human Environment)

Supplemental Authorities	Present	Potentially Affected	Rationale
Air Quality	YES	NO	The proposed gather area is not within an area of non-attainment or areas where total suspended particulates exceed Nevada air quality standards. Areas of disturbance would be small and temporary in nature.
Areas of Critical Environmental Concern (ACECs)	NO	NO	Not present.
Cultural Resources	YES	YES	Analyzed below.
Environmental Justice	NO	NO	Not present.
Floodplains	NO	NO	Not present.
Invasive, Nonnative Species	YES	YES	Any noxious weeds or non-native invasive weeds would be avoided when establishing gather sites and/or holding facilities, and would not be driven through. Noxious weed monitoring at gather/holding sites would be conducted and applicable treatment of weeds would occur per Noxious Weed Control EA#NV-020-02-19 as needed.
Migratory Birds	YES	YES	Analyzed below.
Native American Religious Concerns	YES	YES	Analyzed below.
Prime or Unique Farmlands	NO	NO	Not present.
Threatened & Endangered Species	NO	NO	Discussion below.
Wastes, Hazardous or Solid	NO	NO	Not present.
Water Quality (Surface/Ground)	YES	YES	Analyzed below.
Wetlands and Riparian Zones	YES	YES	Analyzed below.
Wild and Scenic Rivers	NO	NO	Not present.
Wilderness	NO	NO	Not present.

3.1.2.1. Cultural Resources

A range of prehistoric and historic sites are located within the Humboldt HA and adjoining territory. Cultural resource sites in and near the HA date from as early as 10,000 years ago to recent historic times. Prehistoric sites in and near the HA include lithic scatters, rock art, and rock shelters while historic sites include the California Emigrant Trail, the Rochester National Register Eligible District (a historic mining district), as well as many other historic mining and ranching sites. There was also a historic Chinatown in Lovelock (just outside the HA) and there are Chinese mining sites in American Canyon and elsewhere in the HA.

Since the locations of the proposed gather sites, and holding corrals, and observation localities are currently unknown, as they would be dependent on where the horses are located prior to gather, they cannot be checked for conflicts with known cultural resources, but would be checked and inventoried as needed in accordance with the proposed action prior to construction.

3.1.2.2. Invasive-Nonnative Species

An “invasive species” is defined as a species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm, or harm to human health (Executive Order 13112). Invasive species are species that are highly competitive, highly aggressive, and capable of widespread dispersal. They include plants designated as “noxious” and animals designated as “pests” by federal or state law.

Nevada Revised Statutes, Chapter 555.05 defines “noxious weeds” and mandates land owners and land management agencies to include control of noxious weeds on lands under their jurisdiction. Nevada has listed 47 non-native invasive plant species that require control. Of these 47 species, 14 have been identified within the boundaries of the WD.

Noxious weeds and other invasive plants generally infest disturbed mineral soils, which occur intermittently or permanently as a result of natural or human-caused events. Exceptions to this generality include invasive plants which spread primarily through rhizome expansion and are therefore not dependent on disturbance conditions which are conducive to seed germination. Natural disturbance events would include wildfire, landslides, animal use corridors, or seasonal streambank disturbance. Human caused disturbances are extremely numerous and variable, and would include the construction of roads, trails, and right-of-way corridors. Invasive species documented within the proposed project area include clasping pepperweed (*Lepidium perfoliatum*), tumble mustard (*Sisymbrium altissimum*), and cheatgrass (*Bromus tectorum*); see Section 3.1.3.8, “Vegetation” for additional information on cheatgrass. Noxious weeds known to be present within the proposed project area include Scotch thistle (*Onopordum acanthium*), a Nevada Category B weed, hoary cress (*Cardaria draba*), a Nevada Category C weed, Russian knapweed (*Acroptilon repens*), a Nevada Category B weed, perennial pepperweed (*Lepidium latifolium*), a Nevada Category C weed, and saltcedar (*Tamarix spp.*), a Nevada Category C weed. Nevada Revised Statutes, Chapter 555.05 defines “noxious weeds” and mandates land owners and land management agencies to include control of noxious weeds on lands under their jurisdiction. Nevada Category B weeds are “established in scattered populations in some counties of the state; actively excluded where possible, actively eradicated from nursery stock dealer premises; control required by the state in areas where populations are not well established or previously unknown to occur”. Nevada Category C weeds are defined by NAC 555.010 as “weeds that are generally established and generally widespread in many counties of the State.”

3.1.2.3. Migratory Birds

Neo-tropical migrant bird species are those species that breed in the temperate portions of North America and winter in the tropics in either North or South America. They are protected by international treaty and additional emphasis on maintaining or improving their habitats is provided by Executive Order #13186. Within the Great Basin and the project area, quality riparian habitats and healthy sagebrush communities with inclusions of trees and shrubs are required for healthy neo-tropical migrants' populations.

All birds in the WD are considered migratory birds with the exception of gallinaceous birds such as the California quail (*Lophortyx californicus*), Chukar (*Alectoris graeca*), and Sage-Grouse (*Centrocercus urophasianus*). Migratory birds may be found in any area of the district as either seasonal residents or as migrants. Migratory bird species that may occur in the habitat types of the HA are shown below relative to habitat types.

Montane riparian areas may include the following migratory bird species: MacGillivray’s warbler

(*Oporornis tolmiei*), Wilson's warbler (*Wilsonia pusilla*), warbling vireo (*Vireo gilvus*), Lewis' woodpecker (*Melanerpes lewis*), red-naped sapsucker (*Sphyrapicus nuchalis*), Virginia's warbler (*Vermivora virginiae*), calliope hummingbird (*Stellula calliope*), broad-tailed hummingbird (*Selasphorus platycercus*), orange-crowned warbler (*Vermivora celata*), fox sparrow (*Passerella iliaca*), song sparrow (*Melospiza melodia*), dark-eyed junco (*Junco hyemalis*), Lincoln's sparrow (*Melospiza lincolnii*), wouldow flycatcher (*Empidonax traillii*), dusky flycatcher (*Empidonax oberholseri*), brown-headed cowbird (*Molothrus ater*), American robin (*Turdus migratorius*), house finch (*Carpodacus mexicanus*), and Cassin's finch (*Carpodacus cassinii*) (GBBO 2003).

Lowland riparian areas may include: American robin, bank swallow (*Riparia riparia*), barn swallow (*Hirundo rustica*), Bewick's wren (*Thryomanes bewickii*), black-chinned hummingbird (*Archilochus alexandri*), black-headed grosbeak (*Pheucticus melanocephalus*), broad-tailed hummingbird (*Selasphorus platycercus*), brown-headed cowbird, downy woodpecker (*Picoides pubescens*), house finch, house wren (*Troglodytes aedon*), lazuli bunting (*Passerina amoena*), lesser goldfinch (*Carduelis psaltria*), northern flicker (*Colaptes auratus*), northern mockingbird (*Mimus polyglottos*), Bullock's oriole (*Icterus bullockii*), northern rough-winged swallow (*Stelgidopteryx serripennis*), song sparrow (*Melospiza melodia*), spotted sandpiper (*Actitis macularia*), tree swallow (*Tachycineta bicolor*), violet-green swallow (*Tachycineta thalassina*), warbling vireo (*Vireo gilvus*), western kingbird (*Tyrannus verticalis*), western wood-pewee (*Contopus sordidulus*), wouldow flycatcher, yellow-breasted chat (*Icteria virens*), and yellow warbler (*Dendroica petechia*) (GBBO 2003).

Sagebrush and salt desert shrub areas may include: black-throated sparrow (*Amphispiza bilineata*), Brewer's blackbird (*Euphagus cyanocephalus*), Brewer's sparrow (*Spizella breweri*), canyon wren (*Catherpes mexicanus*), gray flycatcher (*Empidonax wrightii*), green-tailed towhee (*Pipilo chlorurus*), loggerhead shrike (*Lanius ludovicianus*), rock wren (*Salpinctes obsoletus*), sage sparrow (*Amphispiza belli*), sage thrasher (*Oreoscoptes montanus*), western meadowlark (*Sturnella neglecta*), and vesper sparrow (*Pooecetes gramineus*) (GBBO 2003).

Several species of raptors may also utilize the project area including bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cunicularia*), Ferruginous hawk (*Buteo regalis*), northern goshawk (*Accipiter gentilis*), prairie falcon (*Falco mexicanus*), northern harrier (*Circus cyaneus*), red-tailed hawk (*Buteo jamaicensis*), and sharp-shinned hawk (*Accipiter striatus*).

The bald eagle, golden eagle, burrowing owl, northern goshawk, Brewer's sparrow, loggerhead shrike, and sage thrasher are BLM designated sensitive species and are discussed in Section 3.1.3.7, "Special Status Species".

3.1.2.4. Native American Religious Concerns

Numerous laws and regulations require consideration of Native American concerns. These include the National Historic Preservation Act of 1966 as Amended (NHPA), the American Indian Religious Freedom Act of 1978 (AIRFA) as amended, Executive Order 13007 (Indian Sacred Sites), Executive Order 13175 (Consultation and Coordination with Tribal Governments), the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA), Secretarial Order 3317, the Archaeological Resources Protection Act of 1979 (ARPA) as well as NEPA and FLPMA.

Native Americans utilize a variety of plants for medicinal and other uses. They also consider all

water to be sacred. Several springs are located within the gather area. Both of these resources can be adversely affected by domestic and wild horses.

Horses are believed to have been introduced into the Paiute and Shoshone societies from trade with the Comanche and other Plains groups (Shimkin 1986). By the mid-19th century, the horse had a significant impact on the political organization of the Paiute and Shoshone, plus their subsistence and trade. The ethnographic literature presents no clear cut trend on whether horses were used as food for subsistence by the Northern Paiutes and Shoshone.

Letters requesting consultation meetings were sent to the following tribes in January 2012: Battle Mountain Band Tribal Council, Fallon Paiute-Shoshone Tribe, Lovelock Paiutes, Pyramid Lake Paiutes, and Winnemucca Indian Colony. Battle Mountain Band Tribal Council, Lovelock Paiutes, and Pyramid Lake Paiutes have not responded to requests for consultation on this proposed action. The letter to the Winnemucca Indian Colony was returned by the US Postal Service as undeliverable.

3.1.2.5. Threatened and Endangered Species

A list of federally listed, proposed or candidate species was requested from the U.S. Fish and Wildlife Service (USFWS) for the proposed project area on November 26, 2012. A response from USFWS was received on December 10, 2012. Based on coordination with the USFWS, the greater sage-grouse was the only federally listed, proposed, or candidate species. There are no other known Threatened or Endangered species in the proposed project area present within the area of analysis.

The greater sage-grouse was determined to be a candidate species in 2010, but its listing has been precluded by other species. Due to a court ordered settlement, the USFWS has until 2015 to make a final determination on listing the greater sage-grouse under the Endangered Species Act.

The BLM has issued two Instruction Memorandums (IMs) for the protection of greater sage-grouse. IM 2012-043, Greater Sage-Grouse Interim Management Policies and Procedures, provides interim policies and procedures to the BLM to be applied to ongoing and proposed authorizations that affect greater sage-grouse, while long-term permanent measures are being developed (BLM 2011b). IM 2012-044, BLM National Greater Sage-Grouse Land Use Planning Strategy, provides direction to the BLM for the consideration of conservation measures, identified in A Report on National Greater Sage-Grouse Conservation Measures prepared by the Sage-Grouse National Technical Team, to apply during the land use planning process (BLM 2011c).

The NDOW has mapped greater sage-grouse habitat in Nevada to support these IMs and published a Habitat Characterization Map in March 2012. The BLM used this NDOW map to create a map identifying Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH) on BLM administered lands. According to this map, there is no PPH located within the project area and approximately 26,308 acres of PGH located within the Humboldt HA. On August 10, 2012, the BLM Nevada State Office issued IM NV-2012-058, which provides clarity on how to implement mapping and management protocols outlined in IM 2012-043 and IM 2012-044 (BLM 2012c).

The greater sage-grouse are analyzed in Section 3.1.3.7, "Special Status Species".

Since no threatened or endangered species have been identified in the project areas, this resource is dismissed from further analysis.

3.1.2.6. Water Quality (surface and ground)

Surface water sources within the Humboldt HA exist in the form of springs and small streams which may be perennial, ephemeral, intermittent, or interrupted. These small streams originate in the Humboldt Range and flow down onto the surrounding valley floors. Stream reaches with perennial flow are fed by snow melt and shallow groundwater. Most water draining from the Humboldt Range will percolate into the subsurface prior to reaching a larger system. Infrequent high flows may allow surface water to reach the Humboldt River to west of the Humboldt Range or the playa found in Buena Vista Valley to the east.

According to data recorded in the National Hydrography Dataset, available from the USGS, there are approximately 2,220 miles of perennial, intermittent, or ephemeral streams within the HA. Approximately 1,140 miles (~51%) of these mapped drainages are located on lands managed by the BLM. A BLM water source inventory conducted in the early 1980s indicates that 381 spring and seep sources exist on lands managed by the BLM within the HA.

Sub-surface water in the HA is found either in shallow alluvial/ colluvial sediments on the slopes of the Humboldt Range, in deeper lacustrine sediments of the valley floors, or in more complex bedrock aquifers.

Water, both surface and subsurface, within the HA has been developed for a wide range of uses. According to the Nevada Division of Water Resources, there are 221 active water rights in the HA (~60% on private land and ~40% on lands managed by the BLM). The published beneficial uses for these water rights are mining/ milling/ dewatering (30%), irrigation (23%), stock water (22%), municipal (9%), and less than 5% each of commercial, industrial, other (including BLM public water reserves), quasi-municipal, domestic, environmental, as decreed, and construction. Of the active water rights, 52% are from an underground source (wells, geothermal, etc.) and 48% are from a surface source (springs, streams, etc.). Within the HA, there are two adjacent areas identified as wellhead protection zones for the Lovelock-Oreana area. In total, the ten year capture zones identified in the wellhead protection plans for these two sources is approximately 710 acres. These wells are managed by Pershing County and the wellhead protection zones include protective fencing. It was identified by the Pershing County Commissioners on 05/20/2014 that the wild horses in the area have caused damage to this fencing.

There is a wide range of water quality in the HA. Headwater streams, in general, are of very high quality with low temperatures, low dissolved solids, and minimal biological contaminants or pathogens. Stream water tends to experience an increase in all of these water quality parameters as water moves toward the valleys. This is due to increased contact time with parent rock materials, increased exposure to biological activity (including impacts from wildlife and domestic animals), and increased exposure to direct sunlight. Water quality at springs may vary among sites, but is roughly correlated to a spring's landscape location. As with streams, springs at higher elevation or steeper slopes generally have higher quality water than those closer to valley floors.

Surface water quality is often strongly associated with the functionality of its associated riparian habitat. See below for a description of the riparian habitat in the gather area.

3.1.2.7. Wetlands and Riparian Zones

Approximately 1,700 acres of wetland and riparian habitat occur within the HA (based on land cover types within the SynthMap data compiled by the Nevada Department of Conservation and Natural Resources). Approximately 1,060 acres (~62%) of these areas are located on lands

managed by the BLM. These areas are comprised of both lentic and lotic habitat. Lentic habitat within the HA is comprised of spring sources and wet meadows. Lotic habitat within the HA is comprised of small streams that originate in the Humboldt Range and flow down onto the valley floors around the Humboldt Range.

Between 1993 and 2012 the BLM has conducted Proper Functioning Condition (PFC) assessments on 73.5 miles of lotic riparian habitat. Of the habitat assessed; 68% was rated properly functioning, 2% was rated functioning at risk with an upward trend, 20% was rated functioning at risk with no apparent trend, and 10% was rated non-functional. It should be noted that the PFC protocol is qualitative and is not intended to be used as a monitoring tool or a measure to determine management decisions. It does, however, afford the BLM an opportunity to discuss the relative health of riparian habitats using basic functionality characteristics.

Wetland and riparian habitats play a critical role for wildlife and domestic animals in northern Nevada. Even though riparian areas make up less than 1% of the HA, the majority of wildlife (including wild horses) relies on riparian habitat for food, water, and shelter. Livestock are also heavily dependent on riparian areas when supplemental water is not available or when other forage is less palatable than herbaceous riparian vegetation. The majority of riparian habitat within the WD shows some level of use or disturbance by cattle or wild horses. With 70% of the riparian habitat assessed determined to be properly functioning or trending toward that status, there is an indication that utilization of riparian habitats by cattle and wild horses in the HA is generally within the ability of the ecosystems to recover.

3.1.3. Additional Affected Resources

In addition to the supplemental authorities listed above, the following resources are present and may be affected by the Proposed Action and/or the No Action alternative: Fire resources – Fuels and Emergency Stabilization and Rehabilitation, Fisheries, Health and Safety, Paleontology, Rangeland Management, Soils, Special Status Species, Vegetation, Wild Horses, and Wildlife.

Table 3.2. Additional Affected Resources

Additional Affected Resources	Present	Potentially Affected
Fire Resources - Fuels and Emergency Stabilization & Rehabilitation	YES	YES
Fisheries	YES	YES
Lands With Wilderness Characteristics	NO	NO
Paleontology	YES	YES
Public Health and Safety	YES	YES
Rangeland Management	YES	YES
Soils	YES	YES
Special Status Species	YES	YES
Vegetation	YES	YES
Wild Horses	YES	YES
Wildlife	YES	YES
Wilderness Study Areas	NO	NO

3.1.3.1. Fire Resources — Fire Management and Emergency Stabilization and Rehabilitation (ESR)

There are six communities-at-risk (CAR) on the federal register of urban wildland interface communities within the vicinity of the Humboldt HA that are at high risk from wildfire (Federal Register 2001, Document 1-52, pg. 751-777) and one other communities-of-interest (COI) that

are located within the project area. The six CARs are Humboldt, Imlay, Lovelock, Mill City, Oreana, and Unionville; Rye Patch is the COI. Subsequent community wildfire protection plans for Pershing County have identified Unionville at extreme risk from wildfire, Humboldt at high risk and the other communities at moderate risk (Nevada Community Wildfire Risk/Hazard Assessment Project: Pershing County 2004). Two fuels treatments (i.e., fuel breaks) have been established within the project area that are intended to help limit wildland fire size and/or severity by directly reducing fire behavior and indirectly by facilitating suppression (Finney 2001, www.NFPORS.gov accessed 26 February 2013). One fuels treatment, or fuel break, is located near the community of Imlay and the other is located at Unionville. Fuels conditions are primarily influenced by weather/climate and indirectly by grazing from native/non-native ungulates.

Approximately 15% or 62,388 acres of the Humboldt Herd Area has been impacted by wildfire since 1993. Emergency Stabilization and Rehabilitation (ESR) seeding projects were conducted within approximately 48% of all burned acres. Of the approximately 62,388 acres of BLM land that have burned within the Humboldt HA since 1993, 4,050 acres were drill seeded utilizing drill seed mixes that were composed of crested wheatgrass, Siberian wheatgrass, Sandberg's bluegrass, snake river wheatgrass, intermediate wheatgrass, triticale, forage kochia, alfalfa, and flax. Also, approximately 15,800 acres of burned areas were aerially seeded with triticale, crested wheatgrass, snake river wheatgrass, Sandberg's bluegrass, four-wing saltbush, Alfalfa, Wyoming big sagebrush, forage kochia, flax, basin wildrye, and thickspike wheatgrass. ESR projects were implemented in response to the Unionville Fire (1999), the Rochester Fire (1999), the Prince Royal Fire (2000), and the Cottonwood Fire (2010).

3.1.3.2. Fisheries

The Humboldt HA contains six perennial fishery streams: Buena Vista Creek, Cottonwood Creek, Coyote Creek, Indian Creek, Rocky Canyon Creek, and Star Creek. The six streams are within the Humboldt Range, with Rocky Canyon Creek on the west side of the Humboldt Range and the other five streams on the east side of the Humboldt Range. Fish surveys show that rainbow trout (*Oncorhynchus mykiss*), brook trout (*Salvelinus fontinalis*), and brown trout (*Salmo trutta*) are the salmonids found in the Humboldt Range (NDOW 2012). Stream surveys were completed for most of these streams in 1992, and the overall stream condition for the streams ranged from poor to excellent (NDOW 2012).

3.1.3.3. Paleontology

The HA was analyzed utilizing the Potential Fossil Yield Classification (PFYC) System and consultation of known fossil localities in the WD paleontological database. The HA includes all classes of paleontological potential ranging from Class 1—Low to Class 5—High. While the majority of the HA is rated moderate, the Humboldt Range and the West Humboldt Range include 49 known fossil localities and portions of these ranges are rated 4—high and 5—very high. Fossil Hill is one of the more notable paleontological localities in the HA.

3.1.3.4. Public Health and Safety

It has been documented that wild horses have remained within and moved back into the Humboldt HA. Because of the risk that wild horses located in this area could be struck and potentially injure or kill humans who collide with wild horses along county roads, it is a priority to remove wild horses from the HA when funding and holding space becomes available.

3.1.3.5. Rangeland Management

Based on escalating drought conditions across much of the WD, all grazing permittees in the district have been notified that the 2013 grazing year is a drought year and they should prepare for temporary changes to their grazing use. Permittees have been asked to continue to observe conditions and speak with their Rangeland Management Specialist on a regular basis to help mitigate the effects of drought. Many of the permittees that have grazing allotments within the Humboldt HA are aware of the current situation and have been voluntarily making livestock adjustments to reduce their level of grazing in the 2012-2013 grazing years.

The Coal Canyon-Poker, Humboldt House, Prince Royal, Rawhide, Rye Patch, South Rochester, and Star Peak Allotments are managed for livestock grazing. Portions of these allotments were occupied by wild horses when the WFRHBA was passed in 1971. Consequently those areas became designated as the Humboldt Herd Area (HA).

Table 3.3. Humboldt Herd Area Acres within Allotments

Allotment	Acres of Allotments within Humboldt Herd Area	Total Acres (Public and Private) for Allotment	% of Allotment within Herd Area
Coal Canyon-Poker	84,322	176,131	47.9%
Humboldt House	24,355	60,659	40.2%
Prince Royal	20,816	20,833	99.9%
Rawhide	50,408	157,956	31.9%
Rye Patch	18,440	67,237	27.4%
South Rochester	131,091	254,863	51.4%
Star Peak	80,773	171,519	47.1%

As shown in Table 1 and Map 2, allotment acreages do not correspond with the HA acreages, as these areas do not share identical boundaries.

The Sonoma-Gerlach (SG) and Paradise-Denio (PD) Management Framework Plans (MFP) (1982) identified the level of livestock grazing authorized for the allotments within the Coal Canyon-Poker, Humboldt House, Prince Royal, Rawhide, South Rochester, Rye Patch, and Star Peak Allotments. All of these allotments are in the Sonoma-Gerlach Resource Area.

There are a total of eleven livestock operators (permittees) currently authorized to graze livestock in these allotments annually, many running in common on several allotments. Each allotment has several permittees, but their AUMs for each type of use is combined for each allotment in Table 3.4, "Livestock Use (AUMs) Authorized within Allotments Overlapping the Humboldt Herd Area.". The annual total permitted use for these permittees combined is 15,009 Animal Unit Months (AUMs) in the seven allotments (including on non-HA lands). An AUM is the amount of forage needed to sustain one cow or its equivalent for one month. All of these allotments consist of various use areas or pastures that are grazed seasonally following established grazing systems; however, the season of use may vary (by one to two weeks) annually based upon forage availability, drought conditions and other management criteria.

Table 3.4. Livestock Use (AUMs) Authorized within Allotments Overlapping the Humboldt Herd Area.

Allotment	Type of Use	Active Preference (AUMs)	Season of use
Coal Canyon-Poker	Cattle	2,650	3/1-2/28
	Sheep	495	3/20-3/31 & 10-1/10/26
Humboldt House	Cattle	616	10/15-4/30
	Sheep	106	7/16-8/5
Prince Royal	Cattle	60	11/1-4/30
	Sheep	100	6/5-6/14
Rawhide	Cattle	2,742	3/1-2/28
Rye Patch	Cattle	1,809	11/1-4/30
	Sheep	171	8/6-8/31
South Rochester	Cattle	1,777	3/1-2/28
	Sheep	1,409	3/1-2/28
Star Peak	Cattle	2,102	4/1-12/31
	Sheep	972	4/25-9/30
Total	-	15,009	-

Table 3.5, “Grazing Use (AUMs) by Grazing Year” shows the combined grazing use for the permittees within the Humboldt HA. An estimate for the 2013 grazing year has not been included because many of the permittees’ have fall turnout dates; therefore they have not yet made application for their fall/winter grazing.

Table 3.5. Grazing Use (AUMs) by Grazing Year

Allotment	Actual Use 2010 ¹	Actual Use 2011 ¹	Actual Use 2012 ¹
Coal Canyon-Poker	3,319	3,204	2,615
Humboldt House	587	980	572
Prince Royal	139	309	309
Rawhide	1,882	1,882	1,714
Rye Patch	1,371	1,678	1,335
South Rochester	758	2,048	2,015
Star Peak	3,319	3,074	3,074
Total	11,375	13,175	11,634

¹ Based on paid bills or submitted actual use for each year.

3.1.3.6. Soils

A wide range of soils occur within the Humboldt HA, ranging from saline-alkaline soils associated with valley bottoms to deep loamy soils at higher elevations in the mountain ranges. Typically the ecological sites in this area are characterized by loamy soils although they may experience a wide range of precipitation zones, see Map 3. Soil development generally occurred under low precipitation regimes resulting in relatively shallow soils.

Trailing and hoof action by wild horses has the potential of accelerating erosion following intense storms or snow melt. Erosion hazard potential for water and wind are grouped into broad classes based on landforms. Erosion hazard potential is slight for water and moderate for wind in lake plains and lake terraces soils; moderate for water erosion and slight for wind in fan piedmonts soils; and moderate or high for water and slight for wind in mountains soils.

Potential for biological soil crusts occurrence is highest on the upper lake plain terraces. Potential biological soil crusts occurrence is lowest on the lower lake plains terrace and mountain slopes. Fan piedmonts have moderate occurrence of biological soil crusts.

3.1.3.7. Special Status Species

Both Threatened and Endangered Species (Section 3.1.2.5, “Threatened and Endangered Species”) and Sensitive Species (addressed below) are considered Special Status Species.

The Nevada Natural Heritage Program (NNHP) database (January 2013) and the NDOW Diversity database (January 2013) were consulted for the possible presence of endangered, threatened, candidate and/or sensitive plant or animal species. NDOW data shows observations of bald eagle, golden eagle, prairie falcon, northern goshawk, and several bat and spring snail species. The NNHP data shows observations of Owyhee prickly phlox (*Leptodactylon glabrum*), western snowy plover (*Charadrius alexandrinus nivosus*) wind loving buckwheat (*Eriogonum anemophilum*), Lahontan beardtongue (*Penstemon palmeri* var. *macranthus*), Goodrich biscuitroot (*Cymopterus goodrichii*) Holmgren smelowskia (*Holmgren smelowskia*) and obscure scorpion flower (*Phacelia inconspicua*). USFWS indicated potential for greater sage grouse.

Based upon the above queries, the following special status species have been documented within or are likely to occur within the Humboldt HA.

Bald Eagle – The bald eagle may potentially occur incidentally as a very rare migrant in the analysis area; however, no known foraging, nesting or roosting areas occur locally. For this reason, proposed activities are judged to have no effect on this species or its habitats and it will be dismissed from further analysis.

Bats - Several species of bats may occur in this area. Most bats in Nevada are year-round residents. In general terms, bats eat insects and arthropods during the warmer seasons and hibernate in underground structures during the cooler seasons. The cliffs, talus, caves; rock crevices; trees; ephemeral, intermittent and perennial drainages, and mine shafts and adits provide potential bat roost sites within the Humboldt HA. Bats may eat flies, moths, beetles, ants, scorpions, centipedes, grasshoppers, and crickets. Bats thrive where the plant communities are healthy enough to support a large population of prey (Bradley et al. 2006). Healthy riparian communities with high water tables and tall vegetation leading to high flying insect populations creates favorable foraging habitat for bats.

Brewer’s Sparrow - The Brewer’s sparrow may be found in this area since it typically inhabits sagebrush communities. The Brewer’s sparrows tend to favor areas dominated by shrubs rather than grass. They thrive where extensive areas of sagebrush habitat are maintained with shrubs occurring in tall, clumped, and vigorous stands. They place their nests low in sagebrush (preferred), other shrubs, or cactus, from a few centimeters to about one meter from ground. They would also place nests higher in taller sagebrush (Rich 1980). The Brewer’s sparrow mainly forages for insects on the ground.

Burrowing Owl - Burrowing owls prefer open, arid, treeless landscapes with low vegetation. They are dependent upon burrowing mammal populations for maintenance of nest habitat and choose nesting areas based on burrow availability (Floyd et al. 2007). These birds are highly adaptable and readily nest in open, disturbed areas such as golf-courses, runways, and industrial areas that border suitable habitat (Neel, 1999). Dense stands of grasses and forbs within owl home ranges support populations of rodent and insect prey. Urbanization is the biggest threat to this species as suitable habitat is converted to non-habitat by human use (Floyd et al. 2007).

Golden Eagle - Golden eagles are primarily cliff nesters and would utilize the area to forage for prey species such as jackrabbits and other small mammals. Golden eagles are protected under the Bald and Golden Eagle Protection Act. Nevada’s golden eagle population is thought to be stable

to increasing. They are widespread and frequently encountered (Floyd et al. 2007).

Goodrich biscuitroot - This plant is found in Lander, Nye and Pershing counties in Nevada, with the only documented occurrences on the Toiyabe and Humboldt Ranges. It is found on moderate to steep scree and talus slopes of dark angular slate or limestone in the upper subalpine and lower alpine zones (Nevada Natural Heritage Program (NNHP) 2001).

Holmgren Smelowskia – Holmgren smelowskia is a perennial herb that is found on crevices, ledges, rubble or small soils pockets on rock outcrops, cliffs and ridges in the high elevations. In lower elevations it is normally found on north facing walls and various rocky substrates in the pinyon-juniper, mountain sage, and lower and sub-alpine vegetation types (NNHP 2001).

Lahontan Beardtongue - The Lahontan beardtongue is a perennial herb with wand-like stems and showy pink flowers. It is found along washes, roadsides and canyon floors, particularly on carbonate-containing substrates, usually where subsurface moisture is available throughout most of the summer. Little survey attention has been given to this rare plant but it is presumed extant (NNHP 2001).

Loggerhead Shrike - Loggerhead shrikes may be found in sagebrush/bunchgrass and salt desert scrub vegetative communities, so it is possible that they occur on these allotments. Loggerhead shrikes tend to favor arid, open country with just a few perches or lookouts. They nest in isolated trees and large shrubs and feed mainly on small vertebrates and insects. The species is relatively common and well distributed across the state (Neel, 1999). These birds benefit from habitat with a diverse structure and species composition. Healthy sagebrush communities provide these habitat characteristics. According to Paige and Ritter (1999), “Long-term heavy grazing may ultimately reduce prey habitat and degrade the vegetation structure for nesting and roosting. Light to moderate grazing may provide open foraging habitat”.

Northern Goshawk - The Northern goshawk is an opportunistic hunter, preying on a wide variety of vertebrates and, occasionally, insects. Prey is taken on the ground, in vegetation, or in the air. It forages in both heavily forested and relatively open habitats. In Nevada, it forages in open sagebrush (*Artemisia* spp.) adjacent to riparian aspen stands. It nests in a wide variety of forest types including deciduous, coniferous, and mixed forests. Western birds also nest in deciduous forests dominated by aspen (*Populus tremuloides*), paper birch (*Betula papyrifera*), or willow (*Salix* spp.) (NatureServe 2012).

Obscure Scorpionflower – This plant is only known from the Humboldt Range in northern Nevada. It is found in relatively deep, undisturbed, organic-rich soils on fairly steep, concave, on north to northeast facing slopes where snow drifts persist well into spring. It is often located on small, barren soil terraces or in small clearings in shrub fields dominated by mountain big sage (*Artemisia tridentata* vaseyana) in association with small-leaved cream bush (*Holodiscus microphyllus*), roundleaf snowberry (*Symphoricarpos rotundifolius*), and Great Basin wild rye (*Leymus cinereus*) (NNHP 2001).

Owyhee Prickly Phlox - This species can be found in Nevada and Idaho, in crevices in steep to vertical, coarse-crumbling volcanic canyon walls at 2600-4000 m elevation. It is intolerant of water paths or seeps that may form in the rock crevices. It is a shrubby, highly branched, perennial herb, 2-3 dm tall, with deeply lobed leaves and funnel-shaped flowers which appear in May-June (NNHP 2001).

Pygmy Rabbit - In the Great Basin, the pygmy rabbit is typically restricted to the sagebrush-grass complex. A dietary study of pygmy rabbits showed that they are dependent on sagebrush year

round. Sagebrush was eaten throughout the year as 51% of the diet in summer and 99% in the winter. They also showed a preference for grasses and to lesser extent forbs in the summer (Green and Flinders, 1980).

Sage-Grouse - The sage-grouse is a sagebrush obligate species and is strictly associated with sagebrush/grasslands. Sage-grouse may eat a variety of grasses, forbs and insects during the breeding season. However, they feed almost entirely on sagebrush during the winter months, selecting shrubs with high protein levels (Paige and Ritter, 1999).

The Humboldt Population Management Unit (PMU) for sage-grouse lies entirely within the project area and the higher elevations of the Humboldt Mountain Range have been classified as PGH (26,308 acres). The sage-grouse habitat has been classified as nesting, summer and winter range. These ranges all overlap and the majority of the habitat occur within the higher elevations of the project area. There are four known leks within this PMU.

Sage Thrasher - Sage thrashers may be found in the project area as well. They thrive where sagebrush habitat is maintained, with shrubs occurring in tall, clumped, and vigorous stands. They tend to prefer tall shrubs for nesting or song perches. Primarily a ground forager, sage thrasher foraging success may be reduced by continuous cover of crested wheatgrass, cheatgrass or other non-native grasses (Paige and Ritter 1998).

Springsnails – Springsnails are freshwater mollusks (genus *Pyrgulopsis* [Pyrg]). While some species are montane, springsnails generally occur on valley floors or along the base of mountain blocks at springs less than 2400 m (~8000 ft) elevation (Hershler 1998, Sada 2008). Pyrgs generally inhabit springs with medium (10-21°C) to thermal (greater than 21°C) temperatures (Hershler 1998). Modifications to springs that negatively impact *Pyrgulopsis* species include livestock grazing (which tramples vegetation and pollutes the spring with excrement), recreational activities (such as bathing), diversion of the water source, and introduction of non-native or invasive species (Hershler 1998, Sada and Vinyard 2002).

Western Snowy Plover - This species is part of the migratory inland breeding population and is considered a distinct population segment from the coastal western snowy plover, which is listed as a threatened species. These birds are typically found nesting on open salt flats, where vegetation is sparse or absent. The nesting success of western snowy plovers is impacted by general human disturbance, and loss of suitable habitat. (Nature Serve 2013).

Windloving Buckwheat - This is a low perennial herb with leafless flower stalks rising about 6.5 cm above clumps of white-hairy leaves. The stalks bear a terminal, globular cluster of white flowers. It blooms in late June and July. At high elevations, it inhabits dry, exposed, relatively barren and undisturbed, gravelly, limestone or volcanic ridges and ridgeline knolls, on outcrops or shallow rocky soils over bedrock. At low elevations it inhabits dry, relatively barren and undisturbed knolls and slopes of light-colored, platy volcanic tuff weathered to form stiff clay soils, on all aspects (NNHP 2001).

3.1.3.8. Vegetation

Vegetation varies from salt desert shrub communities at lower elevations to big sagebrush/bunch grass communities at higher elevations. Typical species at lower elevations include shadscale saltbush (*Atriplex confertifolia*), bud sage (*Picrothamnus desertorum*), winter fat (*Krascheninnikovia lanata*), black greasewood (*Sarcobatus vermiculatus*), squirreltail (*Elymus elymoides*), and Sandberg's bluegrass (*Poa secunda*). Species typical in higher elevations include Wyoming big sagebrush (*Artemisia tridentata wyomingensis*), mountain big sagebrush (*Artemisia*

tridentate vaseyana), bitterbrush (*Purshia tridentata*), rabbit brush (*Chrysothamnus viscidiflorus*), Utah juniper (*Juniperus osteosperma*), bluebunch wheatgrass (*Pseudoroegneria spicata*), basin wildrye (*Leymus cinereus*) and long leaf phlox (*Phlox longifolia*).

Cheatgrass (*Bromus tectorum*) is present on these allotments. Cheatgrass composition is greatest on the fan piedmonts, generally ranging from 11 to 30 percent cover. Cheatgrass cover decreases on the lake plains (greasewood sites), generally ranging from 0 to 10 percent. Higher elevations cheatgrass cover is generally 0 to 5 percent.

Ecological sites can also describe habitat types by their key species. The majority of the habitat types include a shrub component which is typical of Northern Nevada.

3.1.3.9. Wild Horses

The majority of the wild horses have been observed utilizing the area on the southern end of the HA between the Humboldt River Ranch community and Packard Flats. The Humboldt HA was not designated for the long term management of the wild horses in the Sonoma-Gerlach MFP due to the checkerboard land ownership pattern and therefore no AML has been set for the Humboldt HA.

An aerial flight for surveying distribution of wild horses was conducted September 25, 2012. BLM staff observed 72 horses within the HA. This flight was conducted using a fixed-wing aircraft. In June 2013, a resource flight was conducted along the western side of the HA and 124 wild horses were observed however the entire HA was not flown nor was this flight intended to be a complete population survey. Heavy trailing was seen around one of the springs utilized by the wild horses.

Annual rates of wild horse population increase are compiled to take into account both mortality and foaling and are estimates used to project population growth during years when an aerial population count is not completed. A 15% projected annual recruitment rate has been established for the Humboldt HA. The current 2014 estimated population of wild horses within the Humboldt HA is 185 horses based on previous surveys and the 15% projected rate of increase. The current population estimate may be an underestimate by as much as 10 to 50% but a reasonable approximation of the average proportion of horses undetected in surveys throughout western rangelands may be 0.20 to 0.30 (20 to 30%) based on large body of scientific literature reviewed within 2013 National Academy of Sciences (NAS) report (NAS 2013).

3.1.3.10. Wildlife

Terrestrial wildlife resources in the project area are typical of the Northern Great Basin. A wide variety of wildlife species common to the Great Basin ecosystem can be found within the project area. Common large and small wildlife species occurring in the area include mule deer (*Odocoileus hemionus*), pronghorn antelope (*Antilocapra americana*), coyote (*Canis latrans*), blacktail jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus auduboni*), bobcat (*Lynx rufus*), mountain lion (*Felis concolor*) reptiles, and other small mammal species.

Mule Deer - The Humboldt Range provides mule deer with crucial summer and crucial winter habitat within the project area. Mule deer generally feed on forbs, grasses, and shrubs depending on the time of year. Forbs and grasses are most important in spring and summer while shrubs are most utilized during winter and dry summer months.

Pronghorn Antelope – There are areas of year-round pronghorn habitat around the perimeter of the project area and winter range located along the top of the range from Spring Valley to Coal

Canyon. Rangelands with a mixture of grasses, forbs, and shrubs provide the best habitat for pronghorn. Pronghorn seem to prefer habitats with shrub heights between 10-25 inches.

Chapter 4. Environmental Effects:

4.1. Environmental Effects:

Direct impacts are those that result from the actual gather and removal of excess wild horses. Indirect impacts are those impacts that occur once the excess animals are removed. Direct impacts and indirect impacts regarding the Proposed Action (Action Alternatives) and Alternative 2 (No Action) are discussed in each resource section below.

4.1.1. Cultural Resources

Proposed Action

The following actions would have little to no impact to cultural resources: helicopter activity, roping from horseback, and transportation of gathered horses. Gather sites, including bait/water trapping sites if used, temporary holding areas and observation areas are the locations that could potentially impact cultural resources. Direct impacts to cultural resources would not be anticipated because gather sites, temporary holding facilities, and observation areas would be placed in previously disturbed areas, previously inventoried areas with no cultural resources, or would be inventoried for cultural resources prior to construction. Any location where cultural resources are encountered would not be utilized unless the trap or holding site configuration could be repositioned to avoid impacts to cultural resources.

Areas in the vicinity of permanent and intermittent water sources (i.e., riparian areas) have the highest potential for cultural resource sites. Since wild horses concentrate in these areas, soils are most likely to be compacted, increasing runoff and subsequently increasing erosion. Under the proposed action, the removal of excess wild horses would lead to improvements in areas in the vicinity of permanent and intermittent water sources. This would reduce indirect impacts to cultural resources and help to alleviate potential damage in riparian zones where concentrations of wild horses can lead to damage and displacement of artifacts and features as well as erosion of surface cultural deposits containing valuable information. Gather sites and holding areas would not be placed in riparian zones; therefore culturally sensitive areas would not be impacted by these temporary sites.

Alternative 2. No Action

There would be no direct impacts under this alternative. However indirect impacts described above may increase as wild horse populations continue to increase and as higher numbers of wild horses concentrate at riparian areas, thereby disturbing or destroying cultural resources that may be present in these areas.

4.1.2. Invasive-Nonnative Species

Proposed Action

Implementation of the proposed action would have little or no impact to natural resources as a

result of increased noxious weed infestation. Soil disturbance associated with gather sites, including bait/water trapping sites, temporary holding areas, and observation areas would provide the principal opportunities for spread of noxious weeds, and these areas would be monitored and managed for noxious weed infestations. Disturbed soils would be re-vegetated following gather operations which would accelerate recovery of the disturbed site and reduce or eliminate opportunity for noxious weeds to infest the gather operations sites. Wild horses are capable of transporting weed seeds and creating disturbed soils which are conducive to germination and establishment of noxious weeds, and their removal from the Humboldt HA would remove a potential vector of noxious weed spread. Disturbance associated with gather operations would be temporary and would occur in a controlled and managed fashion with a weed management component. Due to the continued presence of other major transport vectors in the area, such as continued livestock use, public vehicle traffic on native surface roads, and current and historical mining disturbances, the removal of wild horses from the Humboldt HA would have a negligible effect on dispersal of invasive species and/or noxious weeds.

Alternative 2. No Action

By not implementing the proposed action, the number of horses within the Humboldt HA would continue to increase over time, eventually leading to overpopulation of the range's carrying capacity with correlated increased impacts to natural vegetation through elevated wild horse grazing levels, and increased disturbance due to increased wild horse traffic. Increased disturbance, particularly in riparian areas, and increased wild horse grazing of existing perennial vegetation would subsequently increase opportunities for noxious weeds and invasive species to further establish and spread within the Humboldt HA. Increased disturbance as a result of unchecked wild horse population growth would be widely dispersed and unmanaged, creating the potential for increased presence of noxious weeds within the Humboldt HA without a responsive weed management strategy.

4.1.3. Migratory Birds

Proposed Action

The project area contains riparian and sagebrush habitats, therefore potential impacts to neo-tropical migrants may be expected. If gather operations are conducted in July or August, nesting birds may be disturbed and abandon their nests. If gather operations are completed September through February, this alternative would not directly impact most migratory birds since the nesting season has been completed. In order to avoid potential impacts to breeding migratory birds from gather sites, a nest survey would be conducted by BLM personnel within potential breeding habitat prior to any surface disturbance proposed during the avian breeding season (March 1st through August 31st); therefore, there would be no direct impacts to nesting birds from the proposed action.

Small areas of migratory bird habitat would be impacted by trampling at trap sites and holding facilities. This impact would be minimal (generally less than 0.5 acre/trap site), temporary, and short-term (two weeks or less) in nature. Birds may be temporarily displaced in areas of noise and activity associated with the horse gather. Indirect impacts would be related to wild horse densities and patterns of use. Removal of the excess wild horse population would provide opportunity for vegetative communities to progress toward achieving a thriving natural ecological balance. The proposed action would support a more diverse vegetative composition and structure through improvement and maintenance of healthy populations of native perennial plants. Habitat improvements would result for migratory bird species including loggerhead shrikes, Brewer's sparrows, sage thrashers, burrowing owls and migratory and resident raptor species. According to

Paige and Ritter (1999), “Long-term heavy grazing may ultimately reduce prey habitat and degrade the vegetation structure for nesting and roosting. Light to moderate grazing may provide open foraging habitat.” These actions are expected to improve habitat for migratory birds by reducing wild horse impacts to rangeland resources.

Competition with wild horses for water at artificial pit reservoirs and water catchments, or natural catchments, would be removed and more water would be available for a longer period of time for the wildlife species dependent on the same source(s).

Alternative 2. No Action

This alternative would have no direct impacts. Indirect impacts would be the continued impacts to vegetative communities by wild horses in the project area. There would also be an increase in herd size within the HA each year that the HA is not gathered and therefore, increasingly heavier impacts to and potential degradation of migratory bird habitat.

4.1.4. Native American Religious Concerns

None of the tribes contacted requested consultation on this proposed action. On past horse gathers, the Fallon and Pyramid lake tribes have been supportive of the gathers since the gathers help improve the health of the range. One concern in past consultation was that the gathers be conducted in the winter or spring before the foaling season. Due to the potential lack of water, they have previously expressed concerns about horse gathers in summer and fall. The Proposed Action would be in conformance with BLM policy which prohibits the gathering of wild horses with a helicopter (unless under emergency conditions) during the period of March 1 to June 30 which includes and covers the six weeks that precede and follow the peak of foaling (mid-April to mid-May). The impacts from the timing of the gather are addressed further in Section 4.1.15, “Wild Horses”.

Proposed Action

No direct impacts to areas of Native American concern would occur because gather sites and holding areas would be placed in previously disturbed areas and/or in areas where there are no known Native American concerns. Indirect impacts from wild horse grazing to plants in riparian zones used by Native Americans for medicinal and other purposes would be reduced.

Alternative 2. No Action

There would be no direct impacts under this alternative. Wild horses would continue to inhabit areas within the project area. As the wild horse population continues to increase and as greater numbers of wild horses concentrate at riparian areas, this could have adverse impacts on plants in riparian zones that are used by Native Americans.

4.1.5. Water Quality (surface and ground)

Proposed Action

Implementation of the proposed action would cause direct and indirect impacts to water quality and quantity.

Movement of wild horses across streams and springs as they are herded to temporary gather sites is a direct impact and can cause increased sediment loading to surface waters. Effects would be very short term (on the order of minutes), may occur multiple times during the duration of helicopter drives (depending on where horses are moving), and would likely be negligible relative

to natural variations in the affected environment. Because the BLM cannot predict the exact course of movements of wild horses during herding, the BLM cannot identify the number of surface water sources or the number of miles of stream that may be impacted.

Removal of wild horses would have direct and indirect impacts to surface water quality. Effects would be long term (the duration of the time period analyzed in this EA) and occur throughout the HA. Removal of wild horses would eliminate a source of biological contaminants (feces, urine, etc.) for surface water sources. Removal of wild horses would also eliminate the utilization and alteration of riparian habitats by wild horses. While PFC data do not indicate a large degree of degradation of riparian habitats in the HA as a whole, it is likely that these habitats would experience a degree of improvement. Improvement of these habitats would lead to increased water quality by increasing shading, which helps moderate water temperature variations, as well as decreasing erosion, which decreases sediment loads. While there is potential for this impact to occur at all of the springs and streams identified throughout the HA, it is likely to mainly occur in localized areas where wild horses have been concentrated. Removal of wild horses from the HA would also eliminate damage from wild horses to the protective fencing located in the area of the Lovelock-Oreana wellhead protection zone. While there wouldn't be an expected impact from removal of horses on the quality of groundwater in this area, the ability of Pershing County to manage the wellhead protection zone would be improved.

Removal of wild horses would have indirect impacts to water quantity. Effects would be long term (the duration of the time period analyzed in this EA) and occur throughout the HA. Removal of wild horses would eliminate the use of stock water by wild horses. With an estimated consumption rate of 10 gallons per adult horse per day, this would reduce consumption of water in the HA by approximately 1,400 gallons per day. While there is potential for this impact to occur at all 48 stock water right locations throughout the HA, it is likely to mainly occur at water sources in localized areas where wild horses have been concentrated.

Water trapping of wild horses would have a direct impact on water quantity. Effects would be short term (one year or less per site used) and be of low magnitude and would occur at each site chosen to be a water trap site. BLM would utilize water (surface or ground) at a rate sufficient to encourage horse use. Because water trapping is expected to be used to gather smaller numbers of wild horses at any given time, large volumes of water would not be required. Water use for the purpose of trapping would not interfere with other water uses permitted by the Nevada State Engineer.

Alternative 2. No Action

Implementation of the No Action Alternative would have indirect impacts on water quality and quantity.

Allowing wild horses to remain within the HA could cause indirect impacts to surface water quality throughout the entire HA. It is expected that the wild horse population within the HA would continue to increase over time. Increasing populations of wild horses can lead to elevated levels of riparian degradation. Riparian degradation within the project area would lead to increased sediment loading (through bank alteration and loss of soil stabilizing vegetation), increased contaminant loading (through introduction of feces or urine), and increased water temperature fluctuations (from loss of vegetative shading).

Implementation of the No Action Alternative would not cause impacts related to additional movement of horse across surface waters during gather operations or cause impacts related to construction or use of temporary gather and holding sites.

Allowing wild horses to remain within the HA could cause indirect impacts to water quantity throughout the entire HA. It is expected that the wild horse population within the HA would continue to increase over time. As the wild horse population increased, the use of water by wild horse would increase. The use of water currently permitted for other uses would also increase, leading to increased public concern. Because the area is managed as an HA it is unlikely that the BLM would be able to obtain permitted water rights to set aside water for wild horse use.

Implementation of the No Action Alternative would not cause impacts related to removal of horses or utilization of water for trapping.

4.1.6. Wetlands and Riparian Zones

Proposed Action

Implementation of the proposed action would cause direct and indirect impacts to riparian and wetland zones.

Movement of horses by helicopter could have direct impacts to riparian and wetland zones. Effects would be short term, may occur multiple times during helicopter drives (depending on where horses are moving), and could occur in any of the riparian or wetland zones within the HA. Herding horses with a helicopter may lead to increased rates of riparian and wetland trampling as horses move across the landscape. This additional trampling would vary in magnitude and the soils and vegetation may be able to recover immediately or may require a full growing season to recover. Because the BLM cannot predict the exact course of movements of wild horses during herding, the BLM cannot specify the number of acres of wetland and riparian zones that may be impacted. While there is potential for this impact to occur at all of the wetland and riparian zones identified throughout the HA, it is likely to mainly occur in localized areas where wild horses have been concentrated.

Removal of wild horses would have direct and indirect impacts to riparian and wetland zones. Effects would be long term (the duration of the time period analyzed in this EA) and occur throughout the HA. Removal of wild horses would eliminate the utilization and alteration of riparian habitats by wild horses. While PFC data do not indicate a large degree of degradation of riparian habitats in the HA, it is likely that these habitats would experience a degree of improvement. This improvement would include recovery of riparian vegetative communities and their soil stabilizing root structures and recovery of natural hydrologic processes. While there is potential for this impact to occur at 1,700 acres of wetland and riparian zones throughout the HA, it is likely to occur mainly in localized areas where wild horses have been concentrated.

Alternative 2. No Action

Implementation of the No Action Alternative would have indirect impacts on wetland and riparian zones.

Allowing wild horses to remain within the HA could cause indirect impacts to wetland and riparian zones throughout the entire HA. It is expected that the wild horse population within the HA would continue to increase over time. Increasing populations of wild horses can lead to elevated levels of riparian degradation. Riparian degradation within the HA could include loss of riparian vegetation, alteration of natural hydrologic flow regimes (from soil compaction, digging at spring sources, stream bank alteration, hummocking, or altered erosion/ deposition patterns), and loss of wetland and riparian soils.

Implementation of the No Action Alternative would not cause impacts related to additional

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movement of wild horses across riparian and wetland zones during gather operations or cause impacts related to activities associated with the gather and removal of wild horses.

4.1.7. Fire Resources — Fuels and Emergency Stabilization and Rehabilitation

Proposed Action

The removal of wild horses would have no direct impacts on fire suppression, fire prevention, fuels management or emergency stabilization and rehabilitation (ES&R). Indirectly, wild horse removal would reduce impacts to ES&R treatments in burned areas where those animals are removed. Native ungulates, cows and wild horses are known to remove forage disproportionately in recently burned and seeded locations. By removing wild horses, fire rehabilitation treatments would receive less impacts from grazing and improved rehabilitation success should occur. Successful fire rehabilitation treatments should lead to improved condition of vegetation over time. There would be no new impacts within treated areas from those ongoing at the time of the gather as the wild horse population would be removed.

Alternative 2. No Action

Wild horse populations would continue to expand and seeded areas would be more vulnerable to over grazing as the excess horse population increases. The severity and extent of impacts would depend on when horses are gathered.

4.1.8. Fisheries

Proposed Action

Direct impacts to fisheries would be minimal, due to the short term duration of the wild horse gather and the minimal fisheries habitat that would be crossed by wild horses during the gather operations. If streams are crossed by the wild horses during the gather, the stream banks could receive greater impacts than under normal wild horse movement crossing a stream due to the speed at which the horses might cross the stream when being herded by the helicopter. Indirect impacts with the removal of the wild horse herd would be a reduction in the long-term impacts of stream bank trampling to the fisheries habitat.

Alternative 2. No Action

With the No Action Alternative, there would be no direct impacts on fisheries from gather operations. Indirect impacts resulting from the wild horses, however, would persist. This population could impact fisheries through stream bank trampling, increased sedimentation, reduced vegetation (herbaceous and woody) cover, and overall reduced riparian/stream habitat condition.

4.1.9. Paleontology

Proposed Action

Direct impacts to paleontological resources from the gather would be avoided by placing proposed gather sites, holding areas and observation in areas where there are no known paleontological sites. Indirect impacts from removal of the horses would be minimal since the horses aren't known to concentrate in areas where paleontological localities are located. Due to the minimal nature of impacts, this resource is not carried forward for further analysis.

Alternative 2. No Action

There would be no impacts to paleontological resources from gather operations. Impacts from trampling and erosion are anticipated to be minimal because concentrations of horses in paleontological localities are not anticipated.

4.1.10. Public Health and Safety

In recent gathers, members of the public have increasingly traveled to the public lands to observe BLM's gather operations. While most members of the public follow BLM's directions which are necessary to ensure the safety of the public, BLM staff, contractors and wild horses during the gathers, a few members of the public have actively taken or attempted to take actions to obstruct or interfere with the wild horse gather operations. These actions consist of driving into unauthorized areas or attempting to enter into or be close to the pens where wild horses are being held following the gather. Members of the public can also inadvertently wander into areas that put them in the path of wild horses that are being herded or handled during the gather operations. Such activities, whether intentional or accidental, not only hamper the gather operations, but more importantly, create the potential for injury to the wild horses and to the BLM employees and contractors conducting the gather and/or handling the horses as well as to the public themselves. Because these horses are wild animals, there is always the potential for injury when individuals get too close to or inadvertently get in the way of gather activities.

The helicopter work is done at various heights above the ground, from as little as 10-15 feet (when herding the animals the last short distance to the gather corral) to several hundred feet (when doing a recon of the area). While helicopters are highly maneuverable and the pilots are very skilled in their operation, unknown and unexpected obstacles in their path can impact their ability to react, creating an extreme safety concern. These same unknown and unexpected obstacles can impact the wild horses being herded by the helicopter in that they may not be able to react in time to avoid members of the public in their path. When the helicopter is working close to the ground, the rotor wash of the helicopter is a safety concern by potentially causing loose vegetation, dirt, and other objects to fly through the air which can strike or land on anyone in close proximity as well as cause decreased vision.

Public observation of the gather activities on public lands would be allowed, subject to restrictions necessary to ensure the health and safety of the public, BLM employees and contractors and the wild horses, and would be consistent with BLM IM No. 2013-058.

Private property has been utilized in previous gathers for gather sites and temporary holding facilities and may be used during this gather if necessary. If private property is utilized during the gather operations BLM would seek to obtain the permission of the private land owner so that BLM personnel can escort public observers to these trap sites.

Proposed Action

Public safety, as well as that of the BLM staff and contractor staff, is a concern during gather operations and is addressed through the implementation of Humboldt HA Gather Observation Protocol (see Appendix B, *Wild Horse Gather Public Observation Protocol*) that has been used in recent gathers to ensure public safety and to not impede gather operations. Appropriate BLM staffing (public affair specialists and law enforcement officers) would be present to assure compliance with visitation protocols at the site. These measures minimize the risks to the health and safety of the public, BLM staff and contractors, and to the wild horses themselves during the gather operations.

When the helicopter is working close to the ground, the rotor wash of the helicopter is a safety concern for members of the public by potentially causing loose vegetation, dirt, and other objects to fly through the air, and can strike or land on anyone in close proximity as well as cause decreased vision. Should a helicopter crash or have a hard landing it is possible that pieces of the helicopter can travel significant distances through the air, which can strike or land on anyone in close proximity. All helicopter operations must therefore be in compliance with distance restrictions set forth in FAA regulations at 14 CFR § 91.119.

During the herding process, wild horses will try to flee if they perceive that something or someone suddenly blocks or crosses their path. Fleeing horses can go through wire fences, traverse unstable terrain, and go through areas that they normally don't travel in order to get away, all of which can lead them to injure people by striking or trampling them if they are in the animals' path.

Disturbances in and around the gather and holding corral have the potential to injure the BLM and contractor staff who are trying to sort, move and care for the wild horses by causing them to be kicked, struck, and possibly trampled by the animals trying to flee. Such disturbances also have the potential to harm members of the public if they are in too close in proximity to the wild horses or cause a horse to get spooked and injure itself as it reacts to such disturbances.

Alternative 2. No Action

Under the No Action Alternative, the gather would be deferred. There would be no safety concerns to BLM employees, contractors and the general public as no gather activities would occur.

4.1.11. Rangeland Management

Proposed Action

Under the Proposed Action removal of excess wild horses would provide a greater opportunity for water and vegetative resources to recover relative to the No Action Alternative. Another direct impact to livestock from the Proposed Action is gather activities and operations could disturb or disperse livestock in order to keep them out of the water/bait trap. This direct impact would be minor and short-term in nature. Indirect impacts of the Proposed Action on livestock would be reduced competition for forage and water resources due to the absence of excess wild horses in the HA.

Alternative 2. No Action

There would be no direct impacts to livestock from gather operations under the No Action Alternative. Utilization by authorized livestock would continue to be directly impacted by excess

wild horses inside the Humboldt HA. The indirect impacts of the No Action Alternative would consist of continued resource deterioration resulting from competition between wild horses and livestock for water and forage, reduced quantity and quality of forage, and undue hardship on the livestock operators, due to the inability to graze livestock on public lands within the grazing allotments as a result of competition for limited waters or the consumption by excess wild horses of forage allocated to livestock under the operative land-use plans and prior multiple use decisions.

4.1.12. Soils

Proposed Action

Direct impacts associated with the action alternatives would consist of disturbance to soil surfaces immediately in and around the temporary bait/water trap site(s) and holding facilities. Impacts would be created by vehicle traffic and hoof action as a result of concentrating horses, and could be locally high in the immediate vicinity of the temporary bait/water trap site(s) and holding facilities. Generally, these sites would be small (less than one half acre) in size. Any impacts would remain site specific and isolated in nature.

In addition, most temporary bait/water trap sites and holding facilities would be selected to enable easy access by transportation vehicles and logistical support equipment. Normally, these gather sites are located near or on roads, pullouts, water haul sites or other flat areas, which have been previously disturbed. These common practices would minimize the potential impacts to soils.

Indirect impacts of implementing the proposed alternative and from reduced concentrations of wild horses would be reduced soil erosion within the Humboldt HA. This reduction in soil erosion would be most notable and important in the vicinity of riparian zones.

Alternative 2. No Action

No direct impacts are expected under this alternative. Indirect impacts are expected since herd areas are not managed for wild horses; therefore, there are no resources allocated for their use. As the wild horse population increases in the Humboldt HA, soil loss from wind and water erosion and invasion of undesired plant species could result from heavy trailing and over-utilization of vegetation as perennial native grasses are unable to survive. This loss would be most notable in the vicinity of small spring meadows and other water sources with high levels of wild horse use.

4.1.13. Special Status Species

Proposed Action

Special Status Migratory Birds and Raptors - Impacts to special status migratory birds (including raptors) would be the same as those discussed under Chapter 4.3 Migratory Birds.

Bats – The proposed action would have positive indirect impacts to bats that depend upon flying insects primarily associated with riparian zones. Flying insect populations would be expected to increase as riparian meadows become more productive and stubble heights increase, creating favorable micro sites for insects. Increased insect production would be expected to provide increased foraging opportunities for resident and migratory bats. No direct impacts are expected for bats under these alternatives.

Special Status Plants – The three of the special status plants (Goodrich biscuitroot, Holmgren smelowskia, and Owyhee prickly phlox) are found on steep rocky substrates and would not be impacted by the proposed action as they grow in areas that are most likely inaccessible by wild horses. These plants would not be affected by temporary trap sites either as the terrain where they are located is considered to be inaccessible for trap sites.

Lahontan beardtongue, windloving buckwheat and obscure scorpionflower may benefit from the proposed action as removing wild horses would remove a source of disturbance (trampling and grazing) for these species. This is especially critical for the obscure scorpionflower which is only known to occur on the Humboldt Range in northern Nevada. Since a special status plant inventory would be required prior to setting up a trap site in known habitat for these three species, no direct impacts from constructing traps are expected.

Pygmy Rabbit - A slight chance of damage to pygmy rabbits and their burrows could occur due to trampling by wild horses. Rabbit behavior may be disrupted due to noise from the low-flying helicopter and running wild horses. Potential indirect impacts to pygmy rabbits would include increased herbaceous cover under existing stands of big sagebrush used as pygmy rabbit habitats. Removal of wild horses would decrease physical damage to tall sage-brush plants that screen rabbit burrows and decrease hoof damage to burrows.

Sage-Grouse - During proposed gather dates, sage grouse would have completed chick-rearing and would have moved to their wintering habitats. Temporary disturbance to sage grouse associated with helicopter over flights and cowboys on horseback may occur but would have no measurable impacts. Therefore, no direct impacts are anticipated.

Increased herbaceous cover would result from decreased forage usage by excess wild horses. Herbaceous cover is needed for screening of sage-grouse nests and to provide sage-grouse with forage plants on breeding and summer habitats. Wild horses are affecting sage-grouse habitat through heavy utilization of upland grasses and meadows used by sage-grouse for nesting and summer brood rearing. Increased herbaceous cover on spring meadows would improve summer brooding habitats by increasing the availability of high quality herbaceous vegetation and increasing the availability of insects associated with riparian meadows.

Springsnails – Springsnails may benefit from the proposed action as removing wild horses would remove a potential source of disturbance (trampling) for these species.

Alternative 2. No Action

No direct impacts to special status wildlife are expected under this alternative. Maintaining the existing excess wild horse numbers within the Humboldt HA, which would continue to increase as a result of population growth, would result in continued indirect impacts to sensitive wildlife populations and habitats. Wild horse populations would increase approximately 15% each year that the gather is postponed. Upland habitats would continue to see an increase in utilization levels associated with wild horse use which would expand as wild horse populations continue to grow.

Special status plants may be directly impacted by wild horses under the No Action Alternative. As wild horse populations increase the likelihood of these plants being grazed by wild horses also increases.

If excess wild horses are not removed, continued wild horse grazing would occur on spring meadow systems that serve important habitat functions for sensitive species. Sage-grouse brooding habitats would continue to be impacted by wild horses. Insect production, important for bats and sage-grouse, would continue to be substantially less than potential.

4.1.14. Vegetation

Proposed Action

Direct impacts associated with the action alternatives would consist of disturbance to vegetation immediately in and around the temporary bait/water trap site(s) and holding facilities. Impacts would be created by vehicle traffic and hoof action as a result of concentrating horses at the gather site, and could be locally high in the immediate vicinity of the temporary bait/water trap site(s) and holding facilities. Generally, these sites would be small (less than one half acre) in size. Any impacts would remain site specific and isolated in nature. These impacts would include trampling of vegetation.

In addition, most temporary bait/water trap sites and holding facilities would be selected to enable easy access by transportation vehicles and logistical support equipment. Normally, they are located near or on roads, pullouts, water haul sites or other flat areas, which have been previously disturbed. These common practices would minimize the long-term effects of these impacts.

Implementation of the action alternative would remove the current wild horse population resulting in decreased harvest of vegetation and prevent over-grazing. Competition for forage among wild horses, wildlife, and livestock would be reduced as utilization levels decrease and rangeland health improves; thereby promoting healthier habitat. Allotment specific utilization objectives would not be exceeded. Removal of wild horses could contribute to the recovery of the vegetative resource. Physical damage to shrubs and herbaceous vegetation associated with the physical passage of horses would decrease.

Alternative 2. No Action

There would be no direct impacts expected under this alternative.

Indirect impacts include increased competition for forage among multiple-users of the range as wild horse populations continue to increase. As a result of the increasing wild horse populations, wild horses would trail farther out from limited waters to foraging areas, subsequently broadening the areas receiving grazing or trailing use. The Humboldt HA is not managed for wild horses; therefore, no forage has been allocated for their use. Forage utilization by wild horses could

exceed the capacity of the range, resulting in a loss of desired forage species from plant communities as plant health and watershed conditions deteriorate. Abundance and long-term production potential of desired plant communities may be compromised and native vegetative loss could become irreversible in some areas, potentially precluding the return of these vegetation communities to their full potential as identified in ecological site descriptions published by the Natural Resource Conservation Service.

4.1.15. Wild Horses

Proposed Action

Impacts to wild horses under the Proposed Action would be both direct and indirect, occurring on both individual animals and the population as a whole.

Capturing Wild Horses

The BLM has been gathering excess wild horses from public lands since 1975 and has been using helicopters for such gathers since the late 1970s. Refer to Appendix A, *Standard Operating Procedures (Gather Operation)* and IM 2013-059 “Wild Horse and Burro Gathers: Comprehensive Animal Welfare Policy” for information about methods that are utilized to reduce injury or stress to wild horses during gathers. Since 2004, BLM Nevada has gathered over 40,000 excess animals. Of these, gather related mortality has averaged 0.5%, which is very low when handling wild animals. Another 0.6% of the animals captured were humanely euthanized due to pre-existing conditions and in accordance with BLM policy. This data affirms that the use of helicopters and motorized vehicles are a safe, humane, effective and practical means for gathering and removing excess wild horses from the range.

Injuries sustained by wild horses during gathers include nicks and scrapes to legs, face, or body from brush or tree limbs while being herded to the trap corrals by the helicopter. Rarely, wild horses may encounter barbed wire fences and receive wire cuts. These injuries are generally not fatal and are treated with medical spray at the holding corrals until a veterinarian can examine the animal. During the actual herding of wild horses with a helicopter, injuries are rare, and consist of scrapes and scratches from brush, or occasionally broken legs from wild horses stepping into a rodent hole. Serious injuries requiring euthanasia could be anticipated to occur in 1-2 wild horses per every 1,000 captured based on prior gather statistics. If a gather were to be implemented additional care and monitoring would be planned to ensure pregnant mares and foals were appropriately cared for.

Though some members of the public have expressed the view that helicopter gathers are not humane, most injuries occur once the wild horses are captured, and similar injuries would also be sustained if wild horses were captured through a more passive gather method such as bait/water trapping, as the animals would still need to be sorted, aged, transported and otherwise handled.

Water/Bait Trapping

Bait and/or water trapping generally require a long window of time for success. Although the trap would be set in a high probability area for capturing excess wild horses residing within the area and at the most effective time periods, time is required for the wild horses to acclimate to the trap and/or decide to access the water/bait.

Trapping involves setting up portable panels around an existing water source or in an active wild horse area, or around a pre-set water or bait source. The portable panels would be set up to allow

wild horses to go freely in and out of the corral until they have adjusted to it. When the wild horses fully adapt to the corral, it is fitted with a gate system. The acclimatization of the wild horses creates a low stress trap. During this acclimation period the wild horses would experience some stress due to the panels being setup and perceived access restriction to the water/bait source.

When actively trapping wild horses, the trap would be manually closed by BLM or contractor staff or if designed to allow the animals to self-trap using spring gates, the trap would be checked on a daily basis. Wild horses would be either removed immediately or fed and watered for up to several days prior to transport to a holding facility. Existing roads would be used to access the trap sites.

Gathering of the excess wild horses utilizing bait/water trapping could occur at any time of the year and would extend until all of the wild horses residing within the HA boundaries are removed. Generally, bait/water trapping is most effective when a specific resource is limited, such as water during the summer months. For example, in some areas, a group of wild horses may congregate at a given watering site during the summer because there are no other water resources available nearby. Under those circumstances, water trapping could be a useful means of gathering wild horses at a given location, which can also relieve the resource pressure caused by too many wild horses. As the proposed bait and/or water trapping in this area is generally a lower stress approach to gathering of wild horses, such trapping can continue into the foaling season without harming the mares or foals. Conversely, it has been documented that at times water trapping could be stressful to wild horses due to their reluctance related to approaching new, human structures or intrusions. In these situations, wild horses may avoid watering or may travel greater distances in search of other watering sources. Water trap sites would be monitored to assure wild horse mortality does not occur.

Environmental Stressors

Gathering wild horses during the winter months can minimize the risk of heat stress, although heat stress can occur at any time of year during any gather, especially in older or weaker animals. Although there may be more potential for heat stress during a gather conducted in the summer months, adherence to the SOPs and techniques used by the gather contractor help minimize the risks of heat stress. Heat stress does not occur often, but if it does, death can result. Most temperature related issues during a gather (including heat stress) can be mitigated or minimized by adjusting daily gather times to avoid the extreme hot or cold periods of the day. The BLM and the contractor would be pro-active in controlling dust in and around the holding facility and the gather corrals to limit the wild horses' exposure. Electrolytes can be administered to the drinking water during gathers that involve animals in weakened conditions or during summer gathers. Additionally, BLM staff maintains supplies of electrolyte paste if needed to directly administer to an affected animal. The Humboldt HA gather operations SOPs are designed to minimize stress of wild horses associated with distance and speed of travel.

Sorting and Transporting Wild Horses

Most injuries are sustained once the wild horse has been captured and is either within the trap corrals or holding corrals, or during transport between the facilities and during sorting. These injuries result from kicks and bites, and from animals making contact with corral panels or gates. Transport and sorting is completed as quickly and safely as possible to reduce the occurrence of fighting and to move the wild horses into the large holding pens where they can settle in with hay and water. Injuries that may be experienced by wild horses during transport and sorting consist of superficial wounds of the rump, face, or legs. Despite precautions, occasionally a wild horse may

rear up or make contact with panels hard enough to sustain a fatal neck break, though such incidents are rare. There is no way to reasonably predict any of these types of injuries. On many gathers, no wild horses are injured or die. Due to the genetic background of wild horses, some are not as calm as others and injuries may occur. Overall, however, injuries and death are not frequent and usually average less than 0.5% of the gathered population.

Through the capture and sorting process, wild horses are examined for health status, injury and other defect. Decisions to humanely euthanize animals in field situations would be made in conformance with BLM policy. BLM Euthanasia Policy IM-2009-041 is used as a guide to determine if animals meet the criteria and should be euthanized (refer to Appendix A, *Standard Operating Procedures (Gather Operation)*). Animals that are euthanized for non-gather related reasons include those with old injuries (broken hip, leg) that have caused the animal to suffer from pain or prevents them from being able to travel or maintain body condition; old animals that have lived a successful life on the range, but now have few teeth remaining (dental regression or breakage), are in poor body condition, or are weak from old age; and wild horses that have congenital (genetic) or serious physical defects such as club foot, or sway back and would not be successfully adopted, or should not be returned to the range.

Wild Horses Response to Handling

Impacts to individual animals may occur as a result of handling stress associated with the gathering, processing, and transportation of animals. The intensity of these impacts varies by individual animal and is indicated by behaviors ranging from nervous agitation to physical distress. Mortality to individuals from handling is infrequent but does occur in 0.5% to 1% of wild horses gathered in a given gather.

The wild horse is a very adaptable animal and assimilates into the environment with new members quite easily. Observations made following completion of gathers shows that captured wild horses acclimate quickly to the holding corral situation, becoming accustomed to water tanks and hay, as well as human presence.

Indirect individual impacts are those impacts which occur to individual wild horses after the initial stress event, and may include spontaneous abortions in mares, and increased social displacement and conflict in stallions. These impacts, like direct individual impacts, are known to occur intermittently during wild horse gather operations. An example of an indirect individual impact would be the brief skirmish which occurs among older stallions following sorting and release into the stallion pen, which lasts less than a few minutes and ends when one stallion retreats. Traumatic injuries usually do not result from these conflicts. These injuries typically involve a bite and/or kicking with bruises which do not break the skin. Like direct individual impacts, the frequency of occurrence of these impacts among a population varies with the individual animal.

Spontaneous abortion events among pregnant mares following capture is also rare, though poor body condition can increase the incidence of such events. Given the timing of this gather, spontaneous abortion is not considered to be an issue for the proposed gather.

Foals are often gathered that were orphaned on the range (prior to the gather) because the mother rejected it or died. These foals are usually in poor, unthrifty condition. Orphans encountered during gathers are cared for promptly and rarely die or have to be euthanized.

Temporary Holding Facilities During Gathers

Wild horses that are gathered would be transported from the gather sites to a temporary holding

corral within the Humboldt HA in goose-neck trailers. At the temporary holding corral wild horses would be sorted into different pens based on sex, age class and health status. The wild horses would be provided good quality hay and water. Mares and their un-weaned foals would be kept in pens together. Wild horses are initially nervous in new surroundings which results in the need to keep visitors and extra personnel at a safe distance from pens to allow the animals to settle down and to water and feed. At the temporary holding facility, a veterinarian, when present, would provide recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Any animals affected by a chronic or incurable disease, injury, lameness or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital or developmental abnormalities) would be humanely euthanized using methods acceptable to the American Veterinary Medical Association (AVMA).

Transport, Short Term Holding, and Adoption Preparation

Wild horses removed from the range would be transported to the receiving short-term holding facility in a goose-neck stock trailer or straight-deck semi-tractor trailers. Trucks and trailers used to haul the wild horses would be inspected prior to use to ensure wild horses can be safely transported. Wild horses would be segregated by age and sex when possible and loaded into separate compartments. Mares and their un-weaned foals may be shipped together. Transportation of recently captured wild horses is limited to a maximum of 12 hours. During transport, potential impacts to individual wild horses can include stress, as well as slipping, falling, kicking, biting, or being stepped on by another animal. Unless wild horses are in extremely poor condition, it is rare for an animal to die during transport.

Upon arrival, recently captured wild horses are off-loaded by compartment and placed in holding pens where they are provided good quality hay and water. Most wild horses begin to eat and drink immediately and adjust rapidly to their new situation. At the short-term holding facility, a veterinarian provides recommendations to the BLM regarding care, treatment, and if necessary, euthanasia of the recently captured wild horses. Any animals affected by a chronic or incurable disease, injury, lameness or serious physical defect (such as severe tooth loss or wear, club foot, and other severe congenital or developmental abnormalities) would be humanely euthanized using methods acceptable to the AVMA. Wild horses in very thin condition or animals with injuries are sorted and placed in hospital pens, fed separately and/or treated for their injuries. Recently captured wild horses, generally mares, in very thin condition may have difficulty transitioning to feed. A small percentage of animals can die during this transition; however, some of these animals are in such poor condition that it is unlikely they would have survived if left on the range.

After recently captured wild horses have transitioned to their new environment, they are prepared for adoption or sale. Preparation involves freeze-marking the animals with a unique identification number, vaccination against common diseases, castration, and de-worming. During the preparation process, potential impacts to wild horses are similar to those that can occur during transport. Injury or mortality during the preparation process is low, but can occur.

At short-term corral facilities, a minimum of 700 square feet is provided per animal. Mortality at short-term holding facilities averages approximately 5% (USGAO 2008) including animals euthanized due to a pre-existing condition, animals in extremely poor condition, animals that are injured and would not recover, animals which are unable to transition to feed, and animals which die accidentally during sorting, handling, or preparation. As of February 2014, approximately 16,000 excess wild horses are being maintained within BLM's short-term holding facilities.

Adoption

Adoption applicants are required to have at least a 400 square foot corral with panels that are at least six feet tall. Applicants are required to provide adequate shelter, feed, and water. The BLM retains title to the wild horse for one year and the wild horse and facilities are inspected. After one year, the applicant may take title to the wild horse at which point the wild horse becomes the property of the applicant. Adoptions are conducted in accordance with 43 CFR § 5750.

Sale with Limitation

Buyers must fill out an application and be pre-approved before they may buy a wild horse. A sale-eligible wild horse is any animal that is more than 10 years old or has been offered unsuccessfully for adoption at least three times. The application also specifies that all buyers are not to sell to slaughter buyers or anyone who would sell the animals to a commercial processing plant. Sales of wild horses are conducted in accordance with the WFRHBA and congressional limitations.

Long-Term Grassland Pastures

Since fiscal year 2008, the BLM has removed over 37,400 excess wild horses from the Western States. Most animals not immediately adopted or sold have been transported to long-term grassland pastures in the Midwest.

Potential impacts to wild horses from transport to adoption, sale or long-term grassland pastures (LTP) are similar to those previously described. One difference is that when shipping wild horses for adoption, sale or LTP, animals may be transported for up to a maximum of 24 hours. Immediately prior to transportation, and after every 24 hours of transportation, animals are offloaded and provided a minimum of 8 hours on-the-ground rest. During the rest period, each animal is provided access to unlimited amounts of clean water and two pounds of good quality hay per 100 pounds of body weight with adequate bunk space to allow all animals to eat at one time. The rest period may be waived in situations where the anticipated travel time exceeds the 24-hour limit but the stress of offloading and reloading is likely to be greater than the stress involved in the additional period of uninterrupted travel.

LTPs are designed to provide excess wild horses with humane, and in some cases, life-long care in a natural setting off the public rangelands. There, wild horses are maintained in grassland pastures large enough to allow free-roaming behavior and with the forage, water, and shelter necessary to sustain them in good condition. As of February 2014, about 33,550 wild horses are in excess of the current adoption or sale demand (because of age or other factors such as economic recession) are currently located on private land pastures in Oklahoma, Kansas, Iowa, South Dakota, Nebraska, and Montana. (BLM 2013). Establishment of LTPs was subject to a separate NEPA and decision-making process. Located in mid or tall grass prairie regions of the United States, these LTPs are highly productive grasslands compared to the more arid western rangelands. These pastures comprise about 256,000 acres (an average of about 10-11 acres per animal).

Mares and sterilized stallions (geldings) are segregated into separate pastures except at one facility where geldings and mares coexist. Although the animals are placed in LTP, they remain available for adoption or sale to qualified individuals; and foals born to pregnant mares in LTP are gathered and weaned when they reach about 8-12 months of age and are also made available for adoption. The LTP contracts specify the care that wild horses must receive to ensure they remain healthy and well-cared for. Handling by humans is minimized to the extent possible although regular on-the-ground observation by the LTP contractor and periodic counts of the wild horses to

ascertain their well-being and safety are conducted by BLM personnel and/or veterinarians. A small percentage of the animals may be humanely euthanized if they are in very poor condition due to age or other factors. Although wild horses residing on LTP facilities live longer, on the average, than wild horses residing on public rangelands, natural mortality of wild horses in LTP averages approximately 8% per year, but can be higher or lower depending on the average age of the wild horses pastured there (USGAO 2008).

Euthanasia or Sale Without Limitation

While euthanasia and sale without limitation has been limited by Congressional appropriations, it is allowed under the WFRHBA. Neither option is available for wild horses under the Department of the Interior's fiscal year 2013 budgetary appropriations. Although the appropriations restrictions could be lifted in future appropriations bills, it would be contrary to Departmental policy to euthanize or sell without limitations healthy excess wild horses.

Alternative 2. No Action

Under the No Action alternative, excess wild horses would not be removed from areas within the HA. Wild horse populations would continue to increase at an average rate of 15% per year. Without a gather and removal now, the wild horse population in the Humboldt HA would exceed 900 wild horses in 10 years based on population annual reproduction rate estimates. These population levels would continue to exceed the carrying capacity of the range and be contrary to the management objectives for these public lands.

The increasing population of wild horses under the No Action alternative would over-extend and deplete water and forage resources. Excessive utilization, trampling, and trailing by wild horses would further degrade the vegetation, prevent improvement of range that is already in less than desirable or in degraded condition, would degrade currently healthy rangelands, and would not allow for sufficient availability of forage and water for either wild horses or other ungulates, especially during drought years or severe winter conditions.

Throughout the lands administered by the WD, few predators exist to control wild horse populations. Some mountain lion predation occurs, but does not appear to be substantial. Coyote are not prone to prey on wild horses unless wild horses are very young or extremely weak. Other predators such as wolf or bear do not exist within the WD.

Wild horses are a long-lived species with documented foal survival rates exceeding 95%. Survivability rates collected through research efforts are as follows:

Pryor Mountain Wild Horse Range, Montana: >95%; 15 years and younger, except for foals, both sexes: 93%;

Granite Range HMA, Nevada: >95%; 15 years and younger, except for male foals: 92%;

Garfield Flat HMA, Nevada: > 95%; 24 years and younger, except both foals, both sexes: 92%.

Wild horses are not a self-regulating species and would continue to reproduce until their habitat can no longer support them. Usually the habitat is severely, if not irreversibly, damaged before the wild horse population is abruptly impacted and experiences substantial death loss. Once the vegetative and water resources are at these critically low levels due to excessive utilization by an

over population of wild horses, the weaker animals, generally the older animals and the mares and foals, are the first to be impacted. It is likely that a majority of these animals would die from starvation and dehydration. The resultant population would be heavily skewed towards the stronger stallions which would lead to substantial social disruption. Fighting among the wild horse stallions would increase as they protect their position at scarce water sources and their harems, and injuries and death to all age classes of animals would be anticipated. By managing the public lands in this way, the vegetative and water resources would be impacted first and to the point that they have no potential for recovery.

Trampling and trailing damage by wild horses in/around riparian areas would also be expected to increase, resulting in larger, more extensive areas of bare ground. Continued decline of rangeland health and irreparable damage to vegetative, soil and riparian resources, would have obvious impacts to the future of the HA and all other users of the range's resources. Competition for the available water and forage between wild horses, domestic livestock, and native wildlife would increase. Continued decline of rangeland health and irreparable damage to vegetative, soil and riparian resources, would have obvious impacts to the future of the HA and all other users of the resources, which depend upon them for survival. As a result, the No Action Alternative would not ensure healthy rangelands that would allow for the management of a healthy wild horse population, and would not promote a thriving natural ecological balance.

As populations increase beyond the capacity of the habitat to sustain them, more bands of wild horses would leave the boundaries of the HA in search of forage and water. This alternative would also result in increasing numbers of wild horses in areas not designated for their use, and would not achieve the stated objectives for wild horse herd areas to "prevent the range from deterioration associated with overpopulation" (WFRHBA).

4.1.16. Wildlife

Proposed Action

In addition to direct impacts previously analyzed for Migratory Bird and Special Status Species, direct impacts would consist primarily of disturbance and displacement to wildlife by the low-flying helicopter, running wild horses and construction of temporary trap/holding facilities. Typically, the natural survival instinct of wildlife to this type of disturbance is to flee from the perceived danger. These impacts would be minimal, temporary, and of short duration. There is a slight possibility that non-mobile or site-specific animals would be trampled.

Implementation of the Proposed Action would remove competition for available cover, space, forage, and water between wild horses and other wildlife. Removing the wild horse population would eliminate conflicts between wild horses and wildlife at limited water sources. Reduced harvest of vegetation would result in increased plant vigor, production, seedling establishment, and ecological health of important wildlife habitat. Resident populations of mule deer and pronghorn antelope would benefit from an increase in forage availability, vegetation density, and structure.

See Section 4.1.3, "Migratory Birds" for further effects on wildlife species that would occur with the reduction of water use as a result of removing wild horses.

Alternative 2. No Action

No direct impacts are expected under this alternative. Maintaining the current numbers of excess wild horses on the range and augmented by yearly population growth, would result in continued impacts to wildlife populations and habitats. Wild horse populations would increase by about

15%. Upland habitats would continue to see locally heavy levels of utilization associated with wild horse use which would expand as wild horse populations continue to grow. The associated decrease in herbaceous vegetation would reduce wildlife forage availability and quality, decrease nesting and thermal cover, and potential decreasing population levels. Wildlife habitat would also continue to be impacted by the physical action of wild horse movement.

If excess wild horses are not removed, continued wild horse grazing would occur on spring meadow systems that serve important habitat functions for wildlife species. The result would be to decrease water availability, leading to increased competition for this critical resource. Increasing wild horse populations would continue to concentrate and trample riparian areas, thereby degrading riparian habitats and the important functions these sites represent for many wildlife species.

4.2. Cumulative Effects

The NEPA regulations define cumulative impacts as impacts on the environment that result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR 1508.7). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

The Cumulative Assessment Area (CAA) for the purpose of this analysis is the Humboldt HA (refer to Map 1). The length of time considered for the cumulative impact analysis is based on the potential impacts to the resource from the proposed action of the proposed gather in July of 2013 and any potential follow-up bait trapping activities that may occur within ten years of the initial gather.

4.2.1. Past and Present Actions

On the basis of aerial photographic data, BLM Legacy Rehost 2000 database (which records lands and mineral actions) report ran on February 4, 2013, current agency GIS records and analysis, the following past and present actions, which have impacted the assessment area to varying degrees, have been identified: agricultural development, livestock grazing, residential development, transportation and access, right-of-ways and mineral resources.

Agricultural Development – The cultivation of crops, such as alfalfa, wheat, barley and oats, is a prominent activity on private land within the assessment area. The analysis of aerial imagery indicates that approximately 1,800 acres or about 0.42 percent of the assessment area are currently under agricultural production. On some parcels, this level of production is supported by substantial irrigation facilities and associated utilities.

Lands and Realty - According to BLM records, LR 2000, GIS data, past and present lands actions that have impacted the cumulative assessment area to varying degrees are: transportation and access (use and maintenance of roads and trails), development of utilities (power lines, natural gas line, fiber optic lines, communication sites), water pipelines, and easements across private lands.

Transportation and access – Interstate 80 defines the western edge of the Humboldt HA. Past and present actions within the assessment area are supported by an extensive transportation system. Most of these roads originated from mining exploration or ranching access and few are regularly maintained.

Utilities - Power lines, and other various land authorizations identified above, traverse the assessment area and have been in place for many years. Periodic maintenance to the existing facilities has resulted in some temporary vegetation removal and short term disturbance to wild horses due to human presence.

Livestock Grazing – Forage utilization during the 1900s was high when thousands of cattle, sheep, and horses grazed lands in northern Nevada. In the 1930s when overgrazing threatened to reduce Western rangelands to a dust bowl, Congress approved the TGA in 1934, which for the first time regulated grazing on public lands. The TGA required ranchers who grazed horses or livestock on public lands to have a permit and to pay a grazing fee, but by that time, thousands of wild horses roamed the Nevada desert unbranded and unclaimed.

Prior to the TGA, livestock grazing practices resulted in major impacts to soil resources and the vegetation communities they supported. As a result, historic livestock grazing activities prior to the TGA had significant impacts on the vegetation resources within the impact assessment area by eliminating or greatly reducing the primary understory plants. Cheat grass was introduced into the area in the early 1900s.

Prior to the TGA, livestock grazing practices also significantly impacted wetland and riparian zones. Wetland and riparian zones declined, riparian vegetation was insufficient to dissipate energy or to filter sediments, thereby increasing erosion and destabilizing stream banks and meadows. Destabilization of streams and meadows led to incised channels and gullies resulting in lowered water tables. In an effort to prevent adverse impacts to rangeland health and to support and better distribute livestock on the public range, a variety of range improvement projects have been implemented through the years dating back to the 1930s.

Within the Humboldt HA there are portions of seven grazing allotments: Coal Canyon, Humboldt

House, Prince Royal, Rawhide, South Rochester, Rye Patch and Star Peak totaling approximately 400,000 acres or about 93% of the HA.

Mineral Resources – There has been mining activity within the cumulative impact assessment area since the 1870s. These were open pit or underground mines initiated to produce gold, silver, tungsten, mercury, antimony, gypsum, lead, clay, fluorspar, salt or iron. Some of these operations ended prior to current reclamation requirements and it is unlikely that any of these mining-related disturbances were reclaimed, although natural re-vegetation over time may have partially reclaimed some disturbances.

Currently in the Humboldt HA there are approximately six active mining and exploration operations totaling approximately 21,200 acres (Coeur Rochester, Standard, Florida Canyon, Willard, Relief Canyon and Spring Valley). Approximately sixty exploration operations have been authorized under Notices and Exploration Plans of Operations as described in the surface management regulations at 43 CFR 3809. Approximately sixteen gravel pits totaling approximately 6,400 acres are located within the Humboldt HA. Surface disturbance is required to be reclaimed as soon as practical.

There are two geothermal permits (Presco Energy and New York Canyon) within the CAA. The total disturbance of geothermal facilities within the Humboldt HA is 836 acres with Presco (Humboldt House) accounting for 81 acres and TGP (NYC) for 755 acres. These geothermal projects allow for geothermal exploration authorized activities including drilling

up to fifteen 10,000-foot deep observation wells, erecting a plant, and power lines.

Wildlife Guzzlers – Wildlife guzzlers are permanent installations which capture rainwater and retain it on site in a reservoir for use by wildlife. There are fourteen wildlife guzzlers within the HA. Twelve are owned by NDOW and two are owned by Florida Canyon. Thirteen of the guzzlers are designed to be accessible only to small game (chuckar, etc.) and one is designed to allow use by big game (deer, etc.). None of the guzzlers are designed in a way which would allow use by wild horses or livestock.

Recreation - Recreation resources that exist in the area are mainly outdoor recreation, wildlife watching/photography, wild horse watching/photography, rock hounding and hunting for both large and small game. Visitor use levels range from extremely low in winter, low to moderate in the summer, and peak in the fall during hunting seasons with season opening weekends having the highest visitation of the year.

Residential Development – Residential development in the area is concentrated in the towns of Unionville and Imlay with a smaller residential area at Humboldt River Ranch Estates. Population in 2010 was 2,147 (U.S. Census Bureau 2010).

Wildland Fire - Wildfires have impacted the assessment areas in recent years resulting in large areas dominated by cheatgrass. Natural recovery of native vegetation has been slow and efforts to re-establish native vegetation have had minimal success. The BLM database currently shows there have been 47 fires since the last gather in 1993 with approximately 62,310 acres impacted within the Humboldt HA.

4.2.2. Reasonably Foreseeable Future Actions

Past and present actions identified above are likely to persist through the next 10 years. In addition to these activities, the following actions are likely to occur within the 10-year time frame.

Lands and Realty Actions

Several road and one communication site rights-of-way (ROWs) are currently pending evaluation by the BLM. It is expected Terra Gen Power will submit an application for a transmission ROW associated with proposed New York Canyon geothermal plant.

Rangeland Management

Over the next 5-10 year period livestock grazing is expected to continue at similar stocking rates for cattle and sheep with annual fluctuations in response to drought and other climatic factors. Grazing permits associated with the grazing allotments within the Humboldt HA may be evaluated for renewal over the next ten years.

Mineral Resources

Expansions are proposed at the Coeur Rochester and Florida Canyon mines.

Recreation

Recreational use is expected to increase an average of 5 percent annually as a result of such factors as population growth and family oriented activities. (Winnemucca RMP AMS, 2005).

Wildland Fire

While the occurrence of wildfire is unpredictable, it is likely based on historical patterns, that wildfire would again burn parts of the assessment area. BLM fire management policy states that wildfire would be aggressively suppressed, which makes it likely that suppression techniques such as the construction of dozer lines, the cross-country travel of engines, the implementation of retardant drops, and the establishment of base camps for fire fighters are reasonably foreseeable.

Depending on the severity of the fire, and the nature of topography and soils, it is also reasonably foreseeable that some combination of rehabilitation and stabilization treatments such as dozer line stabilization, road repair, the construction of erosion or sediment control structures, the repair of damaged range improvements and facilities, drill and/or aerial seeding, range closures, greenstripping and nonnative weed control would be implemented.

The BLM is currently reviewing a proposed land use permit for a fire suppression facility near the

Rye Patch Reservoir that would be located within the boundary of the assessment area.

4.2.3. Cumulative Impacts

Impacts associated with past, present, and reasonably foreseeable future actions are generally created by ground or vegetation-disturbing activities that affect natural and cultural resources in various ways. Of particular concern is the accumulation of these impacts over time. This section of the EA considers the nature of the cumulative effect and analyzes the degree to which the alternatives contribute to the collective impact.

Due to the similar cumulative impacts to Migratory Birds, Special Status Species and Wildlife, these resources are lumped into one section for analysis in this section.

4.2.3.1. Cultural Resources

Impacts from Past and Present Actions

Past actions have been known to damage or destroy cultural resources where the actions have occurred in areas of high cultural resource sensitivity. Early mining, grazing, range improvements, fire suppression activities, road construction/maintenance and accompanying gravel pits, and off-highway vehicle (OHV) use have caused these types of impacts to cultural resources. Since many Great Basin prehistoric sites are surface or near surface sites, any ground disturbing activities destroy site integrity, spatial patterning and site function. Datable organic features are either destroyed or contaminated. This kind of damage and contamination can result from concentration of grazing animals (livestock and wild horses), use and maintenance of roads and trails, development and maintenance of utilities (power lines, natural gas lines, fiber optic lines, communication sites, water pipelines), and recreational activities such as off-highway vehicle use. These types of impacts have generally been mitigated through avoidance, controlled excavation, and monitoring. Wildfire has impacted cultural resources by destroying wooden or other flammable artifacts and features, most recently at the historic town of Rochester. Spalling of rock art has also occurred due to wildfire.

Looting of cultural resources has also heavily impacted sites in the past. Artifacts have been removed and the synchronic context of some sites has been destroyed. Passage of the

NHPA of 1966, the NEPA of 1969, the FLPMA of 1976 and the ARPA of 1979 and an improved level of cooperation between federal law enforcement officers, agency fire fighters, and archaeologists has led to increased protection of cultural resource and reduced impacts to these resources as a result of the actions just described, although OHV use and looting are exacerbated by current population growth trends.

Impacts from Reasonably Foreseeable Future Actions

Impacts to cultural resources described under Impacts from Past and Present Actions would continue. Like impacts from past actions, the reasonably foreseeable future actions would be subject to mitigation or avoidance to minimize impacts. Increase in recreational use, particularly OHV traffic, is especially destructive to cultural resources through direct ground disturbance or by increasing erosion. Looting and vandalism (intentional or accidental) may also occur more often as the population grows and as access and recreational activities increase.

Implementation of laws and regulations, continuing improvement in consultation between fire officials and archaeology staff and increasing awareness of potential impacts that may result from certain wild horse management practices should minimize impacts to cultural resources from authorized activities on public lands.

Cumulative Impacts

Proposed Action

Previous land management practices and other human activities as described above have contributed to the overall condition of cultural resources in the Humboldt HA. However, removing excess (all) wild horses from the Humboldt HA as outlined in the proposed action would result in reduced impacts to cultural resources due to erosion and trampling. No direct cumulative impacts are expected as a result of the proposed action. Indirectly, the removal of excess wild horses would incrementally reduce indirect impacts further than what has been, and would be, provided by mitigation, avoidance, and monitoring from past, present, and reasonably foreseeable actions.

The Proposed Action would not affect foreseeable increases in OHV use and site looting as discussed above.

No Action

This alternative, along with the past, present, and reasonable foreseeable future actions, could incrementally increase damage to cultural resources. Substantial increases in wild horse numbers could exacerbate natural erosional processes, which, in turn, could impact cultural sites. Increases in trampling damage would also be anticipated. Increases in impacts would be anticipated particularly in riparian zones. This alternative would not affect foreseeable increases in OHV use and site looting of cultural resources.

4.2.3.2. Invasive-Nonnative Species

Impacts from Past and Present Actions

Past disturbances from agricultural development, establishment of roads and right-of-way, minerals exploration, grazing disturbances, wildfire impacts, and recreational use have resulted in the introduction and subsequent naturalization of disturbance and drought-adapted invasive annual plants such as cheatgrass and tumble-mustard to the Great Basin at large. These species have, in combination with increased frequency and duration of drought events,

resulted in increased frequency and intensity of wildfire which creates further disturbance which is exploited by the same invasive annuals. Past ESR planting and seeding projects have helped mitigate the effects of infestation by invasive annuals and noxious weeds. Noxious weeds control projects have removed priority weeds from the planning area during both past and present management actions, which has reduced opportunities for further spread of these species, and probably has resulted in a reduced presence of noxious weeds within the Humboldt HA than would have occurred if no noxious weeds management had occurred at all.

Impacts from Reasonably Foreseeable Future Actions

Right-of-way and road construction is expected to occur in the future within the Humboldt HA, albeit on a much smaller scale than has occurred in the past. Disturbances from expansion of existing mining operations are expected to occur, however these disturbances will be managed for noxious weeds as part of the approved plan(s) of operations for those projects. Continued livestock grazing will continue to generate soil disturbance and provide a vector of spread for noxious weeds. Recreational activities, particularly OHV recreation is expected to increase within the Humboldt HA and will also potentially generate soil disturbance, and will also provide a vector for seed transport. Wildfire impacts are expected to continue to occur within the Humboldt HA, although the effects of those impacts will be variable due to uncertain size of fires and locations in which they occur. Control of Nevada State-listed noxious weeds is expected to continue in the future, with continued emphasis on “early detection, rapid response” projects which intend to locate and control noxious weed populations in their infancy. Both inventory and control projects are funding limited, which results in prioritization for treatment based upon noxious weed species or circumstances of infestation. Assuming that current prioritization criteria and funding scenarios are still valid in the future, it is expected that watersheds which are currently free or minimally impacted by noxious weeds will remain so, areas which are marginally infested would be managed for eradication of noxious weeds, and areas which are heavily infested or otherwise logistically problematic would be managed to reduce or eliminate risk of further infestations.

Cumulative Impacts

Proposed Action

Cumulatively, when considered with all other past, present, and reasonably foreseeable events and actions, the removal of wild horses from the Humboldt HA would have no impact to existing noxious weed populations and existing areas of disturbance.

No Action

Due to the cumulative impacts from all other past, present, and reasonably foreseeable events and actions, noxious weeds will continue to persist and will still have some potential for continued spread and establishment within the Humboldt HA. The No Action alternative will allow for continued wild horse population growth, and will result in increased disturbance and increased opportunity for seed transport above and beyond the same disturbance and seed transport opportunity created by all other impacts combined. Because wild horse disturbance and traffic would occur in areas outside of those created by other cumulative disturbances, noxious weed spread and establishment in the future would be greater than if the proposed action is implemented.

4.2.3.3. Migratory Birds, Special Status Species and Wildlife

Impacts from Past and Present Actions

Wildlife and their habitats have been impacted through wildfire and various multiple uses such as livestock grazing, lands and realty, mining, recreation, wild horses, and associated roads and trails. Human activities have also increased the introduction and spread of weeds.

Livestock and wild horses continue to utilize vegetation and impact riparian vegetation, soils and water quality. These impacts can be especially pronounced during times of below average precipitation. Forage and water availability can become limited, and negatively affect wildlife health and fitness. The impacts to the important riparian and stream habitats from these past and present actions, in general, include: loss of streamside vegetation, increased sedimentation, increased stream channel width, and loss of undercut stream bank habitat.

Rangeland management projects, such as fences and water developments have been installed over the last several decades and continue to be used and maintained for the purpose of livestock grazing management. The use of fencing can help reduce adverse impacts to habitat from livestock, wild horse and human use. They can also allow implementation of livestock grazing systems which have a beneficial impact to wildlife habitat by providing periodic rest from grazing. Negative impacts can result from injuries or death to wildlife from entanglement or from alteration of natural movement. Fences may also provide unnatural, advantageous perch sites for avian predators.

Additional water sources can increase populations by providing water where it would not naturally occur. This may be beneficial to some species and detrimental to others. For instance, insect numbers may increase and provide a greater abundance of food for birds and bats but may also increase the incidence of disease (e.g. West Nile virus) transmission to some species of wildlife.

Realty and mining actions have added to impacts to wildlife through authorization of access and permitting of structures and activities in the assessment area. Such actions result in more human activity, noise, and disturbance to wildlife habitat. Development within the assessment area has resulted in habitat fragmentation since some species are reluctant to go near or cross roads or trails.

Recreation activities affect wildlife in similar ways as realty actions. Cross country OHV use in addition to use of existing trails, can injure wildlife, disrupt their activities, disturb soil and vegetation, and spread weeds.

Impacts from Reasonably Foreseeable Future Actions

Impacts from livestock grazing and range improvement projects are expected to remain at the current level.

The future realty and mining actions within the CAA would result in additional noise, fragmentation and disturbance to wildlife and habitat. Recreational activities are expected to increase in the future, resulting in a proportionate increase of impacts as described under Impacts from Past and Present Actions.

Impacts to sage grouse from future actions are expected to be similar to but less than described in under Impacts from Past and Present Actions. Due to evolving BLM sage-grouse habitat management guidance, impacts to sage-grouse from multiple uses would be lessened in an effort to prevent their listing under the Endangered Species Act.

Cumulative Impacts

Proposed Action

The Proposed Action would add slightly to impacts discussed in the Reasonably Foreseeable Future Actions section above from wild horse gather activities. Disturbance to migratory birds and other wildlife from the helicopter and wild horses could occur but would be short-term and minimal. Damage to vegetation at trap sites would be on a small scale and would not have a measurable impact. Human presence at trap sites would disrupt wildlife activities. Beneficial short and long-term impacts would result from removing excess wild horses from the Humboldt HA. An immediate benefit to wildlife would be less competition for forage and water which would allow gradual improvement of upland and riparian health.

No Action

Negative direct impacts such as disturbance and possible injury to birds, special status species and wildlife would not occur under this alternative, therefore resulting in less cumulative negative impacts than the proposed action. However, beneficial impacts to bird special status species and wildlife habitats would not be realized and wild horse numbers in excess of AML would result in continuing decline of habitat condition and viability of bird, special status species and wildlife populations. This would incrementally increase impacts associated with past, present and Reasonably Foreseeable Future Actions as the wild horse population increases.

4.2.3.4. Native American Religious Concerns

Impacts from Past and Present Actions

From contacts with settlers, disease and alcohol have decimated Northern Paiute and Shoshone population groups. Further, past historical actions ranging from mining and gravel extraction, grazing, home building, and road construction, have served to drive the Northern Paiutes off the land, confine them to reservations, and further destroy their culture. Only in the past 50 years has an attempt been made by the federal and state governments to undo some of these actions.

Impacts from Reasonably Foreseeable Future Actions

Impacts to Native American Religious Concerns described under Impacts from Past and Present Actions will continue. The foreseeable lands and realty action of the access road right-of-way could directly or indirectly impact Native American spiritual sites if present through ground disturbing activities. Like impacts from past actions, the reasonably foreseeable future actions would be subject to mitigation or avoidance to minimize impacts. Increase in recreational use, particularly OHV traffic, is especially destructive to cultural resources through direct ground disturbance or by increasing erosion. Looting and vandalism of archaeological sites, which are considered to be sacred by many tribes, (intentional or accidental) may also occur more often as the population grows and as access and recreational activities increase.

Cumulative Impacts

Proposed Action

Cumulatively, the removal of excess wild horses would have little impact to Native American concerns when compared to past, present, and Reasonably Foreseeable Future Actions.

No Action

Cumulative impacts under the No Action would be the same as those described under the Cumulative Impacts of the Proposed Action.

4.2.3.5. Water Quality (surface and ground)

Impacts from Past and Present Actions

Agricultural development has led to the use of groundwater for irrigation. Because this water, in general, doesn't leave the irrigated lands, there is no impact on the general water quality of surface or groundwater in the assessment area. Groundwater use for irrigation leads to a large use of water compared to domestic and stockwater uses, however water use is permitted by the Nevada State Engineer. The State Engineer is tasked with ensuring that water use does not exceed the perennial yield in any given basin. With that, the BLM is not aware of any long term impacts to water quantity from water use permitted for irrigation purposes.

Wildlife guzzlers are not expected to have any impact on water quality. The guzzlers would have a negligible impact on water quantity. By catching rain water, the guzzler allows water to remain at the site for use by wildlife. As such, the same volume of water is removed from the watershed and doesn't contribute to groundwater or surface water flows. The small size of the guzzler relative to the watershed makes this impact negligible. By design, this water is not intended to be available for wild horse or livestock utilization.

ROW authorizations have not had any measureable impact on water quality or quantity. The construction of I-80 has led to alteration of some natural flow channels. These channels, however, are ephemeral and only receive surface flows on rare occasions. Because of this, the impact to surface water quality due to sediment load alteration or introduction of road surface pollutants is negligible.

Mining activities within the HA are crossed by approximately 40 mapped stream segments (18 by Florida Canyon, 5 by Standard, 10 by Rochester, 7 by Relief Canyon). These segments along with the downstream reach into which they flow represent 160 miles of mapped perennial, intermittent, and ephemeral streams. Due to mitigations and projects design, impacts to water quality from these activities are not expected to be present. Physical hydrology (water flow characteristics) may be impacted where mine pits or piles have been created. In some cases, particularly Coeur Rochester and Florida Canyon Mines, where presence of surface water was reduced due to mining activities, guzzlers were installed to ensure the availability of water for wildlife.

Due to the position in the landscape, generally dry fan features, none of the permitted gravel pits in the assessment area have had an impact on surface water quality or quantity.

A processing plant related to Colado Mine falls within the HA boundary. This structure and its activities are not expected to have an impact on water quality or quantity within the HA.

Geothermal power generation activity is not expected to have an impact on water quality or

quantity in a way that would be cumulative to impacts from the proposed action or any alternatives.

Historically, cattle grazing occurred over the entire HA. Measureable impacts to water quality are variable in time (both seasonally and over the long term) and space. Impacts include increases of bacteria to water sources, increased sediment loading where riparian vegetation has been over utilized, and potential increases in surface water temperatures where riparian vegetation has been over utilized or where ground and surface water interactions have been disrupted due to erosion. Currently, grazing occurs across the entire HA. Some of this grazing is permitted by the BLM; however, some occurs on privately owned and managed lands. As stated in Affected Environment for Wetland and Riparian Zones, 70% of these areas are functioning properly or making progress toward that status. This would indicate that at least 70% of the surface water within the HA are not experiencing degradation of quality from cattle or any other factor. Livestock grazing within the HA has always relied on surface and ground water sources to provide drinking water for cattle. Prior to Nevada water law (circa 1905), use of water for all purposes was unmanaged. With the passing of Nevada water law, users of the water were required to submit claims of vested interest in water previously used or apply for permits to use water for new purposes. In general, total permitted water use in an area does not decrease because most interested parties ensure that water rights are not forfeited. Permitted water use has generally increased over time. As stated in the Affected Environment, there are currently 48 stock water rights within the HA with a total water use of approximately 5,300 acre feet per year.

Impacts to water quality from recreation activities have primarily resulted from use of OHVs through wetlands and across streams. Both of these impacts lead to increases of sediment to streams which are generally short lived and do not result in long term measurable impacts to water quality. Currently there are approximately 1,000 mapped stream segments that are crossed by at least one mapped road in the HA. Recreation may lead to occasional use of water within the HA, however impacts from this use are negligible would not be considered to have had any impact on water quantity.

Due to the position on the landscape, residential development is not expected to have an impact on water quality or quantity in a way that would be cumulative to impacts from the proposed action or any alternatives.

Impacts to water quality from wild horses would have been identical in type and distribution as those described for cattle grazing. Magnitude, overall, would have been lower due to the original removal of wild horses and continued low numbers of wild horses relative to cattle. Duration of impacts from wild horses, where they are present, occur year round.

Between the years 1993 and 2012, 43 fires were recorded and mapped in the planning area. These fires impacted 62,130 acres (14%) of the HA and had the potential to impact approximately 350 miles of mapped streams. These impacts can include extreme increases in surface water temperature while the fire is burning, increases in nutrient loading from runoff of ash and soot, and increases in sediment loading to streams until riparian and upland vegetation becomes reestablished. Because of the variability of these impacts over time and space, the overall impacts cannot be quantified. Wildfire suppression activities may have occasionally resulted in use of water from streams within the HA, however most water would likely have come from sources outside of the HA. These uses would have been of short duration and rare in occurrence. Because of this, wildfire and wildfire suppressions activities are not considered to have had any impact on water quantity.

If successful, the BLM - Cottonwood ESR Plan would have an impact on up to 16 miles of perennial, intermittent, or ephemeral streams for approximately two years after implementation. Expedited reestablishment of vegetation would reduce sediment and nutrient (carbon from soot and ash) inputs to surface waters. After two years, natural processes would likely have already led to decreases in sediment and nutrient loading. The project was completed in 2011. The BLM - Cottonwood ESR Plan is not expected to have any impact on water quantity.

Impacts from Reasonably Foreseeable Future Actions

Reasonably foreseeable future actions under lands and realty would not be expected to have any measureable impact on water quality or quantity.

There is no reasonably foreseeable change in impacts from cattle grazing based on current grazing management. Impacts to water quality would continue to be identical to those described under past and present grazing. Any changes would likely result in a reduction in the magnitude of impacts as the BLM continues to manage livestock grazing to meet standards and guidelines for rangeland health. Though there is no proposed change to grazing management within the HA, it is assumed that number of water developments for cattle and their associated water rights will continue to increase over time. Because water use is intended to be permitted only for the amount that can actually be put to beneficial use, the total volume of water used for cattle should not change without a change in permitted grazing numbers.

Recreation is expected to increase, however it is difficult to assess the impacts to water quality from this increase. Because of the existing access routes in the planning area, it is not likely that the number of stream crossings would increase. An increase of use at each crossing would increase the number of times sediment is disturbed and transported, but it is unlikely that this would cause a measureable increase in erosion or deposition relative to the currently existing environment. Because recreation is expected to increase, the associated occasional use of water by recreationists would be expected to increase proportionately. The volume of use, however, would still be considered to be negligible.

If wildfire frequency increases, as expected, impacts to water quality would increase proportionately. Types of impacts would remain the same as those that have occurred in the past. However, with increased emphasis being placed on protection and restoration of sage grouse habitat, ES&R activities in the planning area will likely decrease sediment loading impacts to water quality through expedited vegetation reestablishment. There is potential for these impacts to occur throughout the entire planning area. If wildfire frequency increases, as expected, impacts to water quantity would increase proportionately. The infrequent and short duration of use for wildfire suppression activities would still cause the volume of use to be considered negligible. The proposed fire station within the assessment area is not expected to have any impacts on water quality or quantity in a way that would be cumulative with the proposed action or any alternatives. Short term impact to water quality during construction would occur, however BMPs and SOPS would likely be utilized to reduce, mitigate, or eliminate these impacts. Otherwise the impacts would be identical in type to those described for existing residential development.

Cumulative Impacts

Proposed Action

Water quality and quantity are not expected to be impacted by cumulative effects of the proposed action and agricultural development, lands and realty actions, wildlife guzzlers, geothermal activity, or residential activities.

Because the removal of utilization by wild horses on riparian habitat within the HA would increase the hydrologic and riparian function of streams in the HA, the Proposed Action would have a countervailing cumulative effect to the alteration made to the physical hydrology and water quality of streams within the HA by mining activities cattle grazing, recreation, and fire activities. Removal of utilization of riparian habitats by wild horses in the HA would have a compounding effect to the restoration efforts of the Cottonwood ES&R activities.

No Action

Water quality and quantity are not expected to be impacted by cumulative effects of the No Action Alternative and agricultural development, lands and realty actions, wildlife guzzlers, geothermal activity, or residential activities.

Because the number of wild horses and their utilization of riparian habitat within the HA would be expected to increase, the No Action Alternative would have an additive effect to the impacts on water quality and quantity from mining, cattle grazing, and recreational activities. Because the number of wild horses and their utilization of riparian habitat within the HA would be expected to increase, the No Action Alternative would have a compounding effect on the impacts to water quality from wild fires. Because the number of wild horses and their utilization of riparian habitat within the HA would be expected to increase, the No Action Alternative would have a countervailing effect on the impacts to water quality from ES&R activities.

4.2.3.6. Wetlands and Riparian Zones

Impacts from Past and Present Actions

Due to its position on the landscape, lower elevations with less likelihood of riparian habitat, agricultural development is not expected to have had any impacts on wetlands or riparian zones.

Wildlife guzzlers are not expected to have had any impact on wetlands or riparian zones.

ROW authorizations are not expected to have had any impacts on wetlands or riparian zones.

No mining activities have occurred on wetlands or riparian habitats as identified by the SynthMap vegetation mapping data.

No gravel pits have been developed on wetlands or riparian habitats as identified by the SynthMap vegetation mapping data. Geothermal activities have not occurred on wetlands or riparian habitats as identified by the SynthMap vegetation mapping data.

Measureable impacts to wetland and riparian zones from livestock grazing are variable in time (both seasonally and over the long term) and space. Impacts include over-utilization of

riparian vegetation and alteration of stream bank and meadow soils, both of which can lead to increased erosion, loss of wetland and riparian soils, increased rates of groundwater loss from meadows, and alteration of natural surface flow patterns. Historic erosion and incision has not been quantified or had exact causal factors determined within the planning area, however qualitative assessments confirm that cattle (both historic and currently active) have not had major impacts on long term functionality on the majority of wetland and riparian areas. As stated in Affected Environment for Wetland and Riparian Zones, 70% of these areas are functioning properly or making progress toward that status.

Impacts to wetland and riparian zones from recreation have resulted from camping in meadows and use of OHVs through meadows and across streams. Both of these impacts lead to loss or damage of riparian vegetation, compaction of riparian and wetland soils, and alteration of stream banks. All of these impacts, generally, can cause loss of wetland or riparian zone habitat through erosion. These effects are highly localized and occur over relatively short time frames; however repeated use of wetland and riparian zones can lead to persistent degradation of wetland and riparian zones. Because of the dispersed nature of this use in time and space, it is difficult to quantify the impacts. Degradation of riparian functionality due to recreation would be reflected qualitatively in PFC assessments (see Section 3.1.2.7, “Wetlands and Riparian Zones”); however, PFC ratings do not highlight the causes of disturbance.

Between the years 1993 and 2012, 43 fires were recorded and mapped in the planning area totaling 62,130 acres (14%) of the HA. A total of 163 acres of SynthMap identified wetland and riparian zones within the HA have been impacted by these fires. These impacts can include temporary loss of riparian vegetation and temporary increases in erosion and deposition. Because of the variability of these impacts over time and space, the overall impacts cannot be quantified.

The BLM - Cottonwood ESR Plan is not expected to have any impact on wetlands or riparian zones.

Impacts from Reasonably Foreseeable Future Actions

Reasonably foreseeable future actions under lands and realty would not be expected to have any measureable impact on wetlands and riparian zones.

There is no reasonably foreseeable change in impacts from cattle grazing based on current grazing management. Impacts to wetlands and riparian zones would continue to be identical to those described under past and present grazing. Any change would likely be a reduction in the magnitude of impacts as the BLM continues to manage livestock grazing to meet standards and guidelines for health rangelands.

Recreation is expected to increase, however it is difficult to assess the impacts to wetlands and riparian zones from this increase. Because of the existing access routes in the planning area, it is not likely that the number of stream crossings would increase. An increase of use at each crossing would increase the degree of stream bank alteration. This may lead to impassibility of some crossings which would encourage use of new crossings. Where this occurred, increases in degradation of wetland and riparian zones would also occur. The uncertain nature of recreational use makes the likelihood that this would occur and the degree to which this would occur impossible to quantify what these impacts may be.

If wildfire frequency increases, as expected, impacts to wetland and riparian zones would increase proportionately. Types of impacts would remain the same as those that have occurred

in the past. However, with increased emphasis being placed on protection and restoration of sage grouse habitat, ES&R activities in the planning area will likely decrease post-fire erosion of wetland and riparian zones through expedited vegetation reestablishment and soil stabilizing measures. There is potential for these impacts to occur throughout the entire HA.

Cumulative Impacts

Proposed Action

Wetlands and riparian zones are not expected to be impacted by cumulative effects of the proposed action and agricultural development, lands and realty actions, mineral resource, wildlife guzzlers, residential, or ES&R activities.

Because the removal of utilization by wild horses on riparian habitat within the HA would increase the functionality of these habitats in the HA, the Proposed Action would have countervailing cumulative effect to the alteration made to the functionality of wetlands and riparian zones within the HA by cattle grazing, recreation, and fire activities.

No Action

Wetlands and riparian zones are not expected to be impacted by cumulative effects of the No Action Alternative and agricultural development, lands and realty actions, mineral resource, wildlife guzzlers, residential development, or ES&R activities.

Because the number of wild horses and their utilization of riparian habitat within the HA would be expected to increase, the No Action Alternative would have an additive effect to the impacts on wetland and riparian zone functionality from cattle grazing and recreational activities. Because the number of wild horses and their utilization of riparian habitat within the HA would be expected to increase, the No Action Alternative would have a compounding effect on the impacts to wetland and riparian zone functionality from wild fires.

4.2.3.7. Fire Resources — Fuels and Emergency Stabilization and Rehabilitation

Impacts from Past and Present Actions

Disturbances from past and present actions, particularly those sourced to livestock grazing and wildfire occurrence have resulted in the introduction of competitive annual invasive plants, which have dramatically altered the composition of vegetations communities within the Humboldt HA. The introduction of invasive annual plant species, particularly cheatgrass, has resulted in increased frequency and size of wildfire events and reduced success revegetating burned areas as part of the ESR program.

Impacts from Reasonably Foreseeable Future Actions

It is probable that wildfire impacts will occur again within the Humboldt HA. Precisely when and where those impacts will occur is impossible to accurately predict, however wildfire impacts increase opportunity for habitat conversion to invasive annual “monoculture” regardless of location. Other Reasonably Foreseeable Future Actions such as livestock grazing, right-of-way creation and expansion, expansion of existing mining operations, and increased recreation use would continue to provide opportunity for further spread of noxious weeds which could potentially reduce future ESR project success. No Reasonably Foreseeable Future Actions would be expected to impact future fire suppression efforts.

Cumulative Impacts

Proposed Action

Cumulatively, with all other impacts from past, present, and reasonably foreseeable future actions considered, the implementation of the proposed action would be expected to increase the success of ESR projects due to the removal of a significant, unmanaged grazing impact to potential revegetation projects. There would be no impact to future fire suppression efforts or to the amount and abundance of hazardous fuels.

No Action

With all other impacts from past, present, and reasonably foreseeable future actions considered, the No Action alternative would result in decreased success of ESR revegetation projects due to the increased potential for competition from noxious weeds, and a greater, unmanaged grazing pressure following wildfire which would not occur as part of any other impacts which were considered as part of the cumulative analysis.

4.2.3.8. Fisheries

Impacts from Past and Present Actions

Past and present actions have caused impacts to fishery habitats from wild horse and livestock grazing, recreation, wildfire, and road construction/maintenance. The impacts to the fishery habitats from these past and present actions, in general, include: loss of streamside vegetation, increased sedimentation, increased stream channel width, and loss of undercut stream bank habitat. These impacts to fisheries have been reduced through implementation of mitigation measures. Recreation use has removed streamside vegetation and increased stream sedimentation due to OHV use in and around streams. Past actions from road construction and transportation have caused impacts to fishery habitats with increased sedimentation and loss of streamside vegetation at the road/stream crossings.

Impacts from Reasonably Foreseeable Future Actions

Reasonably foreseeable future actions for livestock grazing, road maintenance, wildfire, and recreation use would impact fisheries. The expected impacts to the fishery habitat would be similar to the past and present actions to include: loss of streamside vegetation, increased sedimentation, increased stream channel width, and loss of undercut stream bank habitat. Implementation of mitigation measures would reduce these impacts.

Cumulative Impacts

Proposed Action

There should be an incremental improvement in the riparian and aquatic habitat conditions over an extended period of time.

No Action

If the no action is chosen, impacts to fisheries described in the past, present, and reasonably foreseeable future sections could increase from habitat lost due to the increase in size of the wild horse population in this HA.

4.2.3.9. Public Health and Safety

As defined by 40 CFR 1508.7, the cumulative impact is the impact which results from the incremental impact of the action, decision, or project when added to the other past, present, and reasonably foreseeable future actions. No impacts to public health and safety have been identified from past, present, or reasonably foreseeable future actions; therefore, cumulative impacts to public health and safety are not expected.

4.2.3.10. Rangeland Management

Impacts from Past and Present Actions

Past and present activities have affected livestock grazing through the removal of forage within disturbed areas related to realty, mining and transportation activities. Transportation, mining and access improvements have also provided livestock operators better access to portions of their allotments to better check and care for the livestock on the allotments. Recreational activities have caused impacts due to damage or vandalism of range improvements and difficulties in managing livestock from fences being cut/broken or gates being left open. Past wildfire events have removed large areas of forage and restricted access to forage. Fire rehabilitation projects have re-established vegetation in some areas and mitigated some of the effects associated with wildfire events. In the past livestock operators have removed cattle from the rangeland earlier or have run fewer numbers than they are allowed due to the presence of excess wild horses in the Humboldt HA.

Impacts from Reasonably Foreseeable Future Actions

Impacts to livestock grazing from reasonably foreseeable future actions would remain similar to those analyzed under the past and present actions.

Cumulative Impacts

Proposed Action

Cumulative impacts from activities proposed under the Proposed Action would be potential trampling of forage by both humans and animals from activities in and around trap sites that would incrementally add to the amount of forage that has already been disturbed and is expected to be disturbed. In addition to any disturbance to livestock from past, present, or reasonably foreseeable future actions listed above, livestock in areas outside of the critical area of concern may be frightened and leave the area due to helicopter, traffic, and human interactions.

No Action

This alternative, along with the past, present, and reasonably foreseeable future actions, would incrementally increase damage to rangeland ecosystems. With unchecked population growth and no planned wild horse gathers, rangeland resources would become degraded at an accelerated rate. Livestock numbers could be continually reduced to accommodate the increasing wild horse numbers.

4.2.3.11. Soils

Impacts from Past and Present Actions

Prior to the Taylor Grazing Act (TGA) of 1934, livestock grazing practices resulted in significant major impacts to soil resources. The soil tolerance was exceeded and the soil medium for plant growth was not maintained. As a result, historic livestock grazing activities prior to the TGA had significant impacts on soil resources within the impact assessment area. A series of livestock grazing decisions since the TGA have resulted in reductions in livestock numbers and changes in seasons of use and in grazing management practices to promote rangeland health within grazing allotments. While the present livestock grazing system has helped reduce past historic soil impacts and has improved current soil resource conditions, the current overpopulation of excess wild horses is resulting in areas of heavy vegetative utilization, trailing and trampling damage, and prevents BLM from managing public lands within the Humboldt HA for rangeland health and for a thriving natural ecological balance.

Other past and present activities have affected soil resources through the removal of vegetation and soil surface within disturbed areas related to recreation, realty, mining and transportation activities.

Impacts from Reasonably Foreseeable Future Actions

Multiple-use activities would continue to be similar to present impacts on soils within the HA, with increases expected from realty actions, mining and recreational activities. Disturbances to soil resources from gazing would be expected to remain the same.

Cumulative Impacts

Proposed Action

Cumulative impacts from activities under the Proposed Action would be potential compaction of soils by both humans and animals from activities in and around trap sites. In addition to any disturbance to soil resources from past, present, or reasonably foreseeable future actions listed above, condition of soil resources is likely to incrementally improve.

No Action

Continuing growth in the numbers of excess wild horses will increase competition between horses and cattle and wildlife for limited forage and water. This would expose more soil surfaces to trampling and erosion adjacent to these resources, further degrading soil resources as wild excess horse numbers increase unabated.

4.2.3.12. Vegetation

Impacts from Past and Present Actions

Prior to the TGA, livestock grazing practices resulted in significant major impacts to the rangeland vegetation. As a result, historic livestock grazing activities prior to the TGA had significant impacts on the vegetation resources within the impact assessment area by eliminating or greatly reducing the primary understory plants. Cheat grass was introduced into the area in the early 1900s. A series of livestock grazing decisions since the TGA have resulted in reductions in livestock numbers and changes in seasons of use and in grazing management practices to promote rangeland health within grazing allotments. While the present livestock grazing system has helped reduce past historic impacts to rangeland

vegetation and added to improving vegetation conditions, the current overpopulation of excess wild horses is resulting in areas of heavy vegetative utilization, trailing and trampling damage, and prevents BLM from managing public lands within the Humboldt HA for rangeland health and for a thriving natural ecological balance.

Other past and present activities have affected vegetation resources through the removal of vegetation within disturbed areas related to recreation, realty, mining and transportation activities.

Impacts from Reasonably Foreseeable Future Actions

Multiple-use activities would continue to be similar to present impacts on rangeland vegetation within the HA, with increases expected from reality actions, mining and recreational activities. Disturbances to vegetation from grazing would be expected to remain the same.

Cumulative Impacts

Proposed Action

Cumulative impacts from activities proposed under the Proposed Action would be potential trampling of forage by both humans and animals from activities in and around trap sites. In addition to any disturbance to vegetation from past, present, or reasonably foreseeable future actions listed above, condition of vegetation is likely to incrementally improve.

No Action

This alternative, along with the past, present, and reasonable foreseeable future actions, would be expected to increase damage to vegetation resources.

4.2.3.13. Wild Horse

Impacts from Past and Present Actions

Wild horses within the Humboldt HA CAA have been impacted through various authorized uses such as livestock grazing, range improvement projects, lands and realty activities, mining, recreation, associated roads and trails and wild fires.

Since livestock utilize upland and riparian vegetation, and may impact soils and water quality there is competition between the cattle and wild horses for these resources. This competition can be especially pronounced during times of below average precipitation. Forage and water availability can become limited, and negatively affect health of the wild horses.

Rangeland management projects, such as fences and water developments have been installed over the last several decades and continue to be used and maintained for the purpose of livestock grazing management. Fences also allow implementation of livestock grazing systems which can have a beneficial impact to the rangeland by providing periodic rest from grazing. Additional water sources can increase livestock and wild horse distribution by providing water where it would not naturally occur.

Realty and mining actions have impacted wild horses through authorizations of access roads, permitting of structures and mines in the assessment area. Such actions result in less vegetation, more noise, wild horse vehicular collisions and overall general disturbance from human activity to wild horses.

Recreation activities affect wild horses in similar ways as realty actions. Cross country OHV use in addition to use of existing trails, can injure wild horses, disrupt their activities, disturb soil and vegetation, and spread weeds which may reduce the productivity of the rangelands on which the wild horses are dependent.

Impacts from Reasonably Foreseeable Future Actions

There would be no impacts to wild horses from Reasonably Foreseeable Future Actions within the Humboldt HA CAA, under the proposed action as they would be removed from the HA.

Under the No Action Alternative, Reasonably Foreseeable Future Actions which would be expected to contribute to the cumulative impacts include: future wild horse gathers, continued livestock grazing on the allotments within the area, new or spreading infestations of invasive plants, and pests and their associated treatments, minerals and realty actions and recreational activities historically associated with them.

Impacts from livestock grazing and range improvement projects are expected to remain at the current level.

Future realty and mining actions within the CAA would result in increases in vehicle collisions, noise, fragmentation and disturbance to wild horses.

Cumulative Impacts

Proposed Action

There would be no cumulative impacts to wild horses from the Proposed Action, the Past and Present Actions and the Reasonable Foreseeable Actions for the Humboldt HA CAA as wild horses would no longer reside within the area. A gather would ultimately benefit wild horses, and would ensure wild horses are provided adequate feed and water during temporary and short term holding when gathered, and in future months when they are adopted or moved to long term pastures. Removal of excess wild horses would ensure that individual animals do not perish due to vehicular accidents, starvation, dehydration, or other health concerns related to insufficient feed and water and extreme dust conditions. Additionally, a gather would remove excess wild horses while they remain in adequate health to transition to feed.

No Action

The No Action Alternative would incrementally increase impacts associated with past, present and Reasonably Foreseeable Future Actions as the wild horse population continues to increase. Deferral of gather activities would allow for the wild horse population to increase and impacts to wild horses associated with the other authorized uses in the Humboldt HA CAA would be amplified. One of the highest concerns is the increase in wild horse vehicular accidents as the use of the area by recreations, right of way holders and mines increase.

Chapter 5. Monitoring and Mitigation Measures

The BLM Contracting Officer's Representative (COR) and Project Inspectors (PIs) assigned to the gather would be responsible for ensuring contract personnel abide by the contract specifications and the SOPs (Appendix A, *Standard Operating Procedures (Gather Operation)*). Ongoing monitoring of forage condition and utilization, water availability, aerial population surveys, and animal health would continue.

Primary Field Office COR, Samantha Gooch

Primary State Office COR, Alan Shepherd

Primary Project Inspectors would be assigned from the WD.

Chapter 6. Tribes, Individuals, Organizations, or Agencies Consulted:

Public hearings are held annually on a state-wide basis regarding the use of motorized vehicles, including helicopters and fixed-wing aircraft, in the management of wild horses. During these meetings, the public is given the opportunity to present new information and to voice any concerns regarding the use of motorized vehicles. A motorized vehicle hearing for the state will be held prior to any gather activities occurring.

On-going consultation with Resource Advisory Councils, NDOW, USFWS, livestock operators and others, underscores the need for BLM to remove wild horses from HA, where they are not managed.

Native American Consultation

Consultation has occurred with the following tribes: Battle Mountain Band Tribal Council, Fallon Paiute Shoshone Tribe, Lovelock Paiutes, Pyramid Lake Paiutes, and the Winnemucca Indian Colony. For more information on consultation results, please refer to Section 3.1.2.4, “Native American Religious Concerns”.

Agencies Consulted

A list of federally listed, proposed or candidate species was requested from the U.S. Fish and Wildlife Service (USFWS) for the proposed project area on November 26, 2012. A response from USFWS was received on December 10, 2012.

Individuals and/or Organizations Consulted

On June 25 2013, a notification of availability to review the Preliminary EA was posted to the BLM’s website and sent to potentially interested parties by the BLM. Over 9,000 letters were received. The majority of these were form letters submitted through different advocacy groups expressing the same concerns. A table summarizing the comments received and BLM’s responses is included in Appendix C, *Summary of Public Comments and BLM Responses*.

All substantive comments were considered in the development of the Final EA. Based on this consideration and further internal review, Section 3.1.3.9, “Wild Horses” was updated to reflect recent inventory data.

Chapter 7. List of Preparers

The following list identifies the interdisciplinary team member's area of responsibility:

Table 7.1. List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Samantha Gooch	Wild Horse and Burro Specialist	Project Lead/Wild Horses, Public Health and Safety
Peggy McGuckian	Archaeologist	Cultural Resources, Paleontology
Eric Baxter	Natural Resource Specialist	Invasive, Non-native species, Fire Rehab
Mandy DeForest	Assistant Field Manager Natural Resource Specialist	Editing/Review Wildlife, Migratory Birds, and Special Status Species
Greg Lynch	Fisheries Biologist	Fisheries
Dr. Mark Hall	Archaeologist	Native American Religious Concerns
John McCann	Hydrologist	Water Resources/Wetlands and Riparian Zones
Garrett Noles	Rangeland Management Specialist	Rangeland Management
Robert Burton	Natural Resource Specialist	Soils, Vegetation
Zwaantje Rorex	Planning and Environmental Coordinator	National Environmental Policy Act Compliance
Janet Hook	Geologist	Minerals
Mark Williams	Fire Ecologist	Fire and Fuels

Chapter 8. List of References

- Bradley, P.V. ET. al. Editors. 2006. The Revised Nevada Bat Conservation Plan. Nevada Bat Working Group. Reno, Nevada. 216 pp.
- Finney, Mark A. 2001. Design of Regular Landscape Fuel Treatment Patterns for Modifying
- Floyd, Ted et al. 2007. Atlas of the Breeding Birds of Nevada. University of Nevada Press, Reno Nevada.
- Government Accountability Office. 2008. Effective Long-Term Options Needed to Manage Unadoptable Wild Horses. Report to the Chairman, Committee on Natural Resources, House of Representatives.
- Great Basin Bird Observatory. 2003. Nevada Bird Count. A habitat-based monitoring program for breeding birds of Nevada. Instruction package and protocol for point count surveys.
- Green, J.S. and J.T. Flinders. 1980. Habitat and Dietary Relationships of the Pygmy Rabbit. *Journal of Range Management*. 33:136-142.
- Hann, W.J., Bunnell, D.L. 2001. Fire and land management planning and implementation across multiple scales. *Int. J. Wildland Fire*. 10:389-403.
- Hershler, R.H. 1998. A systematic review of the hydrobiid snails (Gastropoda: Rissooidea) of the Great Basin, western United States. Part I. Genus *Pyrgulopsis*. *Veliger*, 41: 1-132.
- Neel, L.A. (Editor). 1999. Nevada Partners in Flight Bird Conservation Plan.
- Nevada Department of Wildlife. Diversity Database. January 2013. www.ndow.org
- Nevada Natural Heritage Program (database). January 2013. www.heritage.nv.gov
- Paige, C., and S.A. Ritter. 1999. Birds in a Sagebrush Sea: Managing Sagebrush Habitats for Bird Communities. Partners in Flight Western Working Group, Boise, ID.
- Rich, T. 1980. Nest placement in Sage Thrashers, Sage Sparrow and Brewer's Sparrows *Wilson Bull.* 92:362-368.
- Sada, D.W. 2008. Synecology of a springsnail (Caenogastropoda: Hydrobiidae) assemblage in a Western U.S. thermal spring province. *Veliger* 50(2):59–71.
- Sada, D.W. and G.L. Vinyard. 2002. Anthropogenic changes in biogeography of Great Basin aquatic biota. *Smithsonian Contributions to the Earth Sciences* 33:277–293.
- Shimkin, D.B. 1986. Introduction of the Horse. *Handbook of North American Indians: Great Basin*, Volume 11. Warren I. D'Azevedo, editor. Smithsonian Institution, Washington DC: 517-524.
- U.S. Department of Interior, Bureau of Land Management (BLM). 2005. Winnemucca Resource Management Plan Analysis of Management Situation (AMS)

_____. 2013a. Wild Horse and Burro Quick Facts website. www.blm.gov/wo/st/en/prog/whbprogram/history_and_facts.html. Accessed 5/29/13.

_____. 2013b. Legacy Rehost 2000 database. Accessed 2/4/13.

Fire Growth and Behavior. *Forest Science* 47(2): 219-228.

U.S. Census Bureau. 2010. Census.gov census tracts downloaded.

Chapter 9. Maps

Map 1. Humboldt HA and Cumulative Assessment Area

Map 2. Grazing Allotments within the Humboldt Herd Area

Map 3. Humboldt Herd Area Ecological Site Descriptions

Appendix A. Standard Operating Procedures (Gather Operation)

Standard Operating Procedures for Wild Horse (or Burro) Gathers

Gathers are conducted by utilizing contractors from the Wild Horse (or Burros) Gathers-Western States Contract or BLM personnel. The following procedures for gathering and handling wild horses apply whether a contractor or BLM personnel conduct a gather. For helicopter gathers conducted by BLM personnel, gather operations will be conducted in conformance with the *Wild Horse Aviation Management Handbook* (January 2009).

Prior to any gathering operation, the BLM will provide for a pre-gather 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 boundaries, the location of fences, other physical barriers, and acceptable gather locations in relation to animal distribution. The evaluation will determine whether the proposed activities will necessitate the presence of a veterinarian during operations. If it is determined that a large number of animals may need to be euthanized or gather operations could be facilitated by a veterinarian, these services would be arranged before the gather would proceed. The contractor will be apprised of all conditions and will be given instructions regarding the gather and handling of animals to ensure their health and welfare is protected.

Gather 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 whenever possible.

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

1. Helicopter Drive Gathering. This gather method involves utilizing a helicopter to herd wild horses into a temporary gather site.
2. Helicopter Assisted Roping. This gather method involves utilizing a helicopter to herd wild horses or burros to ropers.
3. Bait Trapping. This gather method involves utilizing bait (e.g., water or feed) to lure wild horses into a temporary gather site.

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

A. Gather Methods used in the Performance of Gather Contract Operations

1. The primary concern of the contractor is the safe and humane handling of all animals gathered. All gather attempts shall incorporate the following:

All gather sites and holding facilities locations must be approved by the Contracting Officer's Representative (COR) and/or the Project Inspector (PI) prior to construction. The

Contractor may also be required to change or move gather locations as determined by the COR/PI. All gather sites and holding facilities not located on public land must have prior written approval of the landowner.

2. The rate of movement and distance the animals travel shall not exceed limitations set by the 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 travel will account for the different factors listed above and concerns within the HA.
3. All gather sites, wings, and holding facilities shall be constructed, maintained and operated to handle the animals in a safe and humane manner and be in accordance with the following:
 - a. Gather sites and holding facilities shall be constructed of portable panels, the top of which shall not be less than 72 inches high for horses and 60 inches for burros, and the bottom rail of which shall not be more than 12 inches from ground level. All gather sites and holding facilities shall be oval or round in design.
 - b. All loading chute sides shall be a minimum of 6 feet high and shall be fully covered, plywood, metal without holes larger than 2"x4".
 - c. All runways shall be a minimum of 30 feet long and a minimum of 6 feet high for horses, and 5 feet high for burros, and shall be covered with plywood, burlap, plastic snow fence or like material a minimum of 1 foot to 5 feet above ground level for burros and 1 foot to 6 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 COR/PI.
 - 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 1 foot to 5 feet above ground level for burros and 2 feet to 6 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.
4. No modification of existing fences will be made without authorization from the COR/PI. The Contractor shall be responsible for restoration of any fence modification which he has made.
5. When dust conditions occur within or adjacent to the gather site or holding facility, the Contractor shall be required to wet down the ground with water.
6. Alternate pens, within the holding facility shall be furnished by the Contractor to separate mares or jennies with small foals, sick and injured animals, estrays or other animals the COR determines need to be housed in a separate pen from the other animals. Animals shall be sorted as to age, number, size, temperament, sex, and condition when in the holding facility so as 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, sex, or other necessary procedures. In these instances, a portable restraining chute may be necessary and will be provided by the government. Alternate pens shall be furnished by the Contractor to hold animals if the specific gathering

requires that animals be released back into the gather area(s). In areas requiring one or more satellite gather site, and where a centralized holding facility is utilized, the contractor may be required to provide additional holding pens 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 COR.

7. The Contractor shall provide animals held in the gather sites and/or holding facilities with 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 gather site 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. The contractor will supply certified weed free hay if required by State, County, and Federal regulation.

An animal that is held at a temporary holding facility through the night is defined as a horse/burro 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.

8. It is the responsibility of the Contractor to provide security to prevent loss, injury or death of gathered animals until delivery to final destination.
9. The Contractor shall restrain sick or injured animals if treatment is necessary. The COR/PI will determine if animals must be euthanized and provide for the destruction of such animals. The Contractor may be required to humanely euthanize animals in the field and to dispose of the carcasses as directed by the COR/PI.
10. Animals shall be transported to their final destination from temporary holding facilities as quickly as possible after gather unless prior approval is granted by the COR for unusual circumstances. Animals to be released back into the HMA following gather operations may be held up to 21 days or as directed by the COR. Animals shall not be held in gather sites and/or temporary holding facilities on days when there is no work being conducted except as specified by the COR. The Contractor shall schedule shipments of animals to arrive at final destination between 7:00 a.m. and 4:00 p.m. No shipments shall be scheduled to arrive at final destination on Sunday and Federal holidays, unless prior approval has been obtained by the COR. Animals shall not be allowed to remain standing on trucks while not in transport for a combined period of greater than three (3) hours in any 24 hour period. .

B. Gather Methods That May Be Used in the Performance of a Gather

1. Gather attempts may be accomplished by utilizing bait (feed, water, mineral licks) to lure animals into a temporary gather site. If this gather method is selected, the following applies:
 - a. Finger gates shall not be constructed of materials such as "T" posts, sharpened willows, etc., that may be injurious to animals.
 - b. All trigger and/or trip gate devices must be approved by the COR/PI prior to gather of animals.
 - c. Gather sites shall be checked a minimum of once every 10 hours.
2. Gather attempts may be accomplished by utilizing a helicopter to drive animals into a temporary gather site. If the contractor selects this method the following applies:
 - a. A minimum of two saddle-horses shall be immediately available at the gather site to

accomplish roping if necessary. Roping shall be done as determined by the COR/PI. Under no circumstances shall animals be tied down for more than one half hour.

- b. The contractor shall assure that foals shall not be left behind, and orphaned.
- 3. Gather attempts may be accomplished by utilizing a helicopter to drive animals to ropers. If the contractor, with the approval of the COR/PI, selects this method the following applies:
 - a. Under no circumstances shall animals be tied down for more than one hour.
 - b. The contractor shall assure that foals shall not be left behind, or orphaned.
 - c. The rate of movement and distance the animals travel shall not exceed limitations set by the COR/PI who will consider terrain, physical barriers, weather, condition of the animals and other factors.

C. Use of Motorized Equipment

- 1. All motorized equipment employed in the transportation of gathered animals shall be in compliance with appropriate State and Federal laws and regulations applicable to the humane transportation of animals. The Contractor shall provide the COR/PI, if requested, with a current safety inspection (less than one year old) for all motorized equipment and tractor-trailers used to transport animals to final destination.
- 2. All motorized equipment, tractor-trailers, and stock trailers shall be in good repair, of adequate rated capacity, and operated so as to ensure that gathered animals are transported without undue risk or injury.
- 3. Only tractor-trailers or stock trailers with a covered top shall be allowed for transporting animals from gather 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 6 feet 6 inches from the floor. Single deck tractor-trailers 40 feet or longer shall have at least two (2) partition gates providing at least three (3) compartments within the trailer to separate animals. Tractor-trailers less than 40 feet shall have at least one partition gate providing at least two (2) compartments within the trailer to separate the animals. Compartments in all tractor-trailers shall be of equal size plus or minus 10 percent. Each partition shall be a minimum of 6 feet high and shall have a minimum 5 foot wide swinging gate. The use of double deck tractor-trailers is unacceptable and shall not be allowed.
- 4. All tractor-trailers used to transport animals to final destination(s) shall be equipped with at least one (1) door at the rear end of the trailer which is capable of sliding either horizontally or vertically. The rear door(s) of tractor-trailers 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. Final approval of tractor-trailers and stock trailers used to transport animals shall be held by the COR/PI.
- 5. Floors of tractor-trailers, stock trailers and loading chutes shall be covered and maintained

with wood shavings to prevent the animals from slipping as much as possible during transport.

6. Animals to be loaded and transported in any trailer shall be as directed by the COR/PI and 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);
 - 8 square feet per adult burro (1.0 linear foot in an 8 foot wide trailer);
 - 6 square feet per horse foal (.75 linear foot in an 8 foot wide trailer);
 - 4 square feet per burro foal (.50 linear feet in an 8 foot wide trailer).
7. The COR/PI shall consider the condition and size of the animals, weather conditions, distance to be transported, or other factors when planning for the movement of gathered animals. The COR/PI shall provide for any brand and/or inspection services required for the gathered animals.
8. If the COR/PI determines that dust conditions are such that the animals could be endangered during transportation, the Contractor will be instructed to adjust speed.

D. Safety and Communications

1. The Contractor shall have the means to communicate with the COR/PI and all contractor personnel engaged in the gather 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.
 - a. The proper operation, service and maintenance of all contractor furnished property is the responsibility of the Contractor. The BLM reserves the right to remove from service any contractor personnel or contractor furnished equipment which, in the opinion of the contracting officer or COR/PI violate contract rules, are unsafe or otherwise unsatisfactory. In this event, the Contractor will be notified in writing to furnish replacement personnel or equipment within 48 hours of notification. All such replacements must be approved in advance of operation by the Contracting Officer or his/her representative.
 - b. The Contractor shall obtain the necessary FCC licenses for the radio system
 - c. All accidents occurring during the performance of any task order shall be immediately reported to the COR/PI.
2. Should the contractor choose to utilize a helicopter the following will apply:
 - a. The Contractor must operate in compliance with Federal Aviation Regulations, Part 91. Pilots provided by the Contractor shall comply with the Contractor's Federal Aviation Certificates, applicable regulations of the State in which the gather is located.
 - b. Fueling operations shall not take place within 1,000 feet of animals.

G. Site Inventories

Cultural

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 gather site or temporary holding facility, BLM will conduct all necessary inventories. All proposed site(s) must be inspected by a government archaeologist. Once an archaeological inventory has been completed, the gather site or temporary holding facility may be set up if no sites are identified. Said inventories 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.

Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the immediate vicinity of the discovery and protect it from your activities for 30 days or until notified to proceed by the authorized officer.

When previously undiscovered antiquities or other objects of historic or scientific interest including but not limited to historic or prehistoric ruins, vertebrate fossils or artifacts are discovered in the performance of this permit, the item(s) or conditions(s) will be left intact and immediately brought to the attention of the authorized officer of the BLM.

National Historic Trails

Locate wild horse and burro gather sites outside of National Trail Management Corridors.

Wildlife, Special Status Species

Migratory birds

In order to avoid potential impacts to breeding migratory birds from gather sites, a nest survey should be conducted by BLM personnel within potential breeding habitat prior to any surface disturbance proposed during the avian breeding season (March 1st through August 31st). Surveys must be conducted no more than 10 days and no less than 3 days prior to initiation of disturbance.

Special Status Plants

Prior to setting up gather sites within potential habitat for special status plants, a plant survey should be conducted by a qualified biologist/botanist. Should a sensitive plant species occur, the habitat for the species would be mapped out and no surface disturbance would occur within that area.

I. Public Participation

Opportunities for public viewing (i.e. 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.

J. Responsibility and Lines of Communication

Contracting Officer's Representative/Project Inspector

Samantha Gooch

Contracting Officer's Representative/Project Inspector

Alan Shepherd

The Contracting Officer's Representatives (CORs) and the Project Inspectors (PIs) have the direct responsibility to ensure the Contractor's compliance with the contract stipulations. The Field Manager for the Humboldt River Field Office will take an active role to ensure the appropriate lines of communication are established between the field, Field Office, District 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, formal public contact and inquiries will be handled through the Field Manager and District Public Affairs Officer. These individuals will be the primary contact and will coordinate with the COR/PI on any inquiries.

The COR will coordinate with the contractor and the BLM Corrals to ensure animals are being transported from the gather site in a safe and humane manner and are arriving in good condition.

The contract specifications 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 gather of the animals. The specifications will be vigorously enforced.

Should the Contractor show negligence and/or not perform according to contract stipulations, he will be issued written instructions, stop work orders, or defaulted.

Appendix B. Wild Horse Gather Public Observation Protocol

Humboldt HA Wild Horse Gather Observation Protocol

BLM recognizes and respects the right of interested members of the public and the press to observe the Humboldt HA wild horse gather. At the same time, BLM must ensure the health and safety of the public, BLM's employees and contractors, and America's wild horses. Accordingly, BLM developed these rules to maximize the opportunity for reasonable public access to the gather while ensuring that BLM's health and safety responsibilities are fulfilled. Failure to maintain safe distances from operations at the gather and temporary holding sites could result in members of the public inadvertently getting in the path of the wild horses or gather personnel, thereby placing themselves and others at risk, or causing stress and potential injury to the wild horses.

On the following pages is the BLM IM-2013-058 “Wild Horse and Burro Gathers: Public and Media Management”.

Appendix C. Summary of Public Comments and BLM Responses

NO.	COMMENT	RESPONSE
1. PROVISIONS of the WFRHBA and other LAW		
1.1	Your own Governor Sandoval just signed landmark legislation to work with horse advocates to save wild mustangs	This comment refers to Nevada Assembly Bill 264 signed in early 2013. This bill does not pertain to wild horses managed by the BLM. Instead involves stray horses known as the Virginia Range Estrays on private, public and state managed lands and they are managed through NV State NRS codes by the Nevada Dept. of Agriculture.
1.2	Why do we have a BLM for if not to protect our wildlife?	In general, the BLM is charged with management of wildlife habitat and not the management of wildlife itself. However, the WFRHBA did charge the BLM with managing WH&B unlike other wildlife species which are generally managed by the state.
1.3	<p>The WFRHBA also authorizes designation of specific ranges for wild horses and burros. "Range' means the amount of land necessary to sustain an existing herd or herds and which is devoted principally but not necessarily exclusively to their welfare in keeping with the multiple-use management concept for the public lands". 16 USCS §§ 1332(c), 1333(a).</p> <p>The definition of "principally" is as follows: First, highest, foremost in importance, rank, worth or degree, chief, mainly, largely, chiefly, especially, particularly, mostly, primarily, above all, predominantly, in the main, for the most part, first and foremost. Thus, for the BLM to principally devote any of the wild horse and burro designated public land to any other multiple uses (including livestock grazing) is illegal. The proposal contained in your document ignores this legal intent.</p>	<p>The Humboldt HA has not been designated as a "wild horse range". This is an inaccurate interpretation of the WFRHBA. Only the BLM Director or Assistant Director (as per BLM Manual 1203: Delegation of Authority), may establish a Wild Horse and Burro Range after a full assessment of the impact on other resources through the land-use planning process.</p>
1.4	Adopt management strategies which will lead to the minimum feasible management as mandated by the 1971 Wild Horse and Burro Act.	This is an inaccurate interpretation of the WFRHBA. Management strategies are addressed at the land-use planning level. This area was not designated as a HMA where wild horses are managed in the Sonoma-Gerlach MFP. "Minimally feasible level" does not refer to gathers specifically, but originates from early congressional hearings and is meant to prevent the wild horses and burros from being managed in "zoo like" settings. "The committee wishes to emphasize that the management of the wild free-roaming horses and burros be kept to a minimum both from the aspect of reducing costs of such a program as well as to deter the possibility of "zoo like" developments. An intensive management program of breeding, branding and physical care would destroy the very concept that this legislation seeks to preserve." 92nd Congress, Senate Report 92-242, June 25, 1971.

NO.	COMMENT	RESPONSE
1.5	<p>Any policy, agreement or decision written by the BLM that contradicts and does not come under the umbrella of the WFRHBA of 1971 is automatically and completely null and void with the Congressional law taking precedence over the policy.</p> <p>I would like to remind the BLM that if they do indeed authorize the capture or the branding or any harassment or cause any death of any wild horses on the wild horse legal land ... it is punishable by the federal law of the United States.</p>	<p>Gathering excess wild horses is required by statute and regulation and does not constitute harassment of wild horses. The provisions cited by the commenter apply to actions by the public that are prohibited.</p>
1.6	<p>Per the Congressional law, there are no excess wild horses on their legal Humboldt herd area land.</p>	<p>This comment reflects the commenter's personal views and is not consistent with federal law.</p> <p>“Excess animals” means wild free-roaming horses or burros</p> <p>(1) which have been removed from an area by the Secretary pursuant to applicable law or,</p> <p>(2) which must be removed from an area in order to preserve and maintain a thriving natural ecological balance and multiple-use relationship in that area. Since the Humboldt HA is not managed as a HMA, the wild horses residing in this area are considered excess and need to be removed. Refer to section 1.2 of the EA.</p>
1.7	<p>The wild horses have the legal right to be on the land per the 1971 unanimous Congressional Law regardless if the BLM has designated the land as a herd area or herd management area.</p> <p>BLM’s true intent is not to manage our wild horses, but instead totally eliminate them from their lands, lands they were given in the 1971 wild horse and burro act. The proposed removal and elimination of wild horses from this HA continues the BLM’s trend of eliminating wild horse habitat.</p>	<p>This comment reflects the commenter's personal views and is not consistent with federal law.</p>
1.8	<p>The BLM cannot continue to break the law for its greedy and corrupt lobbyist and energy fracking bankrolled evils.</p>	<p>This comment reflects the commenter's personal views and is not consistent with federal law.</p>

NO.	COMMENT	RESPONSE
1.9	Must the BLM bring these magnificent animals to extinction? There are just a few thousand wild horses left in the west. BLM's intent is not to manage our wild horses, but instead to eliminate them from their lands, lands they were given in the 1971 Wild Horse and Burro Act. The proposed removal and elimination of wild horses from this HA continues the BLM's trend of eliminating wild horse habitat.	More wild horses and burros exist today than when the WFRHBA was passed in 1971. The BLM has intense programs of monitoring, inventory, gather and adoption to manage healthy animals and healthy rangelands to ensure sustainable herds for decades to come. In the WD, there are approximately 6,480 wild horses and burros managed in 20 HMAs covering approximately 3 million acres. Nationwide the BLM manages approximately 40,605 wild horses and burros throughout the western states, based on the latest data available, compiled as of February 28, 2013. Wild horses and burros have virtually no natural predators and their herd sizes can double about every four years.
2. ADAPTIVE MANAGEMENT AND OTHER CONSIDERATIONS		
2.1	Instead of spending tax dollars to eliminate horses from this Herd Area so that ranchers can continue to graze cattle and sheep on these public lands, BLM should utilize its adaptive management policies to revise the Sonoma-Gerlach MFP and re-designate this area for wild horse use. This is in line with the National Academy of Sciences recommendation that "Adaptive management could provide much-needed transparency for BLM's management of free-ranging horses and burros."	The WFRHBA requires that the BLM remove excess wild horses immediately, thus adaptive management is not appropriate. The Humboldt HA is not a designated HMA for the long term management for wild horses due to the checkerboard land ownership pattern that makes it unsuitable for wild horse management by the BLM (refer to sections 1.2 and 1.3 of the EA) and therefore adaptive management is not applicable. The WD is currently in the process of revising the land use plans and HAs were reviewed to determine if anything has changed since 1982 that would lead to a change in status for the Humboldt HA.
2.2	National Academy of Sciences (NAS) concluded that continuing "business as usual will be expensive and unproductive for the BLM and the public it serves." Actions involving the Program -- including this proposed gather -- must be evaluated in light of the NRC's (<i>National Research Council</i>) findings.	The NAS provided the BLM with recommendations which the BLM may implement through policy in the future. At this time NAS recommendations are being considered for future policy and guidance and have not been fully implemented. While being considered, the BLM maintains the responsibility to manage wild horses and burros in accordance with the WFRHBA; approved LUPs, CFRs, PRIA, FLMPA; and other pertinent policy.
2.3	BLM should implement the recommendation of the BLM-commissioned, newly released NAS report which states: "Resolving conflicts with polarized values and opinions regarding land management rests on the principles of transparency and community-based public participation and engagement in decision-making. Decisions of scientific content will have greater support if they are reached through collaborative, broadly based, integrated, and iterative analytic-deliberative processes that involve both the agency and the public." The NAS also advised that BLM's management should be "responsive to public attitudes and preferences."	Refer to responses 2.1 and 2.2 above. The BLM welcomes input and participation from the public. The public has been involved in the resource management planning process and has the opportunity through the scoping process to comment on other Federal Actions during scoping.
3. EFFECTS OF WILD HORSES ON RANGELANDS (BENEFITS)		

NO.	COMMENT	RESPONSE
3.1	The horses are good for our grasslands. In winter, horses use their hooves to break through ice that has blocked water sources, thereby enabling not only themselves, but also other wildlife—pronghorn, deer, smaller mammals, and birds—to drink. In this same way, they open up seeps that have become clogged during the dry season.	This is outside the scope of the analysis.
3.2	It should be remembered that wild horses stay on the move day and night to facilitate digestion. This dispersion protects the range from overgrazing. Wild horses prefer upland grazing habitat. They venture 10 miles or more from water sources, allowing healthy riparian zones, unlike livestock who “camp out” at water sources.	
3.3	Different species typically browse on different forages so balancing the species can create healthier pastures.	
3.4	If BLM removes the wild horses, the agency will remove the benefits which these animals provide to the range and to the other wildlife that share the Humboldt HA with them. A significant amount of forage passes undigested through a horse's system, thereby reseeding the land and building nutrient-rich humus, a critical component of healthy soils. The increased ability of soils to retain water in equid-occupied ecosystems proves of crucial importance in restoring water sources in mountains and in elevating water tables in valleys, particularly in desert areas.	
3.5	Along with the major elimination of dry, flammable vegetation by equids, a healthier watershed works to reduce and prevent catastrophic fires. Removal of wild horses and burros from the range has resulted in major fires in more than one instance. At the Twin Peaks Herd Management Area in California and Nevada, major fires occurred two years after the removal of large numbers of wild horses, and in Spring Range and Red Rock areas of Nevada, over 31K acres were burned in a series of fires after the BLM almost entirely eliminated the wild horses from their herd areas.	
3.6	If the BLM allows the natural cycle of nature to take place, the horses will not overgraze.	
4. FERTILITY CONTROL AND OTHER POPULATION CONTROL METHODS		

NO.	COMMENT	RESPONSE
4.1	Bait trapping should be used to implement fertility control.	These suggestions do not provide for meeting the purpose and need of the Proposed Action or its Alternatives.
4.2	All females one year and older would be darted with a PZP primer, which is good for the life of the female. Careful data could be acquired at this time, which includes the makeup and identification of each animal in that specific family unit. Subsequent darting of the bands would include the booster, which will render the females infertile for one to two years. Darting the mares with the native PZP primer while they are in the trap is logical, less expensive, and more humane. It requires a very small crew that works during the preferred time of the year (Jan-April). The herd becomes a “one shot” herd. All females could be subsequently field darted from January through April to prevent pregnancy. If field darting proves too difficult in some areas, bait traps could be employed again to dart mares while in the capture corral.	
4.3	BLM should use the native PZP instead of PZP-22.	
4.4	Constant roundups increase the rate of reproduction (compensatory reproduction and density dependency), as the herd endeavors to replenish their ranks in order to avoid extinction and to fill their niche.	
4.5	Use native predators to control native wild horse and burro populations, such as mountain lions. Provide the public with information related to the hunting and/or killing of predators on the HMA or surrounding areas. BLM should transition to predation as its management strategy for controlling the wild horse population; consistent tool with minimum feasible level.	
4.6	Re-designate of the proposed action as a trap, treat and release operation where all mares over the age of one will be given the PZP fertility control vaccine and all horses will be released back to the range	
5. GATHER NOT AN EMERGENCY		

NO.	COMMENT	RESPONSE
5.1	The Proposed Action is not an emergency and cannot be justified.	The news releases issued in July 2013 stated that gathers would be limited to emergencies or public safety issues due to the low numbers of animals that could be accommodated in BLM holding facilities nationwide and inability for BLM to gather and remove excess animals. The BLM is not required to limit gathers to emergencies or public safety issues. The purpose and need for this action is described in section 1.3 of the EA with further background and rationale in 1.2.
5.2	The BLM stated that removals will primarily be restricted to range or animal health “emergencies.” (The BLM press release of Friday, July 19, 2013 states: “Most of the upcoming gathers have been scheduled in response to emergency conditions brought on by drought public safety issues related to animals that roam near highways, residential areas and agricultural areas....”).	
5.3	Despite there being no emergency situation, the PEA indicates an imminent gather -- with a ready-to-start-date five days following issuance of the PEA and 25 days before the close of the comment period. This scheduling gives the appearance of contempt for the public-comment component. The PEA forecasts ten years of ongoing roundups.	
6. GENERAL		
6.1	BLM should radically change and substantially improve its current ineffective, inhumane, environmentally unsound and dysfunctional approach to wild horse management.	Comments noted. These comments are outside the scope of this analysis and have no bearing on the proposed gather.
6.2	The BLM should use this opportunity to clean up colonial Spanish bloodlines and put the right horses back on the range.	
6.3	BLM website shows approximately 35 animals up for adoption. Common sense would be to get the animals you have, adopted, before rounding up more. Stop warehousing wild horses.	Comment noted. The number of animals in holding facilities does not preclude the BLM from carrying out the responsibilities in the WFRHBA. The BLM strongly encourages the public to participate in adoptions as adopters and/or volunteers to help find permanent and appropriate homes.
6.4	Has any effort been made to find out more about these horses through genetic testing or reaching out to local historians and longtime ranching residents in the area?	This is outside the scope of the analysis. The last gather in this HA was completed in 1993 prior to the BLM being able to conduct widespread genetic analysis.
6.5	Where are the private land owners’ written requests for removal of the wild horses as is required by law? These are highly relevant documents that must be provided to the public per NEPA law. Concealing these documents from the public is illegal. Please provide documents and/or formal complaints that are on file.	Though requests from private landowners to remove wild horses from private lands requires the BLM to take action and remove the animals, written requests are not necessary for the BLM to initiate removal actions on private lands or from lands adjacent to private lands.
6.6	There is no scientific data to indicate any possible benefits to Wild Equine Herds derived from sex ratio skewing.	This gather does not propose to adjust sex ratios as the area is not managed as a HMA, all horses would be removed per the Sonoma Gerlach MFP (1982).

NO.	COMMENT	RESPONSE
6.7	Please return to my attention, a PDF copy of recent RMPs for this HA. Please send your files going back to 1971.	<p>The current land use plan applicable to this area is the Sonoma Gerlach MFP. This document is available at: http://www.blm.gov/nv/st/en/fo/wfo/blm_information/rmp/documents.html. This planning document will be replaced by the Winnemucca District Resource Management Plan (RMP) which is currently being revised. The Draft and Proposed RMP (and associated Draft and Final Environmental Impact Statements) are also available at this website.</p> <p>The Sonoma Gerlach MFP became effective in July of 1982. No other planning document for the Winnemucca District prior to this date.</p>
6.8	If any land owner within the Humboldt Herd Area does not want to have wild Horses or other grazing livestock enter their property, they are required by law (NRS 569.440 and NRS 569.431) to put up a perimeter fence. The law prevents an owner who does not have a perimeter fence from requesting that authorities capture and remove the livestock. The property owners must thus, by law, fence the wild horses out or allow them to cross onto or over the private land. This is the law.	This comment is outside the scope of this EA for the proposed gather. The Humboldt HA is managed as a HA and the BLM has the responsibility to gather and remove these wild horses.
6.9	Winnemucca and other communities near the wild horses' ranges could boost their economy through wild horse ecotourism. Outfitter-led excursions, either on horseback or in tour-vehicles to see the Humboldt HA would fit in well with the area's recreational attractions. BLM should meet with city of Winnemucca and Humboldt County tourism officials regarding posting information on how tourists can visit the Humboldt mustangs.	This is outside the scope of this EA. The WD administers 20 HMAs that are accessible for outdoor activities such as referenced in the comment. The Humboldt HA is not managed as a HMA and the BLM has the responsibility to gather and remove these wild horses.
6.10	Set free the horses being held captive in BLM prisons.	This request is outside the scope of the analysis.
6.11	Why are cow calf pairs considered one animal, while 2013 foals and mares are considered two animals in this EA? Is this because of the pressure on the range land the foals present? If so, why are calves not considered in the same way as foals?	<p>The comment refers to "Animal Unit Months" which are defined per the Wild Horse and Burro Management Handbook as "Wild horses, one year of age or older, count as one (1) Animal Unit (AU) and burros one year of age and older count as 0.5 AU. One Animal Unit Month (AUM) is the amount of forage necessary to sustain one adult horse or two adult burros for one month (or approximately 800 pounds of air dried forage)". See 43 CFR-4100 Definitions for a description of livestock AUMs.</p> <p>Additionally, wildlife is controlled by NDOW. The current population of mountain lions in the Humboldt HA has not resulted in a decrease in wild horse population size as documented by inventory and field observations.(4.2.3 WH&B Animal Unit and Animal Unit Month)</p>
6.12	Foals have mountain lions for predators out there. Each year foals are killed by mountain lions. Therefore, counting foals before one year old is arbitrary at best, and certainly not based on reality.	

NO.	COMMENT	RESPONSE
6.13	Cattle grazing permittees unwilling to cooperate with the BLM to help keep the American taxpayers' wild horses on the range is not a valid reason to remove the wild horses. Cooperating with the BLM to keep federally protected wild horses on the range (in lieu of costly taxpayer funded gathers and long term holding) ought to be a condition of being granted cattle grazing permits.	This request is outside the scope of the analysis. Refer to section 1.2 and 1.3 of the EA for background and the purpose and need for action.
7. REDESIGNATE TO HMA, LEAVE WHBS ON RANGE, AND CONSTRUCT RANGE IMPROVEMENTS		
7.1	Because it was arbitrarily decided, years ago, that Humboldt HA would not be managed for wild horses, even one solitary wild horse found to have wandered into the 431,544 acres that compose Humboldt would be deemed "excess" and targeted for removal.	<p>The BLM Director or Assistant Director (as per BLM Manual 1203: Delegation of Authority), may establish a Wild Horse and Burro Range after a full assessment of the impact on other resources through the land-use planning process. Sections 1.2 and 1.3 of the EA describe the reasons this HA was not designated for management of wild horses.</p> <p>Through the Sonoma Gerlach MFP (1982) the Humboldt HA was not designated as a HMA for the management of wild horses due to the checkerboard land pattern of the public and private lands. This land ownership pattern has not changed since 1982.</p> <p>Converting a HA into a HMA is a land-use plan level decision and is outside of the scope of this EA.</p>
7.2	BLM will eliminate wild horses from this area, which was "zeroed out" as wild horse habitat by the BLM in 1982. Humboldt is a herd area because wild horses were present there when the WFRHBA was passed. Subsequently, BLM decided it was not administratively convenient to designate Humboldt as a herd management area. BLM is required to manage the land for multiple uses. By administratively eliminating, in 1982, a pre-existing use from 1971 and earlier, BLM's land-use plan did not and does not conform to this mandate.	
7.3	BLM should convert the Humboldt HA into an HMA.	
7.4	Make doing so one of the Alternatives.	
7.5	The land is evidently suitable as habitat since wild horses are present and significant numbers have actually taken up residence. Because wild horses keep returning to their ancestral Humboldt home, BLM needs to recognize that they belong there. BLM needs to abandon the old ways of designating where certain wild animals can and cannot reside. Let Nature dictate where the horses should live. Wild horses have persisted in the HA despite the agency's repeated attempts to eradicate them. Since the area is immediately adjacent to the North Stillwater Herd Management Area and the East Range Herd Area, wild horses are likely to continue to migrate into this area after the proposed roundup.	
7.6	Many boundary lines of the HAs and HMAs were drawn incorrectly and omitted seasonal pastures and watering holes, and they blocked migratory routes. It is time to correct past mistakes. Reopen Humboldt to wild horses.	

NO.	COMMENT	RESPONSE
7.7	<p>Horses are a part of American history, are a source of pride and they represent freedom, strength and endurance, all of which are associated with this great country of ours.</p> <p>They are a cultural and environmental resource; good for the country and the world.</p> <p>We the people of this country want these wild horses and burros to stay where they are.</p>	<p>Comment noted. The BLM manages thousands of wild horses on millions of acres of public lands in the west. The WD manages 20 HMAs that cover approximately 3 million acres of HMAs. Management goals of the BLM and the WD include management of healthy populations of wild horses on healthy rangelands that are suitable for wild horses.</p>
7.8	<p>These wild horses belong to the American people as a whole, not to the BLM, which has chosen to represent only the interests of the ranchers. We pay taxes to keep these wild lands public - that is, for the enjoyment of everyone. We want to see wild equines live freely on these lands in perpetuity. These are living animals that must be saved for our grand kids and their kids.</p>	
7.9	<p>Horses will roam. It is their nature. It is management's duty to keep them from places they should not be. Prevention is the key; however removing horses that have wandered outside the boundaries of an HMA -- "outsiders" -- just creates a vacuum for "insider" horses to fill. Thus, removing "outsiders" is an ineffective population-control strategy. The elimination of mustangs from an open, accessible habitat results in repeated colonization by more mustangs. The process begins almost immediately, as horses roam into the area and see that it is attractive and vacant. Thus, removal is not a true solution -- it just perpetuates the situation and leads to the elimination of more mustangs than necessary. Moreover, the outsiders may be only temporary visitors or refugees, not permanent residents. Worse yet, they may have been driven outside by the helicopter.</p>	<p>Comment noted. Outside the scope of this EA.</p>
7.10	<p>In legitimate instances of straying, BLM should first encourage the outsiders to return to their proper place, and then address those factors that caused the animals to leave home. Do fences need repair? Do gates need to be checked frequently and closed? Would palatable plantings draw the wild horses to the areas WDO wants them to use? What about siting mineral licks inside the nearby North Stillwater HMA? Have guzzlers been installed to provide water sources within the HMA boundaries? WDO should specify preventive measures in this regard as part of its management approach. Return outsiders to the proper HMA. Fence the HMAs' perimeters -- after expanding them to correct all boundary-line discrepancies, migration routes, and any herd-area land previously taken away.</p>	

NO.	COMMENT	RESPONSE
7.11	We recommend that you only remove younger horses and allow elderly horses to die a natural death on their home range.	Comment noted.
7.12	It beggars belief that the 219,985 acres of this area which are currently in public ownership cannot sustain the small estimated population of just 161 horses in this herd, including foals.	Refer to response 1.6 above.
7.13	Multiple-Use Mandate Supports Having Wild Horses in Herd Areas.	
7.14	Prioritize the construction of new water developments and maintaining existing ones. Having multiple water sources will help to protect streams and riparian zones. We recommend building water catchments/guzzlers which are appropriate for all wildlife, not just non-native game birds or non-native livestock, but all the native species including the wild horses.	Suggestions are outside the scope of this gather EA. The Humboldt HA has not been designated as a HMA as described in response 3.1 above.
7.15	Re-seed rangelands where damage has occurred. Range improvements will result in more forage of a higher quality.	
7.16	Range Improvements to keep wild horses in appropriate areas by repairing and expanding water sources and implementing other range improvements to help the animals utilize all suitable habitat areas.	
8. HUMANE TREATMENT		
8.1	BLM's holding pens are inhuman leaving the horses in the hot sun. The horses you have are not given shelter. (Portable shelters are very cheap) 2. If you cannot afford the shelters, then why round up more animals that you cannot properly take care of? I have read reports that keeping wild horses penned up like that is unhealthy for the horses.	The potential impacts to wild horses in BLM holding facilities as well as during gather activities is described in Section 4.1.15 of the EA. Furthermore, the Purpose and Need for action and Background information is provided in Sections 1.2 and 1.3 of the EA.
8.2	These animals feel pain and have a strong connection with their "horse families".	
8.3	If you must catch a mustang, use a bait trap corral... cheap and humane. Passive bait trapping operations are less traumatic for wild horses and are also more protective of the environment by avoiding the trampling of sensitive plant and animal species that occurs during helicopter stampedes of wild horses or burros. Therefore, the Final EA should designate that, if any wild horses or burros are to be removed from the Humboldt HA, less traumatic bait trapping methods will be utilized for the well identified and easily captured animals living there.	Bait and water trapping was identified under the Proposed Action, Section 2.1 and is further analyzed in Section 4.1.15 of the EA. Bait and water trapping as the sole gather method was further discussed in Section 2.3 of the EA.

NO.	COMMENT	RESPONSE
		<ul style="list-style-type: none"> American Association of Equine Practitioners Report: http://www.aaep.org/images/files/AAEP%20Report%20on%20the%20BLM%20Wild%20Horse%20&%20Burro%20Program%20Final.pdf
8.7	Do not kill the ones in holding pens.	This comment reflects a misunderstanding of BLM gather activities. The BLM does not euthanize healthy wild horses or burros. Refer to Section 4.1.15 of the EA which discusses the policy for euthanasia of old, sick or lame wild horses. During gathers, less than 1% of wild horses are accidentally killed or are euthanized due to pre-existing issues or gather related injuries.
8.8	All roundups should be carried out the old-fashioned way, by cowboys on horseback, to make it at least a bit more humane and easier on the horses.	Gather of wild horses by horseback was addressed in Section 2.3 of the EA.
8.9	Wild horses are penned up with no care or little food.	Refer to Appendix A (SOPs) of the EA. During gather operations, wild horses are offered quality hay and water as soon as they are sorted in the holding corrals unless water or food needs to be limited for health reasons such as during emergencies to prevent water intoxication or colic. Wild horses transported to BLM facilities are offered hay and water, have their hooves cared for, and are vaccinated and wormed if necessary. The impacts to wild horses during and after gathers are discussed in Section 4.1.15 of the EA.
8.10	BLM cites instances -- over the past 15 years -- in which six wild horses were put down due to injuries from being hit by vehicles. The fatality rate is, thus, approximately one wild horse every three years. Contrast that statistic with the fatalities and euthanasia directly related to even just one helicopter roundup. Consider how many wild horses die once in captivity from illness, injury, or neglect. Wild horses are much safer on the range.	The mortality rate of wild horses on the range apart from vehicle collisions and not during gathering activities is approximately 5%. The potential mortality rate during gathers and at short and long-term holding is discussed in Section 4.1.15 of the EA.
9. POPULATION AND INVENTORY DATA		

NO.	COMMENT	RESPONSE
9.1	<p>What is the BLM Nevada definition of “thriving ecological balance”. What are the specific measurements that define the range conditions that your offices are using that determine a thriving natural ecological balance? Specifics please.</p>	<p>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:</p> <p>As the court stated in <u>Dahl v. Clark</u>, <i>supra</i> at 594, 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: ‘The goal of WH&B management ...should be to maintain a thriving ecological balance between WH&B populations, wildlife, livestock and vegetation, and to protect the range from the deterioration associated with overpopulation of wild horses and burros.’</p> <p>(<u>Animal Protection Institute of America v. Nevada BLM</u>, 109 IBLA 115, 1989).</p> <p>From the 4700-1 Wild Horses and Burros Management Handbook:</p> <p>Thriving Natural Ecological Balance -- WH&B are managed in a manner that assures significant progress is made toward achieving the Land Health Standards for upland vegetation and riparian plant communities, watershed function, and habitat quality for animal populations, as well as other site-specific or landscape-level objectives, including those necessary to protect and manage Threatened, Endangered, and Sensitive Species.</p> <p>The BLM uses many different components in assessing rangeland health and wild horse or burro AMLs including actual use, utilization, trend, climate, and other rangeland studies. The BLM also assesses whether the rangeland is meeting the Standards and Guidelines for Rangeland Health as mandated by CFR 4180 and overseen by Rangeland Advisory Councils (RACs).</p> <p>This is not applicable to the current EA, as the Humboldt HA has not been designated as an HMA and therefore does not have an AML. There is no provision for management of wild horses in this area.</p>
9.2	<p>Please provide electronic links or copies of all referenced reports and maps online for public review. The public and the BLM decision makers should make their judgment based on all available science and relevant law and thus it must be available as part of the administrative record for this decision showing that all relevant scientific facts have been completely considered.</p>	<p>The public is invited to view reports or maps at the WDO Mon-Fri, 7:30 a.m. to 4:30 p.m. except holidays or call (775) 623-1500. Appointments can be made upon request.</p>

NO.	COMMENT	RESPONSE
9.3	The PEA states that, per field observations and counts made two years ago, which were then extrapolated to reflect a 15-percent recruitment rate, there are thought to be 161 wild horses in the Humboldt HA. The figure would thus include 140 adult horses plus 21 foals just born in 2013. The NRC report criticized BLM's use of such unreliable population estimates as a weakness of the Program. BLM needs to implement valid methods of determining herd size. Until BLM reforms in this regard, no wild horses should be removed.	It is standard procedure to make estimates of population sizes for planning and management purposes. The purpose and need of this EA is to evaluate removing wild horses from an area where they are not managed.
9.4	No aerial census notes and no aerial photos and ground census reports or photos that verify the population census were provided in the proposal.	Comment noted. Refer to Response 9.3 above.
9.5	Why were scientific monitoring data and reports not provided for previous post wild horse and burro captures including but not limited to aerial and ground observation that verified the post roundup population of wild horses and that those captures SOLEY resolved any problems on the HA? The public has a right to know and a responsibility to review any pertinent data that supports or does not support statements by the BLM regarding populations of wild horses and burros on their legally designated lands.	Refer to response 9.3 above. The public is welcome to come in and review the files pertaining to this EA between 7:30 and 4:30 Monday – Friday.
9.6	The National Academy of Science (NAS) 2013 report findings clearly state that the Department of Interior agencies (BLM) have failed to provide accurate estimates of the nation's population of wild horses and burros. Therefore, the NAS concluded that a state of over-population does not exist until accurate and unbiased research is done. Ignoring relevant scientific data by the BLM constitutes a violation of the NEPA policy and thus signing the EA will be an act of fraud against the people of the United States.	Comment noted. Refer to Response 9.3 above.
10. MULTIPLE USE		
10.1	The BLM is required to follow the law and listen to the people, not the oil and gas and livestock and hunting industries or any other multiple uses – especially those that are for private profit. Our public lands must be managed for all citizens, not just local ranchers and hunters and miners and energy exploiters and other multiple-use users. It is time for our public agencies (BLM) to stop “business as usual” steam-rolling the public and begin to manage our public lands and public resources for all Americans.	This comment is outside of the scope of the analysis. Congress affirmed its intent in passing the 1976 Federal Land Policy and Management Act (FLPMA) by requiring BLM to manage the public lands for a wide variety of uses (including livestock grazing, mining and other multiple uses) under the principles of multiple-use and sustained yield. Managing use by livestock, together with and wild horses and burros, native wildlife, recreation, wilderness, and a host of other uses is a key part of BLMs multiple use management mission under FLPMA.
11. NEPA ANALYSIS		

NO.	COMMENT	RESPONSE
11.1	Look at the money that is spend on rounding up and destroying wild horses. I oppose the expenditure of funds for housing horses that are given limited opportunity to be adopted.	These comments fall outside the scope of the mandates of the WFRHBA.
11.2	The public must be provided with a comparison of costs for alternative actions, such as on the range/reserve design. The public must be provided with the economic impacts of the proposed action per horse/burro: costs of capture and removal operations, cost of processing, costs of short-term holding, costs of long-term holding, and costs of adoption preparation. The EA must include a comparison of costs for the Proposed Action and the alternative actions routinely requested by the public to forgo wild horse removals and manage horses instead on the range using PZP fertility control, reducing livestock grazing if necessary.	
11.3	The cost-benefit analysis needs to crunch the numbers to ensure that public funds would be spent prudently. The BLM may determine that a better use of those funds would be for buying out permit-holders, making range improvements, and installing rain-catchments. The documentation supporting the cost-benefit analysis must be incorporated as an attachment to the eventual EA.	
11.4	This EA must analyze the cumulative impacts of the addition of 161 wild horses to an overburdened holding system and the risks to those horses when/if the government runs out of money and space to house and care for them; particularly in light of the fact that BLM holding facilities for captured horses are at capacity. With 50,000 wild horses and burros stockpiled, the BLM can ill-afford to continue rounding up horses and adding to the off-the-range holding crisis. It is a burden on the tax payer to keep these horses in Government management.	Please see the revised section 4.2.3.13 in the EA.
11.5	The NAS report concludes that “A program of continuing, ad infinitum removals may not be economically sustainable or socially acceptable”.	The purpose and need of this EA is to evaluate removing wild horses from an area where they are not managed. The NAS report at this point is only a recommendation to the BLM.

NO.	COMMENT	RESPONSE
11.6	The EA should provide an accurate and detailed census chart for the past 20 years for the Humboldt Herd Area, which includes: Number of Bands, Stallions, Mares, 3 year olds, 2 year olds, yearlings and foals.	<p>The purpose and need of this EA is to evaluate removing wild horses from the area where they are not managed. Census data for the Humboldt HA is available for public inspection at the WD office, Monday through Friday, 7:30 a.m. to 4:30 p.m., except holidays.</p> <p>Comment regarding range improvements (i.e. fencing) is out of scope for the analysis of this EA. Impacts of range improvements on wild horses are addressed during environmental review for each project. Any suggested alternative pertaining to the removing of range improvements is also out of scope as it would not meet the purpose and need for action.</p>
11.7	Please provide records which show results of genetic testing for the past 20 years. Please describe what measures would be implemented by BLM to recover and/or maintain genetic viability so as to ensure that Healthy Equine Herds remain on the Humboldt Herd Area?	
11.8	The EA should 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, % of water allocated to geothermal projects, % of water allocated to other multiple use projects, % water allocated to Livestock, % water allocated to Wildlife % water allocated to Wild Horses and Burros.	
11.9	<p>Please provide information that shows all fencing within and around the Humboldt Herd Area and explain how such fencing impacts Wild Horse seasonal migration. Please provide detailed maps and/or photos.</p> <p>Does fencing prevent Horses from intermingling, thus negatively impacting genetic diversity?</p> <p>Does fencing prevent Horses from accessing water sources?</p> <p>Please give explanation and justification for fencing.</p> <p>Remove any/all cattle guards or retrofit with “Wild Horse Annie” safety features, so as to allow WH&B to cross them without danger.</p>	
11.10	This EA does not provide the necessary information for the public to make an informed decision and is not in compliance with NEPA or the law.	The EA is in accordance with the CEQ regulations (40 CFR 1500 - 1508) and the requirements of the BLM NEPA Handbook H-1790-1.
11.11	The public and concerned citizen groups were not informed or consulted of this proposed action.	A news release and Dear Interested Party Letter was released 6/25/13 announcing the availability of the Preliminary EA for public review and comment. Additionally, a letter was also sent to the Interested Public mailing list consisting of 92 individuals, organizations and state and federal agencies announcing the availability of the Preliminary EA for public review and comment. The document was open for commenting for a period of 30 days.

NO.	COMMENT	RESPONSE
11.12	The EA does not provide the public with alternatives that would leave the Wild Horses on the range, as is mandated by the WFRHBA management activities affecting wild horses and burros shall be undertaken with the goal of maintaining free-roaming behavior." 16 U.S.C. §1333, 43 CFR 4700.0-6 ".	The WFRHBA does not mandate leaving wild horses on the range but does mandate removal of excess wild horses. The Humboldt HA has not been designated for long term management of wild horses or burros through the land use planning process. The removal of wild horses from the Humboldt HA is in conformance with the provisions of the WFRHBA, PRIA, FLMPA and the Code of Federal Regulations (CFR).
11.13	No reasonable discussion is included on the method of capture of the wild horses. The EA lists several options, but dismisses most of them in favor of helicopter use. The EA also states that if helicopter use is not successful in removing all the horses, bait trapping will be used and a ten year plan will be put in place to zero out the herd.	In section 2.1 of the EA, methods of capture in addition to helicopters are discussed.
11.14	No reasonable range of alternatives is presented in the PEA. It is either remove all wild horses or remove no wild horses. NEPA requires that a range of alternatives be presented and this EA does not fulfill this requirement.	The proposed action was developed to meet the purpose and need for the action as described in section 1.3 of the EA. Bait trapping was included in addition to helicopter capture. Gathers over a 10 year period were analyzed in order to continue to maintain a zero population as this area is not managed as a HMA for the long-term management of wild horses. An alternative of removing fewer than all wild horses would not meet the purpose and need for action and would not be in conformance with existing land use plans.
11.15	We recommend that BLM dismiss both alternatives and look at ways to manage the wild horses on the land. In the short term, we propose that BLM create an agreement with the private landowners within the checkerboard allowing for 200-300 wild horses to live in the checkerboard.	This comment is outside the scope of this proposed gather. The Humboldt HA is not managed as a HMA and the BLM has the responsibility to gather and remove these wild horses.
11.16	At its most basic level, NEPA requires that the decision-makers, as well as the public, be fully informed, i.e. "that environmental information is available to public officials and citizens before decisions are made and before action is taken." 40 C.F.R. § 1500.1(b). NEPA ensures that the agency "will have available, and will carefully consider, detailed information concerning significant environmental impacts; it also guarantees that the relevant information will be made available to the larger [public] audience." This must be available and analyzed in the EA/EIS before a Record of Decision or Finding of No Significant Impact can be completed or published.	The public may view the relevant documents for this EA at the WD office, Monday through Friday, 7:30 a.m. to 4:30 p.m., except holidays. See response to 11.10.
11.17	It is important that a reasonably good job of communicating the purpose and need of the project; the values used to develop and compare alternatives; the results of [accurate] analysis for direct, indirect impacts, and cumulative impacts; and mitigation as required by relevant regulation.	Comment noted.
11.18	Accurate and non-politically driven data should be incorporated into the EA	Comment noted.

NO.	COMMENT	RESPONSE
11.19	Provide incentives to ranchers to tolerate wild horses on their private lands in exchange for the privilege of tax-subsidized grazing on the public lands portions of this HA.	Outside the scope of this analysis and of the WFRHBA.
11.20	Improve public education and law enforcement actions to ensure safe driving practices on county roads in the HA.	
11.21	Explore land swaps as an option to deal with checkerboard land ownership in this HA and create contiguous habitat for wild horses. BLM should create a working group, including interested organizations and individuals who would assist in exploring the consolidation of the public land, using a land swap arrangement with private landowners. This working group could, in the short term, work on the creation of the agreement with private landowners to allow up to 200-300 horses to roam on the 431,000 acres of public/private land. Once the agreement and subsequent consolidation is completed, BLM should convert the consolidated lands into an HMA and the population be stabilized and controlled through the use of PZP.	
11.22	The final EA should designate an alternative to reclassify this Herd Area for wild horse use.	
11.23	The final EA should include an alternative that would forgo removal of horses in this area and administer a humane fertility control program.	Comment Noted: See Section 2.3.
11.24	Follow proper procedure. Rescind the PEA. Conduct scoping. Prepare new PEA. Scoping is the first step when contemplating whether to prepare an EA. The BLM states that it feels sufficiently familiar with "issues commonly raised" to skip the scoping.	Refer to Section 1.4 of the EA. Public scoping, though beneficial in some cases, is not required for an EA per section 8.3.3 of the BLM's H-1790-1 NEPA Handbook. The public's comments and recommendations were obtained through review of the PEA (see response to comment #11.11) and have been considered in completion of the Final EA.
11.25	Instead, the BLM conducted an internal scoping and consulted with the U.S. Fish and Wildlife Service and several tribes, however the BLM neglected to consult with the public or wild horse advocacy groups in determining the scope for the EA of the proposed removal plan. As a result of this inadequate scoping, important impacts of the Proposed Action have not been analyzed.	

NO.	COMMENT	RESPONSE
11.26	<p>Thus BLM must consider both legal and social factors and impacts, in making land use decisions, such as setting and maintenance of AML and grazing allocations. This was highlighted in a 1982 NRC report on the BLM's wild horse and burro program:</p> <p>“Attitudes and values that influence and direct public priorities regarding the size, distribution, and condition of horse herds, as well as their accessibility to public viewing and study, must be an important factor in the determination of what constitutes excess numbers of animals in any area. . . [A]n otherwise satisfactory population level may be controversial or unacceptable if the strategy for achieving it is not appropriately responsive to public attitudes and values. Biologically, the area may be able to support 500 cattle and 500 horses, and may be carrying them. But if the weight of public opinion calls for 1,000 horses, the area can be said in this context to have an excess of 500 cattle. For these reasons, the term excess has both biological and social components. In the above example, biological excess constitutes any number of animals, regardless of which class above 1,000. Social excess depends on management policies, legal issues, and prevailing public preference...”</p>	
11.27	<p>The EA failed to analyze the social impacts of the proposed action, including the impacts to members of the public that wish to see wild horses in this area or value their presence on these lands. The NAS report highlighted the importance of social considerations to BLM's policy decisions and analyses:</p> <p>“Horse and burro management and control strategies cannot be based on biological or cost considerations alone; management should engage interested and affected parties and also be responsive to public attitudes and preferences. Three decades ago, the NRC reported that public opinion was the major reason that the Wild Horse and Burro Program existed and public opinion was a primary indicator of management success (NRC, 1982). The same holds true today. p. 292.</p> <p>It is clear that the prevailing public preference is for wild horses to be left on their rangelands, not stampeded by helicopters, captured and removed to holding facilities. As the chair of the NAS Wild Horse and Burro Review Committee recently stated, “No one really wants to see more horses in long-term holding just from an economic viewpoint. Secondly, this is not the vision that is associated with what the public wants to see with the horses on these wild lands.”</p>	<p>Through the land use planning level process this area was not designated as a HMA. The NRC and NAS reports are advisory documents and not regulations nor policy.</p>

NO.	COMMENT	RESPONSE
11.28	<p>BLM should provide a full accounting of how many members of the public submit comments on this upcoming EA and what their positions are. BLM should reveal:</p> <p>How many and what percentage favored each alternative course of action and why,</p> <p>What different alternatives were proposed, and</p> <p>What modifications, corrections, and improvements could WDO make per the public input?</p>	<p>The Final EA discusses how many comments were received.</p> <p>The BLM is required to consider all substantive comments (40 CFR 1503.4). For a description of what constitutes a substantive comment, please refer to http://www.blm.gov/wo/st/en/prog/planning/nepa/webguide/document_pages/6_9_2_1__examples.html</p>
11.29	<p>Show that you value every response on its own merits rather than labeling some as "form letters." The Constitution provides for the right of citizens to petition the Government for a redress of grievances. The Constitution does not require each complainant to draft a unique letter. Indeed, the very word "petition" connotes a document that multiple parties sign in agreement and solidarity regarding a particular issue. At court, there are even class-action suits, wherein many plaintiffs join together to seek justice regarding a matter of mutual concern. One action, many parties.</p>	<p>Refer to Section Appendix X) of the Final EA which summarizes the public comment period and nature of comments received. All comments were reviewed in preparation of the final document and were summarized in Appendix C. The overwhelming majority of these letters were form letters. The letters were reviewed and considered in the development of the final EA.</p>
11.30	<p>So far, the BLM has received over 6,900 public comments on this EA that demonstrate the prevailing public preference for wild horses to be left and managed on their rangelands</p>	<p>This area is not designated as a HMA. In addition, see responses 11.26 and 11.29 above.</p>
11.31	<p>Over 80% of the American People are Against Roundups, Holding Pens and Slaughter. Perhaps in time if BLM does not adhere to the over whelming cry of the citizens and Humane Treatment for the Horses & Burros and stop pandering to the ranchers, miners and other special interest groups. The cry of the people will reach a magnitude that will require the BLM to be redefined excluding the control of the Wild Horses and Burros.</p> <p>I urge WDO to publish the number of persons that respond to the PEA.</p>	<p>Comment noted. See response 11.29.</p>

NO.	COMMENT	RESPONSE
11.32	BLM should build consensus. The public involvement component is designed to get feedback from those persons interested enough to participate in the decision-making process. Disregarding feedback leads to decisions that are not supported by the majority of stakeholders. BLM field offices with wild-horse-and-burro programs need to establish an advisory committee of mustang advocates and to work with them to formulate policy. Many wild-horse stakeholders live Back East. We would like to participate via some technological method, such as conference call. Further, by including input from a variety of advocates, there will be "cross-pollination" of ideas and strategies for best management practices. The BLM should cultivate partnerships with wild-horse advocates. Per the adaptive management model, implement coordinated resource management (CRM) with regard to your wild horse stakeholders -- cooperating, consulting, and coordinating with them, just as BLM does with tribal organizations, grazing permit-holders, and other constituents. The CRM approach will result in consensus-based decisions and the development of best management practices concerning wild horses.	Comment noted. There are numerous ways for the public to remain involved with the programs managed by the BLM, and the BLM encourages public involvement. Visit the BLM website for opportunities to become involved, as well as the WD website.
12. OPPOSE GATHER AND PRO GATHER		
12.1	I oppose the roundup and removal of an estimated 161 wild horses from the Humboldt HA. Roundup plans for this area should be cancelled and all roundups should be stopped now.	Comment noted.
12.2	There is no concrete or scientifically verifiable data provided that would indicate an overpopulation of Wild Horses or Burros, or that there is justification for any removals. The agency's determination of "excess" is arbitrary. The wild horses here are not overpopulated by any objective view.	Refer to Sections 1.2 and 1.3 of the EA which provides the Background and Purpose and Need for the gather as well as determination of excess wild horses in the Humboldt HA. This area is not designated as a HMA.
12.3	I support and encourage this gather.	Comment noted.
12.4	These horses have been here since the 1900s and the BLM has been in violation of the WHBA since it was passed. These horses are outside of any HMA and on private land 50% of the time. They have no water. All the water they consume belongs to someone else. The Act of 1971 requires immediate removal of wild horses or burros when they are on private lands or outside of their HMA.	Comment noted.
12.5	The BLM has chosen to be in violation of the WHBA, and Nevada water law, and county and state trespassing laws.	Comment noted.

NO.	COMMENT	RESPONSE
12.6	<p>Individuals/families that own property within the HA</p> <p>We are in favor of the removal of wild horses from the Humboldt Herd Area</p> <p>water rights have been adversely affected and the use of those rights have been impaired by the unlawful use of their water</p> <p>some families depend on water, forage, and access to water for their livestock operations</p> <p>For the past month, May-June 2013, there have been approximately 4 herds of Mustangs in my “backyard” numbering anywhere from 100-150 horses total.</p> <p>I am a horse owner and have had property damage from the mustang stallions ruining my fences. I had to invest in a \$500 fence charger to keep them at bay but they still persist. I also feel that it is a public safety issue as I ride out on my horse or hike with my dogs.</p> <p>I thought mustangs would be shy and stay at a distance, but I was wrong. These horses are not afraid and challenge my horses and try to stomp my dogs. They are bold. Especially the studs.</p>	Comment noted.
12.7	We feel the EA for the Humboldt Herd Area Wild Horse Gather Plan was comprehensive and fair and we agree with the conclusions.	Comment noted.
12.8	Thank you for pushing forward on the proposed gather. This gather is long overdue and is in complete compliance with Pershing County Resource Plan and the 1971 Wild Horse and Burro Act	Comment noted.
12.9	Wildlife is being adversely affected by wild horses. There is a thriving herd of both mule deer and pronghorn in this area. Local residents are seeing firsthand the long term damage that is occurring to wildlife and the habitat that wildlife is dependent upon.	Comment noted.
12.10	Springs and water troughs are being damaged and monopolized by the wild horses. In a drought situation as Nevada is experiencing for the past two years, we need to have excess horses removed immediately, as the law demands. The overpopulation of horses in the Humboldt Herd Area is impacting the water quality as these horses ‘dig’ for water thus producing sediment and mudding the precious water resources in this area.	

NO.	COMMENT	RESPONSE
12.11	Removing the wild horses would help to prevent the further deterioration of the range land and water sources. I am concerned that the excess wild horses are impacting the healthy rangelands in the area that many of us call home. It is critical that the rangeland conditions remain optimal so the range continues to produce forage and habitat for the many animals that live there. The excess horses jeopardize the balance required for the rangelands to provide sustainable vegetation, habitat and ultimately protect rangeland health. In the 20 years since the last gather, the wild horse population has grown to a level that is now significantly impacting the rangeland in the Humboldt Herd Area.	Comment noted.
12.12	Local residents have reason to believe that there are more horses than what the BLM has counted in this proposed gather. BLM should have some flexibility in the EA to address this issue so as not to impair a complete gather.	Comment noted. See section 2.1 of the EA.
12.13	Years ago this area was declared “A Horse Free Area”. Now the BLM has the area as a “not an HMA managed for wild horses, these wild horses are excess horses that need to be removed,” and yet we have an excess amount of wild horses in that area.	In the 1982 MFP, the BLM referred to the Humboldt HA as “horse free” because the population was thought to be zero at the time. The HA has never been designated as a HMA. It is believed that residual horses remaining in the HA or horses moving in from a nearby HMA are responsible for the wild horses currently in the HA.
12.14	The BLM letter to the public states that the estimated number of horses to be 161 in the area. We have personally counted 200 + horses; just on our allotment. I see many new foals this year so they have plenty of forage/water and are reproducing. I would double or triple that estimate and know it is growing.	Comment noted.
12.15	The No Action alternative would further disrupt the fragile ecosystem of the Nevada rangeland in the Humboldt area. With the No Action alternative, the wild horse population in the Humboldt Herd Area would merely continue to grow and be a detriment to the range.	Comment noted.
12.16	The Proposed Action is the best alternative to ensure that the beauty of the Nevada rangeland is protected for generations to come. We strongly encourage and support the BLM in their Proposed Action to achieve and maintain a zero population of wild horses within the Humboldt HA.	Comment noted.
13. PUBLIC SAFETY		
13.1	Would there be any proposed gather areas/holding pens to be located adjacent to IR80 and/or SR400? If the intended work is located in either of these areas, can you please provide more specific detail about the exact locations, intended holding areas and the number/types of vehicles that will be accessing these areas from these State Routes.	This issue is outside the scope of the analysis; however the BLM recognizes this as an issue and will coordinate with NDOT.

NO.	COMMENT	RESPONSE
13.2	Drivers must be made aware of the dangers of speeding on country roads and the law must be enforced, especially in Wild Horse and Burro Herd Management and Herd Areas. The onus is always on drivers in open range country to drive according to driving conditions and to be aware at all times of animals on the roads, whether they be the many cattle one encounters on a daily basis in the roadway, or the rare instance of a horse in the road. It must be noted that such collisions occurred on "county roads," not major highways; the EA does not state whether speed and unsafe driving contributed to these accidents. It is likely that public education and law enforcement efforts would be successful in preventing future accidents, but the EA does not explore this alternative to mitigating this public safety concern.	This issue is outside the scope of the analysis.
13.3	Please provide collision reports, dates and records for the past 14 years that show total number of vehicle/permitted livestock collisions and total number of vehicle/ Wildlife (other than Horse or Burro) collisions.	Comment noted. The public is welcome to review relevant documents to this EA at the WDO from 7:30 to 4:30 Monday – Friday, except holidays.
13.4	BLM should add Strieter Lights along Rochester Road to mitigate the danger to wildlife and to humans and their vehicles. These lights are used extensively in Wyoming and Colorado to prevent such accidents. And we recommend working with the Rochester Mine and the community near/on Rochester Road for other solutions.	Comment noted.
13.5	Public safety concerns are unsubstantiated – no information on property damage caused by horses is provided. The number of horse/vehicle collisions – six in 14 years – is not sufficient to warrant the removal of these horses.	Comment noted. This area is not designated as a HMA and therefore is not managed for wild horses.
13.6	I oppose removing wild horses from the range for traffic hazard reasons.	The public is welcome to review relevant documents to this EA at the WDO from 7:30 to 4:30 Monday – Friday, except holidays.
13.7	Where is the credible documentation of horses being a greater hazard compared to cattle?	
13.8	The PEA cites the potential for traffic accidents involving errant wild horses in the Humboldt HA as one of its justifications for the proposed gather and removals. The crash statistics tell a different story. Although not the smallest county in terms of population, six other Nevada counties have fewer residents -- Pershing County had the lowest crash rate in the state in 2010. Thus, it can be said that having wild horses in the Humboldt HA correlates with highway safety. If you are removing the horses for 'safety concerns' then you should remove the cattle as well! Cattle stand in the road too.	Comment noted. The wild horses are being removed due to this area not being designated as a HMA (see Section 1.3 of the EA). The potential for traffic accidents goes to prioritization of removal from this area in relation to other wild horse management priorities
13.9	According to the NDOT's most recent (2010) traffic-crash report for Nevada, elk and deer were involved in the most accidents, followed by cattle and horses were involved in the least amount of accidents.	Comment noted. This is outside the scope of the analysis.
14. REMOVE LIVESTOCK		

NO.	COMMENT	RESPONSE
14.1	<p>The ranchers need to cut back on their herds or purchase more land of their own. Why would you sell permits beyond what the land can sustain and then remove the wild horses which this land is meant for? The ranchers should buy the land outright, or they should be required to pay market value for its use if it remains in public ownership.</p>	<p>Comment noted. There is no requirement of the WFRHBA or the regulations to reduce or eliminate livestock as a means to restore thriving natural ecological balance.</p> <p>This area is not designated as a HMA.</p>
14.2	<p>Wild horses are protected, not sheep and cattle. Remove the cattle and sheep before removing a single horse or burro from the range. We oppose BLM using the land intended for horses to be taken by cattle and sheep grazing.</p> <p>Object to tax dollars being used to remove wild horses from their range in order to provide "welfare grazing" for cattle ranchers.</p> <p>Ranchers pay a mere 1.32 per head a year for cattle to graze where the horses belong.</p>	<p>Comment noted. This area is not designated as a HMA. Refer to Response 7.1 and 14.1 above.</p>
14.3	<p>At the same time livestock grazing was allowed to continue on these public lands. In fact, the BLM allocates enough forage to privately-owned cattle and sheep to sustain as many as 592 wild horses in this area. Despite drought conditions, permittees in this area continue to graze significant numbers of livestock in the Humboldt HA. According to the EA, the forage allocated to privately owned livestock is 15,009 AUMs or nearly 6,360 head of livestock at any one time on the 431,000 acre HA. Considering the continuing drought, this seems excessive. It puts a burden on native wildlife and dwarfs a tiny wild horse population of only 161 horses.</p>	<p>Comment noted. Grazing decisions are outside the scope of this EA. Refer to Response 14.1 above.</p>
14.4	<p>There are a handful of ranchers benefiting from your management plan; the rest of us in this country are tired of it. The cattle industry has degraded our streams, wiped out our wildlife, and made our people fat and disease ridden. Oppose that public lands provide profit for private ranchers at the expense of the wild horses.</p>	<p>Comment noted.</p>

NO.	COMMENT	RESPONSE
14.5	<p>The grazing "rights" you allow cattle producers are not rights, they are privilege. Grazing privately owned cattle on publicly owned land needs to be severely modified.</p> <p>Opposition to the abuse of America's public lands for the benefit of private ranchers. I am tired of visiting places where overgrazing of cattle has causes devastation to the landscape, proving the on-going mismanagement of lands by the BLM.</p> <p>Ranchers may welcome a buyout of their grazing permits and even of their privately-owned land. BLM should avail itself of this opportunity to help livestock operators close down their operations and dispose of their land holdings by purchasing those properties at a fair price. Permits could be retired and land acquired within and adjacent to the Humboldt "checkerboard" in this way. BLM could create a unified habitat by using the same funds it would otherwise spend on helicopter services.</p>	Comment noted. This is outside the scope of this analysis.
14.6	The cattle are causing all kinds of problems, why are they not being removed? The environmental degradation is the direct result of overgrazing by large numbers of privately owned livestock, not the relatively tiny number of wild horses in this huge area. Take the cattle and sheep off our land if they are the true reason that the range is over grazed fall on the shoulders of the cattle and sheep owners.	Refer to Response 14.1.
14.7	TCF applauds the effort of the BLM and ranchers to reduce livestock grazing due to drought and we hope a more balanced, adaptive approach will continue. The imbalance between wildlife use and livestock use needs to be quickly altered particularly in light of persistent drought and the specter of climate change.	Comment noted. This is outside the scope of this analysis.
15. SLAUGHTER		
15.1	Many of these horses were not adopted out but somehow found themselves being brutally slaughtered after a stressful transport in the heat, the cold, being thirsty and hungry, being injured, falling, being stepped on in crowded trucks. The cruelty never ends when it comes to wild horse roundups.	Comment noted.
15.2	Nevada used to be known for the wild horse herds, but sadly Nevada is now known as the state that rounds up and kills the wild horses and burros.	
15.3	The crisis in BLM holding facilities has already led the BLM to sell horses to a known kill buyer.	
15.4	BLM should not allow these horses to be run down and sent to kill pens awaiting the slaughter trucks.	

NO.	COMMENT	RESPONSE
16. VOLUNTEERS		
16.1	BLM can seek volunteers to help with these on the range management programs. A similar situation could be worked out in the Humboldt HA for this activity or other range improvement projects.	This comment is outside of the scope of the analysis. The Humboldt is not designated as a HMA.
16.2	There are horse groups willing and able to help control wild horse populations instead of using roundups.	Comment noted. The BLM welcomes involvement from the public and equine groups. Please see the “Get Involved” page for the Wild Horse and Burro Program: http://www.blm.gov/wo/st/en/prog/whbprogram/get_involved.html